**Epistemic Annotation Guideline Examples Continued**

The different types of epistemic statements, along with the definition, a knowledge goal, and linguistic cues that signify the specific type are provided. Each linguistic cue includes at least one positive and negative example with the specific linguistic cue highlighted in YELLOW and the scope in parentheses <…> for POSITIVE examples and highlighted in RED for NEGATIVE EXAMPLES. Negative examples will always be last. Linguistic cues can be disjoint, meaning separated by other words – we write disjointness as ‘…’. Explanations for the annotation are in parentheses […] in orange. All examples are from the PubMed Central Open Access Subset.

Feel free to use this to ensure it is an epistemic statement with more information needed (next steps). Also, if you think I am missing a type of epistemics please add it to the last sheet in the excel document under “Epistemic Type Notes”.

**Future opportunities**

FUTURE WORK = a statement of extensions, including next steps, directions, opportunities, approaches, or considerations of the described work that may be implemented at some future time point. The next actionable step is to determine the next course of action based on this future work proposal.

1. **(IS/ARE NEEDED): ADDITIONAL RESEARCH IS NEEDED/ ADDITIONAL STUDIES ARE NEEDED/ ADJUSTMENT IS NEEDED/ ARE NEEDED/ COMPREHENSIVE SYSTEMS ARE NEEDED/ INTERVENTIONS ARE NEEDED/ LARGER RANDOMISED CONTROL TRIALS ARE NEEDED/ LONGER TERM FOLLOW-UP IS NEEDED/ LONGITUDINAL STUDIES… ARE NEEDED/**
2. “<ADDITIONAL RESEARCH IS NEEDED to explore these associations> to reach a better understanding of the interplay between these factors to better direct possible routes of future therapies.” [next steps are to explore these associations further in the future]
3. “given that both analyses were limited to sample sizes of 25 or fewer two-spirit people, <ADDITIONAL RESEARCH IS NEEDED with larger community samples>.” [next steps are to repeat the analysis with larger community samples]
4. “<whichever method is chosen, ADDITIONAL RESEARCH IS NEEDED>.” [next steps are to do conduct more research into the methods further in the future]
5. “<ADDITIONAL STUDIES ARE NEEDED to examine variables that may optimize the effect>, including timing and duration of svs.” [next steps are to examine variables that may optimize the effect further in the future]
6. “in order <to better understand the complexity and the role of dc activities with respect to the endocannabinoid system, ADDITIONAL STUDIES ARE NEEDED>.” [next steps are to better understand the complexity and the role of dc activities with respect to the endocannabinoid system further in the future]
7. “however, <ADDITIONAL STUDIES ARE NEEDED in order to clarify the mechanisms behind this phenomenon>.” [next steps are to clarify the mechanisms behind this phenomenon further in the future]
8. “<ADDITIONAL STUDIES ARE NEEDED in Mexico>, especially those that analyze risk factors in older individuals and young women.” [next steps are to conduct more studies in mexico in the future]
9. “<ADJUSTMENT IS NEEDED for age-specific differences in rates of symptomatic disease in children and adults>.” [next steps are to adjust for age-specific differences in rates of symptomatic diseases in children and adults]
10. “the standard dose is 600 mg every 12 h and no dose ADJUSTMENT IS NEEDED when switching from the intravenous to oral formulations or when there is moderate renal or hepatic impairment [52].” [no need to adjust the dosing of the medication, not a statement that lays out the next steps and future directions of research]
11. “here the cip procedures are insufficient to arrest the membrane fouling and <more drastic measures such as aggressive chemical cleans ARE NEEDED to regain flux>.” [next steps are to add more drastic measures such as aggressive chemical cleans to regain flux]
12. “therefore, <tests that can accurately assess olfactory function ARE NEEDED> [1].” [next steps are to create tests that can accurately assess olfactory function are needed in the future]
13. “this report is an overview of all registered femoral and tibial points, which ARE NEEDED to register the specific morphology of both tibia and femur as well as the centre of the hip joint and the ankle joint.” [the report is necessary but not a statement that lays out the next steps and future directions of research]
14. “pumps the size of molecules could possibly be implanted to deliver life-saving medicines precisely when and where they ARE NEEDED.” [a delivery system to get life-saving medicines where they need to go, not a statement that lays out the next steps and future directions of research]
15. “<INTERVENTIONS ARE NEEDED to identify patients without ad and provide the necessary acp resources> in order improve ad completion rates.” [next steps are to create interventions to identify patients without ad and provide the necessary acp resources]
16. “<INTERVENTIONS ARE NEEDED to improve access to pr care>.” [next steps are to improve access to pr care]
17. “combinations of physical, psychological, and pharmacological INTERVENTIONS ARE NEEDED, with stronger pain medication such as opioids for more severe pain.” [a combination of clinical interventions to help with more severe pain, not a statement that lays out the next steps and future directions of research]
18. “further investigations on analgesic INTERVENTIONS ARE NEEDED to overcome this hyperalgesia.” [clinical interventions are needed for analgesics, not a statement that lays out the next steps and future directions of research]
19. “<LONGER TERM FOLLOW-UP IS NEEDED to establish the effect of treatment de-escalation on morbidity and mortality>, but early conclusions point to the safe omission of bleomycin in patients with a good initial response to treatment.” [next steps are to continue to follow-up to establish the effect of treatment de-escalation on morbidity and mortality]
20. “<LONGITUDINAL STUDIES in more infants ARE WARRANTED to determine whether a regimen of svs therapy will reduce withdrawal symptoms sufficiently to allow lower doses and shorter durations of medication, maintain improved autonomic stability over time, reduce hospitalization and have significant implications on neurodevelopment for improved outcomes in this vulnerable population>.” [next stapes are to conduct longitudinal studies in more infants to determine whether a regimen of sys therapy will reduce withdrawal symptoms sufficiently to allow lower doses and short durations of medications,…]
21. “<LONGITUDINAL STUDIES looking at the long term effects of diet therapy and long term effects of low ft3 values in these individuals ARE NEEDED>.” [next steps are conducting longitudinal studies looking at the long term effects of diet therapy and long term effects of low ft3 values in these individuals]
22. “in order <to determine the predictive ability of bnp, nt pro-bnp, and opg for aortic disease, prospective LONGITUDINAL STUDIES ARE NEEDED>.” [next steps are to conduct longitudinal studies to determine the predictive ability of bnp, nt pro-bnp, and opg for aortic disease]
23. “EXAMPLE” [EXAMPLE]
24. **NEED FOR: MUST BE EXPLORED/ NECESSITATE FURTHER RESEARCH/ NEED FOR ADDITIONAL INTERVENTIONS/ NEED FOR ADDITIONAL STUDIES/ NEED FOR FURTHER INVESTIGATION/ NEED FOR FURTHER RESEARCH/ NEED FOR MORE TRIALS/ NEED FOR REPLICATION/ NEED FOR VALIDATION STUDIES/ NEED FOR… APPROACH/ NEED FOR… OBSERVATIONAL STUDIES/ NEED TO BE RE-EVALUATED/ NEED TO STUDY/ NEED TO DEVELOP… STRATEGIES/ NEED… DATA/ NEEDED IN FUTURE STUDES/ NEEDS PROSPECTIVE STUDIES/ NEEDS TO BE DETERMINED/ NEEDS TO BE STUDIED/ PROGRESS IS NEEDED/ RANDOMIZED CONTROLLED TRIALS ARE NEEDED/ RCT IS… NEEDED/ REPLICATION STUDIES ARE NEEDED/ THE NEED/ THE NEED FOR BETTER STRATEGIES**
25. “in short, <additional studies MUST BE EXPLORED to verify the results>.” [next steps are to explore additional studies to verify the results]
26. “<this domain MUST BE EXPLORED further before making it an advocacy tool>, particularly with regard to its inclusive nature and reaching out the actual poor; and also the ability of franchisees to sustain financially.” [next steps are to explore this domain further before making it an advocacy tool]
27. “a recent statement published under the auspices of the international society of pharmacovigilance, for instance, highlighted the importance of such an approach: “new ways to cooperate with the media as professional equals MUST BE EXPLORED to help the provision of balanced, comprehensible, trustworthy, and interesting safety information to the public on a regular basis, apart from specific announcements or reports of problems or crises” (erice statement,2010).” [a quoted statement from the international society of pharmacovigilance about recommendations, not a statement that lays out the next steps and future directions of research]
28. “in both statin-resistant and statin-intolerant patients, other avenues of treatment MUST BE EXPLORED.” [for patients who are resistant other treatments need to be explored, not a statement that lays out the next steps and future directions of research]
29. “regarding the effect of magnesium on ipth, a significant linear inverse correlation is present.but in our study there was no relationship between mg and pth in pd patients, which would <NECESSITATE FURTHER RESEARCH on the possible role of pth in the association between serum mg and clinical outcome>.” [next steps are to determine the possible role of pth in the association between serum mg and clinical outcome]
30. “the need for a bidirectional causal framework is emphasized; however, limitations of these perspectives NECESSITATE FURTHER RESEARCH.” [next steps are more research due to the limitations of these perspectives]
31. “these findings would <NECESSITATE FURTHER RESEARCH into either a) supplementation linked to injury-induced immobilisation, or b) larger doses of these supplements to confirm/refute the physiological reserve potential of the two supplements>.” [next steps are to conduct more research into either a) or b) mentioned in the statement]
32. “while our results indicate that provision of an antenatal dietary and lifestyle intervention is effective in improving maternal diet quality, food group, macronutrient and micronutrient intake, and physical activity during pregnancy, many of these improvements were not maintained at 4 months postpartum, highlighting the NEED FOR ADDITIONAL INTERVENTIONS during this important period of adjustment for women and their families.” [next steps are to determine additional interventions during this important period of adjustment for women and their families]
33. “in addition to determining time of last doac ingestion, clinicians should also rapidly evaluate the patient’s renal function to estimate remaining duration of drug exposure, and potential NEED FOR ADDITIONAL INTERVENTIONS, such as hemodialysis.” [clinicians need to check that patients don’t need additional interventions, not a statement that lays out the next steps and future directions of research]
34. “these results support <the NEED FOR ADDITIONAL STUDIES to elucidate the potential effects of omega-3 fa on cardiac health according to tfa subtype>.” [next steps are to elucidate the potential effects of omega-3 fa on cardiac health according to tfa subtype]
35. “thus, <these attributes may facilitate diagnosis, suggesting the NEED FOR ADDITIONAL STUDIES>.” [next steps are to investigate these attributes that may facilitate diagnosis further]
36. “<the european guidelines give no recommendations regarding these drugs, citing the NEED FOR ADDITIONAL STUDIES> (van de werf et al 2003).” [next steps are to investigate the drugs that have no recommendations]
37. “undoubtedly, <there is still the NEED FOR FURTHER INVESTIGATIONS of additional advanced strategies to treat patients with ecrs>.” [next steps are to investigate additional advanced strategies to treat patients with ecrs]
38. “these findings have potential public health implications and emphasize <the NEED FOR FURTHER INVESTIGATION of the mechanistic links between diabetes and atrial fibrillation>.” [next steps are to investigate the mechanistic links between diabetes and atrial fibrillation, emphasized by these finding]
39. “in these circumstances, accurate clinical estimation of lump size is important in the assessment and monitoring of neck lump patients and it can help determine the NEED FOR FURTHER INVESTIGATION.” [a possible need for further investigation by the clinician depending on the lump size, not a statement that lays out the next steps and future directions of research]
40. “as more treatments emerge, <the NEED FOR FURTHER RESEARCH on appropriate sequencing will increase>.” [next steps are to investigate appropriate sequencing as more treatments emerge]
41. “this demonstrates <the NEED FOR FURTHER RESEARCH to fully elucidate bile acid-activated signaling networks>, in order to develop safe and effective drug therapies from bile acid ligands.” [next steps are to fully elucidate bile acid-activated signaling networks]
42. “however, the NEED FOR FURTHER RESEARCH should not delay implementation.” [a comment on the issues that come with needing more research: the fact that something needs more research need not delay implementation, not a statement that lays out the next steps and future directions of research]
43. “<a particular NEED FOR MORE TRIALS of suitable sample size> was identified for establishing restoration longevity of hvgic fillings placed, using hand-excavation following the atraumatic restorative treatment approach, in posterior permanent restorations in comparison to amalgam [28].” [next steps are to conduct more trials of suitable sample size]
44. “<these discrepancies stress the NEED FOR REPLICATION STUDIES>.” [next steps are to conduct replication studies to understand these discrepancies]
45. “<there is a NEED FOR REPLICATION of this research at older ages>.” [next steps are to conduct replication studies of this research at older ages]
46. “the metabolic activity of tumors can be mapped following glucose, oxygen, and free fatty acids consumptions, which constitute the major source of energy that cells NEED FOR REPLICATION.” [the major source of energy cells need for the process of replication, not a statement that lays out the next steps and future directions of research]
47. “recent review indicated <a NEED FOR VALIDATION STUDIES on large, representative samples in this field> (12).” [next steps are to validate on large, representative samples in this field]
48. “thus, <previous work related to the effects of surface charge and surface modification on cell-specific responses and cytotoxicity212223may NEED TO BE RE-EVALUATED>.” [next steps are to re-evaluate previous work related to the effects of surface change and surface modification on cell-specific responses and cytotoxicity]
49. “treatment will NEED TO BE RE-EVALUATED and changed on a continual basis over time, much as in chronic infections such as for malaria, tuberculosis or hiv.” [a treatment plan/suggestion: a patients treatment may need to be re-assessed and changed from time to time, not a statement that lays out the next steps and future directions of research]
50. “this situation highlights <the NEED TO STUDY the contribution of climate change in the dynamics of malaria transmission in this vulnerable region from panama>.” [next steps are to study the contribution of climate change in the dynamics of malaria transmission in this vulnerable region from panama]
51. “such monitoring is especially challenging if we NEED TO STUDY all traits at once.” [a hypothetical statement based on if the need to study something arose, not a statement that lays out the next steps and future directions of research]
52. “despite these limitations, our findings suggest <the NEED TO DEVELOP STRATEGIES to identify insulin resistance>, such as periodic screening with an ogtt, in high-risk youth, especially hispanic and female youth.” [next steps are to identify insulin resistance ]
53. “there is clearly a pressing clinical <NEED TO DEVELOP novel therapeutic STRATEGIES to improve outcomes for these patients> and one such avenue is to target phgg and dipg migration and invasion,7a well-known characteristic of glioma cells.” [next steps are to develop novel therapeutic strategies to improve outcomes for these patients]
54. “thus, tumors NEED TO DEVELOP multiple STRATEGIES to survive and grow in the low glutamine conditions.” [a statement about what the tumor needs to do to survive, not a statement that lays out the next steps and future directions of research]
55. “for those new parameters created in the modified model they are of a size that makes theoretical and mathematical sense although this still NEEDS to be tested using further DATA sets.” [next steps are to test using future data sets, need more data]
56. “the results of expressed sequence tags (ests) sequencing NEED to be well organized into DATAbases to provide an integrated set of tools and functional information.” [the results from the experiments should be put into databases, not a statement that lays out the next steps and future directions of research]
57. “to further address these possibilities, <comparative transcriptome analysis (rna-seq) of h99 and jec21 strains under radiation exposure and subsequent comprehensive functional analyses of the differentially regulated genes will be NEEDED IN FUTURE STUDIES>, as well as structural analysis of bdr1.” [next steps are comparative transcriptome analysis (rna-seq) of h99 and jec21 strains under radiation exposure and subsequent comprehensive functional analyses of the differentially regulated genes]
58. “<the 3d culture will be NEEDED IN FUTURE STUDIES to further confirm the tube‐like structure formed by hbl‐100 induced adscs>.” [next steps are the 3d culture to further confirm the tube-like structure formed by the hbl-100 induced adscs]
59. “also <it NEEDS TO BE DETERMINED whether the leaf‐specific cells need to lose their identity by epigenetic remodeling before they behave similarly to adult stem cells or pericycle‐like cells in a distinct organ context>.” [next steps are to determine whether the leaf-specific cells need to lose their identity by epigenetic remodeling before they behave similarly to adult stem cells or pericycle-like cells in a distinct organ context]
60. “before applying, the value ofNEEDS TO BE DETERMINED.” [a methodological statement that the value has to be determined before applying, not a statement that lays out the next steps and future directions of research]
61. “in electrophysiological experiments, it was determined that pamam g5 increased the influx of na+in hippocampal neurons by <a mechanism that NEEDS TO BE STUDIED further> (nyitrai et al., 2013b).” [next steps are to study the mechanism further]
62. “<the idea of risk and protective factors NEEDS TO BE STUDIED in depth in future studies>.” [next steps are to study the idea of risk and protective factors in depth in future studies]
63. “finally, in cases were membrane transport NEEDS TO BE STUDIED, the presence of a lipid membrane is key.” [a hypothetical statement where if membrane transport is being studied, the presence of a lipid membrane is necessary, not a statement that lays out next steps and future directions of research]
64. “thus, <further PROGRESS IS NEEDED before we can depend solely on motion-sensor behavior as a standalone authentication mechanism on smartphones>.” [next steps are further progress before we can depend solely on motion-sensor behavior as a standalone authentication mechanism on smartphones]
65. “however, since no population is independent of its environment, <PROGRESS IS NEEDED in predicting the efficacy of restoration in unstable ecological contexts>.” [next steps are further progress in predicting the efficacy of restoration in unstable ecological contexts]
66. “<future RANDOMIZED CONTROLLED TRIALS ARE NEEDED to further evaluate a number of the modalities>.” [next steps are to conduct randomized controlled trials to further evaluate a number of the modalities]
67. “to advance the knowledge of how to treat ln, well-designed clinical trials informed by prior RANDOMIZED CONTROLLED TRIALS ARE NEEDED.” [clinical trials are needed based on previous randomized controlled trials not new ones]
68. “<a larger RCT IS NEEDED to substantiate the alleged benefits>.” [next steps are to conduct a larger rct to substantiate the alleged benefits]
69. “<a meticulously designed and conducted RCT IS urgently NEEDED to further determine its safetyand efficacy>.” [next steps are to conduct an rct to further determine its safety and efficacy]
70. “thus, knowledge of observer variation in the interpretation of hRCT IS NEEDED.5we determined the degree of inter- and intraobserver variation in the detection of abnormal parenchymal lung changes on hrct by quantifying the extent to which radiologists in a general hospital agree with each other with regard to hrct findings.” [a statement about hrct, not rct as in randomized controlled trial, not a statement that lays out the next steps and future directions of research]
71. “also, <REPLICATION STUDIES ARE NEEDED for females>, which should consider the stability of both heart rate and crime as possible explanations for why heart rate is less predictive for females than males across adolescence.” [next steps are to conduct replication studies for females]
72. “<REPLICATION STUDIES ARE NEEDED for targeting each of these pathways to manipulate fear to check for consistent effects>, before a conclusive statement can be made on a standard protocol that offers the best pathway to modify processes like fear extinction, consolidation, or reconsolidation.” [next steps are to conduct replication studies for targeting each of these pathways to manipulate fear to check for consistent effects]
73. “however, the long-term presence of asfv in russia and the caucasus regions and the rapid spread of the virus to neighboring countries highlight <THE NEED for finding additional asfv genome markers capable of discriminating among circulating virus isolates so that we may better determine their source and evolution>.” [next steps are to find additional asfv genome markers capable of discriminating among circulating virus isolates so that we may better determine their source and evolution]
74. “we highlight THE NEED for a thorough evaluation in the female patient presenting with acute urinary retention, and also <THE NEED to provide better health facilities in rural areas in developing countries such as ours>.” [patients need a thorough evaluation when they come in, not a statement that lays out the next steps and future directions of research; next steps are to provide better health facilities in rural areas in developing countries such as ours]
75. “makowiecka et al [6] point out that while there is no internationally agreed minimum number of deliveries for a midwife to maintain her skills, application of the same recommendation to indonesian midwives means that many have delivery volumes that fall "well below optimal levels, and their capacity to manage complications and recognize THE NEED for referral may be compromised because they come across these situations so infrequently.".” [a quote about the amount of training Indonesian midwives need to be able to understand the patients’ needs for referrals, not a statement that lays out the next steps and future directions of research]
76. “EXAMPLE” [EXAMPLE]
77. **(IS/ARE WARRANTED): (RESEARCH/ STUDY/ PROGRAMS/ RANDOMIZED CLINICAL TRIAL) IS WARRANTED/ ARE WARRANTED/**
78. “clearly, <additional research delineating the condition-specific nlr that predicts clinical outcomes and the prognostic role of acute nlr fluctuations on vte IS WARRANTED>.” [next steps are to delineate the condition-specific nlr that predicts clinical outcomes and the prognostic role of acute nlr fluctuations on vte]
79. “<additional research IS WARRANTED to explore these differences and implications for research and practice>.” [next steps are to explore these differences and implications for research and practice]
80. “these findings may have important implications on weight outcomes in preadolescent children over time, but <additional research in this domain IS WARRANTED>.” [next steps are to conduct more research in this domain]
81. “<additional research on how religiosity, health care systems, and community factors influence the rehabilitation progress IS WARRANTED>.” [next steps are to conduct more research on how religiosity, health care systems, and community factors influence the rehabilitation progress]
82. “<because elevated bp in childhood is a known risk for hypertension in adulthood, continuing follow-up of these children over the years IS WARRANTED>.” [next steps are to continue follow-up of these children over the years]
83. “however, <research IS WARRANTED to further investigate the potential determinants behind the observed differences in under-five mortality>.” [next steps are to further investigate the potential determinants behind the observed differences in under-five mortality]
84. “<a follow-up study IS WARRANTED to determine whether these highly specific rna species already identified are also useful in the development of pharmacological agents with cardioprotective applications>.” [next steps are to determine whether these highly specific rna species already identified are also useful in the development of pharmacological agents with cardioprotective applications]
85. “<generation of larger constructs IS WARRANTED to evaluate functional benefits of a contractile fontan-conduit>.” [need to generate larger constructs to evaluate functional benefits of a contractile fontan-conduit]
86. “if scoliosis and/or kyphosis develop then referral to orthopedics IS WARRANTED for follow up and discussing various treatment options.” [a hypothetical patient scenario where referral to orthopedics is necessary, not a statement that lays out the next steps and future directions of research]
87. “this strategy could improve integration of tb and hiv services, and the cd4 count profile reported here suggests that art initiation IS WARRANTED on cd4 count criteria in all but a small minority of hiv-infected tb suspects.” [a statement of strategy based on art initiation on cd4 count criteria in all but a small minority of hiv-infected tb suspects, not a statement that lays out the next steps and future directions of research]
88. “however, careful interpretation of these results IS WARRANTED, as one of our cell death assays showed enhanced basal levels of apoptosis in control treated skbr3 cells.” [a cautionary statement to be careful interpreting the results, not a statement that lays out the next steps and future directions of research]
89. “expert consensus and evidence based guidelines recommend that for patients with barrett’s oesophagus confirmed on histology, two yearly endoscopic surveillance IS WARRANTED along with either medical or surgical treatment to prevent gastric reflux.” [recommendatinos for patients with barrett’s oesophagus to have 2 yearly endoscopic surveillance, not a statement that lays out the next steps and future directions of research]
90. “<confirmative studies with clinical follow-up in a more intermediate-high risk population ARE WARRANTED>.” [next steps are to conduct confirmative studies with clinical follow-up in a more intermediate-high risk population]
91. “<further studies to look at the plasma levels of homocysteine lowering vitamins ARE WARRANTED to prevent the future risk of vascular diseases>.” [next steps are further studies to look at the plasma levels of homocysteine lowering vitamins to prevent the future risk of vascular disease]
92. “<future studies ARE WARRANTED to explore the underlying mechanisms of adult neurogenesis and the possible relationship with aripiprazole>.” [next steps are future studies to explore the underlying mechanisms of adult neurogenesis and the possible relationship with aripiprazole]
93. “therefore, <experimental work focused on post-inflammatory intestinal fibrosis, together with data integration from other organs, ARE WARRANTED in order to clearly define targets for intervention in the field of ibd>.” [next steps are experimental work focused on post-inflammatory intestinal fibrosis…]
94. “hence, <longitudinal monitoring of diarrhoea incidence by well-trained health personnel ARE WARRANTED to obtain a more accurate understanding> [50].” [next steps are longitudinal monitoring of diarrhea incidence by wel-trained health personally to obtain a more accurate understanding]
95. “moreover, an increasing acceptance that the relationship between ibs, stress, anxiety, and depression may be bidirectional, as well as an understanding that this may also be the case in uc, suggests that <rcts of antidepressant medications and psychological therapies ARE WARRANTED, not only to assess improvement in ibs-type symptoms, but also as a means of preventing of relapse of disease activity in those with quiescent uc, particularly if coexistent mood disorders are identified>.” [next steps are rcts of antidepressant medications and psychological therapies, not only to assess improvement in ibs-type symptoms, …]
96. “therefore, early antibiotic treatment or/and surgical intervention to the affected sinuses ARE WARRANTED.” [patient care to ensure that early antibiotic treatment and/or surgical intervention occur, not a statement that lays out the next steps and future directions of research]
97. “moreover, differential drop-out and analysis on both completers as well as intention-to-treat ARE WARRANTED to obtain a balanced overview.” [methodology to have a balanced overview, not a statement that lays out ]
98. “in parallel to our clinical investigation (thies et al , 2002a), we compared two different methodological approaches for hpa binding analyses, demonstrating that in the animal model both methods ARE WARRANTED.” [results explaining that both methods were useful, not a statement that lays out the next steps and future directions of research]
99. “to achieve this goal, radiographic exams and detailed history taking ARE WARRANTED on a regular basis.” [a patient needs radiographic exams and detailed history taking on a regular basis, not a statement that lays out the next steps and future directions of research]
100. “EXAMPLE” [EXAMPLE]
101. **(WARRANT…): WARRANT ADDITIONAL DISCUSSION/ WARRANT AN INVESTIGATION/ WARRANT FURTHER INVESTIGATION/ WARRANTED/ WARRANTING A NEED FOR RESEARCH/ WARRANTS/ WARRANTS FURTHER INVESTIGATION/ WARRANTS INVESTIGTION/ WARRANTS RESEARCH**
102. “<several findings WARRANT ADDITIONAL DISCUSSION>.” [next steps are to discuss the several findings more in the future]
103. “the nomenclature outlined above covers the vast majority of neural arch fossa present in sauropods and other saurischians, but there are <two special cases that WARRANT ADDITIONAL DISCUSSION: division of the spinodiapophyseal fossa by the epipophyseal-prezygapophyseal lamina and fossae within divided laminae>.” [next steps are to discuss the two special cases: division of the spinodiapophyseal fossa by the epipophyseal-prezygapophyseal lamina and fossae within divided laminae more in the future]
104. “rapid increases in obesity and decreased physical fitness levels, particularly in cardiorespiratory fitness among taiwanese children, <WARRANT AN INVESTIGATION into how weight status and physical outcomes are related in taiwanese children> [24].” [next steps are to investigate into how weight status and physical outcomes are related in Taiwanese children]
105. “<findings are inconsistent for other conditions such as thyroid disease, type i diabetes, psoriasis, systemic lupus erythematosus, and rheumatoid arthritis, and WARRANT FURTHER INVESTIGATION>.” [next steps are to further investigate the inconsistent findings for other conditions…]
106. “the encouraging results observed in the small animal model <WARRANT FURTHER INVESTIGATIONS using this multifunctional nanoplatform for its potential use in cancer theranostics>.” [next steps are using this multifunctional nanoplatform for its potential use in cancer theranostics]
107. “in view of the need for molecules that address a target candidate profile for prevention of transmission53, <these mechanisms and the molecules identified here WARRANT FURTHER INVESTIGATION>.” [next steps are to further investigate these mechanisms and the molecules identified here]
108. “meanwhile the sentinel data analyses around 500 routine samples per month, all of which are urine samples collected in 85 public primary care centres (gopcs); this includes male and female who are likely to those who have complicated or recurrent urinary illness to WARRANT FURTHER INVESTIGATION from urinary microscopy and culture.” [pateints who needed further investigation from urinary microscopy and culture, not a statement that lays out the next steps and future directions of research]
109. “this situation would WARRANT FURTHER INVESTIGATION with additional diagnostic assessment and alternative treatment, including targeted antibiotics [15,16].” [the situation means further investigation is needed in diagnostic assessment and alternative treatments, not a statement that lays out the next steps and future work or research]
110. “we estimate the learning effect (i.e., the proportion of patients whose memory function improves due to familiarity with the assessments) to be slightly less than 0.15. a proportion of less than 0.15 in the intervention group would therefore indicate that the intervention (everolimus in the treatment of neurocognitive problems in tuberous sclerosis) does not WARRANT FURTHER INVESTIGATION.” [a hypothetical statement about levels of the learning effect that does not need more investigation, not a statement that lays out the next steps and future directions of research]
111. “<targeted surveillance of tetracycline-resistant c. suis strains may also be WARRANTED to curb the spread of these unusual chlamydial strains>.” [next steps are to conduct targeted surveillance of tetracycline resistant c. suis strains to curb the spread of these unusual chlamydial strains]
112. “<these lacunae in the existing literatures on malarial severity and outcomes WARRANTED an immediate attention and exploration>.” [next steps are to provide immediate attention and exploration to these lacunae in the existing literature on malarial severity and outcomes]
113. “in the interest of preventing unWARRANTED release of the cytotoxin and maximizing drug delivery to cancer cells, an ideal linker would not only have to be stable in the bloodstream but also capable of releasing the active form of the cytotoxic drug when required [42]. [a protocol to ensure the prevention of the release of the cytotoxin, not a statement that lays out the next steps and future directions of research that is warranted]
114. “the presence of three staphylococcus species in the cultures WARRANTED continuation of the vancomycin eyedrops, but we decreased the frequency to every 2 h around the clock to reduce epithelial toxicity and patient stress.” [a protocol statement about the need for a continuation of the vancomycin eyedrops, not a statement that lays out the next steps and future directions of research]
115. “<the clinical benefit of triptorelin in terms of providing clinically meaningful relief of luts WARRANTS further exploration in future urodynamic investigations>.” [next steps are further exploration in future urodynamic investigations]
116. “pkdl is a perplexing disease and <its role in transmission of vl WARRANTS much debate>.” [next steps are to debate its role in transmission of vl]
117. “therefore, <it WARRANTS development of a method which can accurately detect those sizes of deletion regions>.” [next steps are development of a method which can accurately detect those sizes of deletion regions]
118. “the % id in the feces ranged from 5.9% to 7.3% and WARRANTS consideration of hepatic circulation and bile composition.” [the patient’s bile needs to be considered for hepatic circulation and bile composition, not a statement that lays out next steps and future directions of research]
119. “the found variability in the probabilistic classification algorithm is compatible with a good reproducibility of rnfl thickness measurements and its clinical usefulness, but WARRANTS caution when interpreting its results and supports the recommendation of confirming results with more than one image.” [need to take caution when interpreting the algorithms results, not a statement that lays out the next steps and future directions of research]
120. “<this new, nonoxidative transformation of an important metabolic junction is intriguing and WARRANTS FURTHER INVESTIGATION>.” [next steps are to further investigate this new, nonoxidative transformation of an important metabolic junction]
121. “to our knowledge, <how different health professionals prioritise different outcomes of treatments has not been investigated previously and WARRANTS FURTHER INVESTIGATION with larger numbers of professionals>.” [next steps is to further investigate how different health professionals prioritse different outcomes of treatments with larger numbers of professionals]
122. “<the complexity of this issue WARRANTS INVESTIGATION with well-controlled studies>.” [next steps are to investigate the complexity of this issue with well-controlled studies]
123. “<this inexpensive and relatively safe drug WARRANTS INVESTIGATION in the treatment of co-occurring ptsd and alcohol dependence>.” [next steps are to investigate this inexpensive and relatively safe drug in the treatment of co-occurring ptsd and alcohol dependence]
124. “<a pertinent question that WARRANTS INVESTIGATION is: does this offer the possibility for long-distance transfer of extracellular electrons through the eps matrix?>” [next steps are to investigate the question: does this offer the possibility for long-distance transfer of extracellular electrons through the eps matrix?]
125. “any woman who has recurrent relapsing or persistent urinary tract infection WARRANTS INVESTIGATION including urinary tract imaging study.” [clinical investigation needed for any woman with recurrent relapsing or persistent urinary tract infections, not a statement that lays out next steps and future directions of research]
126. “clinical trials evaluating iapi+tra combination treatment have recently been initiated, which <WARRANTS RESEARCH towards further validation and development of this biomarker to address an urgent unmet clinical need and support the development of a potentially well-tolerated and effective anticancer treatment across multiple tumour types>.” [next steps are further validation and development of this biomarker to address an urgent unmet need and…]
127. “while activation of ampk inhibits insulin secretion, <its role in β-cell proliferation is unclear and WARRANTS RESEARCH given the extensive therapeutic use of metformin>.” [next steps are to investigate its role in β-cell proliferation]
128. “EXAMPLE” [EXAMPLE]
129. **FURTHER: FURTHER AVENUES/ FURTHER INVESTIGATION/ FURTHER MORE RIGOROUS EVALUATION/ FURTHER RESEARCH/ FURTHER SCIENTIFIC RESEARCH/ FURTHER STUDIED/ FURTHER STUDIES/ FURTHER STUDY/ FURTHER… STUDIES/ FURTHER TESTING/ FURTHER TRIALS/ FURTHER WORK/ FURTHER CONSIDERATION**
130. “the work presented here therefore opens up <FURTHER AVENUES of research into the collective behavior of early spring nomadic foragers>.” [next steps are to further investigate into the collective behavior of early spring nomadic foragers]
131. “future studies that include more detailed physiologic assessments may provide <FURTHER AVENUES to assess safety and support these initial findings>.” [next steps are to assess safety and support these initial findings]
132. “3) school factors: the school environment is important for understanding the origins of bully/victim problems and <for seeking FURTHER AVENUES for change and prevention>[9].” [next steps are to find ways for change and prevention]
133. “the work presented here identifies additional potential contributors to avm disease biology and has highlighted FURTHER AVENUES for research.” [a statement that the work points out further avenues of research but not the actual avenues themselves, not a statement that lays out the next steps and future directions of research]
134. “in addition, this workshop will identify FURTHER AVENUES of dissemination and determine future research directions.” [a statement about what the workshop will provide including further avenues of dissemination, not a statement that lays out the next steps and future directions of research]
135. “we were also able to detect additional differences within the mutant brain (fig.8), <opening up new avenues for FURTHER INVESTIGATION>.” [next steps are to further investigate the new avenues that opened]
136. “<FURTHER INVESTIGATION is required to understand this underlying mechanism>.” [next steps are to understand this underlying mechanism]
137. “<FURTHER INVESTIGATION of such factors and their association with dsb is warranted>.” [next steps are to investigate such factors and their association with dsb]
138. “<FURTHER INVESTIGATIONS will be required to clarify the basis for differential spatiotemporal dynamics of stim1 in response to stimulation with ca2+mobilizing agonists>.” [next steps are to clarify the basis for differential spatiotemporal dynamics of stim1 in response to stimulation with ca2+mobilizing agonists]
139. “additional differences in other areas of the central nervous system were indicative, prompting FURTHER INVESTIGATION using a long dw protocol (42 directions).” [a protocol statement about cns investigation is needed using a long dw protocol, not a statement that lays out the next steps and future directions of research]
140. “as complete inactivation of these genes will preclude FURTHER INVESTIGATION in adult mice, a dedicated mouse embryo screening pipeline is urgently needed to characterize the anatomical phenotype of the increasing number of mutant embryos being generated5.” [a statement that further investigation is not possible due to complete inactivation of these genes, not a statement that lays out the next steps and future directions of research]
141. “FURTHER INVESTIGATION regarding the role of shh in cavefish eye reduction using quantitative trait loci analysis indicates that mutations in this gene are unlikely to be directly responsible for the loss of functional eyes[19].” [a statement about what the further investigation showed regarding the role of shh in cavefish eye reduction, not a statement that lays out the next steps and future directions of research]
142. “the patient was transferred in our department for FURTHER INVESTIGATIONS.” [patient investigations, not a statement that lays out the next steps and future directions of research]
143. “however, <FURTHER RESEARCH is necessary to establish whether pd will give additional information to predict the development of af, adverse cardiovascular outcomes and mortality>.” [next steps are to establish whether pd will give additional information to predict the development of af adverse cardiovascular outcomes and mortality]
144. “the information generated has increased the understanding on im and hr responses to bgt infection, and may continue to aid <FURTHER RESEARCH into the molecular differences between the two types of resistance responses>.” [next steps are to conduct more research into the molecular differences between the two types of resistance responses]
145. “<FURTHER RESEARCH is needed to explore both the association between psychopathology symptoms and rrbs, and whether the rbq-2a can accurately distinguish between asd and psychological disorders that involve high levels of rrb, such as ocd and other specific anxiety disorders>.” [next steps are to explore both the association between psychopathology symptoms and rbs and …]
146. “given the dearth of cost-effective preventive interventions in this field and the clinical, social and economic incentives to prevent postnatal mental health problems, <FURTHER RESEARCH is warranted to reduce the uncertainty surrounding the results>.” [next steps are to reduce the uncertainty surrounding the resutls]
147. “FURTHER RESEARCH is underway to validate the demmi across clinical settings and in the community and to translate the demmi into other languages.” [a statement that research is already being conducted and not a future direction, not a statement that lays out the next steps and future directions of research]
148. “the following sections discuss four areas relating to fibrosis in fontan patients that would benefit from FURTHER RESEARCH specific to this condition.” [a description of the following sections that includes area for further research, not a statement that lays out the next steps and future directions of research specifically]
149. “monitoring of the abundance and spreading as well as <FURTHER SCIENTIFIC RESEARCH on parasite dispersal routes and impacts> should be reinforced in environments that are already infested and in regions at risk of colonization.” [next steps are to conduct scientific research on parasite dispersal routes and impacts]
150. “because only one study investigated these outcome parameters, <the findings should be interpreted cautiously and require FURTHER SCIENTIFIC RESEARCH>.” [next steps are to further research the findings]
151. “after informing the participants about the purpose of the study, explicit (verbal) consent was asked for recording the mcd sessions for the purpose of writing the meeting report and for FURTHER SCIENTIFIC RESEARCH.” [participants were informed and consented to the scientific research, not a statement that lays out the next steps and future directions of research specifically]
152. “the information found in plazi's databases – taxonomic treatments as well as the metadata of the publications – are in the public domain and can therefore be used for FURTHER SCIENTIFIC RESEARCH without any restriction, whether or not contained in copyrighted publications.” [a statement about a resource (plazi’s database) that can be used for general scientific research, not a statement that lays out the next steps and future directions of research]
153. “however, <the underlying mechanisms and potential signaling pathways still need to be FURTHER STUDIED>.” [next steps are to study the underlying mechanisms and potential signaling pathways]
154. “we FURTHER STUDIED the performance of the nanowire arrays under oblique incidence.” [a methodological statement of what was studied: the performance of the nanowire arrays…, not a statement that lays out the next steps and future directions of research]
155. “thus, the activity of polydim-i is likely associated with cell envelope or cell wall damage because this effect was primarily observed with other microorganisms [25,26], but <FURTHER STUDIES in this field are needed>.” [next steps are to further study this field]
156. “however, the exact role of these flower-specific genes in melon flower development remains unclear and <FURTHER STUDIES are required to clarify their functions in flower development>.” [next steps are to clarify their functions in flower development]
157. “FURTHER STUDIES using a yeast two-hybrid screen and co-localization in vivo revealed that lgg-2 interacts with the hops protein vps-39 to facilitate the fusion between autophagosomes and lysosomes [25].” [a statement about the results of the further studies already conducted, not a statement that lays out the next steps and future directions of research]
158. “nevertheless, <a potential role for fgf19 in reward-related eating behavior would be worthy of FURTHER STUDY>.” [next steps are to study a potential role for fgf19 in reward-related eating behavior]
159. “the most common reason for moving was to take up a position in a health center or promotion or FURTHER STUDY - these 3 reasons alone accounted for 60% of all moves.” [a statement about reasons for moving including to take up a position in a further study, not a research statement that lays out the next steps and future directions of research]
160. <“FURTHER STUDIES are warranted to show the difference in the prevalence of cd between patients with cpeo and those with other types of epilepsy>. ” [next steps are to show the difference in the prevalence of cd between patients with cpeo and those with other types of epilepsy]
161. “however, <FURTHER TESTING is needed to confirm their long-term stability>.” [next steps are to test to confirm their long-term stability]
162. “<the intervention requires FURTHER TESTING with other caregivers (for example hiv-infected fathers) and in other settings>.” [next steps are to test the intervention with other caregivers and in other settings]
163. “a further 8 items were removed due to practical limitations that were identified following FURTHER TESTING and the 4 walking items were rescored to 2 items to limit local item dependence (an assumption of rasch analysis)(table1).” [8 items were removed based on further testing that was already done, not a statement that lays out next steps and future directions of research]
164. “FURTHER TESTING in normal control plasma samples (100 µl) resulted in the elimination of seven of the eight remaining markers.” [a statement of the results from the further testing: already tested control plasma samples were eliminated, not a statement that lays out the next steps and future directions of research]
165. “<FURTHER TRIALS are ongoing to investigate the effect of safinamide on levodopa-induced dyskinesias and motor fluctuations>.97,98” [next steps are ongoing trial to investigate the effect of safinamide on levodopa-induced dyskinesias and motor fluctuations]
166. “the influence of genetic information on the behavior of salt intake might be different in each setting, but <FURTHER TRIALS are required to examine this issue>.” [next steps are to conduct more trials to examine this issue]
167. “overall, there are limited data <on intrapericardial agents and FURTHER TRIALS are needed>.” [next steps are to conduct more trials on intrapericardial agents]
168. “this technique has been used in clinical studies to identify at which point there are sufficient data to refute or support drug efficacy and whether FURTHER TRIALS are required (lau et al.” [a technique to determine if more trials are needed, not specifically about needing further trials, not a statement that lays out the next steps and future directions of research]
169. “for instance, the use of historical data to substitute parts of a randomized trial, the extrapolation of knowledge from one disease population to another as well as the acceptance of already derived knowledge from single arm trials so that FURTHER TRIALS are not necessary.” [a statement about other methodologies proposed in order to not have to do more trials, not a statement that lays out the next steps and future directions of research]
170. “given the complex, heterogeneous symptom profiles and developmental factors associated with asd, <FURTHER WORK is needed to characterize associations between heart activity and symptom profiles, particularly in early childhood>.” [next steps are more work to characterize associations between heart activity and symptom profiles, particularly in early childhood]
171. “<finding methods that achieve the objectives of niche modelling when these assumptions are violated is an important area for FURTHER WORK>.” [next steps are finding methods that achieve the objectives of niche modeling when these assumptions are violated]
172. “<FURTHER WORK is underway to study the parasite protein expression profile during chronic arsenic exposure> that would further enlighten the mechanism of parasite dermatotropism..” [next steps are to study the parasite protein expression profile during chronic arsenic exposure, and these studies are underway already]
173. “there may be several and complex molecular/neuronal mechanisms in human dlpfc which are responsible for the interaction we have measured in vivo with bold fmri, and <FURTHER WORK on molecular and cellular models is warranted>.” [next steps are on molecular and cellular models]
174. “a gp thoroughly examining a patient from a biopsychosocial point of view will most probably evaluate the patient's complaint or absence of complaint in the right way and initiate FURTHER WORKup if necessary [9].” [a patient possibly needs more attention from the clinician (gp) about their complaint, not a statement that lays out the next steps and future directions of research]
175. “FURTHER WORK up of tissue samples was performed using the envision+ system hrp (aec) (dako diagnostika, germany), and tumor microvessels were quantified as previously described in detail[23].” [a methodological statement about the work done on the tissue samples, not a statement that lays out the next steps and future directions of research]
176. “<how these two violations of nestedness differently affect model fitting is an important problem for FURTHER CONSIDERATION>.” [next steps are to consider how these two violations of nestedness differently affect model fitting]
177. “<FURTHER CONSIDERATION is therefore required to optimise the intervention components and content for delivery in a future trial>.” [next steps are to optimize the intervention components and content for delivery in a future trial]
178. “these filters, one based on analysis of the na12878 assembly and the other based on a comparisons between na12878 and a diverse population of other samples, excluded 8.7% (23 mb) of the autosomal reference from FURTHER CONSIDERATION.” [a statement of results and exclusion criteria from further study, not a statement that lays out the specific next steps and future directions that need to be considered]
179. “EXAMPLE” [EXAMPLE]
180. “EXAMPLE” [EXAMPLE]
181. **FUTURE: DIRECTIONS FOR FUTURE RESEARCH/ FUTURE/ FUTURE ANALYSES/ FUTURE DIRECTIONS/ FUTURE INTERVENTION/ FUTURE INVESTIGATIONS/ FUTURE OPTIONS/ FUTURE RESEARCH/ FUTURE STUDIES/ FUTURE TRANSLATIONAL STUDIES/ FUTURE TRIALS/ RESEARCH IN THIS AREA**
182. “<the demonstration of children’s ability to utilize communicative intent to identify good cooperators opens the door to a number of DIRECTIONS FOR FUTURE RESEARCH>.” [next steps are to research the opened doors based on the demonstration of children’s ability to utilize communicative intent to identify good cooperators]
183. “notwithstanding the methodological considerations, <obvious DIRECTIONS FOR FUTURE RESEARCH include the addition of a control condition to the present design to help establish the directional effects of the non-conscious visual cues used in experiments 1 and 2>.” [next steps are the addition of a control condition to the present design to help establish the directional effects of the non-conscious visual cues used in experiments 1 and 2]
184. “implications and limitations of the current study’s findings and DIRECTIONS FOR FUTURE RESEARCH are discussed.” [a statement of what is discussed in the article including future directions, not a statement that lays out the specific next steps and future directions of research]
185. “with this said, there are a number of wonderful references the reader should call on if guidance on research gaps and DIRECTIONS FOR FUTURE RESEARCH are desired [4,160,161].” [a statement of the references that readers can use for guidance on research gaps and future directions, not a statement that lays out the specific next steps and future directions of research]
186. “<cnidarian ctld-domain-containing proteins described here provide potential target proteins for FUTURE experimental investigation of the lectin-glycan interactions>.” [next steps are experimental investigation of the lectin-glycan interactions]
187. “<which criterion is more accurate and clinically relevant for predicting diabetes and tailoring interventions will need to be examined in FUTURE prospective studies>.” [next steps are to conduct prospective studies to determine which criterion is more accurate and clinically relevant for predicting diabetes and tailoring interventions]
188. “<for FUTURE clinical research identified the need to develop study designs with more detailed and rigorous methods>, mainly with the triple-blind blinding, representative samples, managements protocols of the occroc for children, adolescents and young.” [next steps are to develop study designs with more detailed and rigorous methods]
189. “so, if you are a physicist working on biological systems, or a biologist using the tools of physics, or a biochemist somewhere on the interface of these disciplines we do hope you will take the time to read more about the journal and consider us for your FUTURE submissions.” [a plea for submissions to the journal in the future, not a statement that lays out the specific next steps and future directions of research]
190. “such an effort will determine the clinical utility of pd to predict FUTURE af, hf and overall mortality, and whether they provide additional data beyond already established clinical, echocardiographic and ecg covariates.” [the goal of the effort is to predict af, hf, and overall mortality in the future for patients, not a statement that lays out specific next steps and future directions of research]
191. “<FUTURE ANALYSES should explore avenues for synthesizing different sources of data, including alternative facility data types or geospatial estimates, with facility assessments of efficiency>.” [next steps are to explore avenues for synthesizing different sources of data, including…]
192. “in addition, calanolide biosynthetic pathways are suggested, and based on the homologies of some genes, <we propose some of them to be promising candidates for FUTURE ANALYSES of the calanolide biosynthetic pathway>.” [next steps are to conduct analyses of the calanolide biosynthetic pathway to explore the promising candidates]
193. “plasma sampling, in demented cases, was carried out as part of clinical routine, and some of the plasma samples were saved in a biobank for FUTURE ANALYSES with the subjects and/or their relatives giving informed consent for research using these samples.” [a methodological statement about saving plasma samples for possible future analyses, not a statement that lays out the specific next steps and future directions of research]
194. “the aims of the evaluations were a) to describe the environmental exposure assessment in european birth cohort studies including methods used, timing and coverage (number of cohorts and number of subjects within cohorts with exposure information) of exposure assessment; b) to discuss the exposure assessments used in the birth cohort studies in terms of agreement between direct and indirect methods, timing and temporal variability of exposure measurements, exposure at non-residential addresses and time-activity patterns, c) to discuss the potential for collaborative analyses within the birth cohort studies including examples of successful collaborations; and d) to discuss areas of interest for FUTURE ANALYSES including new data collection and new methods.” [a statement of the aims of the evaluation that includes a discussion of areas of interest for future analyses, not a statement that specifically lays out the next steps and future directions of research]
195. “<FUTURE DIRECTIONS of research and areas for concern include optimization of quality of life, long-term outcomes, stone management and prevention and malignancy risk>.” [next steps are to conduct research in optimization of quality of life, long-term outcomes, stone management and prevention and malignancy risk]
196. “<defining a functional relationship between aβ deposition and toxicity, and ros level is certainly one of our FUTURE DIRECTIONS>.” [next steps are defining a functional relationship between aβ deposition and toxicity, and ros level]
197. “limitations and FUTURE DIRECTIONS” [the title of the section that includes limitations and future directions, not a statement that lays out the specific next steps and future directions of research]
198. “possible FUTURE DIRECTIONS for ad anti-inflammatory or immune clearance therapy will be discussed based on recent experimental data.” [a statement that future directions will be discussed, not a statement that lays out the specific next steps and future directions for ad anti-inflammatory or immune clearance therapy]
199. “<knowledge regarding these predictors can be used to inform FUTURE INTERVENTIONS to facilitate healthy food practices and dietary intake in the childcare setting>.” [next steps are to facilitate healthy food practices and dietary intake in the childcare setting based on knowledge regarding these predictors]
200. “<popularity of specific activities as well as drop-out, continuation and uptake should be considered in FUTURE INTERVENTION development>.” [next steps are to consider popularity of specific activities as well as drop-out, continuation and uptake in the next intervention development]
201. “these data highlight: (1) the importance of collecting, reporting and using qualitative data when developing and evaluating complex interventions; (2) that comprehensive education and training in palliative care is critical for the success of any new intervention; (3) <the need for FUTURE INTERVENTIONS to be grounded in patient-centred outcomes, not just processes of care>.” [next steps are to ground the next interventions in patient-centred outcomes, not just the processes of care]
202. “therefore, <FUTURE INTERVENTION should aim to prevent excessive microglia activities while retain their protective functions to treat the comorbidity of neuropathic pain and depression>.” [next steps are to prevent excessive microglia activities while retaining their protective functions to treat the comorbidity of neuropathic pain and depression]
203. “in the ongoing search for a cure, advancements in animal models offer hope for better understanding molecular and immunologic aspects of co-infection and for testing <FUTURE INTERVENTIONS to reduce hiv transmission>.” [next steps are to reduce hiv transmission]
204. “two main categories emerged: 1) benefits of the intervention program, which sets out the informants’ experiences for the benefits of participation, described in the subcategories “importance of content and group organization” and “importance of social support”; and 2) missing content in the intervention program, which details the informants’ suggestions for FUTURE INTERVENTIONS, contained in the subcategories “need for extended content” and “need for new group organization”.” [the responses from participants in an intervention program that includes suggestions for future interventions, not a statement that lays out the specific next steps and future directions of research]
205. “the purpose of this publication is to review our understanding of the role of bacterial infection in patients with copd exacerbation, the role of antibiotics, and FUTURE INTERVENTIONS.” [a statement of the purpose of the publication including future interventions, not a statement that lays out the specific next steps and future directions of research]
206. “<in FUTURE INVESTIGATIONS, the study of different antibody isotypes could provide additional information on the type of immune response elicited> (igg1 and igg3 indicating th1-driven responses and igg4 and ige indicating th2-driven responses) [5].” [next steps are the study of different antibody isotypes to provide additional information on the type of immune response elicited]
207. “<the biological underpinnings of these changes should be the focus of FUTURE INVESTIGATIONS> and may be key towards achieving a better clinical outcome for more individuals.” [next steps are to investigate the biological underpinnings of these changes]
208. “thus, our work provides a conceptual framework for FUTURE INVESTIGATIONS.” [the present work provides a conceptual framework for any future investigations in general, not a statement that lays out the specific next steps and future directions of research]
209. “questions for FUTURE INVESTIGATIONS” [the title of the next section about questions for future research, not a statement that lays out the specific next steps and future directions of research]
210. “however, if the mechanism of restenosis is the same in coronary arteries and other vessels, <these devices may hold FUTURE OPTIONS for children with chd>.” [next steps are to conduct more research on these devices for children with chd]
211. “the initial sic encounter should end with the proposal of a follow-up consultation to discuss prognosis and FUTURE OPTIONS.” [a procedural statement about the initial sic encounter including a follow-up on future options for the patient, not a statement that lays out the specific next steps and future directions pof research]
212. “<such features have hitherto been rarely examined in detail in mole-rats, but offer considerable opportunities for FUTURE RESEARCH>.” [next steps are to conduct more research on such features in mole-rats]
213. “however, <no study to date has tracked the extent and severity of adverse drug reactions occurring as a result of shared medicines, and this is an important area for FUTURE RESEARCH>.” [next steps are to track the extent and severity of adverse drug reactions occurring as a result of shared medicines]
214. “<FUTURE RESEARCH is needed to determine if apolipoproteins are superior to lipoprotein cholesterol concentrations in predicting chd risk>.” [next steps are to determine if apolipoproteins are superior to lipoprotein cholesterol concentrations in predicting chd risk]
215. “limitations of study and FUTURE RESEARCH” [a title of the next section that includes future research, not a statement that lays out the specific next steps and future directions]
216. “we hope our results may be helpful to FUTURE RESEARCH.” [a statement about the results of the study and the relationship to future work, not a statement that lays out the specific next steps and future directions of research]
217. “<this dataset can be good resource for FUTURE STUDIES exploring mediation and moderation pathways related to physical and mental well-being of healthcare professional>.” [next steps are exploring mediation and moderation pathways related to physical and mental well-being of healthcare professional]
218. “<FUTURE STUDIES using single cell qpcr or more sophisticated in situ hybridization approaches may overcome these limitations>.” [next steps are using single cell qpcr or more sophisticated in situ hybridization approaches to overcome these limitations]
219. “FUTURE STUDIES using full sequencing may thus alter some of the results presented here.” [a comparison of methodologies of the current study and studies that use full sequencing, not a statement that lays out the specific next steps and future directions of research]
220. “limitations and FUTURE STUDIES” [a title of the next section that includes future studies, not a statement that lays out the specific next steps and future directions of research]
221. “it would be interesting for <FUTURE TRANSLATIONAL STUDIES to determine if these surviving neurons exhibited the same electrophysiological properties as those found in unlesioned animals>.” [next steps are to determine if these surviving neurons exhibited the same electrophysiological properties found in unlesioned animals]
222. “<FUTURE TRANSLATIONAL STUDIES will certainly provide the appropriate target clinical population for each of these alternatives and will offer new avenues for the prevention of cardiac damage during ischemia reperfusion and the consequent change in heart cell volume>.” [next steps are to provide the appropriate target clinical population for each of these alternatives and to prevent cardiac damage during ischemia reperfusion and the consequent changes in heart cell volume]
223. “although this issue did not specifically result in any ae or sae in celaden, <our current pk analysis suggests a greater awareness of renal function for FUTURE TRIALS>.” [next steps are a greater awareness of renal function in the next trials]
224. “<FUTURE TRIALS are required to address the question of the specific impact of keratinocytes on wound healing>.” [next steps are to address the question fo the specific impact of keratinocytes on wound healing]
225. “such classification is important not only for optimization of currently available therapies but also for enrolment of patients in FUTURE TRIALS for upcoming therapies like anti-interleukin 5 monoclonal antibodies.” [information about a specific trial and enrollment of patients, not a statement that lays out the specific next steps and future directions of research]
226. “clinicians should have full access to data from any FUTURE TRIALS.” [a statement about who has access to data from trials indicating specifically clinicians, not a statement that lays out the specific next steps and future directions of research]
227. “obviously, <more RESEARCH IN THIS AREA is necessary>, although there is evidence that stem cell migration and migration-associated polarity are also regulated by small rhogtpases [62].” [next steps are to conduct more research in this area (stem cell migration]
228. “it is likely that many more viral and host determinants remain to be discovered, and <future RESEARCH IN THIS AREA should provide novel and translational insights into the biology of influenza virus-host interactions>.” [next steps are to provide novel and translational insights inot the biology of influenza virus-host interactions]
229. “accessibility control has been a tremendously useful concept that has influenced RESEARCH IN THIS AREA for quite some time2.” [a statement of what influences the research (accessibility control), not a statement that lays out the specific next steps and future directions of research]
230. “a review of RESEARCH IN THIS AREA in the ensuing 20 years is given in ref.” [a reference to a review of research in the area, not a statement that lays out the specific next steps and future directions of research]
231. “EXAMPLE” [EXAMPLE]
232. **RESEARCH: ADDITIONAL RESEARCH/ ENCOURAGE MORE RESEARCH/ RESEARCH CONCENTRATIONS/ RESARCH IS NEEDED/**
233. “<ADDITIONAL RESEARCH to assess the performance of various case definitions for detecting rsv infections across a broad range of epidemiologic contexts is needed>.” [next steps are to assess the performance of various case definitions for detecting rsv infections across a broad range of epidemiologic contexts]
234. “nonetheless, <the ubiquity of cigarette butt waste and its potential for adverse effects on human and animal health warrants ADDITIONAL RESEARCH> and policy interventions to reduce the stream of these pollutants in the environment.” [next steps are to research the ubiquity of cigarette butt waste and its potential for adverse effects to human and animal heatlh]
235. “by contrast, neurological symptoms, weight loss and oedema were more discriminating for infection, and yet were rarely associated with hat by peripheral hcws interviewed as part of ADDITIONAL RESEARCH in nimule (to be published separately)[30].” [a methodological statement about peripheral hcws interviewed for additional research that is to be published separately, not a statement that lays out the next steps and future directions of research]
236. “ADDITIONAL RESEARCH technology, which may be difficult to implement in bsl4 containment (i.e.” [technology that can be used for additional research, not a statement that lays out the next steps and future directions of research]
237. “such findings will hopefully <ENCOURAGE MORE RESEARCH into youth gambling to further understand the determinants of this phenomenon>.” [next steps are to conduct more research of youth gambling to further understand the determinants of this phenomenon]
238. “the analyses will increase the awareness of a higher risk of tb in asia and will <ENCOURAGE MORE RESEARCH in this field>.” [next steps are more research in this field]
239. “EXAMPLE” [EXAMPLE]
240. “we believe that the findings from the current study will ENCOURAGE MORE RESEARCHers to contribute in delineating the finer molecular mechanisms.” [encouragement of researchers, not of the research itself, not a statement that lays out the next steps and future directions of research]
241. “<more RESEARCH IS NEEDED to determine the specific roles of naglu, hcrtr2 , and npy2r in mole-rats, as well as to elucidate the molecular basis of their circadian pathways in general>.” [next steps are to determine the specific roles of naglu, hctr2, and npy2r in mole-rats and to elucidate the molecular basis of their circadian pathways in general]
242. “owing not only to the lack of <epidemiological studies assessing the relationship between coffee consumption and reduced deaths due to stroke but also the pathophysiological difference between cerebral hemorrhage and cerebral infarction, additional RESEARCH IS NEEDED in the future>.” [next steps are to conduct epidemiological studies assessing the relationship between coffee consumption and reduced deaths due to stroke and the pathophysiological difference between cerebral hemorrhage and cerebral infarction]
243. “results indicate <further RESEARCH IS NEEDED regarding etiology and treatment, reduce stigma & cultural barriers, and establish a more precise calculation>.” [next steps are to conduct research regarding etiology and treatment, reduce stigma and cultural barriers, and establish a more precise calculation]
244. “finally, we undertake comprehensive assessment of the field as a whole and identify gaps in the existing literature: what subgroups of this population are under-researched, what methodologies are underutilized, and what further RESEARCH IS NEEDED?” [a methodological statement about what questions are asked in a comprehensive assessment in general that includes the question ‘what further research is needed?’, not a statement that lays out the next steps and future directions for a specific area of research]
245. “EXAMPLE” [EXAMPLE]
246. **OPPORTUNITY: MISSED OPPORTUNITY/ NEW RESEARCH OPPORTUNITIES/ OPENS NEW OPPORTUNITIES/ OPPORTUNITIES/ OPPROTUNITIES FOR FUTURE RESEARCH/ OPPORTUNITY/ UNIQUE OPPORTUNITIES**
247. “this represents <a MISSED OPPORTUNITY for standardized diagnoses and treatment>.” [next steps are for standardized diagnoses and treatment]
248. “although the prevalence of ever discussing alcohol use with a healthcare provider was higher among young adults, it was still quite low, representing <a significant MISSED OPPORTUNITY to intervene with young adults to reduce their risk of cancer and other health problems> (figure 2).” [next steps are to intervene with young adults to reduce their risk of cancer and other health problems]
249. “more importantly, these patients with MISSED OPPORTUNITY for cell transplantation will still be able to achieve benefits from cell therapy by attenuating cardiac remodelling and consequently changing myocardial stiffness after the infarction.” [a statement about the patients who did not get cell transplantation and cannot participate in that opportunity, not a statement that lays out the specific next steps and future directions of research]
250. “in the first case, there was a MISSED OPPORTUNITY for the pn to explore the patient’s knowledge and understanding of copd, its management, and the place of nebulizers in the consultation.” [a statement that the pn did not explore a patient’s knowledge and understanding of copd before sending he/she away, not a statement that lays out the specific next steps and future directions of research]
251. “the current state of our efforts provides <a wide range of NEW RESEARCH OPPORTUNITIES into fundamental questions in biology>.” [next steps are to conduct more research into fundamental questions in biology]
252. “this new insight in approaching anthropological cases leads to< NEW RESEARCH OPPORTUNITIES: first of all, we can discern actual components in human populations’ genetic structure>.” [next steps are to discern actual components in human populations’ genetic structure, first of all]
253. “additionally, we expect that the results of the study will open NEW RESEARCH OPPORTUNITIES for other scientists and fields, e.g.” [the expectations of the results that they will lead to new research avenues, not a statement that lays out the specific next steps and future directions of research]
254. “whereas previously hantavirus nhp models were essentially nonexistent for hps-causing viruses, <the recent finding that snv produced in deer mice produces acute disease in infected macaques OPENS NEW OPPORTUNITIES for the testing of candidate countermeasures against hps as well as factors that contribute to pathology>.” [next steps are for the testing of candidate countermeasures against hps as well as factors that contribute to pathology]
255. “<this OPENS NEW OPPORTUNITIES towards ultrafast coherent control over matter and light>.” [next steps are towards ultrafast coherent control over matter and light]
256. “<hisc generation OPENS NEW OPPORTUNITIES to advance experimental methodologies using human cells>.” [next steps are to advance experimental methodologies using human cells]
257. “since all eight human herpesviruses have ul25 orthologs, <this discovery offers new OPPORTUNITIES to interfere with herpes replication by disrupting the precise force balance between the encapsidated dna and the capsid proteins crucial for viral replication>.” [next steps are to interfere with herpes replication by disrupting the precise force balance between the encapsidated dna and the capsid proteins crucial for viral replication]
258. “these results may be important for informing health policy decisions and <may suggest OPPORTUNITIES to improve comprehensive patient care>.” [next steps are to improve comprehensive patient care using these results]
259. “the decision to move, as well as the mix of services offered, seems to be largely driven by OPPORTUNITIES to increase their private practice income.” [the peoples’ decisions to move are based on greater income in their private practice, not a statement that lays out the specific next steps and future directions of research ]
260. “rotating toys, visual and auditory stimuli, and foraging OPPORTUNITIES were provided daily.” [a methodological statement that specific events were provided daily to the participants, not a statement that lays out the specific next steps and future directions of research]
261. “<such features have hitherto been rarely examined in detail in mole-rats, but offer considerable OPPORTUNITIES FOR FUTURE RESEARCH>.” [next steps are to conduct more research on such features that have hitherto been rarely examined in detail in mole-rats]
262. “nonetheless, <this dearth of information presents numerous OPPORTUNITIES FOR FUTURE RESEARCH which should focus on consolidating them as biomarkers as per the aha criteria and also by determining their usefulness as clinical tools for diagnosis, predicting outcomes, and prognosis>.” [next steps are to focus on consolidating them as biomarkers as per the aha criteria and also by determining their usefulness as clinical tools for diagnosis, predicting outcomes, and prognosis]
263. “<the framework that we presented opens many OPPORTUNITIES FOR FUTURE RESEARCH on community dynamics and the factors, both internal and external, which drive them>.” [next steps are on community dynamics and the factors, both internal and external, that drive them]
264. “this review summarizes the mechanisms by which diverse fungal pathogens invade normally non-phagocytic host cells and discusses gaps in our knowledge that provide OPPORTUNITIES FOR FUTURE RESEARCH.” [a statement about what the review is about which includes ‘opportunities for future research’, not a statement that lays out the specific next steps and future directions of research]
265. “when we asked why they engaged dutch researchers in their proposals, ghanaian participants said that they hoped to benefit from specific technical expertise, sharing of experience and perhaps new OPPORTUNITIES FOR FUTURE RESEARCH through international collaboration.” [a response by Ghanaian participants about why they engaged dutch researchers in their proposals that includes sharing of opportunities of future research, not a statement that lays out the specific next steps and future directions of research]
266. “for example, the session on computational approaches to the modern rna world chaired by ivo hofacker (university of vienna) will provide a full day focused on the state of the art in rna bioinformatics to highlight many of the still-open problems that present OPPORTUNITIES FOR FUTURE RESEARCH.” [a statement about a session that ‘highlighted many of the still-open problems that represent opportunities for future research’, not a statement that lays out the specific next steps and future directions of research]
267. “<modifying switched-memory b cell fate at recall provides a powerful OPPORTUNITY to optimize circulating antibody repertoires towards enhanced antigen binding>.” [next steps are to optimize circulating antibody repertoires towards enhanced antigen binding by modifying switched-memory b cell fate at recall]
268. “the move to a puskesmas is largely driven by preference for shorter official working hours, improved status, and the OPPORTUNITY to establish a more lucrative private practice in, or closer to, urban areas.” [an explanation for the move to puskesmas that includes the possibility for more money closer to urban areas, not a statement that lays out the specific next steps and future directions of research]
269. “<the ubiquity of complex data systems of this kind presents many UNIQUE OPPORTUNITIES and challenges for uncovering genotype–phenotype interactions, or, in general, interactions between any kind of objects>.” [next steps are to uncover genotype-phenotype interactions, or, in general, interactions between any kind of objects]
270. “<nmr provides UNIQUE OPPORTUNITIES to investigate atomistic details of blood coagulation, including structure, interactions, and dynamics>.” [next steps are to investigate atomistic details of blood coagulation, including structure, interactions, and dynamics using nmr]
271. “<this offers UNIQUE OPPORTUNITIES to elucidate drug response mechanisms and to identify response biomarkers>.” [next steps are to elucidate drug response mechanisms and to identify response biomarks using this]
272. “our consecutive cohort of ltx patients offered us two UNIQUE OPPORTUNITIES: first, to study hrqol in undivided ltx recipients without paying special attention to the underlying liver disease.” [the patients provided specific opportunities to the researchers that they took advantage of and used, not a statement that lays out the specific next steps and future directions of research]
273. “however, teaching by surgeons in awbd provides UNIQUE OPPORTUNITIES for students, promoting a deeper engagement from students.3” [the students were engaged more by the teaching by surgeons in awbd, not a statement that lays out the specific next steps and future directions of research]
274. “EXAMPLE” [EXAMPLE]
275. **MORE: MORE RESEARCH/ MORE STUDIES/ MORE WORK IS NEEDED/ MORE… STRATEGIES**
276. “however, <all these observations need to be further investigated and verified through MORE RESEARCH work>.” [next steps are to further investigate and verify all these observations]
277. “<as MORE RESEARCH is conducted to tackle these issues>, adcs are likely to become part of the future of targeted cancer therapeutics.” [next steps are to conduct more research to tackle these issues]
278. “in addition, <MORE RESEARCH into the determinants and predictors of the use of childcare staff’s food practices is needed>.” [next steps are to conduct more research into the determinants and predictors of the use of childcare staff’s food practices]
279. “<in japan, MORE RESEARCH into the prescribed level or outcome of home care services is warranted>.” [next steps are to conduct more research into the prescribed level or outcome of home care services in japan]
280. “in recent years, more and MORE RESEARCHES report about the relevance of heavy metal burden (cadmium, lead, platinum, copper) to allergic responses(62,63).” [a statement about research reports that were already conducted, not a statement that lays out the specific next steps and future directions of research]
281. “thus, giving this low evpi, it is unlikely that performing MORE RESEARCH, to decrease uncertainty, would be considered an efficient use of resources.” [no more research is needed because conducting more research is deemed to be an inefficient use of resources, not a statement that lays out the specific next steps and future directions of research]
282. “<MORE STUDIES should determine the interplay between ngb and metabolism not only in neurons, but in astrocytes, cardiomyocytes and tumor cells>.” [next steps are to determine the interplay between ngb and metabolism not only in neurons, but in astrocytes, cardiomyocytes and tumor cells]
283. “and posteriorly with the codification of the low risk of bias between four/MORE STUDIES equally associated with the same previous parameter represented by “0 0” (association without), “? ?” (indeterminate association) and “+ +” (positive association) or “– –” (negative association) (11).” [a methodological statement about the representation of associations and more studies, not a statement that lays out the specific next steps and future directions of research]
284. “this suggests that <MORE WORK IS NEEDED to investigate the effects of orphanhood on male adolescents using data from a variety of contexts>, especially since the majority of existing studies have focused on young women.” [next steps are to investigate the effects of orphanhood on male adolescents using data from a variety of contexts]
285. “thus, <much MORE WORK IS NEEDED in order to understand how this large family of sulfation enzymes functions to regulate hs structure and function>.” [next steps are to understand how this large family of sulfation enzymes functions to regulate hs structure and function]
286. “in 2009, during the 15thanniversary of icpd, countries recognized that significantly MORE WORK IS NEEDED to achieve its goal.” [countries need to do more work to achieve icpd’s goal (not research), not a statement that lays out the specific next steps and future directions of research]
287. “these findings suggest that males may similarly require additional persuasion to engage in online programs, suggesting that MORE WORK IS NEEDED to encourage uptake among males who less typically receive help for mental health problems than females [36].” [a statement about encouraging uptake among males (interventions needed, not research), not a statement that lays out the specific next steps and future directions of research]
288. “judicial demands for increasingly more expensive medicines is a reality, and a scenario of need for greater investments emerges in contrast to limited resources and <a mandatory search for MORE effective and efficient STRATEGIES>.” [next steps are to conduct a mandatory search for more effective and efficient strategies]
289. “furthermore, first-year students expected more active learning in class, more out-of-class coursework during non-exam weeks, and MORE social learning STRATEGIES than non-first-year students.” [a statement of results about first-year student expectations including more social learning strategies, not a statement that lays out the specific next steps and future directions of research]
290. “EXAMPLE” [EXAMPLE]
291. **STUDY: LARGER STUDIES/ LARGER STUDIES AND REPLICATION OF FINDINGS/ LONG-TERM STUDIES/ STUDIES ARE NEEDED/ STUDIES ARE REQUIRED TO CONFIRM/ STUDIES… ARE NEEDED/ STUDIES… ARE WARRANTED/ STUDY AND ADDRESS/ STUDY DESIGN IS NEEDED/ STUDY… IS MERITED/ STUDY… IS NEEDED/**
292. “a limitation of our study is the small number and power, especially in the exploratory fmri study, <meaning that the findings are in need of confirmation in LARGER STUDIES>.” [next steps are to confirm the findings in larger studies]
293. “these findings are supportive evidence <to conduct LARGER STUDIES on the potential impact of hight2 in relation to lge and the conventional risk factors>.” [next steps are to conduct larger studies on the potential impact of hight2 in relation to lge and the conventional risk factors]
294. “LARGER STUDIES and multi-centre studies were more likely to be published than smaller studies and single-centre studies, respectively (both comparisons: p = 0.012) (table 1).” [a result that larger studies are more likely published than smaller ones, not a statement that lays out the specific next steps and future directions of research that need larger studies]
295. “our study group was also compared to LARGER STUDIES including elective abdominal surgery.” [a methodological statement that the study group was compared to larger studies, not that larger studies are needed, not a statement that lays out the specific next steps and future directions of research]
296. “in some individuals, sex assignment is challenging and <LONG-TERM STUDIES of gender identity and psychosexual functioning are needed>.” [next steps are long-terms studies of gender identity and psychosexual functioning]
297. “<LONG-TERM STUDIES are required to confirm excellent valve function at greater than 10 years>.” [next steps are to confirm excellent valve function at greater than 10 years]
298. “for LONG-TERM STUDIES of core–shell nps purified by precipitation and magnetic decantation, 7.1 nm nps were dispersed at a high concentration of 4 mg/ml that speeds up aggregation in both h2o and pbs.” [a methodological statement about long-term studies and the dispersal of 7.1 nm nps, not a statement that lays out the specific next steps and future directions of research]
299. “the percentage of deaths in this sample is low, if compared to past LONG-TERM STUDIES [10,32].” [comparing results in this study to past long-term studies, not that long-term studies are needed, not a statement that lays out the specific next steps and future directions of research]
300. “further <STUDIES ARE NEEDED to definitively identify the sites and tissues infected>, despite these intriguing observations.” [next steps are to definitively identify the sites and tissues infected]
301. “<more STUDIES ARE NEEDED to determine cause>.” [next steps are to determine cause]
302. “little is known about adolescents anc attendance in tanzania, suggesting <STUDIES ARE NEEDED to investigate their overall attendance>.” [next steps are to investigate their overall attendance]
303. “however, <long-term prospective STUDIES ARE REQUIRED TO CONFIRM the findings>, especially in patients with overt proteinuria or renal insufficiency.” [next steps are long-term prospective studies to confirm the findings]
304. “however, <further STUDIES ARE REQUIRED TO CONFIRM this so that we can have as effective protocols to manage breakthrough pain as we have today for managing persistent pain>, as given by who.” [next steps are to confirm this so that we can have as effective protocols to manage breakthrough pain as we have today for managing persistent pain]
305. “as with any genome‐wide association study, <additional functional, mouse and human STUDIES ARE REQUIRED TO CONFIRM the metformin response variant at this locus>.” [next steps are to confirm the metformin response variant at this locus]
306. “<future STUDIES with detailed information on the dose and hormonal constituent of the oral contraceptives ARE NEEDED to clarify this association>.” [next steps are to clarify this association with detailed information on the dose and hormonal constituent of the oral contraceptives]
307. “<further behavioral STUDIES of ns1 activity ARE NEEDED to clarify these issues>.” [next steps are to clarify these issues of ns1 activity]
308. “thus, the activity of polydim-i is likely associated with cell envelope or cell wall damage because this effect was primarily observed with other microorganisms [25,26], but <further STUDIES in this field ARE NEEDED>.” [next steps are to conduct more studies in this field]
309. “these limitations considered, <replication STUDIES using large cohorts ARE WARRANTED>.” [next steps are to conduct replication studies using large cohorts]
310. “confirmative STUDIES with clinical follow-up in a more intermediate-high risk population ARE WARRANTED.” [next steps are to confirm with clinical follow-up in a more intermediate-high risk population]
311. “due to the consistently high prevalence of injuries among dairy workers globally, <it is prudent for researchers to pool resources and expertise to STUDY AND ADDRESS this international occupational challenge>.” [next steps are for researchers to pool resources and expertise to research and address this international occupational challenge]
312. “halmi and colleagues [13] argued that it is necessary to STUDY AND ADDRESS treatment dropout and refusal before further large randomized controlled trials (rcts) of an are initiated [13].” [a statement about the general procedures before rcts that includes study and address treatment dropout and refusal, not a statement that lays out the specific next steps and future directions of particular research]
313. “we would like to recognize some of the limitations in this STUDY AND ADDRESS remaining issues to explore.” [a statement about what will be discussed in the study: the remaining issues to explore, not a statement that lays out the specific next steps and future directions of research that need to be studied and addressed]
314. “therefore <a new STUDY DESIGN IS NEEDED to confirm and quantify the association we have found>.” [next steps are to confirm and quantify the association we have found by creating a new study design]
315. “sufficient data were collected to inform a sample size calculation, but <our findings suggest that more attention to STUDY DESIGN IS NEEDED prior to future evaluation of proask>.” [next steps are to pay more attention to study design prior to future evaluation of proask]
316. “<a longitudinal STUDY DESIGN IS NEEDED to investigate any causal relationships among the factors included in this study>.” [next steps are to investigate any causal relationship among the factors included in this study using a longitudinal study]
317. “<application of this technique with other health care outcomes and rigorous STUDY DESIGN IS NEEDED>.” [next steps are application of this technique with other health care outcomes and rigorous study design]
318. “<thus in-depth STUDY of speech hfe perception IS MERITED>.” [next steps are an in-depth study of speech hfe perception]
319. “<further STUDY of some of these medications for patients with other inflammatory diseases IS MERITED> and in some cases is already underway.” [next steps are further study of these medications for patients with other inflammatory diseases]
320. “thus, <STUDY to optimize the reprogramming method to facilitate the successful generation of keratinocytes using three factors or lesser IS NEEDED>.” [next steps are to optimize the reprogramming method to facilitate the successful generation of keratinocytes using three factors or lesser]
321. “<further STUDY of qpi-1002 IS NEEDED to assess its clinical efficacy and additional safety for the prevention of aki and its associated outcomes in patients undergoing cardiovascular surgery>.” [next steps are to assess its (qpi-1002) clinical efficacy and additional safety for prevention of aki and its associated outcomes in patients undergoing cardiovascular surgery]
322. “although these results provided some initial support for the potential of this positive imagery-focussed cbm-i for depression, <a pilot STUDY with a control comparison condition IS NEEDED> as an important next step.” [next step is a pilot study with a control comparison condition]
323. “therefore, our present STUDY supports that the screening test for concomitant dvt IS NEEDED by all patients with confirmed pe.” [a result statement that the results supports that the screening test is necessary for all patients with confirmed pe, not a statement that lays out the specific next steps and future directions of research studies that are needed]
324. “EXAMPLE” [EXAMPLE]
325. **ATTENTION: ATTENTION/ WORTHY OF CLOSER ATTENTION**
326. “<dengue is one of 17 neglected tropical diseases that the world health organization (who) has identified for priority ATTENTION> due to its disproportionate impact on global health, with cases reported from over 100 countries [2].” [next steps are to study and pay attention to dengue as one of the 17 neglected tropical diseases the who has identified for priority]
327. “recently <ATTENTION has been directed toward the utility of nanoparticles (nps) as delivery vehicles for vaccines>.” [next steps are more research toward the utility of nanoparticles as delivery vehicles for vaccines]
328. “in addition to the above mentioned implications and suggestions for future research, <specific ATTENTION needs to be paid to selecting larger samples which are representative of a broader population in order to increase the respective study’s external validity>.” [next steps are to be paid to selecting larger samples which are representative of a broader population in order to increase the respective study’s external validity]
329. “a 53-year-old caucasian male presented with a 1-year history of behavioral changes, ATTENTION disorders and anterograde memory disorders.” [a description of a patient that has attention disorders, not a statement that lays out the specific next steps and future directions of research that need attention]
330. “much ATTENTION had been paid on the study of bamboo cultivation, processing, physiology, biochemistry and molecular biology, which had made great progresses in the last decade, especially for the highlighted achievement of the bamboo genomics.” [already a lot of attention so the study of bamboo, not a statement that lays out the specific next steps and future directions of research that need more attention]
331. “86–88), <not as randomness or noise in the system (or, in the diagnostic terms of autism, self-stimulation or off-task behavior) but as developmental data WORTHY OF CLOSER ATTENTION>.” [next steps are to pay closer attention to the development data]
332. “EXAMPLE” [EXAMPLE]
333. **CONTINUE: CONTINUE TO EXPLORE/ CONTINUED STUDIES/ CONTINUING EFFORTS/**
334. “since the time of heavy and judicious use of robotics in medical science is quite near, future research should also <CONTINUE TO EXPLORE an answer to the question – can we replace analgesics with mini portable robotic devices for pain relief?>” [next steps are to answer the question: can we replace analgesics with mini portable robotic devices for pain relief?]
335. “but because both tools are active areas of development at sgd, <we will CONTINUE TO EXPLORE them as search options and evaluate their suitability> as our genome map data collection and community usage increases.” [next steps are to explore them as search options and evaluate their suitability]
336. “therefore, it is critical that we expand our knowledge of basic molecular mechanisms that contribute to lung cancer pathogenesis, <CONTINUE TO EXPLORE novel targets for the treatment of advanced lung cancer>, and identify targets to block the metastatic progression of tumors that are diagnosed and treated at an early stage.” [next steps are to explore novel targets for the treatment of advanced lung cancer]
337. “in this article, we CONTINUE TO EXPLORE and demonstrate a connection between interfacial stability and induced interfacial fluctuations as interfacially stable solutes approach ostensibly hydrophobic aqueous–hydrophobe interfaces.” [an aim statement of the article that explores and demonstrates a connection…, not a statement that lays out the specific next steps and future directions of research that need continued exploration]
338. “one-third of visits came from returning visitors who were significantly more likely to CONTINUE TO EXPLORE networked people and topics ( p<.001).” [a statement of results with one-third of visits were visitors likely to continue their exploration, not a statement that lays out the specific next steps and future directions that need continued exploration]
339. “<CONTINUED STUDIES are needed that address these associations in young children> as this age may represent a sensitive period of development in the pathway to weight regulation throughout childhood.” [next steps are to address these associations in young children with more studies]
340. “<CONTINUED STUDIES are suggested to further evaluate the long-term benefit of similar educational programs>.” [next steps are to further evaluate the long-term benefit of similar educational programs with more studies]
341. “barber-surgeons were trained in extended apprenticeships and, sometimes, CONTINUED STUDIES at public hospitals.” [barber-surgeons would sometimes continue their studies at public hospitals, not a statement that lays out the specific next steps and future directions of research that need continued studies]
342. “if CONTINUED STUDIES as outlined above are performed, we are optimistic that this technology will soon be ready for clinical testing.” [a hypothetical statement about the results expected from studies that are outlined, not a statement that lays out the specific next steps and future directions of the continued studies mentioned above]
343. “<CONTINUING EFFORTS in researching the genetics of scd> will allow us to identify new genetic alterations associated with scd, improving current diagnostic tests, early prevention, and risk stratification.” [next steps are continuing efforts in researching the genetics of scd]
344. “<CONTINUING EFFORTS to conduct and publish research on this important topic in sports medicine will raise further awareness>.” [next steps are to conduct and publish research on this important topic in sports medicine to raise further awareness]
345. “our repid program’s goal is aligned with noted areas; “early and CONTINUING EFFORTS to diversify the pipeline by increasing numbers of women and minorities getting advanced degrees;” and, “introducing mentoring programs and coping strategies to help women and minorities.” this study also indicates that although women and minorities are provided with the opportunities to advance, they are often unable to move forward and participate in higher positions within institutions.” [a quote about the goal of the repid program, not a statement that lays out the specific next steps and future directions of research that need continuing effort]
346. “a general understanding of methods of recognition and means of mitigation of psychogenic stress in hospitalized animals is arguably an important feature of the CONTINUING EFFORTS of clinicians to improve the well-being and health of dogs and other veterinary patients.” [the efforts of clinicians to improve the well-being and health of dogs and other veterinary patients, not.a statement that lays out the specific next steps and future directions of research that need continuing effort]
347. “EXAMPLE” [EXAMPLE]
348. **SUGGESTION: SUGGESTIONS FOR FUTURE RESEARCH**
349. “we then move on to discuss the importance of keeping cos under review to ensure that cos remain valid and up-to-date; <before concluding with SUGGESTIONS FOR FUTURE RESEARCH into the uptake, implementation and maintenance of cos>.” [next steps are into the uptake, implementation and maintenance of cos]
350. “(2016)outlines <SUGGESTIONS FOR FUTURE RESEARCH aiming at delineating familial contributions to disease endophenotypes at the level of neural function and structure>.” [next steps are aiming at delineating familial contributions to disease endophenotypes at the level of neural function and structure]
351. “5. limitations and SUGGESTIONS FOR FUTURE RESEARCH” [a title of the fifth section, not a statement that lays out the specific next steps and future directions of research suggested]
352. “the section ends with SUGGESTIONS FOR FUTURE RESEARCH.” [a statement that the end of the sections contains suggestions for future research, not a statement that lays out the specific next steps and future directions of research suggested]
353. “EXAMPLE” [EXAMPLE]
354. **CONSIDER: CONSIDERATION/ CONSIDERATIONS**
355. “overall, the results presented here provide clear evidence that, at micromolar concentrations, <confounding/synergistic effects from affinities of parp inhibitors to various kinases deserve serious CONSIDERATION>.” [next steps are to consider confounding/synergistic effects from affinities of parp inhibitors to various kinases]
356. “although <the type of material leaves room for CONSIDERATION>, it is necessary to insert a thin metal (copper or aluminum) plate into the apparatus to eliminate electron contamination.” [next steps are to consider the type of material to use]
357. “additionally, platinum satellites (195pt, i =1/2, and natural abundance = 33.3%) of 23.2 g were also taken into CONSIDERATION for the simulation.” [a methodological statement about what was considered for the simulation/experiment, not a statement that lays out the specific next steps and future directions of research that need to be considered]
358. “the bruce protocol for high-risk group was applied in CONSIDERATION of the physical ability of the subjects8).” [a specific protocol was applied based on the physical ability of the subject, not a statement that lays out the specific next steps and future directions of research that need to be considered]
359. “for all of these reasons, <studies of gene and pseudogene expression using existing tools are likely inaccurate without additional CONSIDERATIONS>.” [next steps are to study gene and pseudogene expression that are likely inaccurate using existing tools]
360. “<CONSIDERATIONS on suv increase or decrease during patient followup as an effect of a therapy is beyond the purpose of this paper>.” [next steps are to consider suv increase or decrease during patient followup as an effect of a therapy]
361. “<developing, testing and implementing effective interventions to prevent cvad-associated harm are important CONSIDERATIONS for healthcare researchers, clinicians, and patients>.” [next steps are to develop, test, and implement effective interventions to prevent cvad-associated harm]
362. “overall, these CONSIDERATIONS led to the development of oral pulsatile release dosage forms possessing gastric retention capabilities [2].” [methodological considerations that led to specific results, not a statement that lays out the specific next steps and future directions of research that need to be considered]
363. “no ethical CONSIDERATIONS regarding these issues were discussed in the peer-reviewed publications arising from the trial [24-26].” [there were not ethical issues to discuss, not a statement that lays out the specific next steps and future directions of research that need to be considered]
364. “EXAMPLE” [EXAMPLE]
365. **SUGGEST/ SUGGESTIONS**
366. “among other things, <we SUGGEST measures that are variants of mutual information, and measures that use a multidimensional representation of each residue in order to capture the physico-chemical similarities between amino acids>.” [next steps are to use measures that are variants of mutual information, and measures that use a multidimensional representation of each residue in order to capture the physico-chemical similarities between amino acids]
367. “however, there is no reason to SUGGEST that the documentation would vary according to drug class.” [a statement of negative results that has no need to look further, not a statement that lays out suggested next steps and future directions of research]
368. “more recently, there have also been <SUGGESTIONS of large she in topological insulators from spin-torque measurements in topological insulator bi2se322and cr-doped bi2se3thin films23>.” [next steps are to investigate the large she in topological insulators from spin-torque measurements in topological insulator bi2se322 and cr-doped bi2se3thinfilms23]
369. “in particular, <we make the following SUGGESTIONS: (1) for hotspots with better protection and less gaps, but that still harbor inherently threatened species, such as h16 and u3, the strategies should focus on in situ conservation, population management, and range size expansion for the species distributed within these locations>.” [next steps are to follow the suggestions made]
370. “these individually adapted diets were presented to the subjects by giving each of them 3 lists with 7 SUGGESTIONS for breakfast, lunch and dinner, respectively.” [a description of the study with suggestions they presented to their subjects, not a statement that lays out suggested next steps and future directions of research]
371. “risterucci and f. de bellis (agap, cirad, france) for valuable SUGGESTIONS on genetic map construction and l. legrand (lipm, inra/cnrs, france) for informatics assistance.” [resources to find suggestions on genetic map construction and for informatics assistance, not a statement that lays out suggested next steps and future directions of research]
372. “EXAMPLE” [EXAMPLE]
373. **CONSIDER: CONSIDER/ CONSIDERED/**
374. “the s-resc scoring system counts the number of sites involved and <they did not CONSIDER the size or number of stones>.” [recommendations are to consider the size or number of stones]
375. “in certain situations, <it is recommended to CONSIDER the extended administration of dapt beyond the 12-month period> (fig.” [next steps are to consider the extended administration of dapt beyond the 12-month period]
376. “<a crucial aspect to CONSIDER when directing drug therapy specifically to the cns is the ability to cross the blood brain barrier (bbb)>.” [next steps are to consider the ability to cross the blood brain barrier when directing drug therapy specifically to the cns]
377. “so, if you are a physicist working on biological systems, or a biologist using the tools of physics, or a biochemist somewhere on the interface of these disciplines we do hope you will take the time to read more about the journal and CONSIDER us for your future submissions.” [journal considerations for publications, not a statement that lays out the specific next steps and future directions of research to consider]
378. “scotland and bullough [7] CONSIDER that 100 to 125 normal deliveries is an optimal annual workload for obstetricians.” [a result that 100 to 125 normal deliveries is an optimal annual workload for obstetricians, not a statement that lays out specific next steps and future directions of research to consider]
379. “although genome-wide gene structural re-annotation has proven valuable[9],[10],[11],[12],[13],[14],[15],[16],[17],[18], <a corresponding genome-wide gene functional re-annotation is not frequently CONSIDERED>.” [next steps are to consider a corresponding genome-wide gene functional re-annotation, since not commonly done]
380. “it is possible that <homology-dependent interactions analogous to those that underlie rip could play a not yet CONSIDERED role in other phenomena that promote the assembly of heterochromatin on repetitive dna>.” [next steps are to consider that homology-dependent interactions analogous to those that underlie rip play a role in other phenomena that promote the assembly of heterochromatin on repetitive dna]
381. “since injections are laborious, time-consuming, cause discomfort to the vaccinee and may lead to inflammations at the injection sites[64]–[68], oral applications are CONSIDERED the “silver bullet” of vaccination, particularly against fecal-orally transmitted pathogens as ibdv.” [a results statement that oral applications are the “silver bullet” of vaccination, not a statement that lays out specific next steps and future directions of research to consider]
382. “moreover, oral contraceptive use, immune and nutritional status, and genetic background of the host are also CONSIDERED risk factors for hpv infection (1,24).” [a results statement that risk factors for hpv infection include oral contraceptive use, immune and nutritional status, and genetic background of the host, not a statement that lays out specific next steps and future directions of research to consider]
383. “p<0.05 was CONSIDERED as statistically significant.” [the definition of statistically significant for the article, not a statement that lays out specific next steps and future directions of research to consider]
384. “EXAMPLE” [EXAMPLE]
385. **ADVOCATE**
386. “<it ADVOCATES the analysis, representation, and development of groupware by means of the interplay between the 3cs, namely, communication, coordination, and cooperation>.” [next steps are the analysis, representation, and development of groupware by means of the interplay between the 3cs, namely communication, coordination, and cooperation]
387. “two studies (sinha et al.2007; eskeli et al.2011) present and <ADVOCATE the use of frameworks that allow the integration of a heterogeneous number of tools in order to collaborate and exchange data while maintaining their independence>.” [next steps are to use frameworks that allow the integration of a heterogeneous number of tools in order to collaborate and exchange data while maintaining their independence]
388. “an external ADVOCATE, co-worker’ and ‘the manager should be aware of any legal obligations that the person has to disclose that they have a mental health problem at work, e.g.” [a statement about a person advocate, not a statement that lays out specific next steps and future directions of research to pursue]
389. “many ADVOCATES on either side of these debates appear content to promote their agendas without placing priority on funding and supporting research that would answer key questions about the safety of cannabis and its potential medical indications.” [people advocates as part of a debate, not a statement that lays out specific next steps and future directions of research to pursue]
390. “EXAMPLE” [EXAMPLE]
391. **ENCOURAGE**
392. “<the above stated findings literally ENCOURAGE and prompt for further groundbreaking possibilities with exploring bacteriophages and its revival in the frozen himalayan permafrost>.” [next steps are for further groundbreaking possibilities with exploring bacteriophages and its revival in the frozen Himalayan permafrost]
393. “<we would ENCOURAGE future studies to report whether the contribution of this particular item is clear, and when this is not the case, to explore alternative solutions>.” [next steps are that future studies report whether the contribution of this particular item is clear, and when this is not the case, to explore alternative solutions]
394. “here, we applied one type of gcm as this was the only appropriate climate model at the time of analysis, and <we ENCOURAGE future comparisons between multiple enms that use multiple gcm outputs> (i.e.” [next steps are future comparisons between multiple enms that use multiple gcm outputs]
395. “<we also ENCOURAGE practitioners to collaborate closely with research groups in order to validate existing tools through case studies or surveys>, thus providing useful data which tool builders can use to create tools that are capable of satisfying the demands of gsd project management.” [next steps are that practitioners collaborate closely with research groups in order to validate existing tools through case studies or surveys]
396. “individuals were also ENCOURAGED to increase their physical activity by walking briskly for 20–30 min, 3–5 times per week, or by cycling.” [a methodological statement that patients were told to increase their physical activity…, not a statement that lays out specific next steps and future directions of research to pursue]
397. “about 61.7% of males and 45.0% of females reported that they had been ENCOURAGED by friends to smoke waterpipe (table 3).” [a results statement about those that had been encouraged by friends to smoke waterpipe, not a statement that lays out specific next steps and future directions of research to pursue]
398. “the motives need to be pure as the goal should always be to ENCOURAGE people to access the help and support they need.” [the goal that the motives are based on is to nudge people to access the help and support they need, not a statement that lays out specific next steps and future directions of research to pursue]
399. “EXAMPLE” [EXAMPLE]
400. **RECOMMEND/ RECOMMENDATION/ RECOMMENDATIONS/ RECOMMENDED/ RECOMMENDS**
401. “<to construct sin, we RECOMMEND using spearman’s rank coefficient or occasionally pearson’s correlation coefficient as demonstrated in junker & schreiber (2008)9, ma et al .>” [next steps are to use spearman’s rank coefficient or occasionally pearson’s correlation coefficient to construct sin]
402. “however, 54 % of students stated that they believed acs were a necessary part of the institution’s support services, 60 % reported that they would seek acs if they felt the need, and 44 % reported that they would RECOMMEND academic counselling to a friend or classmate.” [survey results with 44% of students reporting that they would recommend academic counseling to a friend or classmate, not a statement that lays out suggested next steps and future directions of research]
403. “the analysis of serum biomarkers ifn-γ and il-10, in association to prnt and viremia, support <the RECOMMENDATION of use of a ten-fold lower subdose (3,013 iu) of 17dd-yf vaccine>.” [next steps are to use a ten-fold lower subdose (3,013 iu) of 17dd-yf vaccine]
404. “we followed the RECOMMENDATION of costanzo et al.” [a statement of which protocol followed without the specific recommendation for future use, not a statement that lays out suggested next steps and future directions of research]
405. “<our RECOMMENDATIONS provide tangible guidelines for future gwamas that aim at identifying between-strata differences>.” [next steps are to identify between-strata differences using the provided tangible guidelines for future gwamas]
406. “in australia, significant barriers have been documented regarding the access of refugees and migrants to primary health care [80] and <RECOMMENDATIONS for improving access to general practice have been put forward however, these do not include reproductive health issues such as abortion> [81].” [next steps are to improve access to general practice using the recommendations]
407. “based on primary care physician RECOMMENDATIONS, 20 patients were ineligible to participate in the study (eg, dismissed from the practice).” [a statement of exclusion criteria based on the primary care physician exam, not a statement that lays out suggested next steps and future directions of research]
408. “<the dog is RECOMMENDED as a particularly good model of human age-related neurological disease> as its brain shows neuropathologies and its behavior displays attendant cognitive deficits that are similar to that of humans[67].” [next steps are to use the dog as a particularly good model of human age-related neurological disease]
409. “<polyethylene glycol and lubiprostone are the first-line compounds RECOMMENDED by evidence-based medicine guidelines for the treatment of constipation due to slow colonic transit in pd>.” [recommendations are polyethylene glycol and lubriprostone for first-line compounds by evidence-based medicine guidelines…]
410. “the cel7a enzymes and the cds were labeled with alexa fluor 488 fluorophore (invitrogen) using the manufacturer RECOMMENDED labeling protocol.” [a statement of the protocol followed to label, not a statement that lays out suggested next steps and future directions of research
411. “taken together, <our study RECOMMENDS the use of non-fractionated yeast>, particularly of the here-established k. lactis system as a powerful tool for vaccination projects.” [next steps are the use of non-fractionated yeast based on our study]
412. “currently, <the world health organization RECOMMENDS the use of artemisinin-based therapies as the first-line treatment of plasmodium falciparum infections> [69].” [next steps are to use of artemisinin-based therapies as the first-line treatment of plasmodium falciparum infections from the world health organization]
413. “in these sections, kampourakis RECOMMENDS essays and books that contextualize the information presented in the chapters.” [a statement of what is discussed in the section including recommendations of essays and books, not a statement that lays out suggested next steps and future directions of research]
414. “EXAMPLE” [EXAMPLE]
415. **PRUDENT**
416. “given these risks, <the most PRUDENT action may be to concurrently reduce overabundant prey and predators, and keep prey at low numbers to reduce the need for long‐term predator management>.” [next steps are to concurrently reduce overabundant prey and predators, and keep prey at low numbers to reduce the need for long-term predator management]
417. “<it is PRUDENT to find better histology and the appropriate stage of tumors for utilizing metformin therapy>.” [next steps are to find better histology and the appropriate stage of tumors for utilizing metformin therapy]
418. “the world health organization (who) has recommended training for medical undergraduates regarding the PRUDENT prescription of antimicrobials (world health organization2012).” [training is needed for the cautious prescription of antimicrobials, not a statement that lays out the specific next steps and future directions of research necessary]
419. “as the patients are likely to reach the coronary disease age, it is PRUDENT that coronary risk factors and coronary artery disease be considered in these patients.” [a statement about patients and the need to check patients for coronary risk factors and coronary artery disease, not a statement that lays out the specific next steps and future directions of research]
420. “EXAMPLE” [EXAMPLE]
421. **REQUIRE/ REQUIRES**
422. “<the current model REQUIRES external validation before the applicability of this model to other patient populations will be known>.” [next steps are to externally validate the current model to know the applicability of this model to other patient populations]
423. “although our data prove that baicalin inhibits il-17-mediated inflammatory reactions in an experimental mouse arthritis model, <further work is REQUIRED to deepen our understanding of the underlying biological mechanisms>.” [next steps are to deepen our understanding of the underlying biological mechanisms]
424. “thus, <any curricular or assessment translations of this model will REQUIRE subsequent research to establish the skills that most consistently predict preferred impressions of competence and outcomes>.” [next step is subsequent research to establish the skills that most consistently predict preferred impressions of competence and outcomes]
425. “to reduce the chance of misclassification due to “rule out” diagnoses, we REQUIRED two occurrences of “diabetes” for patients with diabetes identified from the “encounter diagnosis” section.” [a definition statement to reduce the chance of misclassification, not a statement that lays out specific next steps and future directions of research that are required]
426. “classes i, ii, and iv are similar in that they all REQUIRE zn2+as a cofactor.” [a statement about the similarities of class i, ii, and iv in that they all must have zn2+ as a cofactor, not a statement that lays out specific next steps and future directions of research that are required]
427. “class iii, on the other hand, REQUIRES nicotinamide adenine dinucleotide (nad+).” [a statement about the definition of class iii that must include nad+, not a statement that lays out specific next steps and future directions of research that are required]
428. “EXAMPLE” [EXAMPLE]
429. **SHOULD/ SHOULD BE/ SHOULD NOT BE/ SHOULD…BE**
430. “<this study has several other weaknesses that SHOULD BE discussed>.” [next steps are to discuss the several other weaknesses this study has]
431. “we propose that, because of this, <re-annotation SHOULD BE considered to be an essential first step for deriving value from functional genomics data>.” [next steps are to consider re-annotation to be an essential first step for deriving value from functional genomics data, and implement it as such]
432. “<a combination of techniques SHOULD always BE used to overcome possible biases of the different techniques being used>.” [next steps are to use a combination of techniques to overcome possible biases of the different techniques being used]
433. “<the poem SHOULD BE tested and cross-validated in diverse patient populations>.” [next steps are to test and cross-validate the poem in diverse patient populations]
434. “upon careful inspection of patient responses to these items, <our research team determined that this question SHOULD have included additional prompts to assess and evaluate all specific multiple steps relevant to opioid administration> (eg, dosing intervals, how medication was taken [swallowed whole or crushed]).” [next steps are to include additional prompts to assess and evaluate all specific multiple steps relevant to opioid administration]
435. “nevertheless, we do not anticipate that the relation observed here between ffls and homicide would have changed since the study period and thus <this characteristic of the data SHOULD NOT BE interpreted as devaluing the findings>.” [next steps are to interpret this characteristic of the data not as devaluing the findings]
436. “it also recommended tightened standards of medical confidentiality and enhanced protection for military physicians confronted by demands from commanders to breach professional obligations: “dod leadership, particularly the line commands, SHOULD excuse health care professionals from performing medical procedures that violate their professional code of ethics, state medical board standards of conduct, or the core tenets of their religious or moral beliefs” ([1], recommendation 3).” [quoted recommendations to tighten standards of medical confidentiality with should in the quote, not a statement that lays out specific next steps and future directions of research that should be done]
437. “it SHOULD BE pointed out that, haploinsufficiency at the genomic locus, does not always translate into a 50% reduction in protein levels – possibly on account of compensatory mechanisms.” [a statement of results that the authors deem need to be said, not a statement that lays out specific next steps and future directions of research that should be done]
438. “why SHOULD i BE concerned about honey bee colony losses and what is colony collapse disorder (ccd)?” [the title of a section in the article for why people need to care about honey bee colony loss, not a statement that lays out specific next steps and future directions of research that should be done]
439. “in table 3 for the family id f7, the dna mutation SHOULD read ‘c.[271C > T]; [515T > A]’” [an explanation of the data in table 3 that is supposed to read: ‘c.[271C > T]; [515T > A]’, not a statement that lays out specific next steps and future directions of research that should be done]
440. “EXAMPLE” [EXAMPLE]
441. **UNTIL**
442. “however, and despite a well-recognized role for scaffolding and cytoskeletal crosslinker proteins in neuronal polarization and synaptic plasticity[1],[2]<the function of iqgap1 in brain neurons remained largely unexplored UNTIL recently>.” [next steps are to continue to explore the function of iqgap1 in brain neurons]
443. “<UNTIL the privacy issue is treated as an essential element in the provision of online health services>, e-health may remain underutilised and consumers will remain unsure of how to address their sexual health concerns adequately and confidentially.” [next steps are to treat the privacy issue as an essential element in the provision of online health services]
444. “mcf-7 cells were seeded at 2×105/cm2and grown UNTIL 80% confluent in phenol-red-free rpmi supplemented with 5% fetal calf serum, 200 mm l-glutamine, 10 iu/ml penicillin, 10 µg/ml streptomycin, and 2.5 µg/ml fungizone.” [a methodological statement about the mcf-7 cells grown until 80% confluent in phenol-red-free rpmi supplemented with 5% fetal calf serum,…, not a statement that lays out a specific research prediction that we need to run the experiment to determine if it is correct]
445. “in the australian joint replacement register (aoanjrr), the number of knee reconstructions in patients less than 55 years of age increased by 40% from the start of the register in 2002 UNTIL 2007 (australian orthopedic association national joint replacement registry 2008).” [a time frame for the number of knee reconstructions in patients less than 55 years of age from the aoanirr from 2002 to 2007, not a statement that lays out specific next steps and future directions of research that should be done]
446. “EXAMPLE” [EXAMPLE]
447. **EXAMPLE**
448. “EXAMPLE” [EXAMPLE]
449. “EXAMPLE” [EXAMPLE]
450. “EXAMPLE” [EXAMPLE]
451. “EXAMPLE” [EXAMPLE]

FUTURE PREDICTION = a statement of extrapolation of given data into the future and/or from past observations; no reference to next steps. The next actionable step is to run the simulation or experiment to determine if the prediction is correct; publicize the outcomes of the study to the correct people

1. **EXPECT/ EXPECTED**
2. “note that this study focuses on grocery goods, and <we EXPECT that reviews on other product categories, such as sports, would reveal an even wider variety of health issues that involve injuries or ergonomics>.” [the prediction is that reviews on other product categories, such as sports, would reveal an even wider variety of health issues that involve injuries or ergonomics]
3. “<it is reasonable to EXPECT that the increasing prevalence of overweight and obesity might reduce population-level overweight perceptions> as individuals compare themselves against increasingly heavier norms (strahan et al.2006).” [the prediction is that the increasing prevalence of overweight and obesity might reduce population-level overweight perceptions]
4. “during this time slot, one would EXPECT the clinical experts to evaluate the candidates’ competence with respect to patient interview and physical examination.” [a statement of an expectation: that clinical experts will evaluate the candidates’ competence with respect to patient interview and physical examination, not a statement that lays out a specific research prediction that needs to be confirmed]
5. “in this context, <terminal stacking by the ligand is EXPECTED to be disfavoured on both sides> and thus this further argue for a terminal stacking type of interaction of these ligands with the other more classical g4.” [the prediction is that terminal stacking by the ligand is to be disvafoured on both sides]
6. “<the book is EXPECTED to improve understanding of clinical research in the community>.” [the prediction is the book will improve understanding of clinical research in the community]
7. “<we EXPECTED a negative correlation between differential methylation and differential ge>, and indeed the EXPECTED relationship was evident for both cg and chg methylation (table 3).” [the prediction is a negative correlation between differential methylation and differential ge; a results statement about the expected relationship coming true, not a prediction that needs to be confirmed]
8. “we observed an unEXPECTED fluctuation of different rxrα heterodimers at sites initially occupied by rxrα–rarγ.” [an unexpected observation statement, not a prediction statement but instead a surprising observation]
9. “as EXPECTED, these sites were empty in f9 cells lacking rxrα (rxrα−/−).” [a statement of a prediction that came true: these sites were empty in f9 cells lacking rxrα, not a statement that lays out a new specific research prediction that needs to be confirmed]
10. “we calculated the EXPECTED occurrence of a specific target with the following formula:” [a statement of the formula to calculate the ‘expected occurrence’, not a statement that lays out a specific research prediction that needs to be confirmed]
11. “EXAMPLE” [EXAMPLE]
12. **FORESEEN**
13. “additionally, within the framework of the current licensing exam, <an ideal opportunity is FORESEEN to make use of higher taxonomic levels>: the bedside exam of examination day 1, which is obligatory throughout germany and which is (by the state examination office of baden-wurttemberg) recommended to take at least 15 minutes per candidate.” [the prediction is to make use of higher taxonomic levels]
14. “<it can be FORESEEN that with the extension of medical insurance and reasonable distribution of healthcare resources, initial consultation at community-based primary care facilities would become possible and feasible>, given that the primary care-oriented healthcare reform is continuously ongoing.” [the prediction is that with the extension of medical insurance and reasonable distribution of healthcare resources, initial consultation at community-based primary care facilities would become possible and feasible]
15. “however, <we have FORESEEN some possible conflict between authorities among the various protein databases and, especially, nucleotide databases containing the same sequence but use different accession numbers, identifiers, assembly names or versions>.” [the prediction is some possible conflict between authorities among various protein databases and, especially, nucleotide databases containing the same sequence but use different accession numbers, identifiers, assembly names or versions]
16. “actually, poor prognosis was FORESEEN in the present case because the patient showed four multiple metastases one after another at different sites with short intervals of <1 year.” [past tense prediction with a resolution in the statement about the prognosis of a patient (not research focused), not a statement that lays out a specific research prediction that needs to be confirmed]
17. “by informal we mean there is a need to rapidly develop and adapt software infrastructures to unFORESEEN and (typically) unspecified requirements.” [unforeseen is by definition not predicted]
18. “EXAMPLE” [EXAMPLE]
19. **IF CONFIRMED/ IF SO**
20. “<IF CONFIRMED, our findings have implications for pa promotion programmes in primary school children>, suggesting the inclusion of measures aimed not only at promoting motor skills, but also fitness and possibly other measures of injury prevention.” [the prediction is that our findings have implications for pa promotion programmes in primary school children if confirmed]
21. “another profound finding is that three disulfide bonds are defined at the c-terminus with the n-terminus of the e (envelope) protein, based on the typical sequence and positions, <thus establishing the structural connection with these two important structural proteins, IF CONFIRMED>.” [the prediction is establishing the structural connection with these two important structural proteins if confirmed]
22. “<IF CONFIRMED by future studies in animals or human subjects, this could lead to the discovery of new therapeutic concepts in myocardial ischemia>.” [the prediction is that this could lead to the discovery of new therapeutic concepts in myocardial ischemia if confirmed by future studies in animals or human subjects]
23. “these ranges were compared to the presence dataset for each species described above and IF CONFIRMED records of the species were found outside the previously defined range, the range was extended to encompass the new location(s).” [a methodological statement about what to do if ‘confirmed records’ of the species were found: then the range was extended to encompass the new location(s), not a statement that lays out a specific research prediction that needs to be confirmed]
24. “site-directed mutagenesis of the first part of the ir4 motIF CONFIRMED that this sequence negatively regulates rosr transcription in rt24.2, and the second part of the ir4 overlapping the p2–10 sequence plays a significant role in the activation of this process, primarily by binding of rna polymerase.” [‘motif confirmed’ not ‘if confirmed’, not a statement that lays out a specific research prediction that needs to be confirmed]
25. “<IF SO, the existence of dual aftereffects would imply that concurrent adaptation is not merely a strategic phenomenon, but rather involves recalibration as well>.” [the prediction is the existence of dual aftereffects would imply that concurrent adaptation is not merely a strategic phenomenon, but rather involves recalibration as well, if confirmed]
26. “<IF SO, our experiments likely represent the dilated state>.” [the prediction is that our experiments likely represent the dilated state if confirmed]
27. “we then determine whether local elimination is possible, and IF SO, in what time span.” [a methodological statement that is like a decision tree, if local elimination is possible then the question is in what time span, not a statement that lays out a specific research prediction that we need to run the experiment to determine if it is correct]
28. “so far, even IF SOme ligands exhibit a preference for hterc over telomeric dna, the differential affinity is not sufficient.” [not ‘if so’ but ‘if some’, not a statement that lays out a specific research prediction that needs to be confirmed]
29. “EXAMPLE” [EXAMPLE]
30. **PROFOUND IMPLICATIONS**
31. “<the wide range may have PROFOUND IMPLICATIONS on occlusal plane angulation for those subjects in the extremes of the population>.” [the prediction is that the wide range may have consequences on occlusal plane angulation for those subjects in the extremes of the population]
32. “<this type of autophagy, called lipophagy>, was first demonstrated in the liver and <has now become a subject of intense research interest with potentially PROFOUND IMPLICATIONS for the treatment of the diseases associated with dyslipidemias, such as diabetes and atherosclerosis> [17,18].” [the prediction is that this type of autophagy, called lipophagy, with potentially consequences for the treatment of the diseases associated with dyslipidemias, such as diabetes and atherosclerosis]
33. “<this has PROFOUND IMPLICATIONS for the overall metapopulation>; the female models showed an intrinsic extinction rate from five-fold to a hundred-fold higher than the male models.” [the prediction is that this has consequences for the overall metapopulation]
34. “perceived inevitability sometimes even verged on fatalism, as when an agricultural engineer in charge of pesticide applications on a large farm speculated that his job might be at the root of his respiratory issues, but also of more PROFOUND IMPLICATIONS (he might be left sterile, as his wife half‐jokingly interjected).” [a case study about an agricultural engineer and his wife’s interjections, not a statement that lays out a specific research prediction that needs to be confirmed]
35. “vision is one of the key innovations that revolutionized the way animals explored their environment and interacted, with PROFOUND IMPLICATIONS for their dynamics (for example, phototaxis), reproductive behaviour (for example, mate recognition) and feeding strategies (for example, predation1).” [a results statement that vision played a major role in an animal’s dynamics, reproductive behavior, and feeding strategies, not a statement that lays out a specific research prediction that we need to run the experiment to determine if it is correct]
36. “EXAMPLE” [EXAMPLE]
37. **SHOULD**
38. “<the incorporation of medications into mortality predictions in patients with type 2 diabetes SHOULD improve treatment decisions>.” [the prediction is that the incorporation of medications into mortality predictions in patients with type 2 diabetes will improve treatment decisions]
39. “if the ligand has some affinity for the competitor, <this later SHOULD trap the ligand and hinder its action of preventing p1 helix formation> (figure 4a).” [the prediction is this later will trap the ligand and hinder its action of preventing p1 helix formation]
40. “at the location stage, the bss send beacon messages to the mns within the reachable range and determines which node SHOULD make a response according to the scheduled time sets.” [a methodological statement about the location stage where the bss send beacon messages to the mns within the reachable range and determines which node makes a response according to scheduled time sets, not a statement that lays out a specific research prediction that needs to be confirmed]
41. “screening SHOULD include work-up for extra-hepatic recurrence as well as intra-hepatic recurrence, regardless of risk of recurrence.” [a future work statement of what screening needs to include in the future, not a statement that lays out a specific research prediction that needs to be confirmed]
42. “EXAMPLE” [EXAMPLE]
43. **ULTIMATELY**
44. “<ULTIMATELY, this novel versatile platform can accelerate and intensify research and development in the field of systems biology as well as modelling and bioprocess optimization>.” [the prediction is that this novel versatile platform can accelerate and intensify research and development in the field of systems biology as well as modeling and bioprocess optimization]
45. “this might adversely affect outcome, and <it may ULTIMATELY mean that these treatment alternatives will be abandoned>.” [the prediction is that it may mean that these treatment alternatives will be abandoned]
46. “the recruitment of such epigenetically active and/or chromatin modifying complexes leads to chromatin structure alterations and post-translational modifications that ULTIMATELY regulate cognate gene programs (gronemeyer et al, 2004;rosenfeld et al, 2006).” [a results statement about the effects of the recruitment of such epigenetically active and/or chromatin modifying complexes regulates cognate gene programs downstream, not a statement that lays out a specific research prediction that needs to be confirmed]
47. “this study is focused ULTIMATELY on the question of whether dna methylation and ge covary between tissues.” [the end goal/focus of the study, not a statement that lays out a specific research prediction that needs to be confirmed]
48. “EXAMPLE” [EXAMPLE]
49. **WILL**
50. “however, as discussed above, <our method WILL allow the screening of much larger libraries to find promising compounds>.” [the prediction is that our method allows for the screening of much larger libraries to find promising compounds]
51. “in conclusion, a longer fixed sleep period and a greater number of dups WILL save more battery energy, but they WILL also bring in bigger system cumulative error and longer response time.” [the prediction is that a longer fixed sleep period and a greater number of dups saves more battery energy but they also bring in bigger system cumulative error and longer response time]
52. “sing this parameter, a good ligand that totally prevents duplex formation WILL have an effi of 1 and a poor ligand an effi of 0 (supplementary figure s3).” [a definition statement explaining the difference between a good ligand and a poor ligand based on effi, not a statement that lays out a specific research prediction that needs to be confirmed]
53. “this approach, implemented in the r package medichi, has been previously described (reiss et al, 2008) for analysis of chip-chip assays; its implementation for chip-seq assays WILL be described elsewhere (manuscript in preparation).” [a statement that the implementation for chip-seq analysis is going to be described elsewhere, not a statement that lays out a specific research prediction that needs to be confirmed]
54. “the path loss is supposed to be a constant, which WILL be proven in section 4.2.” [a statement of where the proof is going to be described in section 4.2, not a statement that lays out a specific research prediction that needs to be confirmed]
55. “EXAMPLE” [EXAMPLE]
56. **WOULD/ WOULD BE/ WOULD BE EXPECTED**
57. “in view of the considerable concordance between sequencing and hybridisation data, we assumed that <the addition of exogenous reporter transcripts and analysis of their representation in the library WOULD ensure reliable monitoring of ssh performance>.” [the prediction is that the addition of exogenous reporter transcripts and analysis of their representation in the library ensures reliable monitoring of ssh performance]
58. “<the study WOULD bring forth more detailed information about the prevailing knowledge, attitude and practice about clinical trials in different geographical regions in india>, and give valuable insight into the ability of an innovative intervention like the “speaking book” in enhancing the understanding of the clinical trial protocols and ethics amongst the potential participants in the country.” [the prediction is that the study brings forth more detailed information about the prevailing knowledge, attitude, and practice about clinical trials in different geographical regions in india]
59. “human zip4 mrna WOULD not be targeted efficiently by the rnai against mouse zip4 .” [a result that human zip4 mrna should not be used because of inefficient targeting, not a statement that lays out a specific research prediction that needs to be confirmed]
60. “as this quadruplex may interfere with p1 helix formation, a key structural element for this rna, we are seeking molecules that WOULD alter this rna duplex–quadruplex equilibrium.” [a statement that molecules that alter this rna duplex-quadruplex equilibrium are needed but not a statement that lays out a specific research prediction of a molecule that could be used that needs to be confirmed]
61. “therefore, <it WOULD BE of crucial advantage to understand the fundamental growth mechanisms and limiting processes which WOULD help us to understand the complicated interdependency among structural parameters and WOULD serve as a guide to achieve further control of structural parameters>.” [the prediction is that it is a crucial advantage to understand the fundamental growth mechanisms and limiting processes which in turn help us to understand the complicated interdependency among structural parameters and serve as a guide to achieve further control of structural parameters]
62. “it was assumed that based on the national hiv prevalence of 3.4%[12], <a large number of in- and out-of-school adolescents WOULD BE hiv negative>.” [the prediction is that a large number of in- and out-of-school adolescents are hiv negative]
63. “<an innovative addition to such websites WOULD BE discussions and tips on how to build relationships, sexual intimacy and understanding the mutual desires of both opposite- and same-sex couples>.” [the prediction is that discussion and tips on how to build relationships, sexual intimacy and understanding the mutual desires of both opposite- and same-sex couples is an innovative addition to such websites]
64. “its role WOULD BE to retain glut4 intracellularly by controlling positively or negatively one or more steps of trafficking involved in these retention loops.” [the role of it, not a statement that lays out a specific research prediction that needs to be confirmed]
65. “particularly, tumorhood evidence based on radiographic evidence, such as if “hypervascularity” or “enhancement” in addition to “washout” cues were present, the contained text WOULD BE considered positive for cancer.” [a methodological statement about classification: if the words “hyperactivity”, “ enhancement”, or “washout” are present then the text is considered positive for cancer]
66. “therefore, <higher ipth concentrations than wpth concentrations WOULD BE EXPECTED>.” [the prediction is that ipth concentrations are higher than wpth concentrations]
67. “while local government costs include dog registrations and dealing with dog attacks, <a large portion of these figures WOULD BE EXPECTED to arise from stray and relinquished animals>.” [the prediction is that a large portion of these figures arises from stry and relinquished animals]
68. “if the above observations on the adhesive properties of desmosomes in cell culture are of in vivo relevance, <it WOULD BE EXPECTED that desmosomes in vivo should generally be calcium independent>.” [the prediction is that desmosomes in vivo should generally be calcium independent]
69. “the measured n-terminal overlap is distinctly larger than what WOULD BE EXPECTED from a linear arrangement of the first five type i modules (fni1-fni5; 5 × 2.8 nm (ref.13) ∼14 nm).” [a result statement that the measured n-terminal overlap is larger than what was expected from a linear arrangement, not a statement that lays out a new specific research prediction that needs to be confirmed]
70. “the occurrence of more eeccbs (compared to the bgbbs) showed that as WOULD BE EXPECTED from their morphologies (maina and king, 1982;maina and west, 2005), the eeccs are weaker than the bgbs.” [a result that confirmed the prediction that the eeccs are weaker than the bgbs, not a statement that lays out a new specific research prediction that needs to be confirmed]
71. “EXAMPLE” [EXAMPLE]
72. **EXAMPLE**
73. “EXAMPLE” [EXAMPLE]
74. “EXAMPLE” [EXAMPLE]

URGENT CALL TO ACTION = a statement calling for immediate attention including an action needed to be taken immediately or information that needs to be disseminated immediately OR critical: being in or verging on a state of crisis or emergency OR urgently needed OR absolutely necessary. The next actionable step is to take the urgent action ASAP or distribute the knowledge ASAP.

1. **HAS TO BE/ HAVE TO BE**
2. “the random effect models were used to give an estimate of the effect because <heterogeneity between multistudies and wider intervals HAS TO BE considered>.” [urgent call is to consider heterogeneity between mutlistudies and wider intervals
3. “clinical experience on the use of hscs is limited, with transient benefit in severe refractory cd, and hampered by toxicities, thus <suggesting that this procedure HAS TO BE performed in highly experienced centers>[61].” [urgent call that this procedure needs to be performed in highly experienced centers]
4. “<it HAS TO BE mentioned that the results of our copy-number analysis demonstrated a gain of chromosome 1q22>; however, homozygosity of the v78m variant observed in two of the crcs could nevertheless indicate that sema4a acts as a tumour suppressor rather than a proto-oncogene in the context of familial colorectal tumorigenesis.” [urgent call to mention that the results of our copy-number analysis demonstrated a gain of chromosome 1q22]
5. “our finding that full-length mgf directly stimulates the igf-ir, challenges the current concept that the e-peptide of pro-igf-i HAS TO BE cleaved off from the igf-i molecule to become biologically active [13,14].” [a structural statement of results by elimination that the e-peptide of pro-igf-I must be cleaved off, not a statement that lays out a specific urgent call to action]
6. “furthermore, a recessive ds gene does not imply that risk for hla alleles HAS TO BE confined to the hla homozygotes.” [a functional statement of results by elimination that the risk for hla alleles does not have to be confined to the hla homozygotes, not a statement that lays out a specific call to action that needs immediate attention that needs immediate attention]
7. “other researches such as atomic layer deposition (ald) or magnetically-enhanced arc discharge were used for direct deposition of graphene while <limit quality of graphene and large scale production issues HAVE TO BE taken into account>1819.” [urgent call to take into account limit quality of graphene and large scale production issues]
8. “biomarkers (e.g., related to the highly debated withdrawal symptoms) should also be explored and <cross-cultural comparisons HAVE TO BE made>.” [urgent call for cross-cultural comparisons to be made]
9. “<the risks of radiation exposure always HAVE TO BE weighed against the therapeutic benefit>.” [urgent call that the risks of radiation exposure always be weighed against the therapeutic benefit]
10. “yes, i think there is a strong focus on being healthy … it's like you HAVE TO BE lean to be successful.” [a response to a question about being healthy where you must be lean to be successful, not a statement that lays out a specific call to action that needs immediate attention]
11. “EXAMPLE” [EXAMPLE]
12. **HIGHLY RECOMMEND**
13. “<consumption of fluoridated water is HIGHLY RECOMMENDED>, and the regular use of fluoridated dentifrices is also an effective means of decreasing the prevalence of dental caries.” [urgent call for consumption of fluoridated water]
14. “due to the hereditary transmission of this chromosomal abnormality, <cytogenetic analysis for all their siblings and genetic consultation before marriage is HIGHLY RECOMMENDED> (18).” [urgent call for cytogenetic analysis for all their siblings and genetic consultation before marriage]
15. “overall, this is a HIGHLY RECOMMENDED book, written by specialists in their fields, offering a clear and concise overview of the basis for, and latest developments in, cardiovascular genomics and proteomics.” [the book is recommended to read, not a statement that lays out a specific call to action that needs immediate attention]
16. “to obtain a final score, normative, reliability and validity ratings were combined to provide an overall rating of the scales as being either ‘HIGHLY RECOMMENDED’ (two as), ‘recommended’ (as and/or bs) or ‘not recommended’ (any fs) {hammill 1992, #381}” [a rating system to obtain the final scores which includes ‘highly recommended’, not a statement that lays out a specific call to action that needs immediate attention]
17. “EXAMPLE” [EXAMPLE]
18. **MANDATORY**
19. “the simplistic and rapidity nature of the poct system is beneficial in the acute care setting, where <the quick laboratory result is MANDATORY to guide clinical decisions and treatment strategy>.” [urgent call to have quick laboratory results to guide clinical decisions and treatment strategy]
20. “<in order to assess quality, efficacy and safety of msc-based therapy, a novel approach to pharmacokinetics/pharmacodynamics (pk/pd) is MANDATORY>.” [urgent call for a novel approach to pk/pd in order to assess quality, efficacy and safety of msc-based therapy]
21. “conceptually, our findings unravel the complexity of gene regulation, as regards key genes involved in the heterocellular cell adhesion between developing thymocytes and the major component of the thymic microenvironment, an interaction that is a MANDATORY event for proper intrathymic t cell differentiation.” [a functional statement of results that an interaction is necessary for proper intrathymic t cell differentiation, not a statement that lays out a specific call to action that needs immediate attention]
22. “for determining these updates, one candidate model is fitted for each snp, corresponding to a set scand , j= { j }, j = r +1, …, r + l , where the estimates for the MANDATORY covariates and the snp parameter estimates from the previous boosting steps are included as a fixed offset.” [a methodological statement that needs the estimates for ‘mandatory covariates’, not a statement that lays out a specific call to action that needs immediate attention]
23. “EXAMPLE” [EXAMPLE]
24. **MUST/ MUST BE/ MUST…BE**
25. “arguably, <a patient MUST possess adequate opioid-related knowledge (eg, side effects, contraindications, proper handling, and storage) not only to control chronic pain, but also to manage opioid medication as prescribed by the physician>.” [urgent call for a patient to possess adequate opioid-related knowledge not only to control chronic pain, but also to manage opioid medication as prescribed by the physician]
26. “to realize their full potential, <genomic approaches to transcriptional networks MUST go beyond a description of factor occupancy to include correlates of functionality>.” [urgent call for genomic approaches to transcriptional networks to go beyond a description of factor occupancy to include correlates of functionality]
27. “therefore, <strategies MUST BE employed that allow de novo identification of genes and mechanisms specifically related to virulence>.” [urgent call for strategies to be employed that allow de novo identification of genes and mechanisms specifically related to virulence]
28. “this suggests that <there MUST BE a mechanism by which it is possible to drive accommodation in each eye independently>, even if this is rarely necessary in the general population.” [urgent call to find a mechanism by which it is possible to drive accommodation in each eye independently]
29. “<barriers to care seeking for illness MUST also BE addressed>.” [urgent call to address barriers to care seeking for illness]
30. “replicated chromosomes MUST BE accurately segregated into each daughter cell during mitosis, and the spindle checkpoint is a surveillance mechanism that delays anaphase onset until all chromosomes are correctly attached in a bipolar fashion to the mitotic spindle59.” [a structural statement about the biology of replicated chromosomes, not a statement that lays out a specific call to action that needs immediate attention]
31. “it appears that acetylation at a conserved lysine k40 on tubulin MUST BE tightly regulated for movement of organelles mediated by the molecular motors kinesin and dynein.153undoubtedly, this is especially important for neurons that MUST transport cargo along long distances.” [a structural statement about the biology of acetylation at a conserved lysine k40 on tubulin and neurons, not a statement that lays out a specific call to action that needs immediate attention]
32. “EXAMPLE” [EXAMPLE]
33. **CALL/ CALL TO ACT**
34. “<they appropriately CALL for prioritizing investment in evaluation of promising interventions> [23], hopefully as a pre-requisite to routine screening.” [urgent call for prioritizing investment in evaluation or promising interventions]
35. “nevertheless, <CALLS for implementing ace screening persist> (e.g., a bill [h.299] before the vermont general assembly proposing widespread use of ace screening in that state) [19].” [urgent calls for implementing ace screening persist and are needed]
36. “potential participants were asked to contact the study team by telephone or email to check eligibility, and a follow‐up telephone CALL was arranged for those making contact by email.” [a phone call, not a statement that lays out a specific call to action that needs immediate attention]
37. “peaks are CALLED where the corrected read density exceeds the threshold.” [a methodological statement about the definition of peaks: where the corrected read density exceeds the threshold, not a statement that lays out a specific call to action that needs immediate attention]
38. “he closure of this sci research priority setting partnership has led to a <CALL TO ACTION: sci researchers should take on the priorities identified in this partnership, design appropriate studies and convince funding organisations about the best ways of achieving scientific progress in these identified areas of research>.” [urgent calls for sci researchers to take on the priorities identified in this partnership, design appropriate studies and convince funding organizations about the best ways of achieving scientific progress in these identified areas of research]
39. “<this is the first time bd has been confirmed in amphibians from madagascar and presents an URGENT CALL TO ACTION>.” [urgent call to understand and eradicate bd in amphibians from Madagascar]
40. “he closes with <an URGENT CALL TO ACTION in the context of climate change and global environmental challenges to create a coalition between the policy makers and the people>.” [urgent call in the context of climate change and global environmental challenges to create a coalition between the policy makers and the people]
41. “the first was simplification - the letter was shortened to two, one sentence paragraphs plus a headline CALL TO ACTION to improve readability and reduce complexity.” [the headline of the letter was ‘call to action’, not a statement that lays out a specific call to action that needs immediate attention]
42. “weakness in the icu: a CALL TO ACTION” [the title of the article, not a statement that lays out a specific call to action that needs immediate attention (in the article most likely)]
43. “EXAMPLE” [EXAMPLE]
44. **CAUSE FOR CONCERN**
45. “on their own, ideals of manhood are not all harmful, however <in the era of promoting hiv prevention and gender equity, certain elements of male ideology are a CAUSE FOR CONCERN>, for instance, male toughness and virility are offset against expectations that men fulfill the protector role and can translate into risky sexual and anti-social practices.” [urgent call to rethink certain elements of male ideology in the era of promoting hiv prevention and gender equity]
46. “based on this, <there is CAUSE FOR CONCERN that although the ba treatment may remove the humic acids, it may have an adverse effect on the δ13c value of the sample>.” [urgent call to rethink ba treatment because although the ba treatment may remove the humic acids, it may have an adverse effect on the δ13c value of the sample]
47. “<the prevalence of elevated blood pressure is a CAUSE FOR CONCERN in ethiopia as in other african countries>.” [urgent call to rethink/ understand the prevalence of elevated blood pressure in Ethiopia as in other African countries]
48. “compared with these other efforts, the rx weight loss approach may incur fewer problems with cost, reach, accessibility, and long-term sustainability that have been a CAUSE FOR CONCERN with programs delivered in-person (11).” [a results statement that the rx weight loss approach seems to quench the causes for concern with programs delivered in person, not a statement that lays out a specific call to action that needs immediate attention]
49. “six to eight millimeters of gingival exposure was seen in the incisor region during wide smile which was the main CAUSE FOR CONCERN for the patient.” [a patient diagnoses that was the main cause for concern by the patient, not a statement that lays out a specific call to action that needs immediate attention]
50. “EXAMPLE” [EXAMPLE]
51. **CRISIS/ CRITICAL/ CRITICALLY/ CRUCIAL**
52. “<this looming and global human resources (hr) CRISIS is the culmination of shortages of physicians, nurses, allied professionals, support workers and administrators>.” [urgent call to combat this looming and global human resources (hr) crisis of shortages of physicians, nurses, allied professionals, support workers and administrators]
53. “<auckland is a rapidly growing city that is experiencing a housing CRISIS>.” [urgent call to combat auckland’s housing crisis due its rapid growth]
54. “here where natural disasters and CRISIS management remain a major public policy concerns, the government has been trying to improve disaster management for many years.” [natural disaster and crisis management in general, not a statement that lays out a specific call to action that needs immediate attention]
55. “acute splenic sequestration CRISIS (assc) is a form of hypovolemic and anaemic CRISIS, based on massive splenic enlargement due to accumulation and trapment of sickle-shaped cells [13].” [a medical condition definition of ‘acute splenic sequestration crisis’, not a statement that lays out a call to action that needs immediate attention]
56. “there is no debate about the deleterious impact of violence and other adverse psychosocial exposures on health status, but <the CRITICAL question remains: what is the value of routine screening in primary care for such exposures?>” [urgent call to answer the question: what is the value of routine screening in primary care for such exposures?]
57. “<the need to examine the evidence for this type of screening is just as CRITICAL as the ongoing research about the effectiveness of routine prostate specific antigen screening for prostate cancer or mammography screening for breast cancer>.” [urgent call to examine the evidence for this type of screening just like the ongoing research about the effectiveness of routine prostate specific antigen screening for prostate cancer or mammography screening for breast cancer]
58. “molecular chaperones are a diverse group of proteins that play CRITICAL roles in maintaining cellular proteostasis in all organisms, including plants, under normal as well as stress conditions (boston et al.” [a results statement that molecular chaperones play an important role in maintaining cellular proteostasis, not a statement that lays out a specific call to action that needs immediate attention]
59. “preoperative ct angiography is CRITICAL to define vascular anatomy and prevent significant blood loss and damage to surrounding structures during robotic pelvic kidney surgery.” [a procedure needed to define vascular anatomy and prevent adverse events, not a statement that lays out a specific call to action that needs immediate attention]
60. “<improving eggshell quality is CRITICALLY important for the poultry industry>.” [urgent call to improve eggshell quality for the poultry industry]
61. “<this article CRITICALLY appraises the potential therapeutic roles of msc in liver disease, as well as the barriers to their adoption into clinical practice>.” [urgent call to use msc in liver disease based on the barriers to their adoption into clinical practice laid out in the article]
62. “in addition to the score related to error-free writing, students’ performance on the dimensions from the inquiry and analysis rubric that correspond to CRITICAL thinking and science literacy (ek, dp, c, and most CRITICALLY, a) showed significant improvement.” [a statement about critical thinking and improvement, not a statement that lays out a specific call to action that needs immediate attention]
63. “x-hz CRITICALLY revised the manuscript for important intellectual content and gave final approval of the version to be published.” [revising is an important step in publishing, not a statement that lays out a specific call to action that needs immediate attention]
64. “we thus state that <a CRUCIAL task in the support to the children is the provision of the necessary information to the parents in order to enhance their involvement>.” [urgent call to provide the necessary information to the parent in order to enhance their involvement]
65. “beside the fundamental aspects we described about the understanding of the different auditory feedback mechanisms that can contribute to sensori-motor learning, <the development of rigorous—and shared—sound design methodologies is CRUCIAL for grounding these applications>.” [urgent call to the development of rigorous – and shared – sound design methodologies for grounding these applications]
66. “<how the cerebellum grows and develops, when cell populations have particular vulnerabilities, and how we identify the complications of pathological development, are CRUCIAL questions and fascinating research avenues>.” [urgent call to answer the questions stated above]
67. “dentinal tubules are CRUCIAL fine structures in teeth, and have been intensely studied in human dental histology212223and vertebrate paleontology6.” [a results statement that dentinal tubules are important fine structures of teeth, not a statement that lays out a specific call to action that needs immediate attention]
68. “one CRUCIAL step within the hbv life cycle is the formation of covalently closed circular dna (cccdna), which serves as original template for viral replication with approximately 5–50 cccdna molecules per infected hepatocyte [6].” [a results statement about an important step within the hbv life sycle, not a statement that lays out a specific call to action that needs immediate attention]
69. “EXAMPLE” [EXAMPLE]
70. **EMPHASIS**
71. “<this provides new EMPHASIS to previous findings that small, man-made features can apparently serve to provide energetic benefits to flying birds> (e.g.” [urgent call to previous findings that small, man-made features can apparently serve to provide energetic benefits to flying birds]
72. “future studies will seek to differentiate specific antitumor immune responses from those resulting from general immune activation (e.g., cancer cell death due to tnf-α) and will seek to optimize particle-based accumulation of cytokines in the tumor, <with an EMPHASIS on studying dose effects and controlled, sustained presentation of cytokines for an optimal anticancer response with minimal cytotoxicity>.” [urgent call on studying dose effects and controlled, sustained presentation of cytokines for an optimal anticancer response with minimal cytotoxicity]
73. “participants EMPHASISED the importance of a balanced diet: “i believe you should have a little bit of everything.” [a results statement from participants, not a statement that lays out a specific call to action that needs immediate attention]
74. “to assess the efficacy of the multicourse writing EMPHASIS intervention, we tested composite scores across the treatment groups.” [a statement about the ‘multicourse writing emphasis intervention’, not a statement that lays out a specific call to action that needs immediate attention]
75. “EXAMPLE” [EXAMPLE]
76. **ESSENTIAL**
77. “<accurate worldwide information on the levels and patterns of mortality (deaths) is ESSENTIAL for planning and monitoring global public-health initiatives>.” [urgent call for accurate worldwide information on the levels and patterns of mortality (deaths) for planning and monitoring global public-health initiatives]
78. “to our knowledge, however, no study has hitherto investigated directly the effects of this nscc inhibitor on avn cellular electrophysiology; <this information is ESSENTIAL for the determination of the compound's utility for studying the physiological role of the ib,na>.” [urgent call to gather this information for the determination of the compound’s utility for studying the physiological role of the ib.na]
79. “appropriate accumulation of viral rna in host cells is ESSENTIAL for prosperous production of progeny virions.” [a mechanistic statement that the appropriate accumulation of viral rna in host cells is needed for prosperous production of progeny virions, not a statement that lays out a call to action that needs immediate attention]
80. “they protect native protein conformation against dehydration stresses by replacing ESSENTIAL water molecules through molecular interaction e.g., hydrogen bonding with amino acids.” [a mechanistic statement about how they protect native protein conformation against dehydration stresses, not a statement that lays out a specific call to action that needs immediate attention]
81. “EXAMPLE” [EXAMPLE]
82. **HIGH PRIORITY/ PRIORITY**
83. “<increasing the mutant pool available for screens is of HIGH PRIORITY for the future>.” [urgent call to increase the mutant pool available for screens in the future]
84. “therefore, <the development of novel delivery systems is at HIGH PRIORITY for the pharmaceutical companies to capture global market>.” [urgent call to develop novel delivery systems for pharmaceutical companies to capture global market]
85. “survey participants were asked to vote on how they would prioritise research for each uncertainty on a scale of 1 to 5 (1 being not a priority, 5 being a very HIGH PRIORITY).” [survey rating scale, not a statement that lays out a specific call to action that needs immediate attention]
86. “indicators that were graded as HIGH PRIORITY, frequently recorded, very plausible and will have a large impact or better were included in the final list (average score on grading scale ≥4).” [a methodological statement of what was included in the final list based on scores of priority, not a statement that lays out a specific call to action that needs immediate attention]
87. “improving sexual and reproductive health remains a public health PRIORITY in britain (england, scotland, and wales),1as it does globally.” [urgent call to improve sexual and reproductive health in britain (England, Scotland, and wales) and globally]
88. “<the rate of waning of vaccine-induced protection against influenza is particularly high for older adults, one of the groups most at-risk of severe outcomes and often a top PRIORITY for national vaccination programs>.” [urgent call for older adults to be vaccinated and the target of national vaccination programs]
89. “a multidisciplinary fmea focus group at the seoul national university hospital clinical trials center selected 6 core clinical trial processes, for which potential failure modes were identified and their risk PRIORITY number (rpn) was assessed.” [assessing ‘risk priority number’ for clinical trial processes, not a statement that lays out a specific call to action that needs immediate attention]
90. “fr., being the oldest valid genus name in the cordyceps s. s. clade, ranks as the most preferred name over its competing names on the PRIORITY basis.” [an explanation of the preferred name for the oldest valid genus name based on the ‘priority basis’, not a statement that lays out a specific call to action that needs immediate attention]
91. “EXAMPLE” [EXAMPLE]
92. **IMMEDIATE NEED**
93. “thus, <there is a critical and IMMEDIATE NEED for more sensitive tools than the ctp score to predict survival duration in hcc patients undergoing treatment and in selected patients who are not eligible for enrollment in clinical trials>.” [urgent call for more sensitive tools than the ctp score to predict survival duration in hcc patients undergoing treatment and in selected patients who are not eligible for enrollment in clinical trials]
94. “<research on development of information leaflets incorporating suitable readability, lay out, and design is the IMMEDIATE NEED that will help pharmacists to offer useful information leaflets to their patients during the counselling>.” [urgent call for research on development of information leaflets incorporating suitable readability, lay out, and design that will help pharmacists to offer useful information leaflets to their patients during the counselling]
95. “the time is shared based on the greatest IMMEDIATE NEED of support, the child or the parents, and on the nature of the support that is needed.” [how the time is allotted based on the greatest immediate need of support, not a statement that lays out a specific call to action that needs immediate attention]
96. “she reported that acupuncture helped her IMMEDIATE NEEDS and the diet modification and enemas have contributed to her relief from migraines.” [a patient reported that acupuncture helped her ‘immediate needs’, not a statement that lays out a specific call to action that needs immediate attention]
97. “EXAMPLE” [EXAMPLE]
98. **IMPERATIVE**
99. “therefore, <it is IMPERATIVE to develop an effective hiv vaccine able to induce broadly protective immune responses at the viral portal of entry>.” [urgent call to develop an effective hiv vaccine able to induce broadly protective immune responses at the viral portal of entry]
100. “consequently, <it seems IMPERATIVE that specific immunoassays are needed to confirm the presence of anti-dfs70 antibodies before definitive results are reported to clinicians>.” [urgent call that specific immunoassays are needed to confirm the presence of anti-dfs70 antibodies before definitive results are reported to clinicians]
101. “because nap2b is expressed in other tissues, it is IMPERATIVE that the inhibitor be non-absorbed and maintained within the intestinal lumen.” [a mechanistic statement that the inhibitor be non-absorbed and maintained within the intestinal lumen, not a statement that lays out a specific call to action that needs immediate attention]
102. “thus, although type i ifn target genes play an IMPERATIVE role in antiviral defense, they might be detrimental when mounting an immune response to l. monocytogenes .” [a mechanistic statement that type I ifn target genes play an important role in antiviral defense, not a statement that lays out a specific call to action that needs immediate attention]
103. “EXAMPLE” [EXAMPLE]
104. **IMPORTANCE/ IMPORTANT/ UTMOST IMPORTANCE**
105. “<of particular IMPORTANCE are differences in the systematic age-misreporting variables across the two censuses and vital registration (separate regressions not shown)>.” [urgent call to understand differences in the systematic age-misreporting variables across the two censuses and vital registration]
106. “the possibility remains that other arboviruses could also be modified directly by their arthropod vector saliva, and <to elucidate such mechanisms would be of major IMPORTANCE to fully understand and eventually prevent arbovirus transmission>.” [urgent call to elucidate such mechanisms to fully understand and eventually prevent arbovirus transmission]
107. “<the search for the histone-mark-reading machinery that translates histone modifications into biological processes, such as formation of heterochromatin and antigenic variation is of foremost IMPORTANCE>.” [urgent call to search for the histone-mark-reading machinery that translates histone modification into biological processes, such as formation of heterochromatin and antigenic variation]
108. “+ = of some IMPORTANCE; +++ = of great IMPORTANCE” [the key to what the ‘+’ and ‘+++’ mean in ranks of importance, not a statement that lays out a specific call to action that needs immediate attention]
109. “before the IMPORTANCE of cnvs was realized it was well known that copy number changes occur often in cancer.” [a historical statement that before cnvs was well known, the copy number changes was well known, not a statement that lays out a specific call to action that needs immediate attention]
110. “<simply knowing death rates at specific ages is itself an IMPORTANT descriptor of the epidemiological situation in a population>, given the strong age dependence of major diseases and injuries.” [urgent call to know death rates at specific ages to describe the epidemiological situation in a population]
111. “therefore, <one of the most IMPORTANT cornerstones to make implementation of such minimally invasive treatments possible is a precise selection of the eligible patients>.” [urgent call to make implementation of such minimally invasive treatments possible, including a precise selection of the eligible patients]
112. “30. therefore, <it is crucially IMPORTANT to understand the swelling mechanism of plant fibres to improve the performance of the prepared biocomposite analogue>.” [urgent call to understand the swelling mechanism of plant fibres to improve the performance of the prepared biocomposite analogue]
113. “we found that the overall weighted dose of smoke-free restrictions at home, at church, and at work were significant predictors of quit attempts in the past year, but not of smoking level, after controlling for other IMPORTANT sociodemographic characteristics.” [a results statement with a methodological statement about controlling for other sociodemographic characteristics, not a statement that lays out a specific call to action that needs immediate attention]
114. “these findings establish an IMPORTANT role for rac1 signaling in mediating structural and behavioral plasticity to cocaine.” [a results statement and their implications for the role of rac1 signaling in mediating structural and behavioral plasticity to cocaine, not a statement that lays out a specific call to action that needs immediate attention]
115. “furthermore, <bone marrow biopsy and/or needle aspiration is of UTMOST IMPORTANCE to determine the percentage of plasma cells>, which should be less than 5% [1].” [urgent call to determine the percentage of plasma cells from bone marrow biopsy and/or needle aspiration]
116. “in order <to reduce the dramatic effects of combining phenotypic characters with genotypic characters and obtain a more stable taxonomic system, it is thus of the UTMOST IMPORTANCE to combine dna-sequence based comparative methods with the application of generic names>.” [urgent call to combine dna-sequence based comparative methods with the application of generic names to reduce the dramatic effects of combining phenotypic characters with genotypic characters and obtain a more stable taxonomic system]
117. “of note, the existing discordance between fg and a1c may lead to conflicting results, <underscoring the UTMOST IMPORTANCE of identifying new markers that can consistently identify prediabetic individuals as early as possible for t2d prevention> [13–15].” [urgent call to identify new markers that can consistently identify prediabetic individuals as early as possible for t2d prevention]
118. “here, it is of UTMOST IMPORTANCE to note that everything in ( i ) and ( ii ) is done in accordance with the spirit of the reactive paradigm, which means that eg—or, equivalently, its two components: t2and tgf⋆—does work by means of only a partial/local view of the environment.” [a note from the authors that everything is done in accordance with the spirit of the reactive paradigm, not a statement that lays out a specific call to action that needs immediate attention]
119. “indeed, we observed a switch in favor of th1 response in the livers of st2−/−mice, with increased and earlier expression of ifn-γ and il-12, both cytokines of UTMOST IMPORTANCE in the control of infection (22,48–51).” [a results statement based on the most important measures of outcome (control of infection), not a statement that lays out a specific call to action that needs immediate attention]
120. “EXAMPLE” [EXAMPLE]
121. **PRESSING NEED**
122. “<there is a PRESSING NEED to create awareness among postgraduates and faculty doing research about ethics, aspects of misconduct and related issues>.” [urgent call to create awareness among postgraduates and faculty doing research about ethics, aspects of misconduct and related issues]
123. “<there is a severe and PRESSING NEED to develop useful npy related small molecule ligands to conclusively assess npy's role in pathologies, such as those outlined here, as well as to underpin its molecular partners in these settings and to clarify the clinical therapeutic potential of npy signalling pathways>.” [urgent call to develop useful npy related small molecule ligands to conclusively assess npy’s role in pathologies, such as those outlined here, as well as to underpin its molecular partners in these settings and to clarify the clinical therapeutic potential of npy signalling pathways]
124. “thus, <there is clearly a PRESSING NEED for the development of new, innovative and aggressive approaches to combat this insidious disease>.” [urgent call for the development of new, innovative and aggressive approaches to combat this insidious disease]
125. “<research that leverages latest multimodal biological measurement technologies with large amounts of healthcare data is in PRESSING NEEDS>.” [urgent call for research that leverages the latest multimodal biological measurement technologies with large amounts of healthcare data]
126. “<we found the most PRESSING NEED across all use categories is for increased coverage of pdb structures>.” [urgent call to increase coverage of pdb structures]
127. “our goal in this study was to identify the most PRESSING NEEDS and achievable goals, as perceived by emergency health care personnel, in order to ensure that development programs and available funds are appropriately directed [3].” [the goal of the study includes identifying the most pressing needs of emergency health care personnel, not a statement that lays out a specific call to action that needs immediate attention]
128. “EXAMPLE” [EXAMPLE]
129. **PARAMOUNT**
130. “<quantifying cellular differentiation, proliferation, and drug responses is PARAMOUNT in elucidating clinical treatments for injuries, pathogenesis, and toxicity>.” [urgent call for quantifying cellular differentiation, proliferation, and drug response to elucidate clinical treatments for injuries, pathogenesis, and toxicity]
131. “<to apply iot-based wsns to medical care services successfully, ensuring the personal privacy of patients and preventing malicious network intrusion are PARAMOUNT>.” [urgent call to ensure the personal privacy of patients and prevention of malicious network intrusion to apply iot-based wsns to medical care services successfully]
132. “yet, the curator – instantaneously “feeling” that something was wrong and acting upon this impression although not being able to name a specific reason – is a PARAMOUNT example of what it means to have an intuition being strong enough to act accordingly.” [an example of what it means to have an intuition being strong enough to act accordingly, not a statement that lays out a specific call to action that needs immediate attention]
133. “the PARAMOUNT difference between fmo and cyp450 is that unlike the latter, the former is not easily induced nor readily inhibited thereby the potential adverse drug-drug interaction may be prevented for drugs predominantly metabolized by the former [7,8].” [a comparison statement of the large differences between fmo and cyp450, not a statement that lays out a specific call to action that needs immediate attention]
134. “EXAMPLE” [EXAMPLE]
135. **URGENT/ URGENTLY/**
136. “due to its widespread application in communications, radar, etc., <the orthogonal frequency division multiplexing (ofdm) signal has become increasingly URGENT in the field of localization>.” [urgent call to use the orthogonal frequency division multiplexing signal in the field of localization]
137. “therefore, <it is URGENT to explore more ssr markers to construct high-density linkage maps and identify many more qtl for marker-assisted selection in foxtail millet>.” [urgent call to explore more ssr markers to construct high-density linkage maps and identify many more qtl for marker-associated selection in foxtail millet]
138. “however, the results of two randomized trials (stability[15] and the solid-timi 52 [16], which were conducted to test whether darapladib reduces cardiovascular events in stable and unstable coronary heart disease) did not demonstrate any beneficial effect on any of the primary endpoints (cardiovascular death, stroke, myocardial infarction, or URGENT coronary artery revascularization).” [a results statement with no beneficial effects on any of the primary endpoints including ‘urgent coronary artery revascularization’, not a statement that lays out a specific call to action that needs immediate attention]
139. “william rushton, lds, asked if the matter was URGENT.” [a statement of what William Rushton asked: if the matter was urgent?, not a statement that lays out a specific call to action that needs immediate attention]
140. “<an efficacious hiv vaccine is URGENTLY needed to curb the aids pandemic>.” [urgent call for an efficacious hiv vaccine to curb the aids pandemic]
141. “however,< the functioning of active management for the benefit of threatened carabid species URGENTLY demands critical evaluation and detailed information>.” [urgent call for critical evaluation and detailed information on the functioning of active management for the benefit of threatened carabid species]
142. “between april 2010 and april 2013, 52 patients with stanford type a acute aortic dissection (mean age 69.6; 20 men and 32 women) were treated surgically, either URGENTLY or emergently, with hemiarch or arch replacement under deep hypothermic circulatory arrest.” [a results statement that 52 patients had either an urgent or emergent surgery, not a statement that lays out a specific call to action that needs immediate attention]
143. “three weeks later, he was admitted URGENTLY to our hospital due to generalised abdominal pain and watery diarrhoea.” [a patient statement who needed to be urgently admitted to the hospital, not a statement that lays out a specific call to action that needs immediate attention]
144. “EXAMPLE” [EXAMPLE]
145. **VITAL**
146. “<a careful work-up as well as histological correlation is VITAL for the adequate management of these patients>, who require a wide resection of the tumor supplemented with chest wall reconstruction, if possible.” [urgent call for a careful work-up as well as histological correlation for the adequate management of these patients]
147. “as described above, since surround suppression may involve contributions from horizontal and feedback inputs, <it is VITAL to know the interplay of excitation and inhibition in different domains of pc dendrites, which may shed light upon active dendritic processes involved in this phenomenon> (london and häusser,2005).” [urgent call to know the interplay of excitation and inhibition in different domains of pc dendrites, which may she light upon active dendritic processes involved in this phenomenon]
148. “vr, VITAL registration.” [an acronym that stands for ‘vital registration’, not a statement that lays out a specific call to action that needs immediate attention]
149. “dna methylation is also shown to be VITAL in the maintenance of x chromosome inactivation which is crucial for female embryos due to the presence of two x chromosomes [11].” [a mechanistic statement that dna methylation is crucial in the maintenance of x chromosome inactivation, not a statement that lays out a specific call to action that needs immediate attention]
150. “EXAMPLE” [EXAMPLE]
151. **OMINOUS**
152. “<recent years have seen an OMINOUS accumulation of reports of ‘totally’ drug-resistant strains, which are not susceptible to any tested drugs>6.” [urgent call to deal with the fact that recent years have seen an accumulation of reports of ‘totally’ drug-resistant strains, which are not susceptible to any tested drugs]
153. “<sedentary behaviors and tobacco exposure were common among adolescents but OMINOUSLY twofold higher among young adults>, suggesting that earlier intervention may circumvent future burdens.” [urgent call to deal with the fact that sedentary behavior and tobacco exposure were twofold higher among young adults than among adolescents]
154. “however, even with OMINOUS biopsy features the chance of renal recovery exceeded the chance of therapy-related death if treatment includes plasma exchange [12].” [a results statement that people with dangerously weird biopsy features, they still had a chance of therapy-related death, not a statement that lays out a specific call to action that needs immediate attention]
155. “syncope or near syncope is a particularly OMINOUS feature and should prompt immediate evaluation.” [a general statement about syncope or near syncope that needs immediate evaluation, not a statement that lays out a specific call to action that needs immediate attention]
156. “EXAMPLE” [EXAMPLE]
157. **EXAMPLE**
158. “EXAMPLE” [EXAMPLE]
159. “EXAMPLE” [EXAMPLE]

**Surprises/Interesting**

CURIOUS FINDING = a statement of a surprising result, conclusion, or situation; the researchers were not expecting the result, conclusion or situation but are intrigued by it. The next actionable step is to explore the surprising result, conclusion, or situation more.

1. **ALTHOUGH**
2. “<ALTHOUGH this trend was not observed in fall dandelion flower head samples ( n = 24) that had been collected at elevations from 10 to 2480 m> (grass et al.,2006).” [a curious finding that this trend was not observed in fall dandelion flower head samples that had been collected at elevations from 10 to 2480 m]
3. “<ALTHOUGH the ld muscle enables extension, adduction, and internal rotation of the shoulder joint, it does not function independently>.” [a curious finding that it does not function independently given that the ld muscle enables extension, adduction, and internal rotation of the shoulder joint]
4. “ALTHOUGH we recognise the importance of accounting for these variables in studies involving breastfeeding and iq, we opted by allowing studies without these data to participate for two main reasons.” [an explanation statement for why the studies did not use these data even though they knew they were important, not a statement that lays out a curious research finding that needs to be explored more]
5. “in addition, soy products improved blood lipid profiles among diabetes patients, ALTHOUGH the effects on glucose metabolism parameters were not substantiated.12” [a results statement that the effects on glucose metabolism were not substantiated, not a statement that lays out a curious research finding that needs to be explored more]
6. “EXAMPLE” [EXAMPLE]
7. **CURIOUS FINDING**
8. “<the lack of observed efficacy in gb10 following mrk-a treatment was a CURIOUS FINDING>.” [a curious finding was the lack of observed efficacy in gb10 following mrk-a treatment]
9. “<it is a CURIOUS FINDING that the paq-feminine subscale was not related to any of the sexual behavior outcomes>.” [a curious finding that the paq-feminine subscale was not related to any of the sexual behavior outcomes]
10. “non-systematic misclassification of date of death, particularly around the 60-day mark, would generally have led to less overlap among lists, and thus underestimation of sensitivity and overestimation of the true number of deaths: <this may explain the CURIOUS FINDING that, in all four sites, more deaths were estimated to have occurred during the period 60–30 days before the survey, than in the last 30 days> (table 6, last column).” [a curious finding that in all four sites, more deaths were estimated to have occurred during the period 60-30 days before the survey, than in the last 30 days, with a possible explanation above]
11. “another possible explanation for this CURIOUS FINDING may relate to the potential heterogeneous nature of neighbourhoods with high levels of active transport.” [an explanation for the curious finding without a mention of what this curious finding is (would want the sentence that says the curious finding ideally), not a statement that lays out a specific curious finding that needs to be explored more]
12. “EXAMPLE” [EXAMPLE]
13. **DESPITE**
14. “<DESPITE the heterogeneity of lesions between patients, there seems to be a homogenous pattern in the same patient> [57].” [a curious finding that there seems to be a homogenous pattern in the same patient given the heterogeneity of lesions between patients]
15. “<DESPITE of decades of vigorous clinical and basic research efforts, the molecular mechanism underlying liver fibrosis is not completely understood>.” [a curious finding that the molecular mechanism underlying liver fibrosis is not completely understood given decades of vigorous clinical and basic research efforts]
16. “although the associations between full-length blys and/or Δblys mrna levels and disease activity in sle were usually strong when the sle cohort was analyzed in aggregate, <there were several sle patients in whom blys mrna levels were quite high DESPITE little objective ongoing disease activity, and there were several sle patients in whom blys mrna levels were low DESPITE considerable ongoing disease activity>.” [a curious finding that there were several sle patients in whom blys mrna levels were quite high given that there was little objective ongoing disease activity, and a curious finding of the opposite]
17. “<freshly isolated sle b cells, DESPITE intact surface expression of blys receptors, bind less biotinylated blys ex vivo than do freshly isolated normal b cells> [27].” [a curious finding that freshly isolated sle b cells bind less biotinylated blys ex vivo than do freshly isolated normal be cells given intact surface expression of blys receptors]
18. “we found that adaptation remained absent over training sessions in the grating-relevant group, DESPITE visual experience being identical to the grating-irrelevant group.” [a results statement based on the given methodology that visual experience was identical between groups, not a statement that lays out a specific curious finding that needs to be explored more]
19. “in the crucial inequity condition, the subject receives a lesser quality reward than the partner DESPITE carrying out the same task (i.e., handing back the token to the experimenter.” [a methodological statement about the crucial inequity condition where the subject received a lesser quality reward compared to the partner for doing the same task, not a statement that lays out a specific curious finding that needs to be explored more]
20. “EXAMPLE” [EXAMPLE]
21. **EVEN**
22. “<the results of experiment 1 suggest that global reference frames provided by visual scenes affect perceived object orientation, EVEN though the scenes are task-irrelevant>.” [a curious finding that the results of experiment 1 suggest that global reference frames provided by visual scenes affect perceived object orientation given that the scenes were task-irrelevant]
23. “similarly, <simultaneous knockdown of pias4 and sirt1also restored high glucose-induced synthesis of fibrogenic genes (figs 5e,fands8a) and smad3 binding to collagen type i gene promoters (figs 5gands8b) EVEN in the absence of pias4>.” [a curious finding that simultaneous knockdown of pias4 and sirt1 also restored high glucose-induced synthesis of fibrogenic genes and smad3 binding to collagen type I gene promoters give the absence of pias4]
24. “supplements and other consumer products have shown EVEN greater variation in chicoric acid content than reported for plant samples.” [a results statement that supplements and other consumer products had greater variation than reported plant samples, not a statement that lays out a specific curious finding that needs to be explored more]
25. “chicoric acid production in basil did not correlate with the uptake of k or zn EVEN though production of other rosmarinic acid (the main phenolic in basil) correlated with uptake of these nutrients (scagel and lee,2012).” [a results statement that chicoric acid production in basil did not correlate with the uptake of k or zn like other rosmarinic acid correlated, not a statement that lays out a specific curious finding that needs to be explored more]
26. “in contrast, we enrolled consecutive patients—including those who were not in cr or who EVEN suffered from relapse—so we could investigate the impact of cr on ip development.” [a statement of inclusion criteria: those who were not in cr or who suffered from relapse, not a statement that lays out a specific curious finding that needs to be explored more]
27. “EXAMPLE” [EXAMPLE]
28. **IMPORTANTLY (a particularly curious find deemed important by the authors)**
29. “<IMPORTANTLY, the bias was modulated by scene condition>.” [a curious finding that the bias was modulated by scene condition]
30. “however, and <IMPORTANTLY, there is also a large proportion of comparably different sequences which are only distantly related to domains from known type i pks and nrps sequences>.” [a curious finding that there is also a large proportion of comparably different sequences which are only distantly related to domains from known type I pks and nrps sequences]
31. “IMPORTANTLY, strauman and higgins (1987) have demonstrated a significant relationship between fear/restless and actual-self/ought-self discrepancy (an index of prevention focus).” [a review of some of the literature that the authors deem important, not a statement that lays out a curious research finding that needs to be explored more]
32. “more IMPORTANTLY, there was a one-minute-long video show before the formal experiment for the priming group but not for the control group.” [a methodological statement about an important difference between the treatment and control groups, not a statement that lays out a curious research finding that needs to be explored more]
33. “EXAMPLE” [EXAMPLE]
34. **IN SPITE**
35. “<IN SPITE of the very high levels of all these tumour markers in benign cyst fluids, serum levels were normal or only slightly elevated>.” [a curious finding that serum levels were normal or only slightly elevated given the very high levels of all these tumour markers in benign cyst fluids]
36. “<to date, no mutations have been found to be definitely linked to ddh in large canine pedigree studies, IN SPITE of certain dog pedigrees being commonly affected by ddh> (12).” [a curious finding that to date, no mutations have been found to be definitively linked to ddh in large canine pedigree studies given that certain dog pedigrees are commonly affected by ddh]
37. “IN SPITE of these study design limitations, we evaluated the effect of individual fisherman performance on cpue, because our results provide a rough idea of between-fisherman catch success, regardless of the cause.” [an aims statement that acknowledge limitations, not a statement that lays out a curious research finding that needs to be explored more]
38. “overall, our results suggest that, in order to improve health status, more effort is needed to inform about the meddiet to individuals who smoke IN SPITE of advice to the contrary; are diabetic or less educated; or have a greater waist perimeter.” [a results statement about need to help individuals who smoke even though they have been given advice to the contrary, not a statement that lays out a specific curious finding that needs to be explored more]
39. “EXAMPLE” [EXAMPLE]
40. **INTEREST/ INTERESTING/ INTERSTING TO NOTE/ INTERESTINGLY**
41. “hence, <a particular INTEREST has emerged for the early phase of schizophrenia, including the pre-onset of the illness, i.e., the prodromal period>.” [there are some curious findings for the early phase of schizophrenia, including pre-onset of the illness, i.e. the prodromal period]
42. “as introduced above, <wave transformation in the nearshore zone is of theoretical and practical INTEREST>.” [there are some curious findings about wave transformation in the nearshore zone theoretically and practically]
43. “protein spots of INTEREST were manually excised from gels and digested with trypsin (promega inc., madison, wi, usa).” [a methodological statement about the protein spots the scientists were interested in, not a statement that lays out a curious research finding that needs to be explored more]
44. “the authors declare that they have no competing INTERESTS.” [authors disclosure of ‘competing interests’, not a statement that lays out a curious research finding that needs to be explored more]
45. “<the above findings raise an INTERESTING question why mirna target genes are highly and widely expressed>, as mirna target genes are down-regulated by mirnas.” [a curious question (why mirna target genes are highly and widely expressed given the above findings]
46. “<the tetracycline (tetracycline– 5 and minocycline– 6 ) class appears to show INTERESTING activity against ftsz>, but the known primary target of this drug class is protein synthesis inhibition by binding the 30s ribosomal subunit, <while the ftsz activity is likely only an INTERESTING sideline>.” [curious findings that the tetracycline class shows activity against ftsz; curious finding that the ftsz activity is]
47. “another effect is that researchers tend to make mutations at ‘positions of interest’ and being INTERESTING often is defined by literature describing mutations at that position in homologous proteins.” [a statement defining ‘interesting’, not a statement that lays out a curious research finding that needs to be explored more]
48. “we can also further simplify the content for primary standards (v-vii) by teaching only the essential philosophies and in a more INTERESTING manner like in the form of stories and making the teaching interactive.” [a statement of how to make the content of primary standards more interesting to teach, not a statement that lays out a curious research finding that needs to be explored more]
49. “<it is INTERESTING TO NOTE that the expression differences are especially apparent in brain tissues - a complex tissue with multiple cell types>.” [a curious finding that the expression differences are especially apparent in brain tissues – a complex tissue with multiple cell types]
50. “<it is INTERESTING TO NOTE that users of complementary and alternative medicine (cam) are similarly characterised as food supplement users and tend to be female, well-educated, and relatively older> [11].” [a curious finding that users of complementary and alternative medicines (cam) are similarly characterized as food supplement users and tend to be female, well-educated, and relatively older]
51. “<with respect to sensitivity it is also INTERESTING TO NOTE that the system returns better results than the experts>.” [a curious finding that the system returns better results than the experts with respect to sensitivity]
52. “<It is INTERESTING TO NOTE that Gupta et al. [[18](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5008406/#R18)] also found the gender-associated difference in mutation burden in cutaneous melanoma through the analysis of exomic sequences>.” [a curious finding that Gupta et al. also found the gender-associated difference in mutation burden in cutaneous melanoma through the analysis of exomic sequences]
53. “<as more potential ck2 substrates are characterized, it will be INTERESTING TO NOTE whether groups of structurally similar proteins that bind to the same n-terminal binding site emerge>.” [a curious finding will be whether groups of structurally similar proteins bind to the same n-terminal binding site emerge as potential ck2 substrates are characterized]
54. “<INTERESTINGLY, there was an antigenic mismatch between the vaccine strain and the circulating viruses in the 2011–12 season>.” [a curious finding that there was an antigenic mismatch between the vaccine strain and the circulating virus in the 2011-12 season]
55. “<INTERESTINGLY, no other studies have observed an association between personal control and qol in patients with copd>.” [a curious finding that no other studies have observed an association between personal control and qol in patients with copd]
56. “<INTERESTINGLY we did not find these differences in either brca2 mutant mice or affected women with brca mutations>[26].” [a curious finding that we did not find these differences in either brca2 mutant mice or affected women with brca mutations]
57. “<it was INTERESTINGLY observed that animals on kerosene supplementation displayed increasing aggression over the study period>.” [a curious finding that animals on kerosene supplementation displayed increasing aggression over the study period]
58. “contrarily to what suggested for patients with such disease, <INTERESTINGLY, in 14/24 (58.3 %) a high intake of vitamin a from the diet was reported>.” [a curious finding that in 14/24 a high intake of vitamin a from the diet was reported]
59. “EXAMPLE” [EXAMPLE]
60. **IRONICALLY**
61. “<community forestry programs have thus IRONICALLY preserved nepalese forests, however has in turn facilitated increased parasitism>.” [a curious finding that community forestry programs have preserved Nepalese forests and have in turn facilitated increased parasitism]
62. “<IRONICALLY, this bodily intimacy also implies distance in terms of personal control>.” [a curious finding that this bodily intimacy also implies distance in terms of personal control]
63. “IRONICALLY, the trajectories orthogonal to geodesics are known as geodesic parallels in differential geometry.” [an ironic name, not a statement that lays out a curious research finding that needs to be explored more]
64. “”…IRONICALLY, technical improvements have led to increases in the identification of incidental (and almost certainly irrelevant) findings that result in follow-up ct for surveillance.”5” [a quote about the ironic use of ct scans that has led to more follow-ups, not a statement that lays out a curious research finding that needs to be explored more]
65. “EXAMPLE” [EXAMPLE]
66. **NOTABLY**
67. “<NOTABLY, in the current study, a greater number of t2dm patients from the gcc, pc and pcc were prescribed insulin compared to the gc patient group>.” [a curious finding that in the current study, a greater number of t2dm patients from gcc, pc and pcc were prescribed insulin compared to the gc patient group]
68. “in this study, we demonstrate synthetic tmirts designs capable of mediating slicing-dependent gene knockdown for a variety of targets, <most NOTABLY reducing vegf protein levels in a hypoxia-induced model>.” [a curious finding that vegf protein levels can be reduced in a hypoxia-induced model]
69. “surgical management has been a reliable option for these patients since introduction of spinal instrumentation by harrington and subsequent advances by others; most NOTABLY by luque and cotrel-dubousset [14,15].” [a citation to the researchers that have advanced the field, not a statement that lays out a curious research finding that needs to be explored more]
70. “knockdown with 250 ng of tmirtfl19 was NOTABLY stronger than knockdown with 250 ng of mirtfl19 despite reaching saturation at 800ng, suggesting that the tmirt designs may be more effective than the canonical design at targeting orfs.” [a result statement that the knockdown with 250 ng of tmirtfl19 was significantly stronger than with 250 ng of mirtfl19, not a statement that lays out a curious research finding that needs to be explored more]
71. “EXAMPLE” [EXAMPLE]
72. **REMARKABLY**
73. “<REMARKABLY, this effect was even more pronounced for the ssp-encoding genes as 41% of these genes, including avrlm1 , avrlm4-7 and avrlm11 were up-regulated when compared to the wild type strain> (table 1,figures 6a and 6b).” [a curious finding that this effect was even more pronounced for the ssp-encoding genes as 41% of these genes, including avrlm1 , avrlm4-7 and avrlm11 were up-regulated when compared to the wild type strain]
74. “<early diagnosis by virtue of significant advances in detection, and newly developed treatment strategies have REMARKABLY improved the course of breast malignancies>.” [a curious finding that early diagnosis by virtue of significant advances in detection, and newly developed treatment strategies have improved the course of breast malignancies]
75. “the quantities of specific igg4 produced in filariasis patients can be REMARKABLY high.” [a statement of the possible quantities of specific igg4 produced in filariasis patients including being extremely high, not a statement that lays out a curious research finding that needs to be explored more]
76. “infectious thyroiditis is relatively rare because the thyroid is REMARKABLY resistant to infection due to its high iodine content, hydrogen peroxide production, blood supply network, abundant lymphatic drainage, and encapsulated location [1].” [a explanation statement about why an infection is rare due the thyroids extreme resistant capabilities, not a statement that lays out a curious research finding that needs to be explored more]
77. “EXAMPLE” [EXAMPLE]
78. **STARTLING FINDING**
79. “<A STARTLING FINDING is that an Hsp70–Bag3–regulated kinase, LATS1, regulates very early events of formation of protein aggregates>; thus protein aggregation appears to be a tightly regulated process rather than the simple collapse of abnormal proteins.” [a curious finding that an Hsp70–Bag3–regulated kinase, LATS1, regulates very early events of formation of protein aggregates]
80. “routine chest and abdominal radiographs taken after cannulation showed the STARTLING FINDING of an abnormal position of the new venous drainage cannula (fig.1).” [a finding about a specific patient based on routine chest and abdominal radiographs, not a statement that lays out a curious research finding that needs to be explored more]
81. “EXAMPLE” [EXAMPLE]
82. **STRIKINGLY**
83. “the incidence of ip has variously been documented as 10 to 85%9151617and, <STRIKINGLY, approximately half of these ip cases were fatal>1617.” [a curious finding that approximately half of these ip cases were fatal]
84. “<there is STRIKINGLY limited research on biological links between early mental health problems and physical health as well as on autonomic system function in young people who are familially vulnerable to depression>.” [a curious finding that there is limited research on biological links between early mental health problems and physical health as well as on autonomic system function in young people who are familially vulnerable to depression]
85. “whole-exome sequencing revealed a nonsense mutation in prnp (nm\_000311, c.c478t; p.q160\*; rs80356711) associated with homozygosity for the v allele at position 129 of the protein, further highlighting how very similar genotypes in prnp result in STRIKINGLY different phenotypes.” [a comparison statement of how very similar genotypes in prnp result in extremely different phenotypes, not a statement that lays out a curious research finding that needs to be explored more]
86. “leishmaniasis in humans is caused by several species of leishmania , which lead to STRIKINGLY different pathological responses.” [a comparison statement about how leishmaniasis in humans is caused by several species of leishmania, which lead to extremely different pathological responses]
87. “EXAMPLE” [EXAMPLE]
88. **SURPRISINGLY**
89. “<SURPRISINGLY, the corresponding strains were not long- but short-lived and showed different kinds of impairments>.” [a curious finding that the corresponding strains were not long- but short-lived and showed different kinds of impairments]
90. “<postoperative morbidity and mortality after il and mer were SURPRISINGLY comparable> (unpublished data).” [a curious finding that postoperative morbidity and mortality after il and mer were comparable]
91. “<we understand SURPRISINGLY little of the intricacies of healthcare in the developing nations of the south, particularly in the poorer parts of the cities>.” [a curious finding that we understand little of the intricacies of healthcare in the developing nations of the south, particularly in the poorer parts of the cities]
92. “again unSURPRISINGLY for such a large, complex, and long-running study the documentation can be overwhelming, particularly for someone new to the study.” [an expected result (not surprising), not a statement that lays out a curious research finding that needs to be explored more]
93. “this shows that the model, not SURPRISINGLY, reproduces the rectifying effect of the space charge region.” [an expected result (not surprising), not a statement that lays out a curious research finding that needs to be explored more]
94. “EXAMPLE” [EXAMPLE]
95. **THOUGH**
96. “<THOUGH chicoric acid was first identified in 1958, it was largely ignored until recent popular media coverage cited potential health beneficial properties from consuming food and dietary supplements containing this compound>.” [a curious finding it was largely ignored until recent popular media coverage cited potential health beneficial properties from consuming food and dietary supplements containing this compound given that chicoric acid was first identified in 1958]
97. “<THOUGH the proposed phyletic assignments of our ks and ad domain sequences are further validated by the observed similarities between the 16s rrna gene data and the phylogenetic distribution of the ks and ad sequences, caution is required in the interpretation of these assignments>.” [a curious finding that caution is required in the interpretation of these assignments given that the proposed phyletic assignments of our ks and ad domain sequences are further validated by the observed similarities between the 16s rrna gene data and the phylogenetic distribution of the ks and ad sequences]
98. “<in marked contrast even THOUGH our oceans have a mean depth of 3800 m, with 50% being below 3000 m deep, deep sea marine environments have only rarely been explored with respect to their potential to genetically encode secondary metabolites of clinical or industrial utility> (ramirez-llodra et al., 2010).” [a curious finding that deep sea marine environments have only rarely been explored with respect to their potential to genetically encode secondary metabolites of clinical or industrial utility given that our oceans have a mean depth of 3800 m, with 50% being below 3000 m deep]
99. “the task was the same as in experiment 1. object orientations were also identical to those used in experiment 1 (9°, 27°, and 45°; left and right), THOUGH instead we manipulated the scene orientation relative to the object orientation (0°, +/−9°, and +/−18°).” [a statement about the difference between the tasks: instead we manipulated the scene orientation relative to the object orientation, not a statement that lays out a curious research finding that needs to be explored more]
100. “alTHOUGH the effects of the background scene were understandable, they were not prominent.” [‘although’ vs. ‘though’, not a statement that lays out a curious research finding that needs to be explored more]
101. “EXAMPLE” [EXAMPLE]
102. **UNANTICIPATED/ UNEXPECTED/ UNEXPECTEDLY/ UNUSUAL**
103. “<this analysis suggests UNANTICIPATED additional functions in this protein family>.” [a curious finding that this analysis suggests additional functions in this protein family]
104. “<this brings about a gendered divide in daily experience that was UNANTICIPATED> and proves difficult, at least initially, for most couples to recognise and negotiate fairly.” [a curious finding that this brings about a gendered divide in daily experience]
105. “gaining a new user base is often very useful, as new users with previously UNANTICIPATED needs tend to expose weaknesses in design and implementation that more sophisticated or experienced users are often able to avoid.” [an explanation for why new users are useful due to their unexpected needs that expose weaknesses, not a statement that lays out a curious research finding that needs to be explored more]
106. “when blocking a gene of unknown function or when observing an UNANTICIPATED result, it is important to keep in mind, however, that the novel phenotype is not necessarily due to reduction of expression of the target gene.” [instructions for when observing an unexpected result, not a statement that lays out a specific curious research finding that needs to be explored more]
107. “concerning this, <two rather UNEXPECTED phenomena have been observed in japan>, considering the prevalence of approximately 40% of mrm.” [a curious finding that two phenomena have been observed in japan]
108. “<it was somewhat UNEXPECTED that the gw/aa mutant, which virtually did not interact with dhx16 in the his-tagged pull-down assay (figure 1b), rescued the depleted extracts> (figure 5c; supplementary figure s3;figure 5d).” [a curious finding that the gw/aa mutant, which virtually did not interact with dhx16 in the his-tagged pull-down assay (figure 1b), rescued the depleted extracts]
109. “<considering the wide use of fg as a tissue sealant in nerve repair, the results of our study are UNEXPECTED>.” [the results are a curious finding given the wide use of fg as a tissue sealant in nerve repair]
110. “ectopic liver can cause UNEXPECTED clinical problems.” [the consequences of an illness that can lead to unexpected problems, not a statement that lays out a curious research finding that needs to be explored more]
111. “this is not UNEXPECTED given the decline previously reported in malaria and malaria related deaths in the general population on the border, but most of the reduction in mmr occurred before the reduction of malaria incidence in the general population.” [a double negative (not unexpected) which means it was expected, not a statement that lays out a curious research finding that needs to be explored more]
112. “<UNEXPECTEDLY, the complementation with pmm2 led to the loss of protective capacity of Δpmm parasites>.” [a curious finding that the complementation with pmm2 led to the loss of protective capacity of Δpmm parasites]
113. “using an inducible β-cell specific pgc-1 knockout mouse model, <we reveal an UNEXPECTEDLY minor role for pgc-1s in maintaining β-cells mitochondrial mass and function>.” [a curious finding of a minor role for pgc-1s in maintaining β-cells mitochondrial mass and function]
114. “not UNEXPECTEDLY, autophagy was shown to be required for lifespan extension in longevity mutants of c. elegans (melendez et al ., 2003).” [a double negative (not unexpectedly) which means it was expected, not a statement that lays out a curious research finding that needs to be explored more]
115. “given this region’s association with cognitive control (koechlin et al., 2003), updating of the task-set (sylvester et al., 2003;derrfuss et al., 2004) and task difficulty (demeter et al., 2011), the later sustained response could indicate the readjustment of the task set in order to cope with an UNEXPECTEDLY more difficult search task.” [an explanation of why the later sustained response could indicate readjustment based on the task performed, not a statement that lays out a curious research finding that needs to be explored more]
116. “<sequencing of the l. maculans genome has revealed an UNUSUAL genome structure compared to other fungi> as it contains alternating gc-equilibrated (∼51% gc) and at-rich (∼33.9% gc) blocks, which we call “gc-” and “at-isochores”.” [sequencing of l. maculans genome has revealed a curious genome structure compared to other fungi]
117. “<the formation of these mononuclear complexes is UNUSUAL considering the obvious bridging potential of the bpee ligands>.” [the formation of these mononuclear complexes is a curious finding given the obvious bridging potential of the bpee ligands]
118. “melanoma occurs more commonly in UNUSUAL anatomic sites (e.g., palms and soles) in minority populations than in whites [3].” [a results statement about the unusual locations of melanoma for minority populations, not a statement that lays out a curious research finding that needs to be explored more]
119. “the internal organs of both controlled and treated groups did not show any UNUSUAL signs and were found to be normal in both size and color.” [a results statement that the internal organs were normal (no unusual signs), not a statement that lays out a curious research finding that needs to be explored more]
120. “EXAMPLE” [EXAMPLE]
121. **YET**
122. “<YET, in managing a crisis that primarily evokes fear, providing an apology letter full of feeling ashamed of the relevant actions might be more important>.” [a curious finding that in managing a crisis that primarily evokes fear, providing an apology letter full of feeling ashamed of the relevant actions might be more important]
123. “<in the studies just cited, researchers only examine how consumers experiencing either shame or guilt would react differently, YET little is known about how consumers would perceive and evaluate messages framed in either shame or guilt>, especially the emotional frames are not aimed to prime consumers to feel shame or guilt.” [a curious finding that little is known about how consumers would perceive and evaluate messages framed in either shame or guilt given that in the studies just cited, researchers only examine how consumers experiencing either shame or guilt would react differently]
124. “a validated assay for urinary blys detection has not YET been developed so we were unable to quantify urinary blys levels.” [a statement about the need to develop a validated assay for urinary blys detection, not a statement that lays out a curious research finding that needs to be explored more]
125. “there is no place (YET) for routine administration of sildenafil to patients with ards” [a statement about the need for a place for routine administration of sildenafil to patients with ards, not a statement that lays out a curious research finding that needs to be explored more]
126. “EXAMPLE” [EXAMPLE]
127. **EXAMPLE**
128. “EXAMPLE” [EXAMPLE]
129. “EXAMPLE” [EXAMPLE]

UNEXPECTED/SUPERFICIAL OBSERVATION = a statement of a judgement or inference from an observable phenomenon that the researchers did not expect; an element of surprise. The next actionable step is to repeat the experiment or simulation to make sure the observations are repeatable; think about next steps with this result.

1. **APPARENT**
2. “<although our ventricular volumes were not statistically different in live vs post mortem comparisons, at each age studied there is an APPARENT trend of reduced volumes from live to postmortem-1 and postmortem-2>, which suggests post mortem ventricular values should be interpreted with particular caution compared to the other brain regions of interest.” [an unexpected observation that at each age studied there is a trend of reduced volumes from live to postmortem-1 and postmortem-2]
3. “<many of these variables have not been reported in previous srt studies, and may have differed in experiments that used APPARENTLY similar methods>.” [an unexpected observation that many of these variables may have differed in experiments given they used similar methods]
4. “moreover, hit-rate was not significantly correlated with srt latencies in experiment 2 [ r = -0.07, ns], unlike the APPARENT speed/accuracy trade-off [ r = 0.25] seen in experiment 1.” [a statement about an obvious speed/accuracy trade-off seen in experiment 1, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
5. “the elderly subjects with a medical history of brain or spinal cord abnormalities, an operation for lower extremity joint, an APPARENT lower extremity deformity, a peripheral neuropathy, or a radiculopathy causing lower extremity motor weakness, were excluded.” [a statement of exclusion criteria including an obvious lower extremity deformity, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
6. “EXAMPLE” [EXAMPLE]
7. “EXAMPLE” [EXAMPLE]
8. **APPEAR/ APPEAR TO BE/ APPEARANCE/ APPEARED/ APPEARED TO BE/ APPEARS/ APPEARS TO BE**
9. “interestingly, although the globe artichoke hct sequence is closely related to that of its tobacco ortholog, <its activity APPEARS TO BE more similar to that of tobacco and tomato hqt>.” [an unexpected observation that its activity is more similar to that of tobacco and tomato hqt]
10. “<with the evolution of minimally invasive surgery, this rate APPEARS TO BE increasing>.” [an unexpected observation that this rate is increasing with the evolution of minimally invasive surgery]
11. “<changes in the lateral bilayer structure upon peptide insertion are mostly discussed in theoretical studies and APPEAR contradictory with respect to their conclusions>.” [an unexpected observation that changes in the lateral bilayer structure upon peptide insertion are contradictory with respect to their conclusions]
12. “<as the decay in luminescence does not APPEAR to relate to structural changes in the si-nc>, this suggests that it results from changes in the host nitride matrix or with the interface passivation.” [an unexpected observation that the decay in luminescence does not relate to structural changes in the sinc]
13. “<hydrogen APPEARED to play an important role in enhancing luminescence from srsn films>.” [an unexpected observation that hydrogen plays an important role in enhancing luminescence from srsn films]
14. “<there APPEAR TO BE at least two competing mechanisms in the si-nc growth dynamics related to the growth of existing si-ncs due to diffusion of silicon atoms in the film and the formation and subsequent growth of new si-ncs at nucleation sites>.” [an unexpected observation that there are at least two competing mechanisms in the si-nc growth dynamics related to the growth of existing si-ncs due to diffusion of silicon atoms in the film and the formation and subsequent growth of new si-ncs at nucleation sites]
15. “<in mimetic females, papiliochrome ii synthesis APPEARED TO BE reduced>, which may result in reducing the male preference.” [an unexpected observation that in mimetic females, papilichrome ii synthesis is reduced]
16. “<hrms analyses showed the APPEARANCE of the isotopic fingerprint of the [pd3ag] cores>.” [an unexpected observation that hrms analysis looked like the isotopic fingerprint of the [pd3ag] cores]
17. “<a provirus on chromosome 22q11.21 APPEARS strongly upregulated in pathologic gct tissues> and may explain high hml-2 gag protein levels in gcts.” [an unexpected observation that a provirus on chromosome 22q11.21 is strongly upregulated in pathologic gct tissues]
18. “in the majority of cases, symptoms do not APPEAR before the age of six years and the disease is usually diagnosed during adolescence or adulthood.” [a statement of when symptoms occur, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
19. “[114] in [figure 8] storm images clearly discrimi-nate transferrin and clathrin, which APPEARED as completely overlapping puncta in the conventional images.” [a description of the storm images verse the conventional images and the difference in appearance, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
20. “in conclusion, the present case identified that enhancement of the geniculate ganglion is an important characteristic to identify when evaluating the mri APPEARANCE of cerebellopontine angle masses.” [a comment on the look of cerebellopontine angle masses on an mri scan, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
21. “the first digestive enzyme that APPEARS in the spptf1a and sphnf1 positive domain is spcpa2l (fig.” [a statement listing the first digestive enzyme that occurs in the spptf1a and sphnf1 positive domain, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
22. “although using go-graph-node distance to benchmark the predicted ddis may APPEAR TO BE circular, we wish to emphasize that it is not for the following reason.” [a statement trying to explain that their benchmarking method is not circular, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
23. “the k−1value for the wild type rf1 is very small and due to the magnified error of extrapolation of the data APPEARS TO BE negative in the plot.” [due to the type of plot, the data looks negative, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
24. “when the tip of the needle APPEARED TO BE inside the subacromial bursa, a small amount of liquid is injected to confirm the correct position (fluid passing from the needle tip into the bursa).” [a description of a non-perfect procedure: when the tip of the needle looked inside the subacromial bursa, inject a small amount of liquid, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
25. “EXAMPLE” [EXAMPLE]
26. **INCIDENTALLY**
27. “<INCIDENTALLY, dmbt1 gene is located within chromosome 10q similar to pten, another tumor suppressor>, implicating both of these molecules as important biomarkers in cancer prognosis.” [an unexpected observation that dmbt1 gene is located within chromosome 10q similar to pten, another tumor suppressor]
28. “<isolated calcification INCIDENTALLY observed in the splenic artery occurred by unclear mechanisms>.” [an unexpected observation that isolated calcification occured in the splenic artery by unclear mechanisms]
29. “patients with hes may present with insidious and INCIDENTALLY detected eosinophilia, gradually progressive symptoms, or with life-threatening cardiac and neurologic events such as thromoembolic stroke or encephalopathy.” [a general statement about patients with hes, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
30. “benign airway neoplasms are usually discovered INCIDENTALLY on ct scans performed for other reasons.” [a general statement about the discovery of benign airway neoplasms on ct scans for other reasons accidentally, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
31. “EXAMPLE” [EXAMPLE]
32. **SEEM/ SEEM TO BE/ SEEMED/ SEEMED TO BE/ SEEMINGLY/ SEEMS**
33. “<studying the conceptual overlap of psychological constructs SEEMS to gain more importance>.” [an unexpected observation that studying the conceptual overlap of phycological constructs is gaining more importance]
34. “<from 4′,6-diamidino-2-phenylindole and cleaved caspase-3 staining images, it SEEMS that cell death might be caused by apoptosis> (supplementary fig.” [an unexpected observation that cell death might be caused by apoptosis given 4′,6-diamidino-2-phenylindole and cleaved caspase-3 staining images]
35. “interestingly, postprandial patterns of bdnf levels over time differed among genetic subtypes, and <baseline bdnf levels SEEM to influence the odds of being hungry after a meal>.” [an unexpected observation that baseline bdnf levels influence the odds of being hungry after a meal]
36. “potential implications : <il-6 SEEMS TO BE one of the most important inflammatory cytokines in the development of pah>, and in particular of hypoxia-induced pulmonary hypertension.” [an unexpected observation that il-6 is one of the most important inflammatory cytokines in the development of pah]
37. “despite this fact, there arises a pattern, because <both amino acids carry aromatic residues that SEEM TO BE important for position 3 according to svmhc>.” [an unexpected observation that both amino acids carry aromatic residues that are important for position 3 according to svmhc]
38. “<the cell border region does not SEEM TO BE depleted from erbb receptors as in the nrg-1 case>, but the border accumulation is less pronounced as compared to the trastuzumab case.” [an unexpected observation that the cell border regions is not depleted from erbb receptors as in nrg-1 case]
39. “<celtag binding SEEMED TO BE relatively resistant to high salt elutions>.” [an unexpected observation that celtag binding is relatively resistant to high salt elutions]
40. “transcriptionally active hml-2 loci tended to have less mismatches, however, <several SEEMINGLY inactive loci displayed as few mismatches as active loci>.” [an unexpected observation that several inactive loci displayed as few mismatches as active loci]
41. “conceptually, expectations for a given treatment may develop (at least partly) from how credible the treatment SEEMS.” [a general statement about the expectations of a treatment are going to based on how credible the treatment looks to everyone else, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
42. “environmental issues are often presented as adversarial; as “SEEMINGLY irreconcilable conflicts between neatly defined, diametrically opposed groups” [28] (p.” [a quoted definition of how environmental issues are presented as adversarial, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
43. “additionally, if the cost of testing is paid by insurers it may be provided to patients at low to no cost, and may SEEM “free” to them.” [a general statement about the perceptions of patients with insurance that it may look like it is “free”, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
44. “although at first sight it SEEMED that the consensus peptides will be difficult to synthesise because of the multiple w and m residues, all peptides could be synthesised experimentally.” [a confirmed outcome sentence that says all peptides could be synthesized experimentally even though people thought it would be difficult, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
45. “in fact, during the first year in college, he SEEMED TO BE searching for an addiction (as described by wurmser,1974).” [an observational statement about a person who was searching for an addiction, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
46. “when interacting with his mother, for instance, b1’s gaze wanders off, often away from the area of interaction, and he does not SEEM TO BE able to get involved, isolating himself for half of the observation time, despite m1 efforts to get his attention.” [an observational statement about a person who is not able to get involved, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
47. “EXAMPLE” [EXAMPLE]
48. **UNEXPECTED OBSERVATION**
49. “<an UNEXPECTED OBSERVATION was the ability of exercise preconditioning to delay or prevent silencing of retained autoreactive leukocytes>.” [an unexpected observation of the ability of exercise preconditioning to delay or prevent silencing of retained autoreactive leukocytes]
50. “the inability of apaf-1 to trigger apoptosis correlated with <the UNEXPECTED OBSERVATION that apaf-1 expressing cells had diminished dronc protein levels> (figure 1a,b,d).” [an unexpected observation that apaf-1 expressing cells had diminished dronc protein levels]
51. “the project begun in silico with an UNEXPECTED OBSERVATION.” [the origin story of the project based on an unexpected observation but it is not stated here, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
52. “this UNEXPECTED OBSERVATION impeded us from discerning the consequences of impaired leptin signaling as opposed to long-term cre expression in the function of insulin-secreting cells.” [a statement about the consequences of the unexpected observation but not the observation itself, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
53. “EXAMPLE” [EXAMPLE]
54. **COUNTERINTUITIVE**
55. “at first sight, <this finding seems COUNTERINTUITIVE because the amygdala was traditionally related to negative stimuli> (e.g.morris et al.” [an unexpected finding because the amygdala was traditionally related to negative stimuli]
56. “<although COUNTERINTUITIVE, losing a gene might actually bring a selective advantage to the organism>.” [an unexpected observation that losing a gene might actually bring a selective advantage to the organism]
57. “<COUNTERINTUITIVELY, involuntary motor activity can be greater in intentional processes than in the activation of automatisms>.” [an unexpected observation that involuntary motor activity can be greater in intentional processes than in the activation of automatisms]
58. “figure 7presents that what might seem to be an initially COUNTERINTUITIVE behavior: medium to high stakeholder alignment results in low pressure to have stronger capabilities.” [a description of figure 7 that includes counterintuitive behavior, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
59. “Highest level of mean fluorescence intensity was observed at 6 h time point in case of cancerous cells (Fig. 5A) whereas there was no COUNTERINTUITIVE existence of ROS in fibroblasts (see Supplementary Fig. S10A).” [a not counterintuitive result so just a results statement, not a statement that lays out an unexpected research observation that needs to be repeated to confirm]
60. “EXAMPLE” [EXAMPLE]
61. **EXAMPLE**
62. “EXAMPLE” [EXAMPLE]
63. “EXAMPLE” [EXAMPLE]
64. “EXAMPLE” [EXAMPLE]
65. “EXAMPLE” [EXAMPLE]
66. “EXAMPLE” [EXAMPLE]
67. “EXAMPLE” [EXAMPLE]

**Issues/concerns**

DIFFICULT TASK = a statement of something not easily done, accomplished, comprehended, solved, or complicated with a multitude of underlying pieces or parts; heterogeneity; not medical complications. The next actionable step is to create methods to study the complicated system and to better understand any piece of the complicated system; potentially overall field development needed

1. **CANNOT BE/ COULD NOT/ COULD NOT BE**
2. “EXAMPLE” [EXAMPLE]
3. “EXAMPLE” [EXAMPLE]
4. “EXAMPLE” [EXAMPLE]
5. “EXAMPLE” [EXAMPLE]
6. “because of the lack of sufficient data, <the relationship gc content, gene density and the density of cpg islands COULD NOT be analyzed>.” [a difficult task to analyze the relationship gc content, gene density, and the density of cpg islands (because of the lack of sufficient data)]
7. “first, <we COULD NOT establish a relationship between ganglioside-nana-3 plasma levels in pd patients and their brains>.” [a difficult task to establish a relationship between ganglioside-nana-3 plasma levels in pd patients and their brains]
8. “however, <the linearity problem of this mean bias COULD NOT be solved>, not even by log-transforming.” [a difficult task to solve the linearity problem of this mean bias]
9. “<the present study COULD NOT demonstrate a relationship between the counts of supragingival bacteria and the caries experience (dmft/dmft)>.” [a difficult task to demonstrate a relationship between the counts of supragingival bacteria and the caries experience (dmft/dmft)]
10. “therefore, mta COULD NOT abolish the methionine-specific response by simply restoring methionine levels.” [a result of an experiment trying to rescue methionine levels and it did not rescue it, not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
11. “alternatively, such unique otus might be the true members of the community that COULD NOT BE consistently amplified due to their rarity or low specificity with the primers used for pcr reactions.” [a theory of why the unique otus might be the true members of the community (not consistently amplified), not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
12. “EXAMPLE” [EXAMPLE]
13. **CHALLENGE/ CHALLENGES/ CHALLENGING/ REMAINS… CHALLENGE**
14. “<the CHALLENGE is to identify such housekeeping longevity pathways>, perhaps by using a chemical screen for compounds that can extend longevity even under cr/dr conditions.” [a difficult task to identify such housekeeping longevity pathways]
15. “most regions of the world have been colonized by species from many other parts of the globe, and <identifying many of these non-native species is a major CHALLENGE>.” [a difficult task to identify many of these non-native species]
16. “in reports in which wt p53 was used as an immunogen (30,58), therapeutic effects were found consisting of eradication of established tumors or protection against a subsequent tumor CHALLENGE.” [a medical difficulty (tumor challenge), not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
17. “however, alien plants CHALLENGE this assumption yet again in that hybrids may be found between quite distinct historical lineages.” [the challenge comes from the aliens about the assumption, not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
18. “the nasal CHALLENGE test involves measuring the subject's subjective sensations and using measures of objective testing techniques which are subject to standardisation attempts (table 1) and determined in the early (within 30 min) and late (4–48 h) phases of the allergic reaction [7,8].” [a description of a medical test called ‘the nasal challenge test’, not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
19. “since p53 is a crucial protein serving as a checkpoint in the cell cycle of stimulated t cells (59) which are open to attack by wt p53-specific ctls (fig.3 a ), <one of the major CHALLENGES is to try to break tolerance of wt p53 and to generate high affinity wt p53-specifc ctls in normal p53 +/+ individuals>.” [a difficult task to try to break tolerance of wt p53 and to generate high affinity wt p53-specifc ctls in normal p53 +/+ individuals]
20. “<optimising therapy for those patients who failed anti-tnf treatments is one of the main CHALLENGES of managing patients with severe, longstanding psa>.” [a difficult task to optimize therapy for those patients who failed anti-tnf treatments (to manage patients with severe, longstanding psa)]
21. “ilcs in both lymphoid and non-lymphoid organs are tissue-resident cells that are locally renewed and expanded in response to acute environmental CHALLENGES.” [a response description to acute environmental challenges, not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
22. “all 12 subjects completed the two exposures and all of the allergen and methacholine CHALLENGES.” [a statement about the end of the study, that all subjects completed the medical challenges, not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
23. “rapid growth, early metastatic dissemination to distant sites, and resistance to most tumor-directed and systemic therapies, <makes the management of pancreatic cancer highly CHALLENGING> [4].” [a difficult task to manage pancreatic cancer due to rapid growth, early metastatic dissemination to distant sites, and resistance to most tumor-directed and systematic therapies]
24. “<the chromatin composition of human centromeres has proven CHALLENGING to elucidate given their large (1–4 mb) size and highly repetitive nature> (sullivan et al., 2001).” [a difficult task to elucidate the chromatin composition of human centromeres given their large (1-4 mb) size and highly repetitive nature]
25. “understanding speech in the presence of background sound can be CHALLENGING for older adults.” [a results statement that speech in the presence of background sound can be hard for older adults, not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
26. “it's always CHALLENGING to direct someone brighter than you are, but i tried.” [a personal anecdote about working with people who are brighter than you are, not a statement that lays out a specific difficult research task that may need new data and/or methods to overcome]
27. “<analyzing how proteins interact in vivo with chromatin to direct these activities and how epigenetics factors into these mechanisms REMAINS a significant CHALLENGE> owing to the lack of technologies to comprehensively analyze protein associations and epigenetics at specific native chromosome sites.” [a difficult task to analyze how proteins interact in vivo with chromatin to direct these activities and how epigenetics factors into these mechanisms owing to…]
28. “laparoscopic surgical approaches might reduce postoperative pain associated with colorectal surgery [2], but <postoperative pain management REMAINS a complex CHALLENGE>.” [a difficult task to manage postoperative pain]
29. “EXAMPLE” [EXAMPLE]
30. **COMPLEX/ COMPLEXITIES/ COMPLEXITY/**
31. “more broadly, construction and use of the centromere reference models represent a first step in defining the relationship between <the COMPLEX repetitive sequence structure> and the chromatin composition of endogenous human centromeres and pericentromeres.” [a difficult task to understand the repetitive sequence structure]
32. “specifically, the hypothesis was pursued that lipid markers display distinct serum concentration patterns and that <these patterns will be COMPLEX> (figure 1).” [a difficult task to understand the patterns]
33. “with the increasing knowledge about lipid signaling, <acquired data become increasingly COMPLEX> making bioinformatics necessary in lipid research.” [a difficult task to understand acquired data]
34. “this occurs either by migration of activated dcs to the lung draining lymph node and subsequent th2 cell priming in response to il-13 [85] or by the direct interactions with cd4+t cells in a major histocompatibility COMPLEX class ii (mhcii)-dependent manner [86,87].” [a physical combination of things (a complex): major histocompatibility complex class ii (mhcii), not a statement that lays out a specific difficult research task that may need new data/ methods to overcome]
35. “as seen in the figure, however, there are both outliers (decreased COMPLEX i rates with no decrease in ec50) and an apparent ceiling effect when COMPLEX i rates are increased.” [a results statement about the physical combination of things (complex i), not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
36. “this could potentially have a masking effect on social communication in females, causing <COMPLEXITIES in the diagnostic process> and fewer high functioning females are identified and diagnosed with asd.” [a difficult task to diagnose females with asd]
37. “<COMPLEXITIES surrounding the human sexual experience, including interpersonal relationships and sexual preferences, often make evaluation COMPLEX>.” [a difficult task to understand the human sexual experience, including interpersonal relationships and sexual preferences makes evaluation difficult]
38. “in patients included, however, such methodological COMPLEXITIES were not applicable as demonstrated by clear visualization of the iris at key time points (fig.” [a statement that all the complexities were not applicable, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
39. “research in community based settings often deal with COMPLEXITIES of health challenges (as well as environmental challenges) that can influence the research goals and program practices [21].” [a description of what research in community based settings means in general, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
40. “limitations of these scoring systems have been either the inability to obtain a complete score until at least 48 hours into the illness (ranson and glasgow scores) or <the COMPLEXITY of the scoring system itself> (apache ii).” [a difficult task to understand the scoring system itself]
41. “environmental cues associated with inflammation or tumors can change the surface characteristics of dcs as well as their functional properties, <adding another layer of COMPLEXITY to identification of dcs>.” [a difficult task to identify dcs with more layers added]
42. “however, our findings that the inhibition of adipogenesis by emdogain® is only transient indicate <the COMPLEXITY of the interpretation of our findings>.” [a difficult task to interpret the findings]
43. “acs patients showed higher disease COMPLEXITY with higher syntax score values (range of 56), whereas non-acs patients showed consistently lower scores (range value of 39; p< 0.001).” [a results statement that asc patients had higher disease variability, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
44. “obtains paired-end alignments with high quality by integrating the hybrid seeding and these three techniques, at the cost of a high computational COMPLEXITY.fig 3shows the workflow of cushaw3 for paired-end alignment.” [a statement about the computational intricacies that leads to a solution, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
45. “EXAMPLE” [EXAMPLE]
46. **COMPLICATED/ COMPLICATING**
47. “in the ibc cells, <the involvement of ers in the non-genomic signaling seems to be more COMPLICATED due to the expression of erβ in addition to the expression of erα36 and gpr30>.” [a difficult task to understand the involvement of ers in the non-genomic signaling due to the expression of erβ in addition to the expression of erα36 and gpr30]
48. “<the mechanisms are COMPLICATED because the different features of metallic materials may result in different performances under microwave irradiation>.” [a difficult task to understand the mechanisms because the different features of metallic materials may result in different performances under microwave irradiation]
49. “as a single prognostic marker, an elevated c-reactive protein (crp) concentration of greater than 150 mg/l indicates that acute pancreatitis has a COMPLICATED course with a sensitivity of 85% in the first 72 h after the onset of symptoms.” [a biomarker for acute pancreatitis with a complicated course, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
50. “although many hospitalizations are due to pneumonia (viral and bacterial), influenza is also COMPLICATED by acute exacerbation of cardiovascular and pulmonary diseases.” [medical complications including acute exacerbation of cardiovascular and pulmonary diseases]
51. “current knowledge on biological invasions is geographically and taxonomically biased toward more developed regions, <further COMPLICATING accurate species identification>.” [a difficult task to identify accurate species (due to current knowledge on biological invasions is geographically and taxonomically biased towards more developed regions)]
52. “<a further COMPLICATING matter is the poor reproducibility of sa as an assessment tool for sperm quality and quantity>.” [a difficult task to find an assessment tool for sperm quality and quantity that is reproducible]
53. “in contrast, several studies suggested that statin therapy could reduce maces in patients with acute ischemic hf COMPLICATING ami.” [a medical diagnosis: acute ischemic hf complicating ami, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
54. ““COMPLICATING comorbidity,” or the strong causal relationship between one disease and another, for example, between hypertension and stroke or obesity and diabetes, may also explain the frequent clustering of comorbidities in our study sample.28” [an explanation statement about a disease state ‘complicating comorbidities’, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
55. “EXAMPLE” [EXAMPLE]
56. **CONFUSED/ EASILY CONFUSED**
57. “<morphologically, pstt can be CONFUSED with other non-trophoblastic neoplasms such as squamous cell carcinoma (scc)>.” [a difficult task to distinguish morphologically between pstt and other non-trophoblastic neoplasms such as squamous cell carcinoma (scc)]
58. “<reads that map to only one locus are called unique reads, which should not be CONFUSED with the distinct reads, which are reads with different nucleotide sequences>.” [a difficult task to distinguish between reads that map to only one locus (unique reads) and distinct reads (reads with different nucleotide sequences)]
59. “this statement further CONFUSED me.” [a personal anecdote about something that was difficult to understand, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
60. “at the same time, the relatives felt anxious and CONFUSED and the weight from the responsibility was almost unbearable for them, as one relative indicated:” [a description of the relatives feeling that included confusion, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
61. “for this reason, <the18f-fdg pet/ct imaging characteristics of lntb may be EASILY CONFUSED with malignancy>.” [a difficult task to distinguish between the18f-fdg pet/ct imaging characteristics of lntb and malginancy]
62. “this results in <burnout being EASILY CONFUSED with those disorders> as professionals do not know the true dimensions of burnout, and lack adequate diagnostics tools [1].” [a difficult task to distinguish between burnout and those disorders (because professionals do not know the true dimensions of burnout, and lack adequate diagnostic tools]
63. “this could have meant that the large prey were more EASILY CONFUSED with smaller defended prey sizes, and that it was better for the birds to avoid all defended prey rather than risk ingesting a less rewarding medium or even small defended prey instead of a large one.” [large prey were puzzled by smaller defended prey size, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
64. “first, patients may be EASILY CONFUSED about the correct dose.” [patient confusion, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
65. “EXAMPLE” [EXAMPLE]
66. **DIFFICULT TASK/ DIFFICULT/ DIFFICULTIES/ DIFFICULTY**
67. “<differentiation between lymphoma and nonhyperplastic conditions in lymph nodes is a very important and DIFFICULT TASK>.” [a difficult task to differentiate between lymphoma and nonhperplastic conditions in lymph nodes]
68. “<this kind of metabolic engineering however is a DIFFICULT TASK> as there is still significant lack of knowledge regarding the regulation of central carbon metabolism flux for many industrially important bacteria.” [a difficult task to do this kind of metabolic engineering (because there is still a significant lack of knowledge regarding the regulation of central carbon metabolism flux for many industrially important bacteria)]
69. “firstly, the fatigue-inducing task ax-cpt is a relatively simple task, and so future research should attempt to replicate results using a more DIFFICULT TASK to induce mental fatigue.” [a future work statement that includes using a more challenging problem to induce mental fatigue, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
70. “previous studies showed that a more DIFFICULT TASK would delay periphery cued ior.” [a statement about that prror work showed that a more challenging problem is needed to delay periphery cued ior, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
71. “<it is DIFFICULT to use a conditional data-generating process to generate binary outcomes and exposure such that treatment causes a specific risk difference in the treated subjects>.” [a difficult task to use a conditional data-generating process to generate binary outcomes and exposure such that treatment causes a specific risk difference in the treated subjects]
72. “in order to exclude any cross-effects of stabilizers or reducing agents, <which are DIFFICULT to exclude in precursor-based chemically produced gold and silver nanoparticles>, the particles for this study were synthesized by laser ablation of a bulk solid target in water, which generates colloidal particles of maximal purity [43–45].” [a difficult task to exclude in precursor-based chemically produced gold and silver nanoparticles]
73. “perception and comprehension of speech heard in background noise becomes more DIFFICULT with age (plomp and mimpen,1979; van rooij and plomp,1990; sommers,1997; schneider et al.,2002; pichora-fuller and souza,2003).” [a results statement that perception and comprehension of speech heard in background noise gets harder with age, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
74. “if it was DIFFICULT to distinguish between breast bud development (ts2) and fat tissue, then the breast was palpated with the girl’s permission, and a second score based on both visualization and palpation was recorded.” [a methodological statement about data that was recorded including if there were difficulties distinguishing, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
75. “furthermore, <pooling supragingival plaque into one test tube may create DIFFICULTIES in lysing all bacterial cells present in a very dense bacterial suspension> [20].” [a difficult task to lyse all bacterial cells present in a very dense bacterial suspension based on pooling supragingival plaque into one test tube]
76. “it does not account for <DIFFICULTIES in implementation, inaccessibility or high costs of high-quality mdr-tb treatment, and nuanced hiv dynamics>.” [a difficult task to implement, access or pay for high quality mdr-tb treatment and nuanced hiv dynamics]
77. “people who didn’t want or had DIFFICULTIES responding online could ask for a paper version of the questionnaire.” [a statement of options for people who had a hard time responding online, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
78. “patient 290951 had a clinical diagnosis of autism spectrum disorder, behavioral DIFFICULTIES, and severe speech and language delay.” [a description of the phenotype of the patient that include ‘behavioral difficulties’, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
79. “the results clearly show <the DIFFICULTY in linking observed lung cancer incidence rates at the provincial/territorial level, with possible cause>, such as smoking or radon exposure.” [a difficult task to link observed lung cancer incidence rates at the provincial/territorial level with possible cause (such as smoking or radon exposure)]
80. “this false medical credibility may stem from <DIFFICULTY in separating it from a more generalized impression of the celebrity>.” [a difficult task to separate it from a more generalized impression of the celebrity]
81. “second, although emergency presentations are multifactorial, they do seem to represent a marker of ‘diagnostic DIFFICULTY' after presentation.” [a quote to classify emergency presentations in ‘diagnostic difficulty’, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
82. “there were no significant differences regarding DIFFICULTY in falling asleep ( p  = 0.449) or DIFFICULTY in driving short or long distances ( p  = 0.164 and p  = 0.278).” [a results statements about the hardships of falling asleep and driving short or long distances ]
83. “EXAMPLE” [EXAMPLE]
84. **HETEROGENEITY/ HETEROGENEOUS**
85. “whether <the several layers of HETEROGENEITY detected in Clorinda> reduced the likelihood of an epidemic remains an open question.” [a difficult task to understand the several layers of heterogeneity detected in Clorinda]
86. “<the HETEROGENEITY of sepsis diagnosis-related groups, due either to capture of organ dysfunction or to coding of sepsis itself>, should not be ignored.” [a difficult task to understand sepsis diagnosis-related groups due either to capture of organ dysfunction or to coding of sepsis itself]
87. “tumor HETEROGENEITY is determined by both heterogeneous tumor cells and a complex tumor microenvironment.” [a methodological statement of how ‘tumor heterogeneity’ is determined, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
88. “risk ratios generated from the proportional hazards analysis illustrate the HETEROGENEITY in longevity among all the natural mth lines (figure 2).” [a figure to illustrate the variability described, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
89. “<thymoma is a HETEROGENEOUS group of tumors in biology and clinical behavior>.” [a difficult task to understand thymoma in biology and clinical behavior due to variability]
90. “<psoriatic arthritis (psa) is a HETEROGENEOUS disease>, which shares characteristic clinical features (sacroiliitis, spondylitis, enthesitis, psoriasis, uveitis), genetic markers and positive family history with the larger group of seronegative spondyloarthropathies.” [a difficult task to understand psoriatic arthritis (psa)]
91. “glioblastoma is the most common and most aggressive from of primary adult brain tumor [9]; therefore, <characterizing the HETEROGENEOUS population of macrophages in glioblastomas> is necessary to provide better understanding of this aggressive tumor, as well as to design more effective therapeutics to treat it.” [a difficult task to characterize the variable population of macrophages in glioblastomas]
92. “HETEROGENEOUS expression was observed for various immature hematopoietic cell or vascular stem cell markers, such as cd34, c-kit, flk-1, and sca-1.” [a results statement that the expression varied for immature hematopoietic cell or vascular stem cell markers, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
93. “indeed, HETEROGENEOUS mitochondrial diseases are now recognized to constitute the most common group of inborn metabolic errors, with a minimal estimated 1 in 5,000 lifetime prevalence[2],[3].” [a disease category: ‘heterogeneous mitochondrial diseases’, not a statement that lays out a specific difficult research task that may need new data/methods ot overcome]
94. “EXAMPLE” [EXAMPLE]
95. **IMPOSSIBLE**
96. “beyond this point, <deficiencies in the chemistry make it IMPOSSIBLE to produce pure dna>.” [a difficult task to produce pure dna due to deficiencies in the chemistry]
97. “however, <their respective contributions have previously been IMPOSSIBLE to determine>.” [a difficult task to determine their respective contributions (previously)]
98. “these have been treated as ‘non-emergency presentations' for the purposes of this analysis, as with our operational definition it is IMPOSSIBLE to have an emergency presentation without having a signal in hospital episode statistics.” [a methodological/ definitional statement that ensures that there are no emergency presentations without having a signal in hospital episode statistics, not a statement that lays out a specific difficult research task that may need new data/methods ot overcome]
99. “all patients considered perfection IMPOSSIBLE and exhausting.” [a results statement about patients’ attitudes towards perfection, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
100. “EXAMPLE” [EXAMPLE]
101. **STRUGGLING**
102. “<we were STRUGGLING to become an identified area of medicine>.” [a difficult task to become an identified area of medicine]
103. “<they are, in fact, STRUGGLING to make computers that operate more like the brain>.” [a difficult task to make computers that operate more like the brain]
104. “social games were thought to stimulate “a healthy sense of competition” (p8) and remind users “you’re not the only one STRUGGLING” (p22).” [a quote from a book to remind users that ‘you’re not the only one struggling’ (having a hard time), not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
105. “moreover, the economies of mountain villages have been STRUGGLING because of such factors as declining workforce due to aging population, wage inflation, and low forestry productivity.” [the economy is about to be in crisis because of such factors, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
106. “EXAMPLE” [EXAMPLE]
107. **VARIABILITY/ VARIATION/ VARIETY/ VARY/ VARY SUBSTANTIALLY/**
108. “<some studies have shown wide inter-patient VARIABILITY in vancomycin pharmacokinetics among adults>[38], especially in critically ill patients, patients with severe sepsis, patients undergoing continuous veno-venous hemodialysis, cancer patients, neonatal patients, and patients with severe burn injuries[39]–[46].” [a difficult task to study vancomycin pharmacokinetics among adults due wide inter-patient heterogeneity]
109. “the first discriminating factor accounts for 67.33% of the VARIABILITY and the second discriminating factor for 25.83% of the VARIABILITY.” [a results statement that understand the underlying variability, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
110. “<VARIATION in the mutation rates among chromosomes> must be one of the causes of the discrepancies among the results of previous studies with regard to the effect of male-driven evolution on mutation rates.” [a difficult task to understand the heterogeneity in the mutation rates among chromosomes]
111. “the VARIATION from the different labeling efficiencies was corrected using within-slide global normalization, which subtracted the median of log2(r/g) intensity ratio from the log2transformed data.” [a methodologic statement about normalizing to correct the variation in the data, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
112. “<since these mutations, causing overexpression of p53, are present in a wide VARIETY of cancers> (22–25), a large group of patients would benefit from p53 directed immunotherapy.” [a difficult task to understand these mutations causing overexpression of p53 in many cancers and determine an immunotherapy]
113. “the study was conducted in geriatric patients with a VARIETY of primary diagnoses, multiple co-morbid conditions and complex medication regimens.” [a methodological statement that the study included geriatric patients with a wide range of primary diagnoses…, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
114. “however, <plasma 25ohd concentrations among women may VARY as a consequence of differences in eating habits as well as sun exposure>, and the fact that we did not directly measure plasma 25ohd is a limitation of the present study>.” [a difficult task to understand plasma 25ohd concentrations among women (due to a consequence of differences in eating habits as well as sun exposure)]
115. “patient acceptance of vc and cc could VARY depending on the patient's mental attitude before the procedure, which could be shaped by the information he or she had obtained and previous personal experiences [21,22].” [a general statement about patient’s acceptance of vc and cc that could change based on the patient’s mental attitude before the procedure, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
116. “<counts of trna genes can VARY SUBSTANTIALLY among closely related genomes>, so an average value was estimated for each species.” [a difficult task to count trna genes among closely related genomes]
117. “the measured concentrations VARY SUBSTANTIALLY from 0.2 mg po4/l to 24.6 mg po4/l.” [a statement of the range of the measured concentrations from 0.2 mg po4/l to 24.6 mg po4/l, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
118. “EXAMPLE” [EXAMPLE]
119. **WIDE SPECTRUM**
120. “<radiographic features of btt show a WIDE SPECTRUM>.” [a difficult task to understand the radiographic features of btt due its high variability]
121. “<there is no single gene, or set of genes whose mutation or combined mutations have been found to be responsible for human cancers in a WIDE SPECTRUM>.” [a difficult task to find a single gene, or set of genes whose mutations or combined mutations to be responsible for human cancers broadly]
122. “among the WIDE SPECTRUM of scaffolding materials used in tissue engineering, nano-fibers and microfibers raise much attention.” [a lot of different types of scaffolding materials were used, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
123. “exposures to a WIDE SPECTRUM of environmental pollutants are being considered for investigation in the study, including air pollutants of indoor and outdoor origin (national children’s study 2004).” [a methodological statement about what is included in the study: exposures to many different environmental pollutants, not a statement that lays out a specific difficult research task that may need new data/methods to overcome]
124. “EXAMPLE” [EXAMPLE]
125. **EXAMPLE**
126. “EXAMPLE” [EXAMPLE]
127. “EXAMPLE” [EXAMPLE]
128. “EXAMPLE” [EXAMPLE]
129. “EXAMPLE” [EXAMPLE]
130. “EXAMPLE” [EXAMPLE]
131. “EXAMPLE” [EXAMPLE]

PROBLEMS OR COMPLICATIONS = a statement of issues, problems, mistakes, or medical complications that are cause for anxiety and/or worry. The next actionable step is to determine the gravity of the concern and determine if it needs to be dealt with before the next experiment or study.

1. **BURDENS**
2. “<these behaviors not only influence individuals' health but also create BURDENS for the nation and society as a whole>.” [problems include these behaviors that not only influence individuals’’ health but also stress the nation and society as a whole]
3. “importantly, <climate change will exacerbate current health BURDENS>, many of which are the subject of aspirational goals to reduce global rates of disease, such as in the millennium development goals.” [problems include climate change that will exacerbate current health stress]
4. “they also recognized that <learning information is not always an unequivocally positive experience but can be BURDENSOME and cause anxiety>.” [problems include learning information is not always an unequivocally positive experience but can be stressful and cause anxiety]
5. “parents need to be counselled on the benefits and BURDENS either decision (termination or continuation) will have on their future life.” [a need to inform and counsel parents about the consequences of their decision, not a statement that lays out a problem or complication that needs to be dealt with before the next phase]
6. “bacterial BURDENS within organs were analyzed using mood's median test with pairwise analysis.” [a methodological statement about analyzing the bacterial load within organs using mood’s median test with pairwise analysis, not a statement that lays out a problem or complication that needs to be dealt with before the next phase]
7. “EXAMPLE” [EXAMPLE]
8. **COMPLAINTS**
9. “sunscreen protection brings with it another benefit: <one of the COMPLAINTS of patients having phototherapy is the increased contrast between the area of the lesion and normal skin, which tans under radiation>.” [problems include the increased contrast between the area of the lesion and normal skin, which tans under radiation]
10. “evidence suggests that <there are sex specific differences in the perception and reporting of COMPLAINTS>.” [problems include that there are sex specific differences in the perception and reporting of issues]
11. “a 62-year-old man presented with COMPLAINTS of multiple dark eruptions involving his lower limbs, back, chest, and parts of the upper extremities.” [a case study about a 62-year-old man, not a statement that lays out a problem or complication that needs to be dealt with before the next phase]
12. “emergency medical dispatchers' role involves interrogating a 911 call, triaging based on caller COMPLAINTS, recognizing the need for higher priority response and assigning the appropriate level of ambulance response.” [the role of an emergency medical dispatcher includes triaging based on caller complaints, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
13. “EXAMPLE” [EXAMPLE]
14. **COMPLICATION/ COMPLICATIONS**
15. “<non-alcoholic fatty liver disease (nafld) is a highly prevalent and potentially serious COMPLICATION of childhood obesity>.” [complications include non-alcoholic fatty liver disease (nafld) from childhood obesity]
16. “<common COMPLICATIONS are enuresis, external urinary fistula, wound disruption, incisional hernia, bladder outlet obstruction (boo), intestinal obstruction from adhesions and contraction of cystoplasty anastomosis>.” [complications include enuresis, external urinary fistula, wound disruption, incisional hernia, bladder outlet obstruction (boo), intestinal obstruction from adhesions and contraction of cystoplasty anastomosis]
17. “COMPLICATION rates are comparatively low (1.5%) and most commonly involve catheter occlusion or dislodgment.” [a results statement about the rates of complications in general, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
18. “in this article, we review the various bladder reconstruction options used for the surgical management of gutb, along with their indications and COMPLICATIONS.” [the contents of the article, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
19. “none of the participants showed therapy-related motor COMPLICATIONS that could interfere with the study task.” [a results statement that none of the participants showed therapy-related motor problems, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
20. “EXAMPLE” [EXAMPLE]
21. **CONCERN/ CONCERNING/ CONCERNS**
22. “<CONCERN has been expressed over the possible immunosuppressive effects of lipid emulsions>.” [problems include the possible immunosuppressive effects of lipid emulsions]
23. “first, <publication bias is a major CONCERN in all forms of meta-analysis>, as published studies are often positive[14].” [problems include publication bias in all forms of meta-analysis (because published studies are often positive]
24. “<skin reactions to inhaled drugs used to treat copd and asthma are rare and mostly CONCERN corticosteroids> [4].” [problems include skin reactions (rare) mostly from corticosteroids]
25. “susceptibility artifacts, which were not a major CONCERN in this study.” [a statement of not a major concern that does not need to be dealt with, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
26. “all of the studies with young adults focused the CONCERN with the appearance, emphasizing the harmful effects of sun regarding premature aging.” [a results statement about all studies with young adults and their focus on appearance, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
27. “<type i (immediate) hypersensitivity reactions (i.e., anaphylaxis) are especially CONCERNING>, as they can be fatal if not diagnosed and treated promptly.” [EXAMPLE]
28. “EXAMPLE” [problems include type I (immediate) hypersensitivity reactions (i.e., anaphylaxis) (because they can be fatal if not diagnosed and treated promptly]
29. “however, few prospective prognostic studies CONCERNING biomarkers have been reported.” [a stament about what studies are about: biomarkers, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
30. “CONCERNING associated phoria, the argument is more complicated because of the fundamental difference between fixation disparity and associated phoria.” [a statement about phoria, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
31. “the can help working group brings together health care providers, aboriginal government representatives, the aklavik health committee (ahc), and university of alberta researchers to address <community CONCERNS regarding the high prevalence of h. pylori infection in aklavik and the association of this infection with stomach cancer>.” [problems include the high prevalence of h. pylori infection in aklavik and the association of this infection with stomach cancer]
32. “stakeholders in clinical trials, their interest and ethical CONCERNS” [a section title that will go into the ethical concerns of clinical trials, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
33. “EXAMPLE” [EXAMPLE]
34. **ERROR/ ERRORS**
35. “concerning the comfortable prism, one has to realize that the fusional feedback loop, which <uses disparity as its ERROR signal>, can stabilize the vergence angle only if the stimuli are presented to the two eyes in a fixed angle, e.g.” [problems include disparity as a signal that there is an error]
36. “because <genotyping ERROR may lead to double recombinations within a short distance>, it can significantly affect the overall recombination counts.” [problems include genotyping errors that may lead to double recombinations within a short distance (that can significantly affect the overall recombination counts]
37. “ERROR bars, sem, \*\*\* p< 0.001.” [a clarification about error bars]
38. “bars represent standard ERROR of the mean.” [a statistical calculation of ‘standard error of the mean’, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
39. “chemometric methods with ftir spectroscopy can compensate for <the ERRORS that occur in a ftir spectral analysis> [21].” [problems include errors that occur in a ftir spectral analysis]
40. “<potential ERRORS are introduced when transient changes in particle background, simultaneous emission of ultrafine particles, or the influence from other particle sources are present>.” [problems include errors that are introduced when transient changes in particle background, simultaneous emission of ultrafine particles, or the influence from other particle sources are present]
41. “assuming convergence, monte carlo standard ERRORS of all reported values were less than 0.001.” [a results statement about the measure of ‘monte carlo standard error’, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
42. “the large number of biomarkers tested makes it difficult to exclude type i ERRORS, therefore, results should be interpreted with caution.” [a statement about a specific statistical type of errors: type I, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
43. “EXAMPLE” [EXAMPLE]
44. **ISSUE/ ISSUES**
45. “<access for enteral nutrition is a problematic ISSUE> due to the problems of securing a reliable route.” [problems include access for enteral nutrition (due to the problems of securing a reliable route)]
46. “to determine <the ISSUE of multiple publications from the same data sets>, we checked all author names, different institutions involved, and the time period of patient recruitment of the articles.” [problems include multiple publications from the same data sets (solution in the statement)]
47. “<with mri the danger of false-positive readings in patients who have received recent radiotherapy remains an ISSUE> and differentiation between fibrosis and malignant tissues is not definitive.” [problems include the danger of false-positive readings in patients who have received recent radiotherapy with mri]
48. “tISSUE microarray technique only takes out a small, cylindrical specimen from the donor block.” [a statement about tissues (not issues), not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
49. “there is a need to acquire more knowledge through large multicenter studies of the cost-benefit and cost-effectiveness of nutritional support in the critically ill, and specifically to clarify <the ISSUES of tpn versus enteral nutrition> and the use of specialized nutrients.” [problems include tpn versus enteral nutrition]
50. “however, <ISSUES of coverage still remain at smaller spatial scales> which this approach does not tackle.” [problems include coverage at smaller spatial scales (which this approach does not tackle]
51. “with respect to motor assessment, gait disorders have primarily been considered and characterized in the vpd population, mostly because reminiscent of – nevertheless distinct from – the gait ISSUES found in patients with ipd (30,31).” [a characteristic of the disorders: ‘gait issues’, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
52. “supervisors undertook an intensive 4-week training, including identification of children with impairments, and sensitisation to disability ISSUES.” [a training that includes sensitizing the supervisors to ‘disability issues’ for their children participants, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
53. “EXAMPLE” [EXAMPLE]
54. **MISCLASSIFICATION**
55. “challenges to determining the prognostic importance of tumor histology include <MISCLASSIFICATION in studies that lack centralized histopathological review>, heterogeneity of study populations, and small sample sizes.” [problems include misclassification in studies that lack centralized histopathological review]
56. “our covariates were collected based on questionnaire information; <this approach might potentially introduce recall bias and MISCLASSIFICATION>.” [problems include this approach might potentially introduce recall bias and missclassification]
57. “this is in large part attributable to <the MISCLASSIFICATION of bcl2-expressing lymphocytes as tumour cells>.” [problems include the misclassification of bcl2-expressing lymphocytes as tumour cells]
58. “in essence, the generalization capacity of svm depends on the choice of kernel function and the setting of MISCLASSIFICATION tolerance parameter c , in which the c is directly related to certain kernel [21,22].” [an algorithmic parameter for svm, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
59. “the MISCLASSIFICATIONS to the next category percentiles rates were the same as in the male babies.” [a results statement about the rates of misclassifications, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
60. “EXAMPLE” [EXAMPLE]
61. **MYTHS**
62. “due to all these factors, <various MYTHS regarding the diagnosis and management of orbital tumors have developed over time and continue to influence the decision making process of orbital specialists>.” [problems include various myths regarding the diagnosis and management of orbital tumors and continue to influence the decision making process of orbital specialists]
63. “<electronic fetal monitoring and other birth-related MYTHS are perpetuated by trial lawyers who have substantial vested monetary interests in continuing electronic fetal monitoring use in all labors>.” [problems include electronic fetal monitoring and other birth-related myths are perpetuated by trial lawyers who have substantial vested monetary interests in continuing electronic fetal monitoring use in all labors]
64. “MYTHS and history” [a section title, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
65. “as well as reaching conclusions relating to those antioxidant strategies that might hold merit, the major MYTHS, limitations, and pitfalls associated with this research field are explored.” [a statement about the content of the article including major myths, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
66. “EXAMPLE” [EXAMPLE]
67. **PROBLEM/ PROBLEMATIC/ PROBLEMS/ REMAIN A… PROBLEM/ REMAINS… PROBLEM**
68. “<the PROBLEM is that enteral feeding is fraught with both technical and physiological challenges>.” [problems include that enteral feeding is fraught with both technical and physiological challenges]
69. “this condition was satisfied in all cases in this study; however, <reflection waves could be a critical PROBLEM in shorter vessels>, such as the pulmonary arteries.” [problems include reflection waves in shorter vessels]
70. “<assigning few genes to go terms is a common PROBLEM for studies of non-model organisms>, particularly when those are distantly related to the model organisms from which go annotations have been built.” [problems include assigning few genes to go terms for studies of non-model organisms]
71. “this PROBLEM has severely hampered the utility of animal models aimed at testing the usefulness of cell and gene therapy, especially in long-term studies.” [a statement of the consequences of the problem and not the problem itself (probably in a sentence before), not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
72. “they found that lymph edema was associated with a higher impact score on the perceived impact PROBLEM profile39).” [a statement about results from the ‘perceived impact problem profile’, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
73. “consequently, <there is loss of fat and lean body (muscle) mass, a PROBLEMATIC situation> that has been dubbed 'auto-cannibalism'.” [problems include a loss of fat and lean body (muscle) mass ]
74. “in fact, with a growing list of complex filament systems in bacteria, <the very definition of a cytoskeleton is PROBLEMATIC for highly dynamic, cytomotive filaments>.” [problems include the very definition of a cytoskeleton for highly dynamic, cytomotive filaments]
75. “this analysis enables assessors to identify tonal components within the spectrum that may be PROBLEMATIC.” [a statement about solving the problem using the analysis that enables assessors to identify tonal components within the problematic spectrum, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
76. “the examination of the residuals did not reveal any PROBLEMATIC pattern, and the quality of the fit was satisfying.” [a results statement that there are no problem patterns, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
77. “in one interesting study it was found that those cases of mastectomy and hysterectomy had depressive symptoms and <PROBLEMS regarding body image, spouse relationships and sexual satisfaction>.” [problems include body image, spouse relationships and sexual satisfication]
78. “background: <the spread of drug-resistant tuberculosis (tb) is one of the major public health PROBLEMS through the world>.” [problems include the spread of drug-resistant tuberculosis (tb)]
79. “clinical signs: signs when medicated, according to examination at time of testing and self report: t, resting and/or postural tremor; r, rigidity; b, bradykinesia; a, akinesia; p, PROBLEMS with static and dynamic upright posture; o, on–off phenomenon; f, freezing; “+,” both sides affected; “−,” neither side noticeably affected; l, left side mainly affected; r, right side mainly affected; mmse, mini-mental state examination.” [a statement about clinical signs and abbreviations, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
80. “therefore, we thought of a way to overcome these PROBLEMS.” [a statement about overcoming the problems, not the problems themselves, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
81. “patient’s medical histories, reproductive PROBLEMS, and physical examination were recorded.” [a statement of what was recorded about the patient including reproductive issues, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
82. “however, <they REMAIN a serious health PROBLEM in the developing world>.” [problems include they as a serious health issue in the developing world]
83. “despite this, <the veneering fractures REMAIN A PROBLEM>” [problems include the veneering fractures]
84. “<atherosclerotic heart disease and chronic heart failure REMAIN a major worldwide health PROBLEM> [1].” [problems include atherosclerotic heart disease and chronic heart failure for worldwide health]
85. “<Understanding the set of transformations by which sensory input gives rise to behavior (i.e. the neural code) REMAINS a central PROBLEM in systems neuroscience>.” [problems include understanding the set of transformations by which sensory input gives rise to behavior (i.e. the neural code) in systems neuroscience]
86. “<the coding of both carrier and envelope components of natural stimuli REMAINS an important PROBLEM in systems neuroscience>.” [problems include the coding of both carrier and envelope components of natural stimuli in systems neuroscience]
87. “despite much effort, <obesity REMAINS a significant public health PROBLEM>.” [problems include obesity for public health]
88. “however, in clinical practice, <treatment for mdd in dm-patients REMAINS PROBLEMATIC, with low remission- and high relapse-rates>[23].” [problems include treatment for mdd in dm-patients with low remission- and high relapse-rates]
89. “EXAMPLE” [EXAMPLE]
90. **TABOOS/ TABOOED**
91. “<widespread prejudice, ignorance, TABOOS, lack of scientific appraisal, and confusion of vitiligo with leprosy makes it an immense psychological stress>.” [problems include the stigma around vitiligo that causes immense psychological stress]
92. “in addition, <bahraini women similar to other arab women face cultural TABOOS surrounding breast cancer>.” [problems include that bahraini women similar to other arab women face cultural stigma surrounding breast cancer]
93. “organising themes were grouped under four global themes: cultural circumcision TABOOS breached, public marketing, consultation and participation, and hiv testing.” [a list of the four global themes including taboos, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
94. “child sexual abuse (csa) is defined “as the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared, or else that violates the laws or social TABOOS of society.” [a definition of child sexual abuse including ‘involvement of a child in sexual activity that violates the laws or social taboos of society’, not a statement that lays out a specific problem or complication that needs to be dealt with before the next phase]
95. “problems of mental health are still TABOOED.” [problems include that problems of mental health still have stigma]
96. “EXAMPLE” [EXAMPLE]
97. **EXAMPLE**
98. “EXAMPLE” [EXAMPLE]
99. “EXAMPLE” [EXAMPLE]
100. “EXAMPLE” [EXAMPLE]
101. “EXAMPLE” [EXAMPLE]
102. “EXAMPLE” [EXAMPLE]
103. “EXAMPLE” [EXAMPLE]

CONTROVERSY = a statement of disagreement amongst researchers OR a lack of consensus OR at least two possible answers are presented as results from different researchers - usually in reference to previous results and stated when results disagree with each other OR contradictions. The next actionable step is to determine the truth to break any disagreements.

1. **ASSUMPTION**
2. “<the general ASSUMPTION is that enterohemorrhagic strains are natural inhabitants of cattle intestines and may potentially cause infections to humans upon exposure>[84]–[86].” [need to confirm the underlying assumption that enterohemorrhagic strains are natural inhabitants of cattle intestines and may potentially cause infections to humans upon exposure]
3. “however, the homology model is predicated on <the ASSUMPTION that all members of the major facilitator superfamily (mfs), a large family of over 1000 proteins identified by signature motifs as transporters> (saier et al .” [need to confirm the underlying assumption that all members of the major facilitator superfamily (mfs), a large family of over 1000 proteins identified by signature motifs as transporters]
4. “the detailed description on how the information status was obtained and the ASSUMPTIONS that were made is given elsewhere [18].” [a statement about where to find the assumptions, not the assumptions themselves, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
5. “further investigation is needed to elucidate this ASSUMPTION.” [the assumption is not stated but does need further investigation, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
6. “associations between mri findings with vas, bdi, walking capacity and emg were analyzed using chi-squared tests, spearman and pearson correlation coefficients, t-tests, and when no ASSUMPTION of normal distribution could be made, non-parametric tests were used.” [a methodological statement that when there is no assumption of a normal distribution non-parametric tests were used, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
7. “EXAMPLE” [EXAMPLE]
8. **BUT OTHERS**
9. “<for posterior repair the situation is different indeed, with one trial showing benefit, buT OTHERS did not> (carey et al., 2009, iglesia et al., 2010, withagen et al., 2011).” [need to resolve disagreements between the one trial showing benefit and the others that did not for posterior repair]
10. “<BUT OTHERS argue that smokers do not know what tobacco addiction is, that smokers who say they are addicted but do not meet dsm criteria are mistaken: they are not addicted at all>.” [need to resolve disagreements between those that argue that smokers do not know what tobacco addiction is, that smokers who say they are addicted but do not meet dsm criteria are mistaken: they are not addicted at all and others that disagree]
11. “a few participants shared that they “have to have a pill to sleep”, BUT OTHERS cited difficulty managing prescription sleep aids because the timing of the medication was challenging; not wanting “another drug in my system”; or reluctance on the part of the prescriber, because “he did not want me to get addicted to them”.” [a results statement about participant preferences and thoughts about sleeping pills, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
12. “bromocriptine was the first dopamine agonist available for the treatment of prolactinomas, BUT OTHERS with a longer half-life, such as pergolide, quinagolide, and cabergoline, have since become available (although pergolide and quinagolide are not available in the us).” [a statement about the availability of other options with a longer half-life, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
13. “EXAMPLE” [EXAMPLE]
14. **CALLS INTO QUESTION/ HAS BEEN QUESTIONED/ HAS BEEN… CHALLENGED/ QUESTIONED**
15. “<the absence of spin-selective recombination of these distant radical pairs on a microsecond timescale CALLS INTO QUESTION the current model> (fig.” [need to resolve disagreements between the finding of the absence of spin-selective recombination of these distant radical pairs on a microsecond timescale and the current model]
16. “<they argue that this is illogical and CALLS INTO QUESTION the validity of the data from the other 25,000 smokers in the study> [33].” [need to resolve disagreements between ‘this’ and the validity of the data from the other 25,000 smokers in the study]
17. “<this observation CALLS INTO QUESTION the widely held and applied assumption that colonies with the three characteristic morphologies are derived from stem, early and late transit-amplifying cells respectively>.” [need to resolve disagreements between this observation and the widely held and applied assumption that colonies with the three characteristic morphologies are derived from stem, early and late transit-amplifying cells respectively]
18. “this option, however, limits competition by creating ‘network closure’ and CALLS INTO QUESTION the government's intention to create a vibrant market of commissioning support provision.” [a statement about the government’s intentions (not research), not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
19. “it CALLS INTO QUESTION national and international borders, cultural and ethical standards, regulations, and laws, which it bypasses and challenges [10-13].” [a statement about national and international borders, cultural and ethical standards, regulations, and laws (not research), not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
20. “findings from this systematic literature review indicate that mmf was associated with lower rates of gynecological toxicities and infection than cyc, but <the statistical significance of this difference HAS BEEN QUESTIONED in some studies> [17–20,22,24,31].” [need to resolve disagreements between the statistical significance in the original study and in some other studies]
21. “<the validity of using the age of onset and aggression criteria to diagnose cd in girls HAS BEEN QUESTIONED> [11,18,58].” [need to resolve disagreements about the validity of using the age of onset and aggression criteria to diagnose cd in girls]
22. “to this end, <it HAS BEEN QUESTIONED whether retrospective surgical cohorts were adequately balanced by known prognostic factors such as age and karnofsky performance score (kps) [20].” [need to resolve disagreements do determine whether retrospective surgical cohorts were adequately balanced by known prognostic factors such as age and karnofsky performance score (kps)]
23. “in canada and abroad, wide scale adoption of some vaccines post-licensure has not occurred because their economic value HAS BEEN QUESTIONED.” [a statement of wide scale adoption of some vaccines has not occurred due to economic value questions (not research), not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
24. “as, in the late summer of 1944, holzer had contacted nitsche, the medical leader of the t4 campaign, to advertise for a research institute dedicated to electroshock therapy, it HAS BEEN QUESTIONED as to whether holzer had himself been involved in the deliberations over the use of his elkra apparatus for ‘euthanasia’ murders.” [a statement about a person’s actions (not research), not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
25. “recently, <this finding HAS BEEN CHALLENGED by copps and colleagues who global irs1 s307a knock-in mice and observed insulin resistance in 5-month-old mice fed with a chow diet>, indicating that irs1-ser307 makes a positive contribution to maintaining good insulin sensitivity (copps et al .” [need to resolve disagreements between this finding and copps and colleagues who global irs1 s307a knock-in mice and observed insulin resistance in 5-month-old mice fed with a chow diet]
26. “<this definition, although widely used, HAS BEEN CHALLENGED by other researchers> and the meaning of the term remains contested.” [need to resolve disagreements between the definition that is widely used and the other researchers’ definitions]
27. “EXAMPLE” [EXAMPLE]
28. “however, <this distinction HAS BEEN CHALLENGED with the availability of new data that does not show such clear distinctions between central nodes> [129].” [need to resolve disagreements between this distinction and the availability of new data that does not show such clear distinctions between central nodes]
29. “nevertheless, <the extent of this influence was recently QUESTIONED>, stressing possible interplay between variability and gene transfer [78], [79].” [need to resolve disagreements about the extent of this influence (stressing possible interplay between variability and gene transfer)]
30. “however, <the idea that bestrophin-1 is a cl−channel has been seriously QUESTIONED (marmorstein et al., 2004a,2004b,2006;rosenthal et al., 2005;marmorstein and kinnick, 2007).” [need to resolve disagreements about the idea that bestrophin-1 is a cl−channel]
31. “a sakhi shared that doctors did not trust them initially and QUESTIONED their presence at the time of delivery, but accepted them when they witnessed the sakhi using her skills.” [a statement about doctors and trust (their presence at the time of deliver was a little weird, but it wore off when the sakhi use his skills]
32. “at all visits, patients were QUESTIONED for side effects and other complaints, physical examination (if indicated) was conducted, and edta- and heparin-plasma was drawn.” [a methodological statement that at all visits, patients were asked questions for side effects and other complaints, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
33. “EXAMPLE” [EXAMPLE]
34. **CANNOT AGREE**
35. “although we may agree with their conclusion that the most important question is whether or not hes may be harmful, <we CANNOT AGREE with their suggestion on further clinical use based only on strict indication for hes or a safety checklist>.” [need to resolve disagreements between the arguments presented here and their suggestion on further clinical use based only on strict indication for hes or a safety checklist]
36. “Consequently, <we CANNOT AGREE that the arguments and data presented by Unsworth et al. (2015) constitute evidence that video games may not lead to enhanced cognition>.” [need to resolve disagreements between the arguments presented here and the arguments and data presented by Unsworth et al. (2015) constitute evidence that video games may not lead to enhanced cognition]
37. “a third review author will help decide upon inclusion of a report in all cases where the two initial reviewers CANNOT AGREE.” [a methodological statement about what to do if the two initial reviewers do not agree, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
38. “if pathologists CANNOT AGREE on diagnoses for which clinicians plan treatment strategies, then the system somehow fails unless all lesions regardless of histology are treated in the same fashion.” [a discussion statement about the failure of the system due to disagreements between pathologists (not research), not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
39. “EXAMPLE” [EXAMPLE]
40. **CONFLICT/ CONFLICTED/ CONFLICTING**
41. “<although our data CONFLICT with their results, this discrepancy can be attributed to differences in the culture conditions or presence of live p. gingivalis in our experiments>.” [need to resolve disagreements between our data and their results (this discrepancy can be attributed to differences in the culture conditions or presence of live p. gingivalis in our experiments)]
42. “<evidence regarding which variables are associated with greater and lower levels of strain and psychological morbidity experienced by caregivers (table i) sometimes CONFLICTS>.” [need to resolve disagreements between evidence regarding which variables are associated with greater and lower levels of strain and psychological morbidity experienced by caregivers]
43. “CONFLICT of interest statement” [disclosure of conflict of interest, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
44. “accuracy, rt, post-CONFLICT slowing and post-error slowing were collected using e-prime (seesupplementary materialon how the latter two variables were calculated).” [a methodological statement about a measure called ‘post-conflict slowing’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
45. “<results of most analyses CONFLICTED on the intertribal relationships>, and there was little or no support for these deep clades.” [need to resolve disagreements about the results of most analyses on the intertribal relationships]
46. “<the theoretical molecular weight of the recombinant enzyme herein, calculated using its amino sequence, was 56 kda, including the 6×his tag, which CONFLICTED with the molecular weight of 65 kda observed via sds-page>.” [need to resolve disagreements between the theoretical molecular weight of the recombinant enzyme herein, calculated using its amino sequence, was 56 kda, including the 6×his tag, and the molecular weight of 65 kda observed via sds-page]
47. “according to the attachment approach, the strict principles of the primary dyad instantiated within our minds, impose themselves on the way we perceive and judge CONFLICTED situations.” [a research statement about how we perceive and judge conflicted situations as humans, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
48. “in some instances, current policy prevented participants from downloading apps and various programs onto organisational assets which CONFLICTED with a desire by management for innovation.” [a results statement about policy outcomes and management’s desires, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
49. “the authors are not CONFLICTED with regard to this study.” [a conflict of interest statement about the authors, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
50. “<some have thus proposed that mild hypothermia also has anti-inflammatory effects, although there are CONFLICTING results in the literature> [76–78].” [need to resolve disagreements between the proposal that mild hypothermia also has anti-inflammatory effects and other results in the literature]
51. “<available data on the role of hif-1α for the chemosensitivity of cancer cells under normoxic conditions are CONFLICTING>.” [need to resolve disagreements about the available data on the role of hif-1α for the chemosensitivity of cancer cells under normoxic conditions]
52. “'CONFLICTING evidence' = inconsistent findings among multiple trials.” [a statement of what ‘conflicting evidence’ means in the study’s context, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
53. “observed alterations might, on the one hand, reflect a more efficient processing of highly CONFLICTING stimulus material following dbs.” [a statement about processing ‘highly conflicting stimulus’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
54. “EXAMPLE” [EXAMPLE]
55. **CONTRADICTING/ CONTRADICTORY/ CONTRARY/ CONTRASTING/ CONTROVERSIAL/ CONTROVERSIES/ CONTROVERSY**
56. “<there are some CONTRADICTING results on whether hbsag level correlates with serum hbv dna> [16,17], but most studies have shown significant correlation between these values [18-20].” [need to resolve disagreements between the different results on whether hbsag level correlates with serum hbv dna]
57. “instead, <a fixation point tends to actually increase vection (fischer and kornmüller, 1930;becker et al., 2002), CONTRADICTING the assumption that vection might be the main component causing vims>.” [need to resolve disagreements between the result that a fixation point tends to actually increase vection and the assumption that vection might be the main component causing vims]
58. “However, while accuracy appeared to be unaffected by stimulator status, a facilitation of reactions specific to highly conflicting emotional stimulus material (i.e. stimulus material presenting CONTRADICTING emotional messages on a verbal and non-verbal prosodic level) was observed during “on” stimulation assessments.” [a methodological statement about the stimulus material presented that included ‘contradicting emotional messages’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
59. “this reaction shows another way to deal with the tension between the CONTRADICTING values of a healthy life.” [an example of how to deal with the tension of the many values to living a healthy life that sometimes involve contradictions, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
60. “however, <there is CONTRADICTORY evidence from recent studies regarding the influence of il-6 on insulin action and glucose metabolism> [4546].” [need to resolve disagreements between previous evidence and evidence from recent studies regarding the influence of il-6 on insulin action and glucose metabolism]
61. “[510] although yin and yang are CONTRADICTORY in nature, they depend on each other for existence.” [a statement about the relationship of yin and yang, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
62. “<this is CONTRARY to report from other studies where participants did not feel that financial incentive could be the reason for non-participation in research>.34,35” [need to resolve disagreements between this report and reports from other studies where participants did not feel that financial incentive could be the reason for non-participation in research]
63. “in this study, we show that neither zvad-fmk, zdevd-fmk, nor crma block tnf signaling to necrosis, but, on the CONTRARY, considerably enhance cytotoxicity.” [a results statement about that neither zvad-fmk, zdevd-fmk, nor crma block tnf signaling to necrosis, but actually considerably enhance cytotoxicity, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
64. “in other words, cd trainees, CONTRARY to non-dancers, may have needed less exchange with the world as they use external information in a more precise way.” [a statement comparing cd trainees to non-dancers and their need for less exchange with the world, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
65. “this could also partly explain why <there are some CONTRASTING effects of a high cholesterol diet upon growth of lung cancer and other cancer types like breast cancer>30.” [need to resolve disagreements between the effects of a high cholesterol diet upon growth of lung cancer and other cancer types like breast cancer]
66. “his value declined, and he responded by seeking further opportunities precisely when he should have been restricting his exposure, and replenishing his intellectual capital (the CONTRASTING career of carstairs, whose media appearances were much more infrequent, would have been a better model to emulate).” [a comparison of his career with the career of carstairs and how they differ greatly, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
67. “to date, <there is no agreed standard technique, and the treatment strategies remain CONTROVERSIAL>.” [need to resolve disagreements about the standard technique and the treatment strategies]
68. “<llscs is a CONTROVERSIAL clinical issue>.” [need to resolve disagreements about llscs as a clinical issue]
69. “he is a man with orthodox opinions on most things and can be relied on to deal with CONTROVERSIAL subjects by sitting on the fence’ (t32/230 memo: hugh burnett, a.c.c.a.t.” [a person who will deal with controversial subjects by sitting on the fence, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
70. “although it addressed CONTROVERSIAL issues, lifeline was rarely radical in its intent.” [a statement about lifeline and the fact that it addressed controversial issues in general, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
71. “<the possibility of natural infections of wild birds with mammalian bodv-1 is another subject of CONTROVERSIES>.” [need to resolve disagreements about the possibility of natural infections of wild birds with mammalian bodv-1]
72. “i watched the daughter of serban Ţiţeica - who recently translated a work of heisenberg and one of bohr's - i watched a project related to the interpretation of quantum mechanics, of the copenhagen school, plus the CONTROVERSIES that have erupted from it.” [an account of the daughter of serban Titeica that includes the controversies that erupted during the interpretation of quantum mechanics, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
73. “however, <there is some CONTROVERSY over the issue of cnv formation associated with the ccr2/mcp-1 signal pathway>.” [need to resolve disagreements about the issue of cnv formation associated with the ccr2/mcp-1 signal pathway]
74. “from the bbc’s point of view, stafford-clark had been a willing and capable tv performer who brought professional authority and networks, and who could generally be relied upon to eschew CONTROVERSY.” [a view point from the bbc on Stafford-clark including that he could generally be relied upon to eschew controversy, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
75. “EXAMPLE” [EXAMPLE]
76. **COUNTERVAILING**
77. “thus, we can conclude that <there is COUNTERVAILING evidence to the neuroscientific studies>, and we should remember that those studies did not provide conclusive arguments, even according to their own authors.” [need to resolve disagreements between evidence of the different neuroscientific studies]
78. “these COUNTERVAILING effects of neurocognitive dysfunctions on intrapersonal processes may cancel out when analyzing direct effects of impairment on treatment drop-out.” [a statement about equal and opposite effects of neurocognitive dysfunctions on intrapersonal processes that may cancel out when analyzing direct effects of impairment on treatment drop-out, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
79. “EXAMPLE” [EXAMPLE]
80. **CRITICIZED**
81. “the whole blood (wb) cra is the most widely used, but <its sensitivity for tgn1412-like cytokine release was recently CRITICIZED>.” [need to resolve disagreements about its sensitivity for tgn1412-like cytokine release]
82. “<feinstein [11] CRITICIZED the dichotomization approach as inadequate>: many clinical decisions are trichotomous rather than dichotomous and many diagnoses are cited as present, uncertain, absent or yes, maybe, no.” [need to resolve disagreements between the dichotomization approach and Feinstein’s non-dichotomization approach]
83. “a trial whose results showed 200 deaths on one arm and five deaths on the other, for example, would be severely CRITICIZED on the grounds that a survival difference would have been evident far earlier, and many of the 200 deaths on the inferior arm should have been averted.” [a hypothetical scenario where the results would be severely criticized, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
84. “in the same vein, the prime minister, david cameron, has CRITICIZED oxford university for its ‘disgraceful’ record of admitting british ethnic minority students (porter et al., 2011).” [a criticism from the British prime minister about oxford university, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
85. “EXAMPLE” [EXAMPLE]
86. **DEBATE/ DEBATED/ ONGOING DEBATE**
87. “<the existence of a putative functional equivalent of this peptide hormone and its receptor in protostomian invertebrates has been a matter of DEBATE>.” [need to resolve disagreements about the existence of a putative functional equivalent of this peptide hormone and its receptor in protostomian invertebrates]
88. “<the interaction of p53 and hif-1α has been the subject of longstanding DEBATES> as both positive and negative reports have been published[35].” [need to resolve disagreements about the interaction of p53 and hif-1α both positive and negative results are published]
89. “stafford-clark’s consistent, and prescient, efforts to depathologize homosexuality were among his most laudable contributions to wider societal and cultural DEBATES, and rank alongside his wartime challenge to the raf’s lmf quasi-diagnosis.” [an example of the debate that Stafford-clark had and helped, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
90. “an epistemic tradition is the unfolding of the underpinning set of philosophical assumptions which drive the development of theory and method; scholarship may progress via DEBATE around these assumptions even in the absence of new empirical studies.” [a statement of how scholarship progresses via debate, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
91. “despite this experimental evidence, <the clinical utility of corticosteroids in sepsis is still DEBATED>” [need to resolve disagreements about the clinical utility of corticosteroids in sepsis]
92. “surprisingly, <whether an agonist or antagonist should be developed as a therapeutic agent remains DEBATED> (13,15).” [need to resolve disagreements about whether an agonist or antagonist should be developed as a therapeutic agent]
93. “illustrating how exploitation is asserted, positioned, DEBATED and challenged in one forum furthers understanding of the concept itself and of other areas of social life in which it features as a major concern.” [a statement of the presentation and consequences of debate, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
94. “wilkins would ask advice of the attendees who might have special knowledge of the problem and discussion would ensue, new ideas would be DEBATED.” [a methodological statement explaining what wilkins asked the attendees to do that could include debates about new ideas, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
95. “in the associative-learning literature, <there is an ONGOING DEBATE surrounding the involvement of explicit and implicit processes in the acquisition of stimulus-action associations> (mitchell, de houwer, & lovibond, 2009).” [need to resolve disagreements about the involvement of explicit and implicit processes in the acquisition of stimulus-action associations in the associative-learning literature]
96. “however, <the issues of whether climate variability is changing, and if so, whether this is due to anthropogenic forcing, are subjects of ONGOING DEBATE>.” [need to resolve disagreements about the issues of whether climate variability is changing, and if so, whether this is due to anthropogenic forcing]
97. “she excavates the roots of ONGOING DEBATES, such as the sale of body products online, and capping compensation for some donations (eggs) but not others (sperm), which creates a gendered hierarchy of value.” [a statement of what she does for work: excavating the roots of ongoing debates in general, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
98. “for example, economists may examine an ONGOING DEBATE as to whether monetary expansion actually creates greater production by gifting each game player with a certain amount of gaming currency.” [an example of what economists might do to understand monetary expansion that includes looking at ongoing debates in general, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
99. “EXAMPLE” [EXAMPLE]
100. **DIFFER/ DIFFER BETWEEN SOCIETIES**
101. “<This result DIFFERS from what has been reported for *islet2a* morphants> [15].” [need to resolve disagreements between this result and what has been reported for *islet2a* morphants]
102. “the proportion not fic did not DIFFER by either ethnic groups or mother’s marital status.” [a results statement that the proportions were the same by either ethic groups or mother’s marital status, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
103. “Indeed, we found that plant communities DIFFER significantly between the grassland and desert.” [a results statement from a comparison between the grassland and desert with a significant difference, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
104. “EXAMPLE” [EXAMPLE]
105. **DILEMMAS**
106. “<(2010)identified structural DILEMMAS during the transition from short-term humanitarian objectives to sustainable and resilient health systems> (kruk et al.” [need to break disagreement about the structural dilemmas that came up during the transition from short-term humanitarian objectives to sustainable and resilient health systems]
107. “<the association of fm and autoimmune disease, specifically systemic lupus erythematosus, may pose diagnostic DILEMMAS>.” [need to resolve disagreements about the association of fm and autoimmune disease, specifically systemic lupus erythematosus]
108. “their particular argument is that technical innovation may be an appropriate way to deal with situations of “moral overload” or “moral DILEMMAS.” such situations are characterized by a plurality of moral demands which cannot be met simultaneously.” [an argument about ‘moral dilemmas’ in general and not a specific research dilemma, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
109. “all too often, however, clinical DILEMMAS arise when blood pressure control remains suboptimal, residual proteinuria remains, or both.” [a statement about when clinical dilemmas occur, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
110. “EXAMPLE” [EXAMPLE]
111. **DISCONNECT/ DISCORD/ DISCREPENCIES/ DISCREPANCY/ DISPARITIES**
112. “at the core of the issue is <the DISCONNECT between political decision-making and the health research system>.” [need to resolve disagreements between political decision-making and the health research system]
113. “i think one of our jobs is to try to reduce that <DISCONNECT between human genetics and the functional evaluation of the basic properties of key molecules with a real role in human disease>.” [need to resolve disagreements between human genetics and the functional evaluation of the basic properties of key molecules with a real role in human disease]
114. “one patient came in asking if it was ok , she said ’look i trained my husband up to see if he can work the hub … because i’ve got to look after the [place where she works] and i don’t want to DISCONNECT anything .” [a patient asking a question in order not to disconect anything, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
115. “however, melting of the ice sheet during the late glacial period submerged and covered large portions of the sunda shelf leaving DISCONNECTED islands[3]which remain up to the present day.” [a results statement about islands that are not connected, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
116. “Curiously, <there seems to be DISCORD developing between approaches to the assessment and management of patients, depending on whether they present with an extremity or spinal disorder>.” [need to resolve disagreements between approaches to the assessment and management of patients, depending on whether they present with an extremity or spinal disorder]
117. “Quantum DISCORD and its allies: a review of recent progress.” [the title of a paper about the field of ‘quantum discord’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
118. “of note, health workers prescribed anti-malarials for almost all patients with DISCORDANT results (microscopy positive and rdt negative) according to training.” [a methodological statement about prescriptions from health workers, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
119. “<DISCREPANCIES in characteristics and in mortality rates among populations at risk and the original one> may decrease the accuracy of arf predictive indexes, precluding their extensive use.” [need to resolve disagreements between the characteristics and mortality rates among populations at risk and the original one (to ensure no decrease of arf predictive indexes)]
120. “moreover, <the DISCREPANCIES between eis scores over time were considerable in several cases>, which raised concerns about the reproducibility and the possible interoperator variability of the method.” [need to resolve disagreements between eis scores over time]
121. “<these DISCREPANCIES between the present study and the khc rabbit studies> are likely attributable to differences between healthy humans and an animal model of hypercholesterolemia.” [need to resolve disagreements between the present study and the khc rabbit study]
122. “at the time of collection, forms were checked for completeness and consistency of recorded information and where possible, missing data and DISCREPANCIES were corrected on site in consultation with the health worker who had completed the form.” [the workflow for health record discrepancies, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
123. “coordinates rejected from the fastrak dataset due to missing data or intermeasurement DISCREPANCIES greater than 10 mm are shown with no color.” [a description of a figure and the color showing the discrepancies, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
124. “<we observed overall a DISCREPANCY in promoter region (24.3% vs 4.5% in our study and heyn et al, respectively)> (s2b fig, left panel).” [need to resolve disagreements between our study and beyn et. al. in the promotor region]
125. “by lowering core body temperature using exogenous means, participants may perceive their level of exertion to be lower than their body's thermal load should dictate, that is, a DISCREPANCY between their perceived and actual homeostatic state, which could cause them to develop heat illness due to the masking of thermal strain.” [a methodological statement about the participants in the study that will not be able do distinguish between their perceived and actual homeostatic state, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
126. “<DISPARITIES exist across ethnic groups with immunization inequality concentrated among luhyas and luos>.” [need to break down the barriers for immunization inquality focusing on luhyas and luos]
127. “given <the major hla donor-recipient DISPARITIES in the haploidentical setting>, measures are required to prevent the occurrence of alloreactive responses, i.e.” [need to break down barriers for the major hla donor-recipient problems in the haploidentical setting (by preventin gthe occurrence of alloreactive responses]
128. “abstracts that described health differences in a strictly clinical scope were excluded, as were abstracts that referred to inequalities or DISPARITIES in a different context (e.g., measurement disparities).” [a statement about exclusion criteria for the clinical scope of the project (excluding inequalities and disparities’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
129. “EXAMPLE” [EXAMPLE]
130. **DISPUTE**
131. “<the focus of this DISPUTE concerning endopyelotomy remains on how broadly should the patients be included and how long should the follow-ups last to be regarded as successful treatment>.” [need to resolve disagreements about the endopyelotomy on how broadly should the patients be included and how long should the follow-ups last to be regarded as successful treatment]
132. “in addition, <same with other surgical measures, the surgical evacuation of subdural hematomas is still in DISPUTE>, and only can be provided after the leakage of cerebrospinal fluid was handled.” [need to resolve disagreements about the surgical evacuation of subdural hematomas]
133. “when a care recipient is in a second (or later) marriage, particularly when he or she has children from a previous marriage, it is more likely that DISPUTES will arise about financial, legal, and guardianship issues.” [a results statement about a care recipient in a second (or later) marriage that some very obvious arguments may come up]
134. “the authors reported political conflict and land DISPUTE to be significantly associated with homicide.” [a results statement that political conflict and land disagreements are associated with homicide, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
135. “EXAMPLE” [EXAMPLE]
136. **DO NOT SUPPORT**
137. “<studies DO NOT SUPPORT the findings obtained with the pir et al.>” [need to resolve disagreements between the studies and the findings obtained with the pir et al.]
138. “however, <our results DO NOT SUPPORT so-called intermediate (semiaquatic) habitats as a transitional step between terrestrial and aquatic states> (fig.” [need to resolve disagreements between our results and the so-called intermediate (semiaquatic) habitats as a transitional step between terrestrial and aquatic states]
139. “first, <improved structural predictions DO NOT SUPPORT the presence of transmembrane regions or of a lipase-type fold>.” [need to resolve disagreements between the improved structural predictions and the presence of transmembrane regions or of a lipase-type fold]
140. “since the tactic response to a carbon source correlated with the suitability of the chemical as a growth substrate, and chemicals which DO NOT SUPPORT growth were not attractants, the authors concluded that energy taxis is a dominant behaviour in a. brasilense .” [specific chemicals that do not allow growth, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
141. “however a role for hbx in down regulating tlr9 in pdcs is unlikely since they DO NOT SUPPORT hbv gene expression.” [hbx does not interact with hbv gene expression, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
142. “EXAMPLE” [EXAMPLE]
143. **DOUBT/ DUELING TENSIONS**
144. “despite <the fact that the arrhythmogenic potential of the ripv was somewhat in DOUBT years ago>, our results are in accordance with other more recent reports in the literature demonstrating the importance of implementing this pv in the ablation procedure.” [need to resolve disagreements between the fact that the arrhythmogenic potential of the ripv was in doubt and the results today]
145. “<this cast DOUBT on the use of centrality measures alone to predict node functionality>.” [need to resolve disagreements between this and the use of centrality measures alone to predict node functionality]
146. “therefore, there is no time left for women undergoing cancer treatment to present their DOUBTS.” [a statement that women undergoing cancer treatment no longer have time to say their biggest doubts and fears, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
147. “the behavior of the second group – those who DOUBT informal payments - is more promising from a policy point-of-view.” [a statement about the behavior of the second group defined by those who doubt informal payments, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
148. “EXAMPLE” [EXAMPLE]
149. “EXAMPLE” [EXAMPLE]
150. **IMPRECISE**
151. “in conclusion, <the eponymic terms meige syndrome and brueghel syndrome are IMPRECISE>, have been used inconsistently for decades, and should be avoided in the classification of craniocervical dystonia.” [need to resolve disagreements about the eponymic terms meige syndrome and brueghel syndrome]
152. “moreover, <in this framework it may be IMPRECISE to view the adjustment of speed and accuracy as a tradeoff rather than a two-dimensional optimization problem>.” [need to resolve disagreements about viewing the adjustment of speed and accuracy as a tradeoff rather than a two-dimensional optimization problem]
153. “therefore, when the values of sonographic measurement are very small and overlapping between groups and the 95% confidence interval (ci) is unreasonably wide, implying IMPRECISE measurement (table 1), we do not consider these values as reliable for predicting the outcome of ai normalization.” [a methodological statement about what constitutes an imprecise measurement (very small and overlapping between groups and the 95% confidence interval (ci) is unreasonably wide), not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
154. “to determine the function of sigmar during development, we created a null mutant by p-element IMPRECISE excision.” [a methodological statement about creating a null mutant by ‘p-element imprecise excision’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
155. “EXAMPLE” [EXAMPLE]
156. “EXAMPLE” [EXAMPLE]
157. **IN CONTRAST TO**
158. “<we have shown that dap12 overexpression leads to an osteopenic bone phenotype IN CONTRAST to the osteopetrotic bone phenotype described in dap12 deficient mice>[20],[12],[22].” [need to resolve disagreements between the idea that dap12 overexpression leads to an osteopenic bone phenotype and the osteopetrotic bone phenotype described in dap12 deficient mice]
159. “<IN CONTRAST TO our current findings, in a study where the effects of androgen treatment and ar silencing on cytotoxicity of doxorubicin, 5-fluorouracil, and cddp in bladder cancer cells were examined, androgen failed to modulate sensitivity to cddp> [23].” [need to resolve disagreements between our current findings and a study where the effects of androgen treatment and ar silencing on cytotoxicity of doxorubicin, 5-fluorouracil, and cddp in bladder cancer cells were examined, androgen failed to modulate sensitivity to cddp]
160. “however, IN CONTRAST TO ftip1:gfp, ft:rfp was also localized in the nucleus, which is consistent with a previous observation[9].” [a comparison statement between ftip1:gfp and ft:rfp and how they are different specifically, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
161. “IN CONTRAST TO other gis of the plasmids psd\_88 and 55989p, gi-2 of psd\_88 shows no compositional similarity to the gis of enterobacteria which were discussed above.fig.” [a comparison statement between other gis of the plasmids psd\_88 and 55989p, and gi-2 of psd\_88 and how they are different specifically, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
162. “EXAMPLE” [EXAMPLE]
163. **INCONCLUSIVE/ INCONSISTENTCY/ INCONSISTENT/ REMAIN INCONSISTENT**
164. “the effect appears to be more pronounced in women (208), but <the data are INCONCLUSIVE> (219).” [need to resolve disagreements about how to interpret the data that are inconclusive (one option is the effect appears to be more pronounced in women)]
165. “<results from previous studies are INCONCLUSIVE: positive,2122negative23and non-existent15associations between pm and fb have been reported>.” [need to resolve disagreements between all previous studies: positive,2122negative23and non-existent15associations between pm and fb have been reported]
166. “higher cut-off values may also reduce the numbers of INCONCLUSIVE comparisons.” [a possible suggestion to reduce the number of uncertain comparisons, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
167. “in the case of an INCONCLUSIVE elisa result, the sample was re-tested in the ipt for confirmation.” [a methodological statement about the hypothetical situation of an unclear elisa result, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
168. “<INCONSISTENCY also exists between tbx5+gata4+mef2c and the recently reported tbx5+gata4+mef2c+hand2 combinations in their ability to generate beating cardiomyocytes>[7],[9].” [need to resolve disagreements between tbx5+gata4+mef2c and the recently reported tbx5+gata4+mef2c+hand2 combinations in their ability to generate beating cardiomyocytes]
169. “(2012)model revealed consistency with the observed ztl and prr9 /7 double mutant data, when toc1 was included as an inhibitor for cca1/lhy, which resolved <the INCONSISTENCY of the previously proposed activator role of toc1 and the available experimental data> (pokhilko et al., 2012).” [need to resolve disagreements between the previously proposed activator role of toc1 and the available experimental data (this is a statement of resolution for it also)]
170. “further studies are needed to explore <the INCONSISTENCY between our results and published data>[11].” [need to resolve disagreements between our results and published data]
171. “calculating INCONSISTENCY rate: paired comparisons are consistent if the inconsistency rate is less than or equal to 0.1. otherwise, the decision maker must revise paired comparisons.” [a methodological statement of how to calculate an ‘inconsistency rate’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
172. “i2or "INCONSISTENCY" describes the proportion of total variation in studies and it is independent from the number of combined studies.” [a statement defining ‘inconsistency’ for i2or, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
173. “<hydration strategies employed, and reporting of these strategies was INCONSISTENT> (table5).” [need to resolve disagreements about hydration strategies employed, and reporting of these strategies]
174. “however, <the results of a recent experiment are INCONSISTENT with this account> (verbruggen, best et al., 2014).” [need to resolve disagreements between the results of a recent experiment and this account]
175. “'conflicting evidence' = INCONSISTENT findings among multiple trials.” [a statement defining ‘conflicting evidence’ that includes inconsistent findings among multiple trials, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
176. “the child’s difficult behavior affects parents’ disciplinary strategies, resulting in harsher and INCONSISTENT punishments and less involvement by parents in the socialization process (patterson1982).” [a statement about how the child’s behaviors affect the parents’ disciplinary strategies including punishment that does not follow a specific pattern, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
177. “however, reported prevalent rates vary within the literature as assessment gold standards are lacking and <population definitions REMAIN INCONSISTENT>.” [need to resolve disagreements about population definitions]
178. “<several studies have explored the association between height and blood pressure or hypertension, but the results REMAIN INCONSISTENT>.” [need to resolve disagreements about the results of several studies that have explored the association between height and blood pressure or hypertension]
179. “however, <the findings REMAIN INCONSISTENT> and the magnitude of associations remains modest [46].” [need to resolve disagreements about the findings]
180. “<most guidelines of sedation by non-anesthetists lack clarity and remain inconsistent on the subject of staff preparedness or training>.” [need to resolve disagreements about guidelines on sedation by non-anesthetists on the subject of staff preparedness or training]
181. “EXAMPLE” [EXAMPLE]
182. **INITIALLY THOUGHT**
183. “however, <the ply and lyta genes, INITIALLY THOUGHT to be present only in s. pneumoniae , were recently reported in strains of s. mitis> [4].” [need to resolve disagreements between initial thoughts that the ply and lyta genes are present only in s. pneumoniae and recent reports in strains of s. mitis]
184. “<each d4z4 repeat contains an orf for dux4 , which was INITIALLY THOUGHT to be “junk” dna due to the lack of introns and a polyadenylation signal> (gabriëls et al., 1999).” [need to resolve disagreements between initial thoughts that each d4z4 repeat was “junk” dna due to the lack of introns and polyadenylation signal and the fact that repeats contain an orf for dux4]
185. “the patient presented with a left lower lobe lung carcinoma and left pleural masses, INITIALLY THOUGHT inoperable metastatic disease radiographically but fine needle aspiration of pleural masses revealed extramedullary hematopoiesis [3].” [a statement about the first diagnosis of the patient by physicians, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
186. “an 83-year-old white woman presented with a several-month history of a painless 7 mm subcutaneous mass that was INITIALLY THOUGHT to be a lipoma.” [a statement about the first diagnosis of the patient by physicians, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
187. “EXAMPLE” [EXAMPLE]
188. “EXAMPLE” [EXAMPLE]
189. **MIXED/ MIXED RESULTS/ MOST STUDIES… BUT/ SUBJECT OF NUMEROUS STUDIES**
190. “<data regarding these markers following administration of abc have been MIXED>.” [need to resolve disagreements about data regarding these markers following administration of abc]
191. “second, <our data reveal MIXED evidence with regards to the economic benefits of microcredit loans for plha>.” [need to resolve disagreements about evidence with regards to the economic benefits of microcredit loans for plha in the data]
192. “two patients who commenced therapy were subsequently withdrawn owing to incorrect histological diagnosis (one MIXED mullerian tumour, one metastatic carcinoid).” [a results statement of the two patients who were withdrawn from the study with one due to ‘mixed Mullerian tumour’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
193. “microsomal fractions from sorghum embryonic axes were MIXED with the spin trap pobn, and the carbon-centred pobn spin adducts were registered, indicating the presence of alkyl, alchoxyl, and peroxyl radicals.” [a methodological statement about the tools used to mix everything together (a spin trap pobn), not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
194. “statistical analyses of participants’ utterances employed MIXED effects models with maximum random effects of participants and items (barr et al., 2013).” [a methodological statement that a ‘mixed effects model’ was employed, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
195. “these reasons may contribute to <the MIXED RESULTS in rcts on acupuncture>.” [need to resolve disagreements about the results in rcts on acupuncture]
196. “a meta-analysis is useful for identifying whether effect sizes are homogeneous across studies and in the case where they are not, moderators can be investigated to identify the source of the MIXED RESULTS.” [a statement explaining why meta-analyses are useful including investigating moderators to identify the sources of mixed results in general, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
197. “given that the generation of flavor volatiles is highly dependent on the cooking method, <MOST STUDIES have focused on the flavor development of cooked meat, BUT there is scant information about raw meat>.” [need to resolve disagreements on what to focus on: the flavor development of cooked meat or information about raw meat]
198. “typically, <MOST STUDIES focus on vection or vims, BUT only rarely are ratings for both collected, reported, and analyzed>.” [need to resolve disagreements about what to focus on: vection or vims, or both (only rarely are ratings for both collected, reported, and analyzed)]
199. “finally, MOST STUDIES focussed on respiratory health and allergies, BUT only a few addressed the possible relation between cafos and gi outcomes [9,10].” [a results statement of what the different studies focused on with citations and not staking a claim to study more of what comes after the but, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
200. “MOST STUDIES on adipocyte-secreted molecules have been conducted, using 3t3-l1 cells originating from mice, BUT recently simpson-golabi-behmel syndrome (sgbs) human preadipocytes have been introduced.” [a statement of what has been added to the tests recently: simpson-golabi-behmel syndrome (sgbs) human preadipocytes have been introduced, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
201. “<predation, the most important source of nest mortality in altricial birds, has been a SUBJECT OF NUMEROUS STUDIES during past decades>.” [need to resolve disagreements about predation, the most important source of nest mortality in altricial birds since there are many studies on it and it is still not resolved]
202. “consequently, <geochemical characterization of macerals has been the SUBJECT OF NUMEROUS STUDIES in recent years> [18,19,26,32,33,34,35,37,38,40,56].” [need to resolve disagreements about geochemical characterization of macerals since there are many studies on it and it is still not resolved]
203. “EXAMPLE” [EXAMPLE]
204. **NO CONCLUSION/ NOT CONSISTENTLY/ NOT UNIVOCAL/ NOT YET SETTLED/ NOT… CONCLUSIVE**
205. “unfortunately, <the answers regarding li-eswt treatment regimens were generally unclear and NO CONCLUSIONS can be drawn on the topic>.” [need to resolve the unclear answers regarding li-eswt treatment regimens to draw conclusions on the topic]
206. “the provision of intravenous fluids (containing saline or bicarbonate) and n-acetyl cysteine have been extensively studied for prophylaxis; however, <NO CONCLUSION on efficacy has been reached despite multiple prospective trials and several meta-analyses>.” [need to resolve disagreements about the efficacy despite multiple prospective trials and several meta-analyses]
207. “where conclusions were rated to be neutral or where NO CONCLUSION was provided in the study’s abstract, conclusions from the respective study’s discussion section were additionally checked.” [a methodological statement of what the authors did when conclusions were rated neutral or no conclusion was provided, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
208. “while there is an epilogue which briefly discusses what subsequently happened to the various movements dealt with, there is NO CONCLUSION gathering together the book’s themes, which is rather disappointing.” [the book has no conclusion that brings together the theme which disappoints the reader, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
209. “indeed, <polysomnography (psg) investigations in pi have NOT CONSISTENTLY revealed modifications in sleep architecture>.” [need to resolve disagreements between polysomnography (psg) investigations in pi to reveal modifications in sleep architecture]
210. “<these enigmatic taxa were NOT CONSISTENTLY associated with any clade across data sets and analysis methods>.” [need to resolve disagreements about all these enigmatic taxa associations with any clade across data sets and analysis methods]
211. “despite growing evidence for the positive effects of ebps for asd, these practices are nOT CONSISTENTLY or effectively used in schools.” [a statement that the application of research has not made it into schools yet consistently and effectively, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
212. “however, nurses did NOT CONSISTENTLY train patients on the navigation to the various components of the ipet system.” [a statement that nurses need to train patients on the navigation to the various components of the ipet system always, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
213. “<data regarding the influence of overnight surgical activity on complications of next-day surgery and conversion to open surgery are NOT UNIVOCAL>; some authors could not demonstrate any impact, while rothschild et al.” [need to resolve disagreements about data regarding the influence of overnight surgical activity on complications of next-day surgery and conversion to open surgery]
214. “<fmri evidence, however, have NOT UNIVOCALLY associated insula activity with choice of either delayed (wittmann et al.,2007; claus et al.,2011; kayser et al.,2012; liu and feng,2012; luo et al.,2012) or immediate options (tanaka et al.,2004; mcclure et al.,2007; wittmann et al.,2010)>, and therefore its role in td behavior is unclear.” [need to resolve disagreements about the fmri evidence that associated insula activity with choice of either delayed or immediate options]
215. “nonetheless, cellular changes are NOT UNIVOCAL due to the variable onset and development of the disease possibly related to the status and age of the infected animals.” [a results statement that cellular changes are not always the same due to the variable onset and development of the disease possibly related to the status and age of the infected animals, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
216. “patients’ representations of ssc were NOT UNIVOCAL but rather polymorphic and had changed over time.” [a results statement that patients’ representations of ssc were not always the same but rather polymorphic and had changed over time, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
217. “<the current clinical debate over whether one should use antidepressants as monotherapy or in combination with a mood stabilizer when treating bp ii depression is NOT YET SETTLED>.” [need to resolve disagreements about the current clinical debate over whether one should use antidepressants as monotherapy or in combination with a mood stabilizer when treating bp ii depression]
218. “as a result, <the question whether violation feelings always follow the crossing of the acceptance limits is NOT YET SETTLED>, and is still in need of further study.” [need to resolve disagreements about the question whether violation feelings always follow the crossing of the acceptance limits]
219. “we automatically discarded the first measurement of the six, as we assumed that the bird was NOT YET SETTLED.” [a methodological statement that the first measurement of the six was discarded due to the bird not being settled down yet, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
220. “however, in these seasonal areas, the maintenance of territories could be difficult, as flooding can submerge marks and border limits, and allow access to new areas NOT YET SETTLED.” [a statement about new areas that do not have any settlers yet and the impact of flooding, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
221. “thus, <the effects of afb1on cytokines are NOT CONCLUSIVE>, which might be attributed to the type, the dose, the duration of exposure, the susceptibility of each tissue and animal species as well as other experimental conditions.” [need to resolve disagreements on the the effects of afb1on cytokines]
222. “more conventional antioxidants have not been tested in plan, and <despite the partial success of antioxidant moieties such as vitamins c, e and coenzyme q in experimental cellular and animal models of pd, human clinical studies have NOT shown CONCLUSIVE benefits>.” [need to resolve disagreements between the partial success of antioxidant moieties such as vitamins c, e and coenzyme q in experimental cellular and animal models of pd and human clinical studies]
223. “<size at first maturity for whale sharks has NOT been CONCLUSIVELY established> because few reliable sources of data exist on this important life history parameter[57],[86].” [need to resolve disagreements about the size at first maturity for whale sharks (because few reliable sources of data exist on this important life history parameter)]
224. “this shows that there are substantial more correct decisions than false decisions in this intermediate range and that the test scores are NOT as inCONCLUSIVE as they ideally should be.” [a results statement about test scores that are more conclusive than they should be, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
225. “this was either because the information was missing from the patient record or the attending physician did NOT record a CONCLUSIVE discharge diagnosis.” [an explanatory statement about this possibly due to the attending physician not recording a final discharge diagnosis, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
226. “EXAMPLE” [EXAMPLE]
227. **OPPOSING/ OPPOSING FINDINGS/ OPPOSITE/ OPPOSITE TO OUR FINDINGS**
228. “Moreover, one small human study (*n*=13) has also revealed increased reward impulsivity with indirect catecholamine agonism by L-DOPA (Pine *et al.;* but see De Wit *et al.* for OPPOSING results with amphetamine, as well as Hamidovic *et al.* for null effects using oramipexole), but found no effect with the unselective dopamine antagonist haloperidol.” [need to resolve disagreements between one small human study (*n*=13) has also revealed increased reward impulsivity with indirect catecholamine agonism by L-DOPA (Pine *et al*) and De Wit *et al.* for results with amphetamine, as well as Hamidovic *et al.* for null effects using oramipexole)]
229. “<a broad overview of medical literature and support group newsletters, render these OPPOSING views substantially incorrect>.” [need to resolve disagreements between the broad overview of medical literature and support group newsletters and these views]
230. “even there, it is increasingly apparent that each of akt isoforms plays highly specific and frequently OPPOSING roles.” [a comparison of the akt isoforms showing that they have opposite roles, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
231. “we identified three main different attitudes towards informal payments: accepting informal payments, doubting about informal payments and OPPOSING informal payments.” [a results statement about the different attitudes towards informal payments, including being against them, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
232. “in conclusion, <this study revealed OPPOSING FINDINGS for the relationship between height on cancer and circulatory disease mortality>.” [need to resolve disagreements between earlier finding and this study’s findings about the relationship between height on cancer and circulatory disease mortality]
233. “<while there is evidence that there is a difference in outcome between no responders and stable or good responders55,56, there are OPPOSING FINDINGS suggesting that there may be no correlation57>, and additional data are awaited.” [need to resolve disagreements between evidence that there is a difference in outcome between no responders and stable or good responders (55,56), and findings suggesting that there may be no correlation (57)]
234. “<a number of OPPOSING FINDINGS on the effect of ca2+-dependent activation of the mitogen-activated protein kinase (mapk) pathways in somatic cells have been published, indicating at least four different ca2+-dependent pathways leading to mapk-pathway activation>.” [need to resolve disagreements on the effect of ca2+-dependent activation of the mitogen-activated protein kinase (mapk) pathways in somatic cells that indicate at least four different ca2+-dependent pathways leading to mapk-pathway activation]
235. “<a considerable portion of the published literature suggests that ad and amyloid deposition has a negative effect on stem cells [99-104], while OPPOSING FINDINGS do exist [140-143]> (figure 1).” [need to resolve disagreements between a considerable portion of the published literature suggests that ad and amyloid deposition has a negative effect on stem cells [99-104] and other findings [140-143]]
236. “risk factors for pneumonia have been classified into three groups: definite (most evidence consistently pointing to the role of the risk factor); likely (most evidence consistently pointing to the role, but with some OPPOSING FINDINGS; or scarce but consistent evidence of the role) and possible (with sporadic and inconsistent reports of the role in some contexts [2].” [a classification system in general for pneumonia risk factors including ‘likely’, meaning most evidence pointing to the role with some opposite findings, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
237. “<results showing an inhibitory effect of bfgf on the erk1/2 pathway (figure6a) were very surprising because numerous studies showed OPPOSITE effects>.” [need to resolve disagreements between results showing an inhibitory effect of bfgf on the erk1/2 pathway (figure6a) and numerous studies that showed other effects]
238. “the subject stood in a neutral position, gripped the mop handle with the preferred hand and placed the OPPOSITE foot on the top of mop frame.” [a description of how the subject stood including his opposite foot on the top of the mop frame, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
239. “<[42] also reported an effect of ryr1 on skin lesions, but the direction of the effects was OPPOSITE TO OUR FINDINGS>, perhaps due to differences in recording of the skin lesions (in the study of guárdia et al.” [need to resolve disagreements between [42] who also reported an effect of ryr1 on skin lesions and the direction of the effects in our study (perhaps due to differences in recording of the skin lesions)]
240. “however, <il-10 was also reduced, indicating a mixed pro- and anti-inflammatory effect OPPOSITE TO OUR FINDINGS (i.e. downregulation instead of upregulation)>.” [need to resolve disagreements between the finding that il-10 was also reduced, indicating a mixed pro- and anti-inflammatory effect and our findings that downregulation instead of upregulation]
241. “<rs3752239 shows association with ad risk in the international genomics of alzheimer's project (igap) stage i10with p = 0.004, although the minor allele c has a protective estimate in this study of caucasian participants, which is OPPOSITE TO OUR FINDINGS>.” [need to resolve disagreements between the minor allele c having a protective estimate in this study of Caucasian participants and the opposite in the international genomics of alzheimer’s project (igap)]
242. “EXAMPLE” [EXAMPLE]
243. **PARADOXICAL/ PARADICALLY**
244. “overall, <the PARADOXICAL effect of no> most likely depends on the tumor microenvironment, immune system, oncogene and tumor suppressor genes.” [need to resolve disagreements about the contradictory effect of no (most likely depends on the tumor microenvironment, immune system, oncogene and tumor suppressor genes)]
245. “these data might explain <the PARADOXICAL effects of anti-tnf therapy in ms>.” [need to resolve disagreements about the effects of anti-tnf therapy in ms (and these data might help)]
246. “benzodiazepines should be used with caution in dementia with anxiety because of the risk of worsening cognitive abilities, oversedation, gait disturbances, daytime sleepiness, and PARADOXICAL effects.” [a warning about using benzodiazepines for dementia patients with anxiety due to the possibility of weird effects, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
247. “a PARADOXICAL anticoagulant effect can be minimized by infusing protamine slowly, over 3 minutes, and avoiding doses greater than 50 mg at once.” [the solution to a weird anticoagulant effect, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
248. “<PARADOXICALLY, cd23 engages in both the up- and down-regulation of ige synthesis>, thereby constituting a two-way switch in ige homeostasis (reviewed in reference1).” [need to resolve disagreements about how cd23 engages in both the up- and down-regulation of ige synthesis]
249. “<although psa bounce can be of concern for both the patient and physician, PARADOXICALLY, it is often associated with an improved prognosis> (patel et al , 2004;ciezki et al , 2006;mitchell et al , 2008;bernstein et al , 2013).” [need to resolve disagreements as to why psa bounce can be of concern for both the patient and physician and the fact that it is often associated with an improved prognosis]
250. “these are generally indirect estimates, because counting cells in an animal or organ is PARADOXICALLY difficult, as well as being tedious and unmanageable.” [a statement that counting cells is difficult, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
251. “spearman’s r for the association between h-y stage and the coping index, however, was significant and equal 0.48 (p=0.01) indicating (PARADOXICALLY perhaps) that the more severe or advanced the pd disorder the less likely patients used religion to cope.” [a results statement that possibly weirdly the more severe or advanced the pd disorder the less likely patients used religion to cope, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
252. “EXAMPLE” [EXAMPLE]
253. **PREVIOUSLY THOUGHT/ THAN PREVIOUSLY PREDICTED**
254. “recently, <several studies suggested that dna hypomethylation might be more extended than PREVIOUSLY THOUGHT [6][7]>.” [need to resolve disagreements between several studies suggested that dna hypomethylation might be more extended and previous studies [6][7]]
255. “<animal saliva effects on plant growth are much more complex than PREVIOUSLY THOUGHT>.” [need to resolve disagreements about animal saliva effects on plant growth and its complexity]
256. “<the division between left and right colon might not be as dichotomous as PREVIOUSLY THOUGHT, and instead represent a more homogenous continuum along the colon length> (85).” [need to resolve disagreements between the division between left and right colon as dichotomous and the new findings that it may represent a more homogenous continuum along the colon length]
257. “the changes in gene expression associated with the direct anti-melanoma effect of ifn-γ were striking, as <these involved genes or groups of genes previously implicated in the malignant phenotype of melanoma as well as genes not PREVIOUSLY THOUGHT to be involved in melanoma growth and survival> [47].” [a statement that new genes were associated with the direct anti-melanoma effect of ifn-γ, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
258. “some PREVIOUSLY THOUGHT of teaching as “boring” or a duty.” [the thoughts of people that teaching is ‘boring’ or a ‘duty’, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
259. “<these findings serve to highlight the vastly integrated nature of mammalian cells, and that the actin cytoskeleton is likely to play a much wider cellular role THAN PREVIOUSLY PREDICTED>.” [need to resolve disagreements about the previous predictions and these these findings that highlight the vastly integrated nature of mammalian cells, and that the actin cytoskeleton is likely to play a much wider cellular role]
260. “we found that the untranslated regions (utrs), which are essential for transformation, do not influence on protein expression, but plays a critical role during <nuclear localization of the encoded oncoprotein product(s), which may be shorter THAN PREVIOUSLY PREDICTED>.” [need to resolve disagreements between previous predictions and the observation that nuclear localization of the encoded oncoprotein product(s) may be shorter]
261. “and although deforestation is currently lower58THAN PREVIOUSLY PREDICTED59, further loss of forest will inevitably lead to the loss of rare, small-ranged species before they can be discovered.” [a results statement that the deforestation rate is lower than predicted and if it continues it will be very problematic, not a statement that lays out a research disagreement between two parties at least that needs to be resolved]
262. “EXAMPLE” [EXAMPLE]
263. **RATHER**
264. “<the role of the scene context in 3d object orientation perception may be supplemental RATHER than essential>.” [need to resolve disagreements between the role of the scene context in 3d object orientation perception to be supplemental or essential]
265. “<RATHER, a more tenable explanation is that circulating blys levels in human sle do not always accurately reflect excessive endogenous blys production>.” [need to resolve disagreements between the explanation provided (that circulating blys level sin human sle do not always accurately reflect excessive endogenous blys production) and other explanations]
266. “<pa should be explicitly measured RATHER than being defined by involuntary occupational activity or a lack of sedentary behavior>.” [need to solve the discrepancy between pa being explicitly measured and being defined by involuntary occupational activity or a lack of sedentary behavior]
267. “if imputed, dosages corresponding to the g allele RATHER than ‘best-guess’ genotypes will be used.” [a methodological statement about which data will be used based on the circumstances, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
268. “a RATHER new marker, oxidative damage to rna, measured as urinary excretion of 8-oxo-7,8-dihydroguanosine (8-oxoguo), was found to be an independent predictor of mortality in patients with type 2 diabetes [108].” [a results statement that a new marker was found to be an independent predictor of mortality in patients with type 2 diabetes, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
269. “EXAMPLE” [EXAMPLE]
270. “EXAMPLE” [EXAMPLE]
271. **REFUTES**
272. “<this is a landmark study, and definitively REFUTES the notion that transcription factors cannot be targeted therapeutically>.” [need to resolve disagreements between this landmark study and the notion that transcription factors cannot be targeted therapeutically]
273. “1. <current scientific evidence rather REFUTES than supports the role of plasma homocysteine as a causal risk factor for coronary heart disease>.” [need to resolve disagreements between current scientific evidence (no role of plasma homocysteine as a causal risk factor for coronary heart disease) and the opposite]
274. “in this study, we explore whether the application of a similar approach using a high-fidelity computational simulator tuned to a number of human ards patient datasets confirms or REFUTES the results of this previous animal study.” [a statement of the goal of the study to determine if this study confirms or refutes the results from previous studies, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
275. “this body of evidence neither supports nor REFUTES the gastropulmonary route of infection.” [a results statement that is neutral that this body of evidence is not helpful in distinguishing the gastropulmonary rout of infection, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
276. “EXAMPLE” [EXAMPLE]
277. **REMAIN VARIABLE**
278. “<but surgeons’ knowledge and opinions towards the diagnosis and treatment of pc in china REMAIN VARIABLE>.” [need to resolve disagreements between different surgeons’ knowledge and opinions towards the diagnosis and treatment of pc in china]
279. “<outcomes with stem cell transplant for mds REMAIN VARIABLE> with the universal goal of identifying the most important predictors of transplant success to yield better patient and donor selection, better pre-hct therapy selection to improve pre-hct disease burden, and identification of alternative approaches for those with only minimal chance of benefit from transplant.” [need to resolve disagreements between outcomes with stem cell transplant for mds (with the universal goal of identifying the most important predictors of transplant success to yield better patient and donor selection, better pre-hct therapy selection to improve pre-hct disease burden, and identification of alternative approaches for those with only minimal chance of benefit from transplant)]
280. “estimates of the velocity REMAIN VARIABLE throughout the seizure (fig. 3e)” [a results statement that the estimates of the velocity vary quite a lot throughout the seizure]
281. “experimental downregulation of foxp2 at this time would interfere with the matching of particular motor sequences to reward and thus song would not be learned correctly and REMAIN VARIABLE, as previously described (haesler et al.,2007).” [a results statement that the song would not be learned correctly and vary a lot due to this experimental downregulation of foxp2, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
282. “EXAMPLE” [EXAMPLE]
283. **SCRUTINY**
284. “<the use of gc to measure directed interactions in the brain from fmri bold data has received intense SCRUTINY in recent years, with some arguing in its favor[15]–[18]and others opposed to it[19]–[23]>.” [need to resolve disagreement about the use of gc to measure directed interactions in the brain from fmri bold data with some in favor [15]-[18] and other against it [19]-[23]]
285. “<among the numerous researches on the point, the roles of anchorage to the substratum in the regulation of apoptosis have been the subjects of much SCRUTINY> [38,39].” [need to resolve disagreements among the numerous researches on the roles of anchorage to the substratum in the regulation of apoptosis]
286. “if further SCRUTINY revealed the actual matching not to be 1:1, the study was excluded.” [a methodological statement of a hypothetical scenario and what to do: if after further examination it was revealed that the actual matching was not 1:1, the study was excluded, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
287. “for research to be truly reproducible, researchers must open that entire process to SCRUTINY.” [a general sentiment to ensure that research is truly reproducible (by opening up the entire process to the public to examine), not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
288. “developing countries will be under SCRUTINY not only from their constituents but also from their donors.” [a statement of where the scrutiny will come from: their constituents and their donors, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
289. “EXAMPLE” [EXAMPLE]
290. **SUPPOSED TO**
291. “<these bp elevations after smoking cessation are SUPPOSED TO be explained by increase in weight due to increase in food intake, or increase in stress> [16].” [need to solve the discrepancy between the currently held belief that these bp elevations after smoking cessation are explained by increase in weight due to increase in food intake, or increase in stress and the current cases]
292. “<the therapeutic efficacy of classical antipsychotic drugs is SUPPOSED TO require an occupancy of dopamine d2-receptors >70%> [73].” [need to solve the discrepancy between the current antipsychotic drugs used and the therapeutic efficacy of classical antipsychotic drugs requiring an occupancy of dopamine d2-receptors >70%]
293. “for example, a consumer may write a review about an adverse effect caused by the product or justification of choosing the product to avoid/alleviate a health issue, eg, “[this product is a] major migraine trigger!” or “it’s SUPPOSED TO help literally pull gingivitis out.” the number of reviews can easily reach millions on prominent retail sites, such asamazon.com.” [a quoted example of a review about an adverse effect caused by the product, not a statement that lays out a specific research prediction that we need to run the experiment to determine if it is correct]
294. “as we stated above, cohen himself is not explicit about what it is that is SUPPOSED TO be valuable about human beings.” [an interpretation of cohen’s work where he does not explicitly say what is valuable about human beings, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
295. “EXAMPLE” [EXAMPLE]
296. **UNCRITICALLY/ UNORTHODOX/ UNRESOLVED/ UNRESOLVED ISSUES/ UNSETTLED**
297. “however, <the true value of cytoreductive surgery in patients with oligometastases needs to be investigated in prospective and randomized studies before it is UNCRITICALLY transferred to clinical routine>.” [need to resolve any disagreements between previous studies on the value of cytoreductive surgery in patients with oligometastases and prospective and randomized studies to transfer it to clinical practice]
298. “<this assumption is often incorrect, and embracing it UNCRITICALLY will slow progress>.” [need to resolve disagreements about this assumption so that progress will not be slowed]
299. “in one review, the authors noted in their discussion that social service and health provision is very different between the usa and the uk and <that research findings from the usa cannot be UNCRITICALLY applied to the uk> (holland et al .” [need to resolve disagreements about research findings from the usa and application in the uk]
300. “the unwise person, instead, UNCRITICALLY accepts other people's opinions as true, without engaging in personal reflection or independent thought.” [a description of the ‘unwise person’, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
301. “at present, it is difficult to decide the limitations of our study definitely, hence the calculation results should not be accepted UNCRITICALLY.” [a warning statement that the results need to be critiqued before being accepted, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
302. “in this sense, <crowdsourcing is an UNORTHODOX approach>.” [need to resolve disagreements about using crowdsourcing as an approach]
303. “nearly a century ago, <two geneticists described “rogue” pea plants with an UNORTHODOX pattern of inheritance>.” [need to resolve disagreements between the two geneticists that described “rogue” pea plants’ pattern of inheritance and today’s description]
304. “UNORTHODOX aquaporins include aqp11 and 12; their functions are not clearly identified [5,6].” [a list of weird aquaporins that include aqp11 and 12, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
305. “is it that acknowledgement of the efficacy of nonspecific effects threatens the nature of clinical authority and potentially in some eyes, undermines the cultural dominance of orthodoxy with fears of unfettered UNORTHODOXY?” [a question about people’s fears, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
306. “despite its inherent uncertainties, it is clear that a significant subset of the women veterans examined chose an UNORTHODOX (at least by the standards of the times) career that focused on service (military and civilian) rather than the normative, expected career of an american wife and mother.” [a results statement about the patterns of women veterans choosing careers other than the normative of the time, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
307. “<an important UNRESOLVED question remaining in the field, however, is how best to define the nodes and edges of large-scale functional brain networks>.” [need to resolve disagreements about the question: how best to define the nodes and edges of large-scale functional brain networks]
308. “<the role of the spacer region in the pathogenesis of ev-d68 is still UNRESOLVED>.” [need to resolve disagreements about the role of the spacer region in the pathogenesis of ev-d68]
309. “perhaps chb occurs as a consequence of UNRESOLVED scarring of the av node secondary to the transdifferentiation of cardiac fibroblasts to unchecked proliferating myofibroblasts (scarring phenotype in which smooth muscle actin is expressed).” [a statement about a possible consequence due to unhealed scarring of the av node…, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
310. “as expected, the five species from bos and bison formed a monophyletic clade, but with UNRESOLVED internal relationships.” [a results statement about the five species from bos and bison that has some problematic internal relationship issues, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
311. “however, <there are several UNRESOLVED ISSUES related to the use of seismic data for this purpose>, three of which we describe briefly below.” [need to resolve disagreements about the use of seismic data for this purpose]
312. “<UNRESOLVED ISSUES for future studies include whether binding of other transcription factors to the ebp1 promoter aid in the recruitment of e2f proteins>.” [need to resolve disagreements about whether binding of other transcription factors to the ebp1 promoter aid in the recruitment of e2f proteins]
313. “consequently, the network has reduced the burden of travel for patients, expedited their treatment and provided a mechanism for re-discussion of UNRESOLVED ISSUES by a panel of experts.” [a description and consequences of the network for patients to voice their unresolved issues about their care, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
314. “in the process, we will highlight some of the controversies and UNRESOLVED ISSUES in the field.” [a statement that unresolved issues will be discussed in the process, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
315. “escs are a prominent source of biological material for cell replacement therapy in human diseases, although <the issue of how safe they are remains UNSETTLED> and under study.” [need to resolve disagreements about the issue of how safe they (escs) are]
316. “<the literature on the putative role of brca1 in nhej is UNSETTLED>, because several studies suggest a requirement for brca1 in nhej (baldeyron et al.,2002; zhong et al.,2002a,b; bau et al.,2004), while others find no defect in nhej in brca1-deficient cells (moynahan et al.,1999; wang et al.,2001; mérel et al.,2002).” [need to resolve disagreements about the putative role of brca1 in nhej (since several studies suggest a requirement for brca1 in nhej and others find no defect in nhej in brca1-deficient cells)]
317. “carers perceived stroke survivors consequently felt stressed and “exhausted just from waiting around,” which results in “UNSETTLED rest” before therapy even started.” [a description of how stroke survivors felt leading to an “unsettled rest” before they even started therapy, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
318. “when women have had the opportunity to return to their home country they state they feel UNSETTLED.” [a statement of how women feel when they have had the opportunity to return to their home country, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
319. “EXAMPLE” [EXAMPLE]
320. **VARIABLY/ VARIED WIDELY/ VARIES/ WIDE RANGE**
321. “<several different studies have established functional links between nf-κb and hif-1α, though they VARIABLY place hif-1α either upstream of nf-κb or vice versa>.” [need to resolve disagreements about the established functional links between nf-κb and hif-1α (hif-1α either upstream of nf-κb or vice versa)]
322. “p600sc−/−animals die VARIABLY between e12.5 and e14.5 (nakaya et al., 2013), thereby providing a short time window to study anps.” [a statement of when the animals die that ranges from e12.5 and e14.5 meaning there is a short time window to study anps, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
323. “<the estimates of pathogenetic, cost inputs and test characteristics used in different studies VARIED WIDELY>.” [need to resolve disagreements about the estimates of pathogenetic, cost inputs and test characteristics used in different studies]
324. “<the efficacy of prep in women VARIED WIDELY across clinical trials from 26% to 81% and corresponded with adherence>.” [need to resolve disagreements between studies about the efficacy of prep in women across clinical trials that ranged from 26% to 81% and corresponded with adherence]
325. “education level VARIED WIDELY, with an average achievement of “some college”, and 89.7% of respondents listed english as the language they were most comfortable speaking.” [a results statement that the education level among participants had a large range, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
326. “although opinions VARIED WIDELY, financial incentives have a risk of lowering confidentiality of the treatment and can jeopardize trial results.” [a statement that opinions had a large range, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
327. “<the global prevalence of cd in t1d, based on seroprevalence of iga ttg, VARIES from 4.4% to 20.8%,[141516171819202122] with the highest positivity seen in a study from turkey>.” [need to resolve disagreements about the global prevalence of cd in t1d, based on seroprevalence of iga ttg (with the highest positivity seen in a study from turkey)]
328. “however, <peroxisome involvement in the sexual cycle VARIES among fungal species> and little conservation is so far apparent for many peroxisome developmental functions.” [need to resolve disagreements about peroxisome involvement in the sexual cycle among fungal species (little conservation is so far apparent for many peroxisome developmental functions)]
329. “immune functioning is determined partly by genetics (262) and VARIES greatly between individuals.” [a statement that immune function differs greatly between people, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
330. “all remaining measures include specific categories for heart disease, chronic pulmonary disease, and diabetes, although how this is represented VARIES (table 1).” [a statement about the remaining measures in table 1, but their representation is different and need to see table 1 to understand, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
331. “osteogenesis imperfecta (oi) is a hereditary, bone fragility disease that VARIES in severity from mild bone defects to neonatal lethality.” [a definition of the disease osteogenesis imperfecta (oi) including much variety in severity, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
332. “<very large expression differences over a WIDE RANGE of expression intensities are seen>.” [need to resolve disagreements between the very large expression differences of expression over differing expression intensities]
333. “in general, <ti phosphides can have a WIDE RANGE of compositions>, and it is thus difficult to reliably determine the exact composition of tixpyby xrd analysis alone [49].” [need to resolve disagreements between ti phosphides many different compositions(making it difficult to reliably determine the exact composition of tixpyby xrd analysis alone]
334. “our cells receive a WIDE RANGE of stimuli and the activation of signal transduction cascades allows the cells to respond to all these divergent inputs in order to facilitate their adaptation to new environmental conditions.” [a statement about our cells and how they facilitate their adaptation to new environmental conditions]
335. “impelled by a desire for literary and cultural significance, he exploited his psychiatric authority and celebrity status to comment on a WIDE RANGE of social, cultural, and political matters.” [a statement that he exploited his psychiatric authority and celebratory status to comment on many topics including social, cultural, and political, not a statement that lays out a research disagreement or discrepancy between two parties at least that needs to be resolved]
336. “EXAMPLE” [EXAMPLE]
337. **EXAMPLE**
338. “EXAMPLE” [EXAMPLE]
339. “EXAMPLE” [EXAMPLE]
340. “EXAMPLE” [EXAMPLE]
341. “EXAMPLE” [EXAMPLE]
342. “EXAMPLE” [EXAMPLE]

**Questions answered by this work** = a statement of a goal or objective of a study that is attempted or completed during the study. The next actionable step is to find the answer(s) in the article; determine if the question(s) is (are) fully answered in the article.

1. **AIM/ AIMED/ AIMS**
2. “<the AIM of our study was to investigate the effect of intracameral injection of fibrin tissue sealant on the anterior segment structures of rabbit eyes>.” [the goal of the study is to investigate the effect of intracameral injection of fibrin tissue sealant on the anterior segment structures of rabbit eyes]
3. “<the AIM of this study was to identify 3 particular orbiviruses (btv, ehdv, and ahsv) in algeria and determine their geographic distribution>.” [the goal of the study is to identify 3 particular orbiviruses (btv, ehdv, and ahsv) in algeria and determine their geographic distribution]
4. “the cochrane collaboration is an international network of researchers, health practitioners and patient advocates, AIMING to produce and publish credible and accessible health information free from conflicts of interest.” [the goal of the Cochrane collaboration as a whole, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
5. “to that AIM, datasets from metabolomic repositories were selected and enriched data were created.” [a methodological statement about the how to execute the aim, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
6. “demproj and AIM have now evolved and become subsumed into the spectrum modeling package[11].” [a statement that the models (demproj and aim) are now subsumed into the spectrum modeling package, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
7. “although we used a convenience sampling strategy, <we AIMED to recruit a wide variety of participants with respect to age, gender, social status, and time since stroke onset>.” [the goal of the study is to recruit a wide variety of participants with respect to age, gender, social status, and time since stroke onset]
8. “using structural equation modeling, <this study is one of the first efforts AIMED at assessing influential factors causing gender differences in the association between health-related quality of life (hrqol) and metabolic syndrome.>” [the goal of the study is to assess influential factors causing gender differences in the association between health-related quality of life (hrqol) and metabolic syndrome]
9. “hf outpatient clinic should have in place procedures and operating instructions AIMED to.” [the protocols for an hf outpatient clinic, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
10. “although elegant experiments AIMED at blocking protein synthesis and interfering with bdnf signaling have inferred the translation of bdnf mrna in dendrites (tanaka et al., 2008), it has not been possible thus far to assess directly whether dendritic bdnf mrnas are translated locally.” [a statement about other studies’ aims (citations), not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
11. “on the basis of our previous findings, <this present study goes one step further and AIMS to investigate the effect of acquired resistance of braf inhibitor on emt in braf mutant thyroid cancer cells>.” [the goal of the study is to investigate the effect of acquired resistance of braf inhibitor on emt in braf mutant thyroid cancer cells]
12. “<this study AIMS at comparing the sleep of residents before and after exposure to wt noise, using in-home polysomographical recordings and simultaneous indoor noise measurement>.” [the goal of the study is to compare the sleep of residents before and after exposure to wt noise, using in-home polysomographical recordings and simultaneous indoor noise measurement]
13. “we recommend longer intervention periods of clinically safe higher doses, attention to different ethnic groups, and specific, clear AIMS with a sole focus on vitamin d intervention and primary inflammatory outcomes.” [a recommendation about study design including having clearer goals, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
14. “AIMS/objectives” [a title section of the paper getting at the aims/objectives, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
15. “all potential participants were fully informed of the study AIMS and methods via a participant information sheet; those agreeing to participate provided written informed consent.” [a methodological statement that the participants were all informed about the study fully, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
16. “EXAMPLE” [EXAMPLE]
17. **ASSESSED/ TO ASSESS**
18. “furthermore, <we also ASSESSED the effect of hspbp1 on nf-κb mediated activation of latently infected cells>.” [the goal of the study is to determine the effect of hspbp1 on nf-κb mediated activation of latently infected cells]
19. “in the current study, <we ASSESSED a retrospective collection of escc patient data to determine the prognostic accuracy of the pn classification alone compared to pn supplemented by bmi>.” [the goal of the study is to determine the prognostic accuracy of the pn classification alone compared to pn supplemented by bmi by examining a retrospective collection of escc patient data]
20. “thirty-two participants were required to detect a mean difference of 1 mj between ee measured with actireg®and ei ASSESSED with the ffq.” [a power analysis statement that needs 32 participants to detect a difference as discovered with ffg, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
21. “additionally, the skill level of review authors themselves for addressing srb was NOT directly ASSESSED and instead was reported only as how it was perceived by the survey respondent.” [a statement of what the study did not do or a limitation, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
22. “two reviewers independently ASSESSED rcts for inclusion.” [a methodology statement that two reviewers looked at the rcts for inclusion independently, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
23. “we performed single cycle replication studies in hek293t cells and infection studies in jurkat cells <TO ASSESS the effect of knockdown of hspbp1 on virus production>.” [the goal of the study is to assess the effect of knockdown of hspbp1 on virus production]
24. “<TO ASSESS the role of lcn2 in intestinal inflammation>, we compared intestinal inflammation between il-10 ko and lcn2/il-10 dko mice, because lcn2 ko mice did not develop spontaneous colitis (supplementary fig.” [the goal of the study is to assess the role of lcn2 in intestinal inflammation]
25. “despite these concerns, the mode of action of these antifouling agents is virtually unknown in marine animals, and it is still difficult TO ASSESS resulting effects of alternatives on marine ecosystems.” [a difficulty to assess resulting effects of alternatives on marine ecosystems and thus did not do it, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
26. “standardize the collection of data useful to monitor the indicators for audits and TO ASSESS patient-perceived quality.” [a statement that is part of the list of protocols for an hf outpatient clinic, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
27. “EXAMPLE” [EXAMPLE]
28. **DESIGNED TO**
29. “<the tlgs is an ongoing study, DESIGNED TO investigate the risk factors for cvds in an urban population of tehran, the capital of iran, and to implement measures at the population level>, aiming at improving life styles and preventing rising trends in non-communicable diseases.” [the goals of this study are to investigate the risk factors for cvds in an urban population of tehran, the capital of iran, and to implement measures at the population level]
30. “<the study was DESIGNED TO present various scenario for estimation of affordability of premiums, and to use information from the data sources to model the threshold premium>.” [the goal of this study is to present various scenario for estimation of affordability of premiums, and to use information from the data sources to model the threshold premium]
31. “fibrin adhesives are surgical hemostatic agents derived from human plasma that are DESIGNED TO reproduce the final steps of the physiologic coagulation cascade to produce a stable fibrin clot.” [a description of fibrin adhesives and what they are meant to do, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
32. “metabolomics is a developing field, thus bioinformatic tools DESIGNED TO perform enrichment of metabolomics datasets are being developed and released by various groups using diverse statistical tests [3].” [a statement that bioinformatics tools are being developed to perform enrichment of metabolomics datasets, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
33. “EXAMPLE” [EXAMPLE]
34. **GOAL**
35. “<the GOAL of this work is two-fold: first, we have combined mutual information and structural data to describe the amino acid networks within a protein and their interactions>.” [the goal of this study is two-fold: first, we have combined mutual information and structural data to describe the amino acid networks within a protein and their interactions]
36. “<the GOAL of such studies is to identify genetic variations associated with a particular disease> and is based on rapidly scanning genomic markers across the genome from affected and unaffected populations [11,12].” [the goal of such studies (the citations) is to identify genetic variations associated with a particular disease]
37. “in an effort to improve the cancer treatment, <there have been many studies with the GOAL of exploring new drugs and improving drug side effects(25)>.” [the goal of many studies (citation) is to explore new drugs and improving drug side effects(25)]
38. “it should be stressed that, while it can do the job of heating up the body, the heat pump mechanism is not the only way to achieve that GOAL.” [an explanatory statement that while the heat pump mechanism can heat up the body, it is not the only way to heat up the body, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
39. “the maze consisted of a 55-cm-long center arm and two 32-cm-long GOAL arms, each 10 cm wide with 15 cm high walls.” [a description of the maze with two 32-cm-long ‘goal arms’, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
40. “EXAMPLE” [EXAMPLE]
41. **HERE/ HERE… INVESTIGATED/ INVESTIGATED**
42. “as it seems that hspbp1 employs a different mechanism, so, <HERE, in the present study we intended to understand the role of hspbp1 in hiv-1 infection and decipher the involved mechanism>.” [the goals of the study are to understand the role of hspbp1 in hiv-1 infection and decipher the involved mechanism]
43. “the endothelium (intima) (en) HERE is anfractuous and reinforced by folds that enlarge the surface area but is not annulated as in the large tracheoles.” [a description of the endothelium (intima) (en) present, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
44. “<HERE we INVESTIGATED the effect of il-22 on alveolar epithelial cells in the bleomycin- (blm-) induced pulmonary fibrosis>.” [the goal of the study is to determine the effect of il-22 on alveolar epithelial cells in the bleomycin- (blm-) induced pulmonary fibrosis]
45. “<HERE we INVESTIGATED the statistics of the time varying envelope (i.e. a second-order stimulus attribute that is related to variance) of rotational and translational self-motion signals experienced by human subjects during everyday activities>.” [the goal of the study is to determine the statistics of the time varying envelope (i.e. a second-order stimulus attribute that is related to variance) of rotational and translational self-motion signals experienced by human subjects during everyday activities]
46. “<we HERE INVESTIGATED gene expression along lg14 and lg5 using adult male and female gonad rna sequencing reads from [22]>.” [the goal of the study is to determine gene expression along lg14 and lg5 using adult male and female gonad rna sequencing reads from [22]]
47. “<the protective immunogenicity of a hybrid peptide containing tandem copies of types 5, 6, and 24 m protein epitopes was INVESTIGATED>.” [the goal of the study is to investigate the protective immunogenicity of a hybrid peptide containing tandem copies of types 5, 6, and 24 m protein epitopes]
48. “<therefore, in the present study, <we INVESTIGATED the role of lcn2/ngal in intestinal inflammation using a spontaneous mouse colitis model, interleukin-10 knock out (il-10 ko) mice>.” [the goal of the study is to investigate the role of lcn2/ngal in intestinal inflammation using a spontaneous mouse colitis model, interleukin-10 knock out (il-10 ko) mice]
49. “however, the underlying mechanisms were not INVESTIGATED (stover et al., 2005).” [a negation and thus not the goal of the study but a limitation, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
50. “whether meprin β is only involved in the progression of fibrosis by collagen maturation and deposition, or if the protease also contributes to the onset of the disease as a pro-inflammatory enzyme has to be further INVESTIGATED.” [a statement of future work that needs to be further investigated, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
51. “EXAMPLE” [EXAMPLE]
52. **OBJECTIVE/ OBJECTIVES**
53. “<the OBJECTIVE of this study was to determine the methods which crgs require of their authors to address srb within systematic reviews, and how srb risk assessments are verified>.” [the goal of the study is to determine the methods which crgs require of their authors to address srb within systematic reviews, and how srb risk assessments are verified]
54. “<the main OBJECTIVE of this work is to give a critical overview, for the first time, of the performance of these tools>.” [the goal of the study is to give a critical overview, for the first time, of the performance of these tools]
55. “one of the strengths of our present study is that we used an OBJECTIVE instrument as reference method to measure ee.” [a statement about the strengths of the study including the use of an unbiased instrument as a reference method to measure ee, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
56. “no OBJECTIVE criteria exist for administering rbc transfusions in premature infants.” [a statement that there are no unbiased criteria for administering rbc transfusions in premature infants, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
57. “<additional OBJECTIVES were to determine whether there was an association of hbv genotypes with neighboring countries including pakistan, iran and china>.” [additional goals of the study are to determine whether there was an association of hbv genotypes with neighboring countries including pakistan, iran and china]
58. “<the OBJECTIVES of this study were to assess the content validity, test-retest reliability, and acclimation effect of the ppius in overactive bladder (oab) patients>.” [the goals of the study are to assess the content validity, test-retest reliability, and acclimation effect of the ppius in overactive bladder (oab) patients]
59. “then cells were treated with either cisplatin (5 μg/ml) or dmso for 2 h. cell morphology was examined under an inverted light microscope equipped with a ccd camera using 20x OBJECTIVES.” [a methodological statement that the cells were treated and examined under an inverted light microscope with 20x lens objectives in the camera, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
60. “the OBJECTIVES of the hf network are the improvement of patients’ quality of life, the decrease of hospital admissions and the containment of health-care costs.” [the goals and objectives of a program (the hf network) and not for this study, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
61. “EXAMPLE” [EXAMPLE]
62. “EXAMPLE” [EXAMPLE]
63. **PRESENT STUDY**
64. “<the PRESENT STUDY set out to elucidate the structure and function of the large subcuticular air sacs encountered in the gaster of the oriental hornet vespa orientalis (hymenoptera, vespinae)>.” [the goal of the study is to elucidate the structure and function of the large subcuticular air sacs encountered in the gaster of the oriental hornet vespa orientalis (hymenoptera, vespinae)]
65. “so, <the PRESENT STUDY was conducted to evaluate the in vitro antibacterial, antiproliferative, and antileishmanial properties and to identify some compounds of the methanolic extract of l. pubescens>.” [the goals of the study are to evaluate the in vitro antibacterial, antiproliferative, and antileishmanial properties and to identify some compounds of the methanolic extract of l. pubescens]
66. “the age distribution in the PRESENT STUDY population was comparable to the distribution of age in this area (statistics norway, ssb august 2009,http://www.ssb.no/).” [a comparison of age distribution between studies, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
67. “we found no evidence of association between body weight, smoking, bmi or ee and under-reporting in our PRESENT STUDY.” [a results statement from the study, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
68. “EXAMPLE” [EXAMPLE]
69. **PURPOSE**
70. “<the PURPOSE of this study was to determine if the apts-mnp-labeled hmscs could be imaged in vivo, and to observe their short-term (3-week) survival in a lower-limb ischemia model of nude mice>.” [the goals of the study are to determine if the apts-mnp-labeled hmscs could be imaged in vivo, and to observe their short-term (3-week) survival in a lower-limb ischemia model of nude mice]
71. “however, since these interactions have not been studied in the heart, <the secondary PURPOSE of this study was to characterize the effects of diabetes and moderate exercise on the msin3a/hdac1/2 complex>.” [the secondary goal of the study is to characterize the effects of diabetes and moderate exercise on the msin3a/hdac1/2 complex]
72. “<[PURPOSE] this study investigated the difference screwdriver handle size has on forearm muscle activities and wrist motion during screw-driving work>.” [the goal of the study is to investigate the difference screwdriver handle size has on forearm muscle activities and wrist motion during screw-driving work]
73. “the acute physiology and chronic health evaluation (apache) ii score is widely used in the intensive care unit (icu) as a scoring system for research and clinical audit PURPOSES.” [a general statement about the apache ii score usage, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
74. “for the PURPOSE of determining statistical significance α was set at 0.05.” [a statement that alpha is set to 0.05 to determine statistical significance, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
75. “EXAMPLE” [EXAMPLE]
76. **SET OUT/ SOUGHT**
77. “here <we SET OUT to investigate the genetic basis of sex determination in astatotilapia burtoni , a cichlid that inhabits lake tanganyika (lt) and its tributaries>.” [the goal of the study is to investigate the genetic basis of sex determination in astatotilapia burtoni , a cichlid that inhabits lake tanganyika (lt) and its tributaries]
78. “in this study, <we first SET OUT to identify the mrnas directly bound by sox2>.” [the first goal of the study is to identify the mrnas directly bound by sox2]
79. “the presentation discusses the principles SET OUT in that project, and considers the emerging agenda about methods research relating to economic evaluation in low income countries.” [a statement of what the presentation discusses including the principles of the project itself, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
80. “SET OUT over the course of 4 days and anchored in principles of problem-based learning and didactic lectures, the institute will cover several themes by experts in their respective fields.” [a statement about what the institute will cover over the course of 4 days, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
81. “<we SOUGHT to characterize il-18 and associated cytokines in a cohort of patients with a variety of monogenic or complex autoinflammatory syndromes>.” [the goal of the study is to characterize il-18 and associated cytokines in a cohort of patients with a variety of monogenic or complex autoinflammatory syndromes]
82. “<a widely SOUGHT goal in biology is to understand the genetic architecture underlying phenotypic variation>.” [the goal of biology is to understand the genetic architecture underlying phenotypic variation]
83. “validation of the findings was SOUGHT through the research group's continuing and open discussions during the analysis process until consensus about the findings was attained.” [a methodological statement about how the validation of the findings occurred, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
84. “the clinical method devised by the french followed occam’s law and SOUGHT a single diagnosis.” [a statement that the goal of the clinical method devised by the French was to find a single diagnosis, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
85. “EXAMPLE” [EXAMPLE]
86. **THIS EXPERIMENT/ THIS INVESTIGATION/ THIS PAPER/ THIS STUDY/ THIS…STUDY**
87. “<THIS EXPERIMENT was designed to test explicitly for an interaction between lesions of the hippocampus and the distance between the two locations>.” [the goal of the study was to test explicitly for an interaction between lesions of the hippocampus and the distance between the two locations]
88. “<in THIS EXPERIMENT we tested whether task relevant color would affect response times>.” [the goal of the study is to test whether task relevant color would affect response time]
89. “THIS EXPERIMENT for each whitefly species was replicated 5 times.” [a methodological statement that the experiment was replicated 5 times for each whitefly species, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
90. “thus, the conclusion that aqp1 does not increase membrane co2permeability is not substantiated by THIS EXPERIMENT.” [a results statement that the experiment failed to provide evidence for the conclusion, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
91. “<THIS INVESTIGATIONs is specifically intended to generate and make available “prior knowledge” that can be readily used as spatial hypotheses in rs-fmri studies in mdd, particularly studies applying machine-learning methods for diagnostic classification>.” [the goal of the study is to generate and make available “prior knowledge” that can be readily used as spatial hypotheses in rs-fmri studies in mdd, particularly studies applying machine-learning methods for diagnostic classification]
92. “second, <THIS INVESTIGATION verifies if pa changes are explained by the tpb constructs>.” [the goal of the study is to verify if pa changes are explained by the tpb constructs]
93. “the study area for THIS INVESTIGATION was therefore selected on the basis of results for surveillance in mammals [11].” [an explanation of why the study area was selected, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
94. “the reduced ck levels observed in THIS INVESTIGATION is also consistent with cade et al.” [a results statement that the reduced ck levels seen is consistent with other work, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
95. “<in THIS PAPER, we explore the consistency of the tensegrity hypothesis with the experimental observations on mechanical behavior of microtubules as compressive members of the cytoskeleton, and motivate a modification to this model>.” [the goal of the study is to explore the consistency of the tensegrity hypothesis with the experimental observations on mechanical behavior of microtubules as compressive members of the cytoskeleton, and motivate a modification to this model]
96. “all authors contributed extensively to the work presented in THIS PAPER.” [an author statement about the contribution of work presented, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
97. “therefore, <in THIS STUDY, we focused on the effect of lcn2 on mucosal defence systems, including mucosal barrier and underlying innate immune cells, especially macrophages>.” [the goal of the study was to determine the effect of lcn2 on mucosal defence systems, including mucosal barrier and underlying innate immune cells, especially macrophages]
98. “<in THIS STUDY, the role of cross-frequency coupling in spatial working memory is examined using several approaches>.” [the goal of the study is to examine the role of cross-frequency coupling in spatial working memory using several approaches]
99. “ten female new zealand white rabbits weighing between 2 and 2.5 kg were used for THIS STUDY.” [a methodological statement about the amount of white rabbits used and their characteristics, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
100. “THIS STUDY was approved by the institutional animal care and use committee (iacuc) at the university of alabama at birmingham (uab).” [a statement of approval from the institutional animal care and use committee at the university of alabama at Birmingham (uab), not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
101. “to the best of our knowledge, <THIS is the first STUDY to systematically investigate the difference of sagittal lumbosacral spine morphology between patients with thoracolumbar kyphosis secondary to as and thoracolumbar fracture>.” [the goal of the study is to systematically investigate the difference of sagittal lumbosacral spine morphology between patients with thoracolumbar kyphosis secondary to as and thoracolumbar fracture]
102. “THIS first STUDY reported that this family comprises only esterases, with the exception of lipy, identified as a true lipase able to hydrolyze insoluble long-chain tag, as previously mentioned[16],[17].” [a results statement about what the study reported about the family, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
103. “EXAMPLE” [EXAMPLE]
104. **TO EXAMINE**
105. “<the study was TO EXAMINE the influence of the gastric environment on the formation of the gel structure after administering a dose of the tested formulae>.” [the goal of the study is to examine the influence of the gastric environment on the formation of the gel structure after administering a dose of the tested formulae]
106. “specifically, <we wish TO EXAMINE the distribution of treatment effects across the trials> in order to estimate the average effects of anti-hypertension drugs on these four outcomes and also to quantify the amount of between-trial variation in the outcome effects.” [the goal of the study is to examine the distribution of treatment effects across the trials (in order to estimate the average effects of anti-hypertension drugs on these four outcomes and also to quantify the amount of between-trial variation in the outcome effects)]
107. “3omics or papi, the use of simulated o synthetic data would have allowed us TO EXAMINE a lower number of tools.” [a tool that would make examination of a lower number of tools eeasier, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
108. “the present study was not powered TO EXAMINE hpv prevalence of hpv types including in subgroups or in relation to risk associations.there were 380 participants with an unequivocal hpv test result at baseline (table 7).” [a statement that the study did not have enough power to determine hpv prevalence of hpv types, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
109. “EXAMPLE” [EXAMPLE]
110. **WISHED**
111. “the nh2-terminal region of cngb1 and the cooh-terminal region of cnga1 are in close proximity, and <we WISHED to determine if these regions undergo molecular rearrangements during modulation by ca2+/cam>.” [the goal of the study is to determine if these regions undergo molecular rearrangements during modulation by ca2+/cam]
112. “immunization could induce serum antibody, <we WISHED to test the effect of administration of gla-af by this route on mucosal responses>.” [the goal of the study is to test the effect of administration of gla-af by this route on mucosal responses]
113. “[…] i have at least tried to explain without too much complaining that i don't manage being a babysitter the way i WISHED, and i can't be grandma the way i wish.” [a person’s feelings about being a babysitter and a grandma like they wanted and hoped, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
114. “they were advised that their participation was voluntary and could be discontinued at any time they WISHED without penalty, and that their data would be anonymized.” [a methodological statement that participants were informed that they could leave the study at any time if they wanted/hoped to, not a statement that lays out the overall goal of the study that should be answered in the article or transformed into more questions by the end]
115. “EXAMPLE” [EXAMPLE]
116. **EXAMPLE**
117. “EXAMPLE” [EXAMPLE]
118. “EXAMPLE” [EXAMPLE]
119. “EXAMPLE” [EXAMPLE]
120. “EXAMPLE” [EXAMPLE]
121. “EXAMPLE” [EXAMPLE]
122. “EXAMPLE” [EXAMPLE]