

1. What causes random long white body hairs?
2. What does 5' and 3' mean in DNA and RNA strands?
3. Why can white hairs get dark again?
4. Why do I only breathe out of one nostril?
5. Why is DNA replication performed in the 5' to 3' direction?
6. Teens concerned about impregnation through clothes
7. What could cause hairs to gray at the tips but not the roots?
8. What's the maximum and minimum temperature a human can survive?
9. Small worm living in some kind of cocoon, what are these animals?
10. How long human can survive with just drinking water everyday
11. How to translate a blood type used in Eastern Europe?
12. NADH vs. NADPH: Where is each one used and why that instead of the other?
13. What is the difference between orthologs, paralogs and homologs?
14. What is a coupled reaction and why do cells couple reactions?
15. Why do mammalian red blood cells lack a nucleus?
16. Can a person really die quickly from biting their tongue?
17. If I squash an insect and it produces red "juice", does it always mean it is a blood-sucking type?
18. Death because of distilled water consumption
19. What is the healing process of mouth wounds?
20. Why do vaccines cause your arm to hurt?
21. Name (and meaning of the absence) of the white semicircle at the base of the fingernail?
22. What is it called when one human eye is seeing brighter color than the other?

23. What happens to the holes in the skull where teeth were developing?
24. Why Do Healing Wounds Feel Warmer To The Touch?
25. Why is thymine rather than uracil used in DNA?
26. Why are my faeces black in color after eating Oreos
27. What is the female equivalent of the morning erection that some men experience?
28. How long can an octopus survive out of the water?
29. Why do I see different hues of colors between each of my eyes?
30. Many black people I've met have bigger lips than white people, why?
31. Can dish soap really be used to kill ticks and fleas?
32. Dorsal vs Posterior and Ventral vs Anterior
33. Why do we add salt when precipitating DNA?
34. Deciding between chi square and t test
35. Blood pressure difference while seated and laid down
36. Do animal cells have vacuoles?
37. Why do ladybugs have a different number of points on their backs
38. What is the difference between local and global sequence alignments?
39. Which organs do cats not eat on their prey?
40. how to close a severed artery/vein?
41. Is it possible for a child to grow taller than their tallest parent?
42. Why does strenuous exercise cause vision of "lights"?
43. What is the armpit hair for?
44. What is the effect of extra-cellular potassium concentration on heart rate and conduction velocity?
45. How do prokaryotes perform cellular respiration without membrane-bound organelles?

46. What is the function of the RNA primer in DNA replication?
47. Why draw blood from veins rather than arteries?
48. Why don't we breathe nitrogen when it makes up most of the air?
49. How long can human tissue last without blood?
50. How do plant cell divide without centrioles?
51. Do we get 1/4 of our genes from each grandparent?
52. If the brain has no pain receptors, how come you can get a headache?
53. Bending your little finger without bending ring finger
54. Blood Pressure: Significance of difference between systolic and diastolic
55. Which human cells have the longest and shortest lifespan?
56. Do humans sneeze or cough in their sleep?
57. What species of eagle pushes their young to teach them flying?
58. Why are turtles classified as reptiles and not amphibians?
59. Why does human facial and head hair continue to grow?
60. How to store vegetables in the refrigerator: In plastic bags or not?
61. Why does rabies cause hydrophobia?
62. Why deoxyribose for DNA and ribose for RNA?
63. Does DNA have the equivalent of IF-statements, WHILE loops, or function calls? How about GOTO?
64. Why should plants transform glucose into sucrose before transporting it to other parts?
65. I'm 20. Can I still grow taller?
66. Ramifications and possibility of a diet consuming exclusively of human semen
67. At what stage of meiosis does "first meiotic arrest of oogenesis" occur?
68. Why do men have a higher hematocrit (red blood cell count) than women?

69. What type of cell do you start with in Meiosis?
70. How does laughing gas (N<sub>2</sub>O) work?
71. Absorption ratios 260/280 and 260/230 for RNA
72. Why are bacteria and archaea in different domains?
73. Why are 3 nucleotides used as codons for amino-acid mapping in DNA?
74. Do male mammals other than humans have nipples?
75. Differences Between Protein Motifs and Protein Domains?
76. What is the minimum air pressure the human body can tolerate if oxygen supply is not an issue?
77. What's the smallest size a human eye can see?
78. Why can cats interpret things on a monitor/tv, but dogs cannot?
79. What is this white stuff inside apples?
80. Why are (some) cats attracted by bleach?
81. How hot can a beverage get without burning the tongue?
82. Does Human Female Meiosis II occur after fertilization with sperm?
83. How can *Valonia ventricosa* cells get so big?
84. Why can't neurons undergo cell division?
85. If I put a cup over a spider, and leave it there for a day, will the spider survive?
86. What is positive and negative supercoiling?
87. DNA as an acid?
88. Applying saliva to mosquito bites
89. Why does pH have an effect on enzymes?
90. Inoculation vs. vaccination
91. At what age do babies begin to synthesize their own antibodies?

92. Is pork poisonous?
93. Do cows produce milk excessively?
94. Why is ATP the preferred choice for energy carriers?
95. Why don't mammals have more than 4 limbs?
96. How many human cells are there in our body, on average?
97. Evolutionarily speaking, why do humans have 46 chromosomes
98. Why do we assume that the first humans were dark-skinned?
99. How many people are required to maintain genetic diversity?
100. What magnification do I need to see blood cells?
101. What is the difference between an antibiotic and an antibacterial?
102. What is the optimum length of abstinence for maximum ejaculation volume in humans?
103. Chromosome and chromatid numbers during cell cycle phases
104. What factors are known to affect evolution?
105. Why is SOC medium recommended for transformations?
106. Why can't the brain and red blood cells use fuels other than glucose?
107. Does freezing microorganisms such as probiotics kill them?
108. Hoechst or DAPI for nuclear staining?
109. Why Does Salt Water Help Sore Throats?
110. Which shades/hues of color are easiest to distinguish for humans?
111. Why are mosquitoes repelled by smoke?
112. Why do fingers swell during cold winters?
113. Does red light preserve your night vision?
114. Why do eukaryotic organisms have introns in their DNA?

115. What is the difference between "dikaryotic" and "heterokaryotic" states in the sexual lifecycles of fungi?

116. Why do Humans not produce Vitamin C like other mammals?

117. Why is defibrillation in asystole ("flat line") useless?

118. Experiment to show that carbon dioxide is needed for photosynthesis

119. Fish "coming back to life" after being frozen

120. Why is cold water more refreshing than warm water?

121. What is the meaning behind  $K_{cat} / K_m$ ?

122. Do humans have enough biological differences to be grouped into races or subspecies?

123. How do we sweat immediately after drinking water on a hot day?

124. why can't we digest cellulose

125. Glomerular Filtration Rate

126. What nutrients can humans absorb in the mouth?

127. What is the difference between a graded potential and an action potential?

128. How can we differentiate between respiration and breathing?

129. What's the difference between voltage gated and ligand gated neurons?

130. How does cerebrospinal fluid circulate in the central nervous system?

131. Why do cockroaches burst from soapy water?

132. What are the functions and differences between axons and dendrites?

133. Does sour food cause sweating?

134. Why do we suffer abdominal pain after we get very angry or stress?

135. What makes humans omnivores, and not herbivores?

136. Why do cell membranes let small non-polar molecules through but won't let small polar molecules through?

137. Why can't we kill ourselves by holding our breath?
138. Is the ringing sound in the ears caused by dying ear cells?
139. Mitosis versus Meiosis I: What's the difference?
140. Do plants with non-green leaves have chlorophyll and photosynthesis?
141. What is the cause of muscle cramps?
142. Is it safe to look at infrared LEDs?
143. Does our DNA change during our lives?
144. Calculating Possible Combinations of Bases in a DNA Strand of a Given Length
145. Examples of animals with 12-28 legs?
146. Why do these 2 dots frequently occur in dogs' eyebrows? Does it serve/served any advantage?
147. Exsanguination Time from Damage to Major Arteries
148. A strand of my hair has a grey section in the middle, how is this possible? And why does it happen?
149. Why was the Davson-Danielli model rejected?
150. Why do 60S & 40S ribosomal subunits make an 80S ribosome (not 100S)?
151. How long can a naked human survive on Mars?
152. Why do the hormones FSH and LH decrease when the follicle is maturing and does size of follicle change during menstruation phase
153. why male penis not considered as cartilage?
154. If red blood cells have no mitochondria how are they able to metabolize glucose?
155. Why is DNA double stranded and RNA single stranded?
156. Why can blood group O be given to all blood groups?
157. Why can I raise my left eyebrow independently from the other but not the right?
158. What organelles are in an onion cell?

159. Why is the Krebs cycle considered a part of aerobic metabolism if molecular oxygen is not involved in any of the reactions in the cycle

160. Mitosis in human body

161. Cranial Nerve Decussation

162. Why don't we develop immunity against common cold?

163. Does CPH4 exists?

164. What is the relationship between independent assortment and cross over?

165. How to write 100% phenotype ratio?

166. What would cause a single white eyelash?

167. Will the heart keep beating if it's separated from the body?

168. What is the difference between the Ureter and Urethra? also between the Renal papilla and Renal pelvis?

169. Will I grow taller? How can i tell?

170. Why can ATP not be stored in excess?

171. What insect is this? (Black body two orange lines in its back and six legs)

172. Why do the two hemispheres of the brain control the opposite sides of the body?

173. What factors affect the rate of transpiration in plant leaves?

174. How are the paranasal sinuses linked with the capillaries in the ear canals?

175. Pedigree Probability of Autosomal Recessive Trait

176. Why does the affinity of haemoglobin for oxygen decrease at high altitudes?

177. Why does the oxygen produced in the photosynthesis come from water and not carbon dioxide?

178. What is the effect of the wavelength on the spectrophotometric measurements of protein?

179. Why is hydrofluoric acid so dangerous if it is a weak acid?



180. Cats, Dogs and Bears - how are they related?
181. Is it possible for two brown-eyed parents to have blue-eyed child?
182. Can swallowed fingernails, hair, or skin get caught in your appendix?
183. Is it possible to have cancer and normal blood count at the same time?
184. How do I identify the different stages of meiosis under microscope?
185. I have a black tiny bug crawling all over the house
186. How does extracellular potassium ion concentration and calcium ion concentration affect the excitability of a cell?
187. Can the mating of a couple with Rhesus positive and negative blood types result in miscarriage?
188. How would the result of Hershey and Chase experiment been different if protein was the genetic material?
189. Why do cockroaches flip over when they die?
190. How fast do cancer cells divide (compared to normal cells)?
191. Is it possible to kill parasitic worms by intoxicating oneself?
192. Difference between Appendix and the Cecum?
193. Why there is a very high drop in pressure from arteries to arterioles?
194. Why can't the human eye focus blue light?
195. Why do I smell flowers after sneezing?
196. Linear and Circular DNA
197. Why do the fastest runners tend to be black?
198. How does sodium in one's diet affect blood pressure?
199. What happens to our body when we undergo a sudden temperature change from 40! to 20! ?
200. If the top epidermal layer is burned away, what is it replaced with?

201. What is the function of the polar bodies produced during oogenesis?
202. What is the difference between a phosphotransferase, a phosphatase, a phosphorylase and a kinase?
203. Why do snails come out after the rain?
204. How can heart disease cause excessive sweating?
205. Can humans perceive sounds above 20 kHz?
206. How do disulphide bonds in hair cause curling?
207. What is the standard deviation of adult human heights for males and females?
208. Is there a difference between NADH and NADH<sub>2</sub>?
209. No. of meiotic divisions to produce specific no. of seeds
210. What is the difference between osmotic potential and osmotic pressure?
211. Importance of Double Helix DNA Structure
212. Are there human-ingestible liquids that do not contain water?
213. Are humans the only animal that requires "clean water"?
214. What is the difference of function between palisade and spongy layers of leaf?
215. Why is 70% ethanol preferred for aseptic techniques?
216. What is the purpose of using two layers of gel in SDS- PAGE?
217. Do women tend to have longer legs and shorter torsos than men?
218. Is this a grass cell?
219. How to increase pheomelanin production?
220. Melting point of a fatty acid?
221. Determining net charge of amino acid at given pH
222. How do the brain and nerves create electrical pulses?
223. Will a bone marrow transplant change one's blood type?

224. What is the importance of hydrogen bonds in water? and other questions:
225. How many mice are on the Earth?
226. Can any other animal choke on food?
227. Is blood regarded as an organ?
228. Calcium levels and nerve hyperexcitation
229. Mechanism of Decorticate & Decerebrate Posturing? Also why is only Decorticate Rigidity a misnomer?
230. are sperms considered living
231. What E-value BLAST cut-off is best?
232. How could humans have interbred with Neanderthals if we're a different species?
233. Do apes and humans share 99% of DNA or 99% of genes? What is the difference?
234. Why do people have antibodies against other blood types?
235. Is the human body composition real?
236. Difference between CDS and cDNA
237. What organs are absolutely needed by the human body?
238. Rust on kettle dangerous to consume?
239. Why does milk contained in cartons of milk expand?
240. What happens if an IV drip with a saline solution slips out of the vein, but keeps dripping into the body?
241. How and why did mammals go back to the oceans?
242. Can nosebleeds cause death?
243. Agarose vs agar? Why do DNA gels use agarose only and how do you obtain agarose from agar?
244. What are the risks of elevating the legs too regularly and when tired?
245. What senses are active while sleeping?

246. What are the exceptions to Mendel's laws?
247. Why is fructose not glucose the main energy source of sperm?
248. How do wild animals get rabies?
249. What is the biological function of nose, underarm, and pubic hair?
250. After vasectomy, where does the sperm go?
251. What is the field of view for the human eyes?
252. What is inside the male's body in the space where females have the ovaries and the uterus?
253. Why is saltatory conduction in myelinated axons faster than continuous conduction in unmyelinated axons?
254. Are mosquitoes repelled by high frequency sound?
255. Do human anal glands have any function?
256. Why do dogs try to cover their poop?
257. Catabolic and Anabolic Reactions
258. Do white Australians have a distinct look?
259. How does heat shock transformation work?
260. Complete list of touch sensitive plants
261. What is the difference between HPLC and FPLC and why is FPLC preferable for protein purification?
262. In Japan, the official average body temperature is 36.0 °C. Why so different from that of Europe?
263. Does a microwave oven disinfect food?
264. Why is weight gain a symptom of Cushing's Syndrome?
265. Why are so few foods blue?
266. What does irregular heartbeat mean in simple language?

267. What's a non-allelic gene?
268. Rate of cell division in humans
269. Does the octopus have an anus? What does it look like?
270. Which enzyme catalyzes transcription and which translation?
271. Why do the major and minor groove exist in DNA?
272. Can the excessive consumption of mineral water lead to kidney stones or other health issues?
273. Is there any advantage to one blood type over another?
274. What is the distinction between chemokines, cytokines, interferons and interleukins?
275. How much vanilla will kill a person?
276. How many genes do we share with our mother?
277. What is the contribution of the cockroach to the ecological environment?
278. Starch vs Cellulose. What are the differences between Alpha and Beta glucose ring structure in them?
279. Why do adults lose hearing at high frequencies?
280. What's the difference between shotgun sequencing and clone based sequencing?
281. Why doesn't water enter my body through my anus or genitals when swimming?
282. Calculating Protein Concentration from Kilo Units (KU)
283. Why do we suddenly forget things, like PIN or phone numbers, that we've known for years?
284. Why does my room suddenly look 'reddish'? My eyes seem to adapt to color
285. How are amino acids neutral at physiological pH?
286. How do large herbivores get enough protein?
287. Blood circulation - How to expand blood capillaries?
288. Why are plant cells rectangular and animal cells spherical shaped?

289. If a human takes antibiotics are all bacteria in the body killed?
290. What causes adenosine build up in the brain when awake?
291. What is the difference between regular blood, a woman's and a virgin's menstrual blood?
292. Why cold water results in cough
293. Are trees the only source of large amounts of oxygen?
294. Why does a coconut have exactly three "holes"?
295. Do you produce more sperm after 1 week of abstinence vs 1 year of abstinence
296. Are humans the only species who drink milk as adults?
297. Why is the heart not in the middle of the body?
298. Does DNA replication in 5' to 3' (leading strand) need RNA primase?
299. How reversible is decerebrate posturing caused by brain stem damage?
300. What causes muscles to generate heat on contraction?
301. Was the mitochondrion or chloroplast first?
302. Can humans survive without consuming life?
303. What is the normal duration of human sexual intercourse?
304. What is the inlet/outlet speed of air going in/out of our mouth during inhalation/exhalation
305. Why do orcas eat only the tongue of whales, liver of sharks, etc.?
306. What is the average speed of human sneeze?
307. Is the swimming pool water harmful to frogs who jump in? If so, how?
308. How do trees use Adhesion and Cohesion to move water against gravity?
309. Why aren't we allowed to refreeze previously thawed breastmilk in refrigerator?
310. How many cell membranes are oxygen and carbon dioxide diffuse through in the lungs?

311. Can you identify these tiny black insects please?
312. Why does plucking nose hair cause tears in the eyes?
313. What is the composition of human feces?
314. Why does the face turn pale in dangerous situations?
315. What is the difference between transverse section and longitudinal section?
316. Calculation of the bacterial growth rate from a spectrophotometer growth curve
317. What is the role of glycine in the running buffer for SDS-polyacrylamide gel electrophoresis
318. Why do we urinate more when we are nervous?
319. No bands show up in gel electrophoresis, not even marker
320. Why does NAD<sup>+</sup> become reduced if it gains a hydrogen proton?
321. What is a suicide plasmid?
322. Speciation by polyploidy
323. What percent of your blood can you lose before you need a transfusion
324. Can one die from pain?
325. What is the proper format for genus and species names in latin?
326. Why do toenails grow much slower than fingernails?
327. What effect has changing pH and salt concentration on protein complexes?
328. What is the difference between tonic and phasic firing?
329. What is the ratio of breathing rate to heart rate?
330. How long does a signal from the brain take to reach the limbs?
331. Do Penicillin based antibiotics affect birth control?
332. What is the difference between intrinsic and extrinsic apoptosis?
333. Can humans eat grass?

334. What happens if a non-diabetic receives an injection of insulin?
335. Are blood vessels organs?
336. What is the difference between endomysium and sarcolemma
337. When is Water Produced During Photosynthesis?
338. How do lipid-soluble substances diffuse through the cell membrane?
339. Difference between Category, Rank and Taxon
340. Why does hair grow after trimming but remains at a constant length after a while?
341. What happens to our umbilical cord internally as we age?
342. Is it theoretically possible to treat filaggrin deficiency with a dietary supplement?
343. Origin of term 'confluency' in cell culture
344. What is special about the N3 buffer for Qiagen minipreps?
345. Why does the ring finger not move independently?
346. Why is the DNA helix anti-parallel?
347. What do the signs  $+/+$   $+/-$  mean in this image?
348. Why is coffee a laxative?
349. How many protons are pumped out per pair of electrons from NADH in oxidative phosphorylation?
350. Identification - What kind of animal leaves these tracks?
351. What "emotions" can a snake feel?
352. Arm at Heart Level when Measuring Blood Pressure
353. Should I dilute DNA with water or elution buffer?
354. How do archaea relate to eukaryotes and bacteria?
355. Do biological facts determine when a human fetus is considered alive and human?
356. What's the minimum distance of focus for the lens of a human eye to reach maximum



flatness?

357. How does a smoker's finger or mustache get yellowish by nicotine?

358. Molecularly, why can you straighten or perm hair?

359. Why do cell membranes have a lipid bilayer instead of a monolayer?

360. What is the anatomical term for a two jointed leg?

361. How do other primates treat their fingernails?

362. What is the number of DNA strands per cell?

363. Age of shells on beach

364. How much nucleoside triphosphate is required to form one peptide bond during protein synthesis?

365. How scientists can be confident that human embryo tail is really a tail?

366. Why do people and animals stretch out their bodies and what is causing this behaviour?

367. Why does replication require primers while transcription does not?

368. Why is it that cats can jump so high for their size, compared with humans?

369. How does HCl not burn our stomach?

370. What is the exact chemical composition of human body?

371. Laying eggs vs giving birth: is there a connection with internal vs. external ears?

372. Does posture matter while drinking water?

373. Why do Asian people have black hair and Northern people have golden hair?

374. Measuring Gross Primary Productivity (GPP) using Light and Dark Bottle methods:  
Sample Question

375. Why would the stroma have a higher pH during photosynthesis?

376. What physiological processes within a muscle cause the latent period in a muscle fiber?

377. How is membrane capacitance related to the increased speed of saltatory conduction?
378. What's the worst that can happen from eating too many spicy peppers? Can you die?
379. Why and where do red blood cells die?
380. Fate of erythrocytes after splenectomy
381. Why does RNA adopt an A-form helix?
382. How is ATP involved in muscle contraction?
383. Why do we have no enzyme to digest cellulose?
384. Why is a lack of oxygen fatal to cells?
385. Can humans transdermally absorb minerals from ocean water, and if so how much?
386. Identify fuzzy black quarter sized spider with orange on abdomen, in Minnesota
387. How does isopropyl alcohol disinfect less in higher concentration?
388. What is the minimal focal length of the human eye?
389. Identifying a thin, black, worm-like creature with a hammer-shaped head
390. Can all mammals swim?
391. Why is prothrombin time test not used for heparin
392. Are male and female brains physically different from birth?
393. Difference between going against and going down a concentration gradient
394. How to convert bwa mem output to BAM format without saving SAM file
395. Why do our eyes close when we sleep?
396. Do T-cells express MHC molecules?
397. Why don't rats have a gallbladder, unlike other rodents?
398. Where do birds and squirrels go to die?
399. What is the function of E. coli bacteria in the human gut?

400. Isotropy of sarcomere bands in skeletal muscle cells
401. What is the evolutionary advantage of red-green color blindness?
402. Does photosynthesis occur on cloudy days or does it require direct sunlight?
403. Binomial nomenclature: Why am I seeing different genera with the same species name?
404. Can breathing in helium (from balloons for example) cause damage to the throat in the long term?
405. Why do we have the tibia and fibula (a 2nd bone) in the lower leg?
406. Is consuming proteins different vs. consuming amino-acids and how?
407. Calculating number of amino acids in mRNA
408. Are these birch or aspen trees?
409. What is the difference between taxonomical aids Flora, Manual and Catalogue?
410. Why is my peripheral vision better for seeing in the dark?
411. Are there animals / mammals which only have one eye?
412. Ejaculation without orgasm: is this possible to do it at will without external stimulation?
413. Do plants produce any heat?
414. Why is a magnesium ion essential for ATP activity in enzymic reactions?
415. Difference between Peptone, Peptide and Proteose
416. Why can't ciliary muscles in the human eye relax like other muscles?
417. Why do cells vary in shape and function when they have the same genome and the same organelles?
418. Why are the Galápagos islands so special?
419. What are homologous chromosomes?
420. What is the difference between SOLiD, 454, and Illumina next-gen sequencing?
421. Does the human hand have 27 degrees of freedom?

422. DNA is charged negative. Where is all the positive charge in my body?
423. Why is ATP produced in photosynthesis used to synthesize glucose?
424. Why do human females have permanently prominent breasts?
425. Does darker skin color make it easier to live under sun?
426. Difference between intervertebral and vertebral foramina
427. Explanation of the terms "downstream signaling" and "upstream signaling"
428. Is diabetes mellitus a sex-linked disease?
429. What is an apomorphy? What is a plesiomorphy? Can someone confirm these definitions?
430. Which organs/tissues are defined as "peripheral organs/tissues"
431. What is vascular cambium?
432. What's a mouth ulcer/canker sore "made of", and why do they develop?
433. Which of the cell types commonly found in mammals has the greatest number of mitochondria?
434. How long does a mosquito take to land on a host, bite, and fly off?
435. Does drinking alcohol having UTI may help to kill the bacteria?
436. What is the difference between transformation and transfection?
437. Are there human cells, apart from red blood cells and platelets, without a nucleus?
438. Who are humans' closest relatives, after primates?
439. Are brain cells replaced over time?
440. Is there a difference between polarity and hydrophobicity?
441. Why does it hurt when water touches cuts?
442. How the conjunctivitis virus spread just by seeing a person's eye who is infected
443. Why is Lamarck's evolutionary theory considered incorrect?

444. How does a TOPflash/FOPflash assay work to detect beta-catenin protein expression?
445. What happens when you mix type A with type B blood (and v.v)
446. How do red blood cells survive without a nucleus?
447. Why are viruses considered microbes?
448. Does any organism use both photosynthesis and respiration?
449. How does a Coronavirus "test kit" work?
450. Do cold blooded animals generate any heat?
451. Why is human vision restricted to 400-700 nm?
452. Are there any non-mammalian species known that lactate?
453. Why are transcripts translated from 5' to 3' direction?
454. Can prawns be classified as fish, or is their position ambiguous?
455. How much gas is exchanged in one human breath?
456. Why do plants have green leaves and not red?
457. Are Asian people genetically predisposed to be shorter than Europeans?
458. Why is the brain dependent on glucose?
459. What is the difference between these terms: clade, monophyletic group and taxon?
460. Why does high pH result in the denaturation of DNA?
461. When designing primers how important is the GC clamp?
462. What happens to snakes that swallow rodents as a whole?
463. How many organisms have ever lived on Earth?
464. Is it possible to genetically modify a plant at home?
465. Can white eggs be considered as non-vegetarian?
466. Why is FAD, rather than NAD<sup>+</sup>, reduced in the succinate dehydrogenase reaction of the Tricarboxylic Acid Cycle?

467. Why do plants fruit?
468. Do male humans have a mons pubis?
469. Constantly wiggling moth pupa - will it emerge soon?
470. Why does an electrical shock freeze up muscles?
471. Do beneficial viruses exist? If so, what examples are there?
472. Does cooking or ripening reduce the concentration of solanine in nightshade?
473. What is solitary flower?
474. Can birds suddenly suspend in the air in one position?
475. Time lapse between fresh blood's exposure to air and that same blood turning darker red-brown
476. Thermodynamics of spontaneous protein folding: role of enthalpy changes
477. Why do bad smells make us vomit?
478. What is the purpose of gluconeogenesis?
479. Are acid-fast bacteria Gram-positive or Gram-negative?
480. Why have humans evolved much more quickly than other animals?
481. Dreaming after passing out
482. Why do some bad traits evolve, and good ones don't?
483. How many humans have been in my lineage? Is it almost the same for every human currently living?
484. Difference between facilitated diffusion and secondary active transport in cells
485. How sterile is working next to a bunsen burner?
486. Evolutionarily, why do male rats and horses lack nipples?
487. Why can all animals swim in water without learning to swim but humans cannot?
488. Can the third sex be categorized as Male or Female?

489. What causes fingerprints to form and why is the pattern formed unique?
490. Why is glucose our primary source of energy?
491. Why does sunburn cause fever?
492. How does Bernoulli's Principle apply to the cardiovascular system?
493. Did animals evolve from plants?
494. Which are mobile and immobile elements in plants?
495. How late in a human pregnancy can a zygote split?
496. Why do kefir grains stop growing in soy milk?
497. Why are the sex chromosomes called X and Y?
498. NaCl role in CTAB - DNA complex in DNA extraction
499. How many agarose gel bands are typical for circularised DNA
500. What do you see when your eyes are closed?
501. Difference between Genus, Genus sp. and Genus spp
502. Why are not all species hermaphrodites?
503. Why does a fetus drink and urinate into the amniotic fluid?
504. What are the advantages and disadvantages of being ambidextrous?
505. At what temperature do human bones disintegrate?
506. Why is Fast Fourier Transform applied to raw EEG data?
507. Bright green caterpillar with long white stripes, few hairs, no extensions, possibly Noctuidae
508. What is meant by `individuals do not evolve, populations do`?
509. Why does scar tissue change color?
510. What is the cell matrix?
511. Lifeless Lake in Siberia

512. How is transgender female different from normal female biologically?
513. Why 20 amino acids instead of 64?
514. Why is the opposite of plantar flexion called "dorsiflexion"?
515. Why can't a corn cob have 13 rows of seeds?
516. Serotonin - Does being aroused make you sleepy?
517. Why are men stronger than women?
518. What determines if an allele is dominant or recessive?
519. Are there any animals that are both poisonous and venomous?
520. What is the correct model for enzyme-substrate complementarity?
521. Why do different bacteria have different shapes?
522. Why do Type II Restriction Endonucleases cleave at palindromic sequences?
523. Why doesn't recombination occur in male *Drosophila*?
524. What is the maximum altitude where humans can survive?
525. Can DNA be denatured at acidic pH?
526. Why do bacteria die in a high sugar content environment?
527. Why is it that heterozygous loci appear as two separate bands during gel electrophoresis while homozygous loci appear as one band?
528. Branch length in phylogenetic trees
529. How long does antibiotic-dosed LB maintain good selection?
530. Is lemon water an alkalizing agent in the body?
531. How long can a bee survive in a jar?
532. Why do plants store energy as carbohydrates and not as fats?
533. What does the (-) in the molecule name mean?
534. How do SDS-PAGE gels differ in a Bis-Tris system vs. a Tris-Glycine system?



535. How large is the variability in human bone thickness, and is "big boned" a real thing or not?

536. What type of Insect Egg is this?

537. Formula for number of divisions required to form x number of cells (Mitosis and Meiosis)

538. The number of nipples (breasts) a species has?

539. Origin, or source, of rhesus negative in human blood

540. What does the 'V' stand for in ECG electrode names?

541. Do proteins generally contain phosphorus and sulfur?

542. Why does a high osmotic pressure pull water in, yet a high hydrostatic pressure pushes water out?

543. Why do mice have a higher metabolic rate than humans?

544. On which strand does the promoter sit?

545. What is the functional difference between hemoglobin and ferritin?

546. Does taking a shower have the same effect on muscles as warming up?

547. Why do three nucleotides code for one amino acid? Why not 5 nucleotides?

548. Does an annealing temp higher than primer's  $T_m$  contribute to primer dimer?

549. Why is dimethyltryptamine (DMT) released during death?

550. What am I looking at in Franklin's Photo 51 of DNA?

551. Why is the number of PCR cycles limited?

552. Why isn't vomit corrosive?

553. If we add only 1 primer in PCR

554. Equation for accurate prediction of PCR yield

555. RNA polymerase and DNA helicase

556. What is this white/translucent with brown back, larva/worm creature I found, in the UK,

on my lettuce?

557. Is cell wall and cytoplasm an organelle?

558. What do the Clustal Alignment Symbols Mean?

559. Why does temperature shock kill fish?

560. What do ants do with human finger nails?

561. How long do the periods of systole and diastole last?

562. How many honeybees are there, and how has the number changed across time?

563. Near point and far point of myopic eye

564. Why do flies leave dirty spots on shiny/glossy surfaces?

565. Why do yeast ferment Equal sweetener

566. Why should evolution not be equated with progress?

567. How many (taxonomic) families are there?

568. Does one parent transmit more DNA to the offspring than the other one?

569. If body temperature is 37°C (98.6°F), why are most people more comfortable at around 21°C (70°F)?

570. Why do we have more sweat glands in our palms?

571. Why doesn't crossing over happen in mitosis?

572. Ratio of bleach to water required to disinfect COVID-19?

573. What is the significance and method behind Ramachandran plots?

574. Presence of MHC on red blood cells

575. Do oysters feel pain?

576. How to protect my mounted insect specimens from ... insects?

577. How does one calculate how to dilute a solution to working strength?

578. Why is glycine considered a nonpolar amino acid but a polar molecule?

579. Do crocodiles age?
580. Why upper surface of leaves is more green and shiny than the lower one?
581. Pathophysiology of pink frothy sputum in pulmonary edema
582. Do all proteins start with methionine?
583. Value of  $r$  (intrinsic rate of natural increase)
584. Why does ice reduce swelling?
585. Nerves, Neurons, Axons and Dendrites by Example
586. What makes DNA sticky-ends sticky?
587. Why would taking antibiotics increase stamina and energy?
588. How do I deal with sticky and viscous samples from cell lysates?
589. What is the difference between Founder effect and Bottleneck effect?
590. Why does A pair with T and G with C?
591. What is the difference between a mechanistic and a statistical predictive model?
592. What's the technical difference between fainting (and being unconscious) and falling asleep (and sleeping)?
593. Where does the term "cos site" come from?
594. Why does a blood test show ethanol when no alcohol was consumed?
595. Why do I always close my eyes when someone takes a photo of me using a flash?
596. What's the difference between protein and DNA behaviour during agarose gel electrophoresis?
597. Does muscle get bigger by increase in size of individual cells or increase in number?
598. What is the  $H^+$  gradient in mitochondria?
599. Possible genotypes for blood types?
600. What fruits will naturally ferment?

601. What part of the cactus photosynthesizes?
602. Why do human eyes glow red on a photo and dog's eyes green?
603. What does "fit" mean in "survival of the fittest"?
604. Is it painful for the hen to lay eggs?
605. How much heat can a human sustain?
606. Stop codons and exons?
607. Why is PEG important for efficient yeast transformation?
608. Why are potassium channels slower than sodium channels?
609. Is it biologically possible for an adult's eye color to change?
610. Why do I want to urinate when I touch water?
611. Can a carnivorous animal consume plants with no adverse effects?
612. What is the difference between a spore and a cyst?
613. Why does the heart use lipids (and not glucose)?
614. Why don't the apples seeds from grafted trees produce the same kind of apples?
615. What is the concentration of ATP in an average cell?
616. Upon drinking water for the first time in a long time, why do I sweat?
617. Does capsaicin in food kill bacteria?
618. Why are there no organisms with metal body parts, like weapons, bones, and armour?  
(Or are there?)
619. What are the functions of disulphide bonds?
620. What is the definition of a stringent/relaxed plasmid?
621. Do Archaea have membrane-bound organelles?
622. Why are only 6 water molecules formed in the aerobic degradation of glucose?
623. How many cells are in prophase on this onion root tip slide?

624. Why do pigeons kill their chicks when touched by a human?
625. What is a lip? (upper lip and lower lip)
626. Why does skin sometimes suddenly itch when you stretch it?
627. What was the biological mechanism that allowed Tarrare to eat so much?
628. What effect does vortexing have on a fluid sample that simple mechanical shaking does not?
629. Does bright environment strain eyes more than dim?
630. What is the normal blood water content
631. Are mature erythrocytes prokaryotic?
632. Explanation of the meaning of high-throughput
633. What cells would have the CD3 marker on them (other than T-cells)
634. How come large herbivores have such thin legs?
635. Do bacteria die of old age?
636. Why don't McDonald's fries decompose?
637. What is the purpose of segments in citrus fruit?
638. Why are hybrids infertile?
639. Is there an evolutionary reason for the 5 electron transport complexes in plants and animals?
640. Why does autosomal trisomy have more adverse effects than sex chromosome monosomy or trisomy?
641. Can you consider a human as alive, or is it the cells on the body that are alive?
642. What is the role of TATA box in transcriptional regulation?
643. What is the equivalent of shutter-speed in Human eye?
644. Why is our voice deeper in the morning?
645. Why does it hurt when you take sweets, if you have cavities in your teeth?

646. Do flies actually take off backwards?
647. Why do we sweat after drinking water and running?
648. Bad Eyesight and Evolution
649. RNA or ribosome, which one moves during translation?
650. How to prepare sample for SDS PAGE?
651. Possible? When a pregnant woman suffers an organ damage, fetus would send stem cells to the damage organ to help repair it?
652. What is the difference between absolute and relative fitness?
653. Why is polyploidy much more common in plants than in animals?
654. What happens to blood after a person dies?
655. Does prolonged exposure to low pitch but low volume noise affect hearing or stress?
656. Species Identification: Waterborne larvae, Texas USA
657. What are the differences between how glucagon and cortisol work to increase blood sugar?
658. Confusion on polarity and hydrophobicity of Proline, Tyrosine and Cysteine?
659. Potato with purple veins!
660. Are all dinosaur bones radioactive?
661. Is epimysium same as fascia?
662. How to calculate relatedness in haplodiploid organisms (mainly full sisters and full brothers)?
663. Which blood vessel carries the most impure blood?
664. Do we need to drink less water in humid weather than in dry weather?
665. How would constantly growing nails have aided early human?
666. What makes teeth feel sticky after drinking Coca-Cola?
667. Why do ants live so long?

668. Why are certain baby (water)fowl yellow?
669. What is a  $pA(2)$  value?
670. Why is mRNA needed in the Protein translation?
671. Why do humans seem so much more prone to disease than animals?
672. When is the second polar body extruded from the egg nucleus?
673. What concentration of table salt is needed to kill bacteria in sweaty gym clothes?
674. What's the evidence against SARS-CoV-2 being engineered by humans?
675. If I graft two trees together while young, will they grow as one plant?
676. meaning of the "reads" keyword in terms of RNA-seq or next generation sequencing
677. How do trees lift water higher than 10 meters?
678. What are the bare minimum nutrients required to survive as a human?
679. Under what conditions does the body burn fats, proteins and carbohydrates?
680. Why are red blood cells considered to be cells?
681. Does the string "...CATCAT..." appear in the DNA of *Felis catus*?
682. How do plants get carbon?
683. Genetic linkage greater than 50 centimorgans
684. How to obtain bacteria samples at home?
685. Why is the Trendelenburg position used when placing and removing Central Venous Line catheters in the sub-clavian vein?
686. Does ethanol destroy RNase?
687. Why are there exactly four nucleobases in DNA?
688. What is the explanation for the smaller number of tRNA than codons?
689. Difference between the spinal cord and vertebrae column
690. Why do humans have only two nipples?

691. Does sweat contain DNA information?
692. How can I resuspend a cell pellet without harming the bacteria?
693. Does NADH inhibit gluconeogenesis?
694. What portion of the electromagnetic spectrum do cats see?
695. Does *Sansevieria trifasciata* really absorb Carbon Dioxide at night?
696. What causes swelling after impact?
697. Do octopuses have better eyes than humans?
698. What is the difference between Reservoir and paratenic hosts?
699. Why are there no known animals with an odd number of legs?
700. What species is this black, blue and white bird?
701. How does the brain's energy consumption depend on mental activity?
702. Why did humans become bipedal?
703. Why does the sweat of children not smell like adults?
704. At what point during an action potential are the sodium potassium pumps working?
705. Multiple start and stop codons in mRNA and pre-mRNA
706. What is the difference between sequence, reads, and contigs of genetic material?
707. How to interpret Percent identity matrix created by Clustal Omega?
708. Does the DNA sequence of a butterfly match that of the caterpillar it used to be?
709. How precisely can we sense temperature differences?
710. Do trap door spiders have 10 legs?
711. Why do parasites sometimes kill their hosts?
712. How does a plant grow before photosynthesis is possible?
713. Why do reptiles still move even after death?



714. Why can't you taste food when you have a cold?
715. Can defibrillation be done with a car battery?
716. What is our skin made up of?
717. What is the difference between the mitotic spindle and microtubules?
718. Why isn't acetyl-coA an entry point for gluconeogenesis?
719. Difference between protein channels, protein carriers and protein pumps?
720. Does donating blood lower testosterone levels?
721. How to increase the shelf life of yogurt without refrigeration?
722. Solving Hardy Weinberg problems
723. Why is DNA antiparallel? Can it be parallel?
724. Cannot see images beyond a certain magnification with a microscope
725. Why does ear wax taste sour?
726. Is there an acceptable term for 'male fox' other than 'dog'?
727. What decides whether a lysogenic cycle or a lytic cycle will take place?
728. Why should I degas my gel solution for polyacrylamide gels?
729. How many genders are there?
730. Why is AUG the initiation codon?
731. Why do cyanide and arsenic smell like almonds and garlic, respectively?
732. Do we consume DNA and proteins of other organisms?
733. How many nucleotide pairs code one gene?
734. How does cholesterol affect the fluidity of a plasma membrane?
735. What are some of the general characteristics of the DH5 alpha strain?
736. My hand was stabbed with a pencil tip 10 years ago - why is the graphite still visible?

737. What animal has the longest juvenile period?
738. What are the consequences of voluntary total celibacy?
739. Why can't people talk while inhaling?
740. How do plants get their O<sub>2</sub> for respiration during the night?
741. Why do Bee stings cause swelling?
742. The alignment of fingers in our hand
743. Why don't we have hair on palms?
744. What is difference between breed, variant, subspecies and species?
745. Why do cells not store glucose?
746. How does the cornea breathe during sleep?
747. Are all action potentials the same shape and amplitude when graphed with respect to time?
748. What is the life cycle of a wart?
749. Why do we produce so many sperm?
750. How tolerant are ants to cold?
751. Why does uncompetitive inhibition decrease the Michaelis constant?
752. Supercomputer Vs Human Brain
753. What is an 'ex vivo' experiment?
754. Bug Identification: Is this small tubular, black bug a bed bug?
755. What are fish seeds?
756. Are sensory receptors neurons?
757. Difference between inbreeding and interbreeding
758. What are the roles of guanidine-HCl and ethanol in binding of DNA to silica?
759. How does a fetus retain a blood group different from its mother?

760. Why does cucumber skin kill ants?

761. Why is the blood thick in Wet Cupping / Hijama

762. Does mixing alcoholic drinks really make you more drunk?

763. What's the difference between a plant and an animal?

764. Why does black and yellow indicate danger?

765. What is the advantage of circular DNA in bacteria?

766. How is the fluoride in toothpaste absorbed?

767. Why are there N's after Sanger sequencing?

768. What is the mIU unit as used in hCG hormone levels?

769. Why does closing one eye in bright light allow me to open the other?

770. Why Doesn't Hypercalcemia Cause Muscle Spasms?

771. Why aren't organelles considered alive?

772. Why do we weigh less in the morning?

773. How do we know the presence of light when our eyes are closed?

774. Health effect of worm in Guava

775. Is there an RGB equivalent for smells?

776. What happens when seeds are refrigerated before planting?

777. If plants benefit from carbon dioxide, why is car traffic something bad?

778. How to convert skin temperature to core temperature?

779. Are all cells organisms?

780. What is/are the molecular differences between HDL and LDL cholesterol?

781. Why do birds move their heads abruptly?

782. Does endo- and (or) exocytosis require energy? Do they belong to active / passive transport?

783. What is the human energy consumption by organ?
784. Is it possible for a person to become "reinfected" with the same strain of a virus?
785. Are gametes diploid or haploid?
786. Does carbon dioxide from carbonated drinks enter the bloodstream?
787. Can the human eye distinguish colors in the periphery?
788. How do warm-blooded animals keep their temperatures constant?
789. Where do transamination and deamination take place?
790. What does the human body use oxygen for besides the final electron acceptor in the electron transport chain?
791. Is there any virus that contains both DNA and RNA in its genome?
792. What are the differences between white and brown adipose tissue?
793. Why do neurons die so fast without oxygen and nutrients?
794. Black/dark-red smooth West African worm, full of red blood
795. What is this black and white worm in a white case?
796. Can a person survive on blood in place of water?
797. Why do some people have cold hands and some have warm?
798. What is the difference between "cistron" and "gene"?
799. Why does having cold hands hurt?
800. What makes a gene dominant or recessive
801. What's the (or some of the) minimum(s) amount of atmospheric carbon dioxide needed by plants?
802. GPCRs: Gi and Gs
803. X Linked Hardy Weinberg Equilibrium Problem
804. How can histidine be classified both as positively charged and hydrophobic?

805. Why shouldn't dogs eat chocolate?
806. What effect does the Barr body have, in relation to female Turner syndrome?
807. What is a group of tortoises called?
808. why does blood when oxidized over time become bluish green?
809. What is the evolutionary reason behind the fragility of teeth?
810. Why don't phospholipid bilayers dissolve?
811. Why do different humans look different?
812. Do camels have nucleated RBCs or enucleated RBCs?
813. Why is beta-mercaptoethanol often added to cell culture media
814. Are we more attracted to people of the same ethnicity?
815. Why does blood come from mouth when people are shot in the chest area?
816. What kind of a microscope do I need to see cell organelles?
817. Difference between mutation and DNA damage
818. What is the difference between hilum of the lung and root of the lung?
819. Are humans more adapted to "light mode" or "dark mode"?
820. When has an organism evolved enough to be called a new species?
821. Why does the intensity of an action potential once generated at the trigger zone remain undisturbed throughout the axon?
822. Is a butterfly one or two animals?
823. How many cyclic and non-cyclic photo-phosphorylation is required to produce one molecule of glucose?
824. Why is the Red Fox colored bright orange?
825. Is there anything that is completely non-toxic to humans at any dose?
826. Why are there both stop and start codons?

827. Which are the best apps and websites for insect identification?
828. Do human cells contain only one copy of the genome?
829. What is the distinction between the terms detritivores, decomposers, saprotrophs and saprozoic organisms?
830. How long will norovirus live?
831. Effect of closed eyes on balance?
832. What is the difference between a species tree, a gene tree and a phylogenetic tree?
833. Why do Guinea Pigs chirp / sing?
834. For the human head, which direction is anterior, and which direction is ventral?
835. Why is polyploidy lethal for some organisms while for others is not?
836. Why is a mosquito feeding on human blood not a parasite?
837. What's the difference between  $K_i$  and  $IC_{50}$ ?
838. Why do most mammals have long snouts?
839. Is there interphase between meiosis I and meiosis II?
840. If human eyes watch an area, what's the shape of its capturing shape? Rectangular? Half spherical?
841. What are the advantages and disadvantages of using beta-galactosidase compared to luciferase as a reporter gene?
842. Why does Edema occur in Kwashiorkor?
843. Why does anxiety cause diarrhea or constipation?
844. How do I measure bacterial growth in agar dishes (either by cell mass or by cell count)?
845. Problem on Probability of a restriction enzyme cutting a random DNA sequence
846. Why can action potentials not be initiated at dendrites?
847. What's the difference between stabilizing selection and balancing selection?

848. How do ants know where they are going without eyes?
849. Why have whales and dolphins not evolved to have gills?
850. How should species density be calculated for a clumped distribution?
851. Are all pathogens parasites?
852. What is the difference between muscle fascicle and muscle bundle?
853. Why do pink rain lilies flower only after rains, and not from being watered?
854. Difference between genetic engineering and synthetic biology
855. What is the difference between polar and charged amino acids?
856. How should I ship plasmids?
857. Why can't we feel pain when the eye lid touches the eye ball?
858. difference between neurotransmitters and hormones
859. Blue light in a fridge. Is it really beneficial or just marketing?
860. Where do migratory birds go when it rains?
861. Can I drink warm/hot tap water?
862. How does prolonged exposure to high frequency noise affect hearing?
863. What is the difference between SNP and STR?
864. Why are bald heads so "shiny"?
865. Why doesn't the human skin grow back exactly how it was before being damaged?
866. Do human somatic cells have 46 chromosomes all the time?
867. How many abdominal sclerites would be there in a cockroach?
868. Do trees really get a large share of their mass from the carbon in the air?
869. Stimulating an axon causes impulses to travel both ways?
870. What is the difference between the cellular affix -cyte and -blast?

871. Is it correct that the body only responds to the most painful stimulus?
872. Why is oxygen needed for the electron transfer phosphorylation?
873. How did the first life form on Earth reproduce without DNA?
874. Why do endotherms need more food than ectotherms?
875. Which organisms have introns?
876. Are there any motile plants?
877. Is there any relationship between heartbeat rate and life span of an animal?
878. Biological siblings possible with <9 months age difference?
879. Why do grapes not pea shrink when placed in strong sugar solution?
880. Histidine aromaticity
881. What is the maximum number of babies a human woman can have?
882. Is it known how the first viruses formed?
883. Why extract DNA from certain white blood cells instead of whole blood?
884. How does inorganic phosphate inhibit alkaline phosphatase?
885. How does a pine cone open?
886. How does the body switch between aerobic and anaerobic respiration?
887. Can plants produce oxygen at night (without light)?
888. What are these white spots on a dracena
889. Manual Primer Design for a gene on the reverse strand
890. What do you call that part of the muscle that connects directly to the bone?
891. Reasons why people say that AIDS/HIV doesn't exist
892. Does 1kg of lettuce have more energy than 1kg of beef?
893. Does sample buffer require EDTA for protein separation on SDS PAGE?



894. Multi-nucleated cells: advantages and examples?
895. What is the function of nodes of Ranvier in axons?
896. What is the difference between sinew and tendon?
897. For emphysema, which of the respiratory volumes is affected?
898. What are differences between formation of embryonic disc in chick and mammal embryo?
899. Relationship between turgor pressure and osmotic pressure?
900. Can HIV be transmitted via mosquitos?
901. Strongest muscle of Human Body
902. Why does sex last so long?
903. Is the complement system a part of innate or adaptive immunity
904. How many mosquitoes would it take to "drain" enough blood to put a person into shock?
905. Will humans and animals be harmed by frequencies outside their hearing range?
906. Does the use of "var", "x", and/or "ssp" in a scientific name provide specific information?
907. What does phasing mean?
908. How do marine mammals control buoyancy?
909. What is the role of tracrRNA in CRISPR-cas9?
910. Are there cats with black skin?
911. What does the term 'bioavailability' mean?
912. What are these shrimp-like insects in my cat's water bowl that appear overnight
913. Are spiders part of the study of entomology?
914. Why can cones detect color but rods can't?
915. Is it true that viruses cannot be seen with phase-contrast microscopy?

916. Why sister chromatids and daughter cells but not brother chromatids and son cells?
917. What is the purpose of measuring both VS (volatile solid) and TS (total solid)?
918. What is the difference between "Bisphosphate" and "Diphosphate" in biochemistry?
919. What is genomic imprinting?
920. Why do red blood cells maintain Iron in the Haem group in the +2 (ferrous) oxidation state?
921. Why pick just a single bacterial transformed colony
922. Can cell exist without Ribosomes?
923. Why babies cry after they are born?
924. Why scientific names of animals & plants are made difficult to spell & remember?
925. Why are irises unique?
926. Is evolution a fact?
927. Why do you need you room dark for melatonin release?
928. How did aquatic dinosaurs go extinct?
929. How difficult is to renature a protein?
930. Free software for measuring parts of an image?
931. What are the "minimum requirements" for a single cell?
932. Why do I see the world in blue when I open my eyes?
933. Confusion about resting membrane potential and the Na/K pump
934. How is Hypertonic Urine Produced in a Mammalian Kidney?
935. Green Film Build up in Glass Water Bottle
936. Are Whales More Intelligent Than Humans?
937. How do inward rectifier potassium channels work in the heart?
938. How many ATP molecules are formed?

939. Identify little green long legged bug
940. Small mottled beetle identification
941. Consequence of touching Formaldehyde
942. Are identical twins clones?
943. Apart from nerve cells and muscle cells, what types of cells do not undergo mitosis in adult man?
944. What is this spider? Two black stripes
945. What is the appropriate method to send a strain?
946. What would cause crows to be attracted to a human body?
947. How is Glyceraldehyde 3-phosphate converted into glucose?
948. Diffusion of Hypotonic solution into solution with glucose and starch
949. Why Crocodiles don't eat Hippos?
950. Does animal blood, esp. human, really have similar salinity as ocean water, and does that prove anything about evolution?
951. Are there animals which can see movements better than shapes or colors?
952. Making sense of enzyme  $K_m$  comparisons
953. Do ants see, have brain?
954. Do Red blood cells(mammals) really have no organelles?
955. Why do some vegetables taste bitter?
956. Why do neurons have only one axon?
957. Questions about insects eating flour and living in the cracks of a wooden cutting boards
958. Photosynthesis: What Powers the Splitting of Water?
959. How is the size of a gene defined?
960. Is Bramble (blackberry bush) carnivorous?

961. What's the effect of oxygen deficit on plants?
962. Is episome a plasmid or a virus?
963. What are housekeeping and constitutive genes?
964. Why do snakes not have eyelids?
965. How does a brain distinguish stimuli?
966. How do scientists kill the bacteria they themselves made resistant?
967. Just how dangerous is ethidium bromide?
968. Why do Hot/Cold drinks taste sweeter once returning to room temperature?
969. Hamming distance between two DNA strings
970. Is Chargaff's rule really applicable?
971. How does boiling water revive cut flowers?
972. How much weight/volume do microbes occupy within the human body?
973. Are the social-distancing measures implemented against SARS-CoV-2 also suppressing the spread of other viruses?
974. Is the promoter region of a gene transcribed?
975. Life without DNA?
976. Unsure about definition of "n" and "C" values in mitosis
977. Why is it beneficial for trees to grow that tall?
978. Average dimensions of the human back (anthropometry)
979. Why is only one primer used for DNA sequencing instead of two?
980. Does human brain produce nicotine?
981. Larger Ant in trail
982. How many molecules NADH are produced in the Krebs Cycle?
983. How do Proteins migrate in MES vs. MOPS

984. Why is the human ear most sensitive to 4000 Hz tones?
985. What is the strand specificity of a reference genome?
986. Why we do not get hurt from HCl secreted in the stomach?
987. Can you answer Ray Comfort's question on Biological Evolution?
988. What causes morning wood?
989. Small yellow bug with black head and three black stripes on the back
990. Separating DNA Fragments by Gel Electrophoresis. Are all the strands for one size the same?
991. How long do your eyes need to adapt to darkness and reach full contrast?
992. Why should benzalkonium chloride (an antifungal agent) be used during your laundry machine's "rinse" cycle, not its "wash" cycle?
993. What causes the colors we see in eyes?
994. What is "enzymatic activity"?
995. How does this headless fish still move?
996. Why does evolution not make our life longer?
997. Preferred Aspect Ratio for Human Eyes
998. Wim Hof Method claims Alkaline Blood is Good. Contradictions? Counterproof?
999. Do male animals visually perceive females as more/less attractive?
1000. Given ATP synthase's structure, how can 3.33 protons ultimately synthesize one and only one ATP?
1001. How long will a vegetable live for after being harvested?
1002. Why haven't prey evolved the ability to always outrun their predators?
1003. How different are these terms: Phylloclade, Phyllode, Cladophyll and Cladode?
1004. Mechanism of Myosin Head Bending in Cross Bridge Cycle Power Stroke Phase
1005. What is exactly a phosphoester bond?

1006. How does formaldehyde cause protein-DNA crosslinking?
1007. Gel Electrophoresis - loading dye and more
1008. Why is carbon dioxide produced in alcohol fermentation but not in lactic acid fermentation?
1009. How does the human body metabolize gasoline?
1010. What is the speed of blood?
1011. Photosystem 1 and 2; P680/P700; Chlorophyll a/b
1012. Why would a plant evolve to produce an addictive chemical?
1013. How fast can a panda run?
1014. Difference between viral and human genetic material
1015. Why do animals use glycogen for their polysaccharide storage whereas plants use starch?
1016. What causes the human body to "jump" when we get a shock?
1017. Which hormones can cross the blood brain barrier?
1018. Reason for conversion of glucose to fructose in glycolysis
1019. What is the function of epidermal ridges on human fingers (that produce fingerprints)?
1020. what is the difference between early blight of potato and late blight of potato?
1021. Use of amino-acid sequences versus use of nucleotide sequences in phylogenetic analysis
1022. Why is the Hydra Biologically Immortal?
1023. Why does the stomach ache if you take a brisk walk after lunch or dinner
1024. Why do adult insects have 6 legs?
1025. Do birds have navels?
1026. Why do people sing?
1027. Why doesn't the herbicide 2,4-D damage lawn grass?

1028. Carbon Monoxide and High-Oxygen-Affinity Varieties of Hemoglobin
1029. What causes a 'stuffy' or 'runny' nose when you have a cold?
1030. What is the advantage of using starter cultures for growing bacteria?
1031. How's the membrane potential restored to resting state after hyper polarisation?
1032. Do humans have Coelom?
1033. Is it true that cats can drink sea (salted) water?
1034. Can a woman give birth to twins with different fathers?
1035. What is Pan for in pan-caspase?
1036. Is glycolysis the beginning part of fermentation, or does fermentation follow glycolysis?
1037. Are transgender people born physically different from others?
1038. Solubility of DNA in water
1039. What is the benefit of fever during infections?
1040. What is the definition of "dry weight" and "dry cell weight"?
1041. Difference between Condensin and Cohesin proteins?
1042. What is the effect of non-vaccinated people on vaccinated people?
1043. Why did abiogenesis only happen once?
1044. How to calculate the geometric mean titer (GMT) of titers from a haemagglutination assay (influenza)?
1045. Possible reasons for DNA getting stuck in well
1046. What is a microsome?
1047. Why are  $H^+$  ions pumped out instead of in during cellular respiration
1048. Why do we like salt?
1049. How do lilies sense day and night and open and close their flowers?

- 1050. How are lysosomes formed?
- 1051. Plasmolysis vs Flaccidity in cells
- 1052. Do men and women have the same number of genes?
- 1053. Regulation of Glycolysis and other pathways at 'irreversible' reaction steps
- 1054. How do I clean phenol contaminated RNA without losing any of the sample?
- 1055. Do babies resemble their father?
- 1056. Why isn't a virus "alive"?
- 1057. Difference between Bioscience and Lifescience
- 1058. Explanation for hyenas asymmetric legs length
- 1059. Why do stars disappear when I look at them?
- 1060. What are chiasmata?
- 1061. Why do smaller mammals move intermittently?
- 1062. Why is there more variation in proteins than genes?
- 1063. What sections of the brain can be removed without causing instant death?
- 1064. Is there a medical condition in which you can't cut your hair?
- 1065. How does aspirin "thin" blood?
- 1066. Trauma, blood loss and thirst
- 1067. What is the difference between abiogenesis and spontaneous generation?
- 1068. Why we shiver/tremble/shake while performing some work which requires high accuracy?
- 1069. Why do obese people tire quickly?
- 1070. Why cancer disease is named after sun signs ?
- 1071. How does a Plasmodium move?
- 1072. Cause of Crease in Drupe Fruit



1073. What is an irreversible reaction?
1074. How did the first self replicating organism come into existence?
1075. How did the Spanish Flu disappear?
1076. Is it better to take a half dose of paracetamol and a half dose of ibuprofen together rather than a full dose of either?
1077. What is immunopanning (vs. immunoprecipitation and FACS)?
1078. Why does yawning impair hearing?
1079. What is the relationship between sexual and natural selection?
1080. Can plants suffer from CO<sub>2</sub> poisoning?
1081. Ammonia smell after physical exercise? What is the explanation?
1082. Essential amino acid codons
1083. Do the enzymes and compounds in saliva help with stain removal?
1084. Do pulled hair from the root grow back?
1085. Why isn't the phosphoglycerate kinase reaction of the glycolysis pathway irreversible?
1086. How do the first and second law of thermodynamics adhere to breakdown of glucose?
1087. What is the difference between second and third generation sequencing
1088. Why is the bond between oxygen and iron in hemoglobin at a specific angle?
1089. What did we learn with Nazi human experimentation?
1090. What would cause bands to appear lower on a nonreduced SDS-PAGE gel?
1091. Why do chickens not try to get up if laid on their backs?
1092. What does dominant generation mean
1093. Can ants sense food from a long distance?
1094. Why do people sleep with their eyes open?
1095. Is human face more resistant to cold than other body parts?

1096. Why are antibiotics prescribed with a viral infection like a cold?
1097. What is the difference between a predator and a parasite?
1098. How does Golgi's neural histological stain work?
1099. Primary function of the enzyme lipoprotein lipase
1100. Why is the neuronal plasma membrane more permeable to potassium ions than sodium ions?
1101. How does a baby deer stand the day it's born?
1102. Why do I still see a bright light after looking directly at it?
1103. Do all cells produce the same proteins?
1104. Is there any complex organism that is both autotroph and heterotroph?
1105. What is the difference between rheobase and threshold?
1106. Why do we squint when tasting very sour things?
1107. If evolution is not about increased complexity, why does so much complexity evolve?
1108. Autosomal Recessive Trait when skipping one generation
1109. Ancestral Allele explanation
1110. What is the closest species to humans in animal kingdom?
1111. Why are plants classified in living things?
1112. Is the DNA different in each type of cell? What DNA is passed to offspring?
1113. How do people who have lost both of their legs produce red blood cells?
1114. What's the name of the fibrous strands that hold the seeds in a pumpkin?
1115. What is a focal copy number variation?
1116. What is the standing genetic variation?
1117. Is cancer caused by vitamin B17 deficiency?
1118. Why do we have nerves in our teeth?

1119. Isopropanol precipitation of DNA - duration and magnitude of cold storage
1120. How long does it take for dopamine to reach normal levels after a significant drop?
1121. Why are bruises not lethal?
1122. Why can't we move our toes and some fingers separately?
1123. Breathing becomes harder in certain wind conditions
1124. What are the major causes of mutations in DNA?
1125. Renin - enzyme or hormone?
1126. Can any protein be phosphorylated?
1127. Is this bedbug or book louse?
1128. Why are 6 turns of the Calvin cycle needed to make one molecule of glucose?
1129. Can animals like squirrels leave "gifts" or tribute for humans?
1130. What does this equation about DNA replication mean?
1131. What causes people to feel sleepy due to recycled air?
1132. What is the meaning of "E-value" in the BLAST search?
1133. What's the reason for isovolumic contraction and isovolumic relaxation?
1134. Why do plants need oxygen through their roots?
1135. What is meant by a muscle fiber being glycerinated?
1136. How do you calculate or predict the charge of a protein at pH 7?
1137. Differences between Gradualism and Uniformitarianism
1138. Are these cats calico?
1139. Can the dendrites of sensory neurons be a meter long?
1140. Do aquatic plants have stomata?
1141. Definition of "Niche Complementarity"

1142. Dark veil when getting up too fast
1143. Difference between strand-specific and not strand-specific RNA-seq data
1144. What is happening when we get a tan?
1145. How much energy does human body fat contain?
1146. How to avoid air bubbles while pipetting?
1147. How did the cardiovascular system evolve?
1148. Why do people feel pleasure when using roller coasters / centrifuges?
1149. Is there a purpose for nucleated red blood cells in reptile, avian and fish blood?
1150. is there an easy way to remember taxonomy?
1151. What is a set of chromosome and what is a pair of chromosome
1152. Interpreting graph of mitosis and meiosis
1153. Identifying whether amino acids are hydrophobic or hydrophilic
1154. Is female the default sex in humans?
1155. Can more than one antibody bind the same antigen
1156. Why is uracil, rather than thymine, used in RNA?
1157. Where does the 'C' in exhaled CO<sub>2</sub>, mostly come from?
1158. Why do stomata close in salt water?
1159. Cyanobacteria: Gram negative or Gram positive?
1160. Identification of small fuzzy flying insect (pic)
1161. How to DIY preserve pet DNA today so that it can be used in 20 years
1162. Solubility of Amylopectin and Glycogen in water
1163. Why aren't drugs delivered directly into arteries, rather than veins?
1164. What determines which strand of DNA is transcribed by RNA polymerase?

1165. What is splice junction pairs?
1166. Difference in length of Okazaki fragments
1167. What are tail currents?
1168. What is this unusual structure inside this banana?
1169. If a mother had a child with her own son, could a paternity test yield positive result for the son's father?
1170. When running gels what is the difference between constant volts or constant amps?
1171. How is the transcription direction of RNA polymerase determined?
1172. Why are there no wheeled animals?
1173. What does it mean to have a Y-DNA Haplogroup "R-M512"?
1174. Writing methods section on PCR amplification in a paper
1175. What determines whether an action potential is inhibitory or excitatory?
1176. What is the difference between vegetable and animal fats?
1177. Does consuming sodium benzoate (preservative E211) cause problems during pregnancy?
1178. Why doesn't nitrogen diffuse into blood?
1179. What is a "mechanistic study"?
1180. How does paracetamol interfere with immune system?
1181. Why is green fur not a thing?
1182. Are tendons and ligaments classified under the muscular or bone system?
1183. Excretion of various wastes and water requirement
1184. Is organ transplantation race dependent?
1185. For how long can a person drink sea water?
1186. What is the difference between the basal membrane and the basal lamina?

1187. Definition of "Effective population size"
1188. Difference/similarity between adaptive radiation and species divergence?
1189. How does the social structure of lion prides prevent incest?
1190. How does ecology differ from biology?
1191. Where does my extra blood volume go after giving birth?
1192. Genes & Map Units
1193. How can alcohol cause blindness?
1194. Did cats evolve from monkeys ? or vice versa?
1195. How to interpret the breeders equation?
1196. Difference between protozoa, protists, protoctista?
1197. Insect identification - Is this a bedbug?
1198. Why does getting soap in your eyes cause redness and irritation?
1199. Do "shooting" animals exist?
1200. What are the advantages of forgetting?
1201. Species Identification - small insect: is this a bed bug?
1202. What is the surface area to volume (SA:V) ratio of a red blood cell?
1203. Can an octopus survive if one of its three hearts stops working?
1204. Why "Having chlorophyll without photosynthesis is actually very dangerous" and "like living with a bomb"?
1205. What is MHC haplotype?
1206. Difference between thylakoids and lamellae in a chloroplast?
1207. What is difference between High quality and low quality proteins
1208. Are human chromosomes connected or separate molecules?
1209. Why do tattoos persist if body cells are regularly renewed?

1210. What determines the spiral direction of plants?
1211. Why does cutting onions cause tears?
1212. Why do we grow so much hair on our heads compared to our bodies?
1213. How many copies of a gene?
1214. Why are some neurones unmyelinated?
1215. Can butterflies still fly after their wings are touched?
1216. Cross section through the right arm question
1217. Why can only small molecules pass through the phospholipid bilayer of the cell membrane?
1218. Why do chameleons move back and forth?
1219. Why do bananas turn black after some time?
1220. Why do I need a flu shot every year, while many other vaccinations last years or even a lifetime?
1221. The real definition of carbohydrates
1222. Behaviour of chromosomes and genes
1223. Can one see flickering of a light bulb at 50 Hz?
1224. How does the NAD<sup>+</sup>/NADH ratio affect lifespan in vertebrates?
1225. Why do you die if you cannot breathe?
1226. Can plants be grown using lights in the home?
1227. Can the human brain be reduced to a binary system?
1228. Spider Identification Michigan
1229. Why do you need the intrinsic pathway when you have faster extrinsic pathway?
1230. Do ants or other insects sleep, and if so why?
1231. what is the function of satellite in a chromosome?

1232. Single hormone opposite effects
1233. Are eukaryotic promoters located in the 5' UTR region?
1234. What prevents backflow of blood from right atrium to vena cava during atrial systole
1235. How many recombination events are there per generation in humans?
1236. DNA topology Linking number vs twist?
1237. When did mouth pipetting stop becoming a way to handle liquids in a lab?
1238. Why are many fruits sour?
1239. What is a DNA-binding domain?
1240. How do bile salts affect lipase activity?
1241. Can ovulation and menstruation occur simultaneously?
1242. List of Asymmetric Animals
1243. Difference between mice and rats
1244. Difference between negative allosteric regulation and non-competitive inhibition
1245. What is the longest-lasting protein in a human body?
1246. Names of nerves in hands, shins and face
1247. Does one wing of fly contain harmful microbes and the other contain only antibodies?
1248. what is the difference between pituitary dwarfism and thyroid dwarfism?
1249. Why do sneezes come out the mouth?
1250. Can bacteria be killed by purely physical trauma?
1251. Is there a difference between "cell line" and "cell strain"?
1252. How much energy does a lion contain?
1253. What is difference between Incest and Inbreeding?
1254. Why does so much variation exist within species?



1255. Is there any danger in putting a magnet in your ear (next to your brain)
1256. Why do men have nipples?
1257. How do ants transport water?
1258. Alternatives to trypsin for cell detachment?
1259. What is a catalytic domain of an enzyme?
1260. Headshot = instant kill?
1261. Why does immunity from the flu vaccine appear only after two weeks?
1262. Why can I see a light flicker when it's in my peripheral vision?
1263. A way to measure ripeness of a fruit
1264. What causes "ear rumbling"?
1265. Pipetting damage to cells
1266. Is it possible that by mutation a human could see infrared or other 'colours'?
1267. Purifying a linear plasmid after restriction digest?
1268. Why are nitrogenous bases of DNA hydrophobic if they can hydrogen bond?
1269. Do trees grow from the bottom or the top, or is that oversimplifying?
1270. Why does the pET- expression vector contain a LacI gene additionally to the one in the genome?
1271. Measuring protein concentration, Bradford vs. Nanodrop?
1272. What is heteroduplex?
1273. What is the evidence that australopithecines were bipedal?
1274. What determines the size and shape of a cell?
1275. Why do we get bored of certain food items after repeatedly eating them?
1276. Doesn't the sarcomere contract during isometric contraction?
1277. Crow branch pecking behaviour

1278. Has there ever been an attempt to create nutritionally tailored food for adult human consumption?
1279. Is there a correlation between total neurons and intelligence?
1280. How do viruses or bacteria survive outside the body long enough to spread?
1281. Cause of a extra vertebra in the human body
1282. Can animals also get Down syndrome?
1283. How to read cladograms/phylograms?
1284. Is there an advantage to linear chromosomes?
1285. Are all mutagens carcinogens?
1286. Why do people with type O blood have anti-A and anti-B antibodies?
1287. Do tall people have more cells?
1288. Why is beta actin commonly used as a control in Western blots?
1289. What is the difference between sequence alignment and sequence assembly?
1290. Are neural connections one-way?
1291. Why does alcohol cause the hemolysis of RBC in a large proportion?
1292. Insect identification - pantry moth vs clothes moth
1293. Cellular Respiration/Fermentation Problem Leading to Lack of Energy
1294. Do any animals prepare food?
1295. What's the aim of genetically modifying of foods/organisms?
1296. When was it discovered XY chromosomes decide the sex of a child in humans?
1297. Maximum loading volume for agarose gel with 10 well comb
1298. Are 'homeothermic' and 'endothermic' synonymous?
1299. Coracoid vs. Coronoid - Etymology/Naming Choice?
1300. What is the physiological difference between snorting/swallowing cocaine

1301. Programming Languages for Bioinformatics
1302. Do identical twins have the same fingerprint?
1303. What is the purpose of Y-shaped adapters in Illumina sequencing?
1304. Is cell membrane living
1305. Location of t tubule in muscle
1306. How does Artificial Selection work?
1307. What are the differences between cancer and tumour?
1308. How does soap affect membrane permeability? Which component of the membrane does it affect?
1309. What is Biradial Symmetry?
1310. How does alum help in blood coagulation?
1311. Why is the mosquito a definitive host in malaria?
1312. How long does it take for memory to disperse after death?
1313. Effects of lactic acid ingestion
1314. Growth factors vs. mitogens
1315. What does it mean when a patient suffering from malignant tumor (cancer) has been declared cured?
1316. Why didn't the polar bear change its color from white to black during evolution to absorb heat?
1317. Bigger animals needs bigger amount of oxygen?
1318. Can a cancerous cell from outside cause cancer in a healthy person?
1319. Are there predators evolved to eat puffer fish?
1320. How is a bacterial strain defined?
1321. How much of what we eat ends up in the toilet?
1322. Why do some animals have 8 Limbs (e.g. Spiders, Octopuses)?

1323. Do ants have a "stay away" signal?
1324. Is a walnut a nut or a drupe?
1325. Do plants absorb toxins from the soil?
1326. Who created the codon wheel chart (not as a table)?
1327. Why is a slow worm not considered a snake?
1328. What is a gene transcript, how is it different from an allele?
1329. Do men have significant hormonal cycles?
1330. Are there organisms with fewer than 1000 neurons?
1331. Besides hemoglobin, what proteins are present in red blood cells?
1332. Function of the Auricle in heart
1333. How to make  $\mu\text{g/ml}$  concentrations of proteinase-K?
1334. Why is tRNA called an adaptor molecule?
1335. Why can't humans drink sea water?
1336. Does osmosis take place in prokaryotic cells?
1337. Do all chromosomes in one human body contains same genome?
1338. How will rising carbon dioxide levels in the troposphere affect photosynthetic producers?
1339. What is the human ear's temporal resolution?
1340. Like other animals, why humans don't have species & breeds?
1341. Can any plant regenerate missing tissue?
1342. Can humans ever directly see a few photons at a time? Can a human see a single photon?
1343. What if  $B=C$  in Hamilton's rule?
1344. Why haven't we cured the common cold yet?

1345. Is lysergic acid diethylamide (LSD) metabolized in the body?
1346. If I buy a banana at the market, is there any chance that an insect is hiding inside it?
1347. Are Young Girls Stronger than Young Boys?
1348. Why does a cockroach not die even after decapitation?
1349. Are there plants that produce (audible) sound?
1350. Does it make sense to classify all humans in a single species?
1351. Do body lotions enter into bloodstream of people? And how do they do it?
1352. Why don't antiseptic agents kill 100% germs?
1353. Cleanliness of cast iron never cleaned between meals
1354. If alcohol is a depressant, why does it makes certain people more hyperactive?
1355. Why can't we grow more teeth?
1356. How many times has SARS-CoV-2 mutated?
1357. How to find the concentration of an enzyme?
1358. Is there a link between digestion and nightmares?
1359. How does a thymidine block halt DNA synthesis?
1360. Can a reservoir host act as a vector?
1361. Why do some mammals not have testes in a scrotum?
1362. Why Did 6 Great Ape Species Survive But Only 1 Hominid Species?
1363. Virus cannot survive on surface after certain time period, but why and how?
1364. Do humans produce rennin?
1365. Identify this smooth-cocoon worm from Southern India
1366. Why are some vegetables/fruits seasonal?
1367. How do female hormones cause blood to clot?

1368. What determines the colors and patterns of a clam shell?
1369. How do nutrients get to the cells they need to get to?
1370. Do animals get sick from eating dirty food or eating off the floor?
1371. What is the mechanism behind "acquired" alcohol tolerance?
1372. What determines excrement's caliber?
1373. What is the difference between a human being, a Homo sapiens, and a Neanderthal?
1374. Do these things contain amylase?
1375. How many different kinds of polypeptides, each composed of 12 amino acids, could be synthesized using the 20 common amino acids?
1376. Difference between Premature Atrial Contraction and Atrial Fibrillation
1377. Why does mint oil feel cold on the skin?
1378. What hydrolyses aspirin within the digestive tract and blood stream?
1379. What is the difference between cytosol and cytoplasm?
1380. Can the dead be brought back to life by viruses?
1381. What will happen if a scorpion pierces itself?
1382. Can Naegleria fowleri enter through your ear?
1383. How are Maggots Sterilized (Disinfected)?
1384. Why do only two sexes exist for animals?
1385. Species identification; clusters of big plump red bugs in Taipei
1386. What's the physical meaning of Svedberg unit?
1387. Why do we see better on stretching our eyelids to the side?
1388. How are arms different from legs?
1389. Causes of monozygotic twins
1390. Are Asians more genetically homogenous than other races?

1391. Cell evolution: immortality vs reproduction
1392. Why are lions the only social cats?
1393. Osmolarity vs. Tonicity
1394. Why is one phase of a plant dominant (Alternation of generation)?
1395. What are hot spots on human body?
1396. Why can't our eyes smoothly transition from side to side without focusing on a moving object?
1397. Is there a maximum amount of antibodies your body can keep?
1398. Why do eyes change colour after death?
1399. Bacterial capsule vs. slime wall
1400. what is meta-sympathetic nervous system?
1401. Why would a single celled organism evolve to be multi-celled?
1402. Why would lactate be high in diabetics?
1403. polarity of DNA
1404. How efficient is the human body at metabolizing food?
1405. What are Codominant vs Dominant Genetic Markers?
1406. Why does max heart rate decrease with age?
1407. what makes our body warm?
1408. Why does Penicillin only affect bacterial cell walls
1409. What's up with this leaf?
1410. Very high 260/230 absorbance ratio of an RNA sample
1411. Do the pH and other ions affect the hydrolysis of ATP
1412. Thermodynamics of Forming Peptide Bonds
1413. Difference between pipette and pipettor

1414. How long can one leave sample in lysis buffer for DNA extraction?
1415. Why is ATP used as a source of energy rather than glucose?
1416. How deep does water have to be so a mosquito can lay viable eggs in it?
1417. What is the evolutionary rationale for palm sweating?
1418. Are there examples of cells with more than one nucleus?
1419. Location of nucleotide synthesis and transport
1420. Are there biological reasons why life expectancy is lower for men in most countries of the world?
1421. The biggest underground living animal
1422. How does lactulose cause the removal of ammonia from the colon?
1423. The GUG start codon in *E. coli*: identity of initiating tRNA and efficiency of translation
1424. Do ants feel pain?
1425. What is the scientific opinion on plus lens therapy?
1426. How does plant grafting work?
1427. What exactly are computers used for in DNA sequencing?
1428. Can food swallowed when a person is upside down reach the stomach?
1429. How can a monocot get so massive?
1430. Why are pili more common in Gram negative bacteria than in Gram positive?
1431. Are fish and reptilian scales homologous?
1432. Why do live crabs in a bucket prevent each other from escaping?
1433. Circulation through the liver in light of drug metabolism
1434. Why is pepsin able to operate at low pH?
1435. What is the point of a runny nose during a cold?
1436. How do trees manage to grow equally in all directions?



1437. Heterocyst function in cyanobacteria and its localization
1438. Will dissolved proteins pass through a 0.2 micron filter?
1439. Does DNA polymerase always go the same direction?
1440. Gene distance and Recombination Frequency: Mechanism
1441. Why is GTP, not ATP, produced in Gluconeogenesis & TCA Cycle?
1442. Are SNPs and alleles the same thing?
1443. What is the difference between eugenics and evolution by natural selection?
1444. Which organism has the smallest genome length?
1445. Terminology for parts of the leg
1446. How to set up a slow cooling on an AB Veriti thermal cycler?
1447. Will the "frog in boiling water not jumping out" work on warm blooded animals
1448. Why is the function of lacA (encoding thiogalactoside transacetylase) not clearly understood?
1449. Can dead scorpions still sting?
1450. What is a "monomeric polypeptide"?
1451. Does the lung absorb organic food?
1452. What happens to tube nucleus of the pollen tube after fertilisation?
1453. Is the Common Cold an Immune Overreaction?
1454. Significance of upper-case, lower-case and Ns in UCSC DNA files
1455. Surgical vs anatomical neck
1456. How long could Earth's oxygen supply last if no new oxygen were produced?
1457. What is the ratio of head to waist and waist to floor of the human anatomy?
1458. Are there lifeforms that have more than 2 sexes?
1459. Do spouses begin to share genes over time?

1460. Does human eye lens have a magnification of its own?
1461. Evolution- Variations, adaptations and selective advantages
1462. Why Is Most Life Symmetrical Externally But Not Internally?
1463. After how many generations descendant is not more related to ancestor, than to a random individual in an ancestral population?
1464. Light and Dark Reaction of photosynthesis?
1465. What is the difference between Crossbreeding, Outbreeding and Outcrossing?
1466. RNA isolation- role of pH
1467. Are there more/less favourable phases of menstrual cycle to donate blood?
1468. Why is the inside of a cell negatively charged
1469. What is the distance between the sciatic nerve and the colon at the closest point?
1470. What is the role of potassium acetate in plasmid extraction?
1471. Mammal body density
1472. Is Plasmablast a precursor of Plasma cell?
1473. Height and natural selection in humans?
1474. What is full form of r and K in r-selection species and K-selection species?
1475. At what point is a picked flower considered dead?
1476. Are nucleic acids found in cell membranes?
1477. Why do we go blind for a few seconds after switching off the light?
1478. Why do we need red blood cells?
1479. How do bull semen companies get the semen out of the bulls?
1480. Is poison venomous and is venom poisonous?
1481. Calculating pairwise  $F_{st}$  from allele frequencies
1482. Do potassium channel blockers affect the resting membrane potential?

1483. Does coloring affect the perception of depth?
1484. Why does Rigor Mortis occur after death?
1485. Does any animal species have two sexes and more genders?
1486. Why would glucocorticoids promote glycogenesis and not glycogenolysis?
1487. Optical Density conversion to cfu / ml
1488. What are the function(s) of Alu elements in the cell?
1489. What causes the development of antibiotic-resistant strains of bacteria?
1490. What does conditional analysis of a SNP in a GWA study entail?
1491. Are mitochondria dead?
1492. Why are goosebumps so ineffective at keeping us warm?
1493. Earwax versus Mucus
1494. Can the human body create glucose out of fat?
1495. Why does it hurt the next day after doing significant exercise?
1496. What is the difference between embryology and developmental biology?
1497. How do white Caladiums perform enough photosynthesis to support their mass?
1498. Is it possible to exclude article types in a PubMed search?
1499. Is there a downloadable list of all species along with their traditional classification?
1500. How can I preserve hair or saliva for future genome sequencing?
1501. Why don't chilli peppers taste as hot in space?
1502. How does most of lymph get back into the blood stream? (I don't mean the lymphatic system)
1503. On the genetics behind caste marriages
1504. What is the difference between a circular and a cat's-eye (slit) pupil?
1505. Will ants arriving with travel luggage form a new colony?

1506. What is the distinction between F' plasmid and R plasmid?
1507. Does class switching occur both in B cells and Plasma cells?
1508. Does the hepatic portal system form capillary beds?
1509. What is the so called "hepatic glucose production"?
1510. Growing E. coli at room temperature?
1511. What part of the brain controls depth perception?
1512. "X" in stock solutions
1513. What is the effect of a pure-oxygen environment on a plant?
1514. Are the asymmetrical positions of owl ears consistent across species with this trait?
1515. Why are proteins always made in N to C direction?
1516. What type of white hard thing grows on lobster
1517. What is the rest state for eyelids - Open or Closed?
1518. Do spinal cord reflexes (such as the knee-jerk reflex) continue to function under general anaesthesia?
1519. How loud a sound would need to be to wake someone up?
1520. Can a human smell through the ears?
1521. Scoring matrices (BLOSUM & PAM) in BLAST and other sequence-comparison programs
1522. Is heat released during work due to ATP breakdown or a increased blood flow?
1523. What is the criticality of the ribosome binding site relative to the start codon in prokaryotic translation?
1524. Why do red blood cells contain haemoglobin and not myoglobin?
1525. How deep under water can humans open their naked eyes without damaging them?
1526. Are mitochondria alive?
1527. Is honey in hot green tea unsafe?

1528. Fetal development, gastrulation and embryonic disc
1529. Depolarization and hyperpolarization in stereocilia of the inner ear
1530. "Higher plants" or "vascular plants"?
1531. Meaning of units in ELISA based tests?
1532. How does the immune system "learn" from a vaccine?
1533. How to check if a fastq file has single or paired end reads
1534. Should we induce fever to assist healing?
1535. What concentration of sugar is optimal for baker's yeast fermentation?
1536. Does THC excretion increase if urine volume increases?
1537. Does our eyeball increase in size as we grow?
1538. What actually happens when my leg 'falls asleep'?
1539. What are tendons made of specifically
1540. Can rats pass on memories of a maze to their offspring?
1541. For how long can a raven stay airborne (a week or more)?
1542. Why isn't Fluorine, or Neon, the final electron acceptor in cellular respiration?
1543. Are the irises an exact match in a human's set of eyes?
1544. Is aquafaba readily digestible?
1545. What is the Shine–Dalgarno sequence?
1546. How can I accurately measure glucose concentration in culture media?
1547. Definition of Cofactor, Coenzyme and Prosthetic Group
1548. Deciduous trees in tropical rainforest
1549. Enzootic vs Epizootic?
1550. Is ovum + ovum fertilization possible for human?

1551. Is nicotine toxic to humans?
1552. Why do human females have periods?
1553. Is sugar absorbed into the bloodstream through the walls of the mouth?
1554. How do we know that everybody's DNA fingerprint is unique?
1555. What is the name of the bond between phosphate and the sugar in a nucleotide?
1556. Examples of enzymes working in reverse?
1557. Introductory biology text for an outsider
1558. Why are the human knees and elbows bent in an opposite direction
1559. How many times did terrestrial life emerge from the ocean?
1560. Wearing sunglasses during a solar eclipse
1561. How many primary oocytes in human female body at birth?
1562. How long does it take for a cricket to die at subzero temperatures?
1563. How do you increase eumelanin but not pheomelanin?
1564. How long can *E. coli* stocks be stored at -20°C?
1565. How can the child and the mother have different blood types?
1566. Is there enough vitamin B12 in lakes, rivers and ponds, for humans not to need to take supplements?
1567. Are there species that occupy several roles in the food hierarchy?
1568. What is the function of the Moderator band?
1569. Dark, long-legged spider with long mouthparts in front, long "pincers" in the back and very short 3rd pair of legs (northern Taiwan)
1570. Background correction when reading ELISA with TMB substrate
1571. Why did the sensitive plant (*Mimosa pudica*) evolve its leaf-closing mechanism?
1572. What is the genetic basis of blood type (ABO) system?

1573. Why does snow not stick to the fur of wolves and some breeds of dogs?
1574. Is this a bedbug or a book lice or what?
1575. what is the reason for using 70% alcohol (ethanol)I?
1576. What is this feather like bug with no legs?
1577. Why are vaccines for polio taken orally while vaccines for TB need to be injected?
1578. Magnetic-activated cell sorting vs. FACS
1579. Why is rabies incurable?
1580. Beetle with long, slender iridescent green body and orange legs
1581. Where do mushrooms get their energy from?
1582. Why do flies fly in circles?
1583. Why does the apex of the human heart usually point to the left?
1584. Why do we have five fingers?
1585. Why does the sacrum fuse together?
1586. How does HIV mutate into other strains while keeping their virulent phenotype?
1587. How much oxygen does a plant use up at night?
1588. Do we know all the possible human hair colors?
1589. Why is there a difference in the rotation of the tail fin in fish compared to marine mammals?
1590. Which processes are during the latent period of ventricular contraction?
1591. What is the "lifecycle" of an average eschar and what types of cells are involved in each stage?
1592. Why did humans lose their fur?
1593. Do lobsters possess a nervous system to feel pain?
1594. Amount of blunt force to kill a person

1595. Why are some berries poisonous?
1596. What insect is this? Looks like a spider but with six legs and long antennae
1597. Are Italians genetically separated from other Europeans?
1598. Why is the DNA codon table "equal" to the RNA codon table
1599. What do the letters 'p' and 'c' mean in mutation descriptions?
1600. Why isolated, recombinant plasmid DNA without any restriction is often detected in agarose gel electrophoresis as three DNA bands?
1601. Do colour-blind people see white?
1602. What do butterflies eat?
1603. Do women experience more bonding hormones than men after sex?
1604. Is tyrosine hydrophobic or hydrophilic?
1605. What are good resources for self-learning modern molecular biology concepts?
1606. What happens to deep sea creatures if they reach the surface?
1607. The effect on the efficacy and potency of a non-competitive antagonist binding to the active site of the receptor (dose-response curve)
1608. Ill effects of urea and  $\text{NH}_4^+$  on metabolism
1609. Why human cannot stand still in one place?
1610. Why does crying lead to a running nose and reddened nose tip?
1611. Why does vaccine development take so long?
1612. How does an amoeba move?
1613. How does one determine the sex ratio of a ZZ and ZW cross?
1614. Larva in cat's water dish
1615. Is ATP Synthase a channel or an enzymatic protein?
1616. Doubly-compound leaf examples?



1617. Can Blood Types Change?
1618. Why does my eyes see a red spot when over exposed to light?
1619. How does electrolarynx work?
1620. Does the genetic sequence of SARS-CoV-2 end with 33 A's?
1621. What is the purpose of back-crossing mice for multiple generations?
1622. Why are there no trees in Texas?
1623. Why are organs not harvested from deceased cancer patients?
1624. How did the endoplasmic reticulum come to be?
1625. What is the purpose of the incus?
1626. How does protein denaturation work?
1627. How can I find a complete human genome file?
1628. How does chromosome number get halved in meiosis I?
1629. Why did the process of sleep evolve in many animals? What is its evolutionary advantage?
1630. How does translational coupling work in prokaryotes?
1631. Can you Transfer Cancer Between People via Saliva or other Bodily Fluids?
1632. What is the actual storage form of energy in muscles? ATP or Glycogen?
1633. Why does the kidney of a cow have lobules, why the kidney of a human hasn't any?
1634. What determines testosterone exposure in womb, baby's genetics or mom's body?
1635. Is monogamy a human innate behaviour?
1636. How long can I store extracted RNA?
1637. What is this animal looking like an Axolotl?
1638. Should hydrogen peroxide be applied on a bloody nose?
1639. Can Squirrels Eat Every Mushroom?

1640. How is NAD<sup>+</sup> used in lactic acid fermentation after it is oxidized from NADH?
1641. Why didn't Escobar's hippos introduced in a single event die out due to inbreeding?
1642. Is "computational biology" different from "bioinformatics"?
1643. Do the right-handed people tend to use the right side teeth of their jaw to chew food more often than the left-handed people?
1644. Hardy-Weinberg Color-blind
1645. What animal has the strongest immune system?
1646. When do the spindle fibers attach to the chromosome?
1647. If sperm contains only 50% of someone's DNA, how can it be used to identify someone?
1648. How fast is water transported from roots to leaves?
1649. How do animals decide what to eat and what not?
1650. How "exactly" is Rabies transmitted?
1651. Why are there six reading frames if only one strand of DNA is referred to as the 'coding strand'?
1652. Differences between synaptic connections
1653. What could cause a forest of bent trees?
1654. How does a virus take control over the host cell?
1655. Will salting the ground kill insects and spiders?
1656. How do you download a list of the gene length of all genes?
1657. Why can't we see in low light if staring long enough?
1658. What is the role of acetylcholine in blood pressure regulation?
1659. What percent of the population has some form of synesthesia?
1660. What is dental health like in animals?
1661. Is it true that bees and wasps don't sting if struck by hand while they are in flight?

1662. What implications has the missing 2'-OH on the capability of DNA to form 3D structures?
1663. Do large animals experience a meaningful delay when moving their most distant appendages?
1664. How do I read a sequence logo?
1665. How does waking up from an alarm clock work?
1666. Human evolution: Where *\*exactly\** did the first human come from, whose parents were not?
1667. What is the best way to clean immersion oil from the microscope lens?
1668. How can a drink contain 1.8 kcal energy while 0 g fat/carbs/protein?
1669. Transfer of antibodies in breast milk of humans
1670. Why Do Ruminants Require A Multi-Compartment Stomach To Digest Food?
1671. Which of the two chromosomes in a pair is expressed?
1672. A new species of small bird?
1673. Why does a gene have two alleles?
1674. Name of This Black and White Dove
1675. What prevents predator overpopulation?
1676. Gene & Protein nomenclature: N-Myc, c-Myc, et. al
1677. Are there any solitary species of ant or termite?
1678. How many cells does the smallest animal have?
1679. Why do crabs spit?
1680. Why don't we bleed interstitial fluid?
1681. What does static electricity generated by plastic combs do to our hair?
1682. Binary fission in amoeba
1683. Examples of animals with different number of chromosomes that can interbreed?

1684. Is it possible to stop yourself from going into shock?
1685. Why do humans seem to be the only mammals that like spicy food?
1686. Why are human immune systems comparatively weaker than other animal immune systems?
1687. What is the size (diameter) of the SARS-CoV-2 virus?
1688. Can two humans with 44 chromosomes produce viable offspring?
1689. Is there any use of CO , in human body?
1690. Why does wood become darker when it ages?
1691. Breathing faster to lose (more) weight?
1692. Which surfaces contain no epithelial tissues and which epithelial tissues are vascular?
1693. Is there a durable surface that ants can't pass?
1694. ECG wave names origin
1695. What is the difference between a polysaccharide and a macromolecule?
1696. Do male marsupials have a pouch?
1697. The probability of indirect human fertilization?
1698. Is a DNA molecule a single strand of polynucleotide or two of them linked together?
1699. Can beavers control the direction a tree falls?
1700. Chitin, homo or heteropolysaccharide?
1701. Do animals other than humans have different blood types?
1702. How does the Pectoralis Major work when doing a bench press?
1703. What is Mendelian Randomization, and how is it used to infer causality in epidemiology?
1704. difference between transcriptional activator and general transcription factors?
1705. I just saw this bird outside my apartment. Anyone know what it is? (Texas, US)

1706. Why do antidepressants have a delayed onset of action?
1707. What is the biochemical explanation for tingling and burning sensation in brain due to certain food?
1708. What would happen if one eats silica gel?
1709. Can species be paraphyletic?
1710. Books on population or evolutionary genetics?
1711. Albinism inheritance problem: what are the father's alleles if he got an albino kid?
1712. Why can hair grow without limit while eyebrow cannot?
1713. What is "chain identifier" in PDB?
1714. What is 'refractile' cell morphology?
1715. What are the differences between isozymes, allozymes and isoforms?
1716. What is the fastest marine mammal?
1717. Do all sea creatures that have scales have to have fins?
1718. fibroblast cells and fibers
1719. The pectoral fins of a whale and a shark. Are they analogous organs?
1720. Why does ostrich meat look and taste more like beef than chicken?
1721. Over winding vs under winding of a DNA
1722. Why does a light object appear lighter in your peripheral vision when it's dark?
1723. Why are oceans said to have "low productivity" in terms of photosynthesis?
1724. DpnI over-digestion
1725. Identification of beetle: black with orange stripe and 2 orange dots
1726. What is this worm-like creature?
1727. Is it possible to move your arms above your head when handcuffed in the back?
1728. What made this tiny honeycomb-like structure?

1729. Why do we have two eyes?
1730. Is it possible to be allergic to the yolk of an egg but not the egg white?
1731. What is the significance of and biological mechanisms demonstrated in lac operon?
1732. What is the evolutionary advantage of having pubic hair?
1733. Species-area relation graph
1734. If a gene is located on the X chromosome, does that mean males are never heterozygous for these genes?
1735. Why are cell lines frozen in vapor phase?
1736. How does Australia fit into 'New World' / 'Old World' dichotomy?
1737. What part of food gives the blood red color?
1738. Do all parts of a plant contain the same type of cell?
1739. Can HIV mutate to become airborne?
1740. Is there a reason why human eyesight and plants make use of the same wavelength of light?
1741. What is this droplet of liquid that comes out of a mosquito?
1742. Species Identification: Small white maggot/larvae, Missouri USA
1743. How do dopamine agonists like amphetamine/methylphenidate affect acetylcholine signalling?
1744. Do all Gram negative bacteria cause septic shock?
1745. Why do we have two kidneys but one liver?
1746. How does strength of a pulse related to EKG(ECG)?
1747. Can the Monkeypox virus be spread by mosquitoes?
1748. Where do the four ADPs come from in the second stage of glycolysis?
1749. Why are the genomes of Humans 99.5% the same?
1750. Why animals can move and plants cannot in general?

1751. Why do bulls have a hump?
1752. What are the identifying characteristics of a Jellyfish?
1753. Why do we use an autoclave at 121°C (250F)? (Origin)
1754. Is there any biological reason that professional swimming is dominated by white people?
1755. Identity By Descent vs Identity By State
1756. why didn't natives of south america evolve darker skin?
1757. How do I get a brighter DNA bands
1758. Are these microscopic star-like structures on a dead leaf some sort of organism? If so, which one?
1759. How the lungs clear themselves?
1760. Are pulp cells (in oranges) normal plant cells?
1761. Can animals train to be noticeably stronger, faster, more agile... than other animals of the same species?
1762. Are human teeth only diphyodont or both diphyodont and monodont?
1763. How much time does HIV live outside the body?
1764. Was the dodo a dinosaur?
1765. How many species have existed on earth?
1766. How is eye color in humans inherited?
1767. What is the Giemsa staining of chromosomes?
1768. What is in the space between neurons in a brain?
1769. Why are sugars in whole fruits not digested the same way sugars in juice are?
1770. Are there any open plant databases (database/library/collection), containing species information and pictures?
1771. Chart of blood pH across different animal species?

1772. Do fishes die from old age?
1773. What limits the speed of human perception?
1774. Does osmosis require a protein channel?
1775. The human has 46 double chromosomes or simple chromosomes?
1776. What is the brain's preferred energy source? Glucose or ketones?
1777. Please help me to identify this red worm
1778. Why do organisms excrete nitrogenous wastes?
1779. How does evolution produce complex organs
1780. Why does DNA have its name?
1781. 0.1 M sodium citrate in 10% ethanol and DNA solubility
1782. Is the eukaryotic nucleus composed of a single or double membrane?
1783. Why do humans suffer anxiety when they view "Trypophobia trigger images"?
1784. What is an isolated beta bridge?
1785. Where do amino acids get attached to tRNA and where is it synthesized?
1786. what is the ancestral relationship between dogs and cats and bears?
1787. How does coconut water solidify into hardened coconut meat?
1788. Why cytotoxic T cells don't kill dendritic cells when they present antigen?
1789. difference between "Petri dishes" and "Petri plates"?
1790. Is the Michael Jackson skin pigmentation disease realistic?
1791. What is the difference between "lineage restriction" and "differentiated" in terms of stem cell biology
1792. Was HindIII the first restriction endonuclease to be extracted?
1793. How do ants sense imminent rainfall?
1794. How does non-homologous end joining (NHEJ) work?



1795. Why some eggs are bile stained?
1796. Do insects' muscles become stronger with exercise?
1797. Using anatomical terms for human organs and parts of plants
1798. How can natural selection occur at species level whilst not occurring at the individual level?
1799. Why is the Kakapo more attracted to humans than its own kind?
1800. Why does depolarisation by high intracellular  $K^+$  trigger calcium channels opening?
1801. Does pH affect Michaelis constant?
1802. Difference between sequential and conformational epitope
1803. What gives things their colour?
1804. Restriction Mapping of Plasmid Assignment
1805. Why do flies "rub" their front legs when resting?
1806. Why are there more stomatal openings on the lower surface of a dicot leaf?
1807. Clarify pre-column pressure vs. system pressure vs. backpressure for prepacked columns used with the äkta purification system
1808. Why doesn't ovulation occur in both ovaries simultaneously?
1809. What's the recommended maximum passage number for mammalian cells (NCI-H441)?
1810. Transcription and translation of prokaryotic operons
1811. Is there an evolutionary purpose to armpit perspiration?
1812. Why does supercoiled DNA run faster?
1813. Abdominal muscles during inspiration/inhalation
1814. How is vitamin B12 stored in the body although it is water-soluble?
1815. Complementarity Determining Regions (CDRs)
1816. Is there any kind of immortality in plants?

1817. Earth overshoot day: is it a sound concept?
1818. Why can't amylase break down glycogen?
1819. What evolutionary reason is there for having the urinary duct and reproductive organs so close together?
1820. Why do my muscles move slowly when cold?
1821. Is a stab wound to the back lethal?
1822. Can you be immune to a coronavirus?
1823. How can grass-fed livestock generate fat?
1824. What is the point of Meiosis II, considering Meiosis I already produced haploid cells?
1825. Why should a tumor look like a crab?
1826. Why do bananas grow curved?
1827. What kind of spider is this? Brown with white spots
1828. How accurate is facial reconstruction in forensics?
1829. Do animals exhibit handedness (paw-ness?) preference?
1830. What are two butterflies doing when they fly together, 'hitting' each other?
1831. Why are considered to be exceptions to the cell theory?
1832. What species is this rabbit-like animal?
1833. Why aren't we ambidextrous?
1834. How do you break up cell clumps when passaging?
1835. Classification and differences between homologous, homoplastic, analogous, derived and ancestral traits?
1836. How to interpret dual luciferase assay result (RLU)?
1837. Why should we use the NA12878 dataset for benchmarking?
1838. What do the names of Immunoglobulin subtypes mean?

1839. How to find the amino acid that is bound to a tRNA with the anticodon?
1840. Perception of distant lights without glasses
1841. How does the counter-current multiplier work in the nephrons?
1842. Is it possible to condition the body to reduce bruising?
1843. How long do viruses, such as Zika, stay in the body?
1844. Transmission of disease from mother to fetus
1845. Is death by cyanide the same as suffocation?
1846. Is kissing a natural human activity?
1847. When contracting a muscle will the muscle spindle stretch or contract?
1848. Does scratched Teflon coated frying pans contain carcinogens which can cause cancer?
1849. Differentiating *Taenia solium* and *Taenia saginata* Infections
1850. What is the average Leg-to-Foot Length/Width Ratio?
1851. Why don't animals produce alcohol
1852. Why are some genes dominant over others? What is the mechanism behind it?
1853. Purpose of dilution streaking or streak purification
1854. How efficient is the sodium-potassium pump ?
1855. How is centriole number maintained during meiosis?
1856. How does a tree trunk sprout and grow after being cut?
1857. Why doesn't glucagon promote glycogenolysis in muscle?
1858. What is this brown spider with black and white stripes? (Atlanta, Georgia)
1859. How to edit/insert new gene after cutting with CRISPR/cas9
1860. What is the difference between multiple allelism and polymorphism?
1861. How does this illusion work?

1862. Are chromosomes from each parent split between gametes with equal probability (esp. in humans)?
1863. What does vitamin B6 and B12 absorption depend upon?
1864. How long can Cholera bacteria survive in a dead host?
1865. Why is allolactose the LacI inducer?
1866. Are all emerging viral diseases of the past 100 years zoonoses?
1867. Crossing white eyed Drosophila with sepia eye
1868. What is cytoplasmic localization?
1869. Photolysis of Water?
1870. What is this insect in Southern California?
1871. Why do we get 'bags under our eyes'?
1872. Is it impossible for a retrovirus to be lysogenic?
1873. Is Pork more prone to carrying higher loads of parasites than Beef?
1874. Basic step by step methods for PCR & Gel electrophoresis class
1875. Why do humans find baby animals cute?
1876. iodine: how did they manage without it in old ages? (People who were living far from the sea)
1877. Why aren't nucleic acids on Nutrition labels?
1878. What is this stick-like creature?
1879. Assume the gene for freckles is dominant. A woman with freckles has a son that does not. What would have to be the genotype of the mother?
1880. How long does a tan last?
1881. How to identify the age of a "living" person?
1882. How many species did Carl Linnaeus classify?
1883. Why our body does not produce polyunsaturated fatty acids?

1884. What does a diamond symbol actually mean in pedigree?
1885. How much do crocodiles eat?
1886. Hardy-Weinberg sex linked formula
1887. Identification: Creepy 'nope'
1888. How does water buffer a sudden drop in temperature?
1889. Are fully vaccinated people more likely to not get infected at all with COVID-19?
1890. What is the difference between naive and adjusted p-values in a GWAS study?
1891. Effects of mRNA vaccines on human body processes
1892. Highest Pressure Human Body Can Survive In?
1893. What kinds of bacteria live in water bottles?
1894. How many species can have the same scientific name?
1895. Why is the pituitary gland located in the brain?
1896. What are the genus and species name of different breeds of dog?
1897. Are Pond Algae Edible for Humans?
1898. Orientations of codon and anticodon
1899. Do viruses or bacteria have a flavour?
1900. Can viruses be toxic?
1901. Gibbs free energy and its change for the hydrolysis of ATP
1902. Why do living fossils like crocodiles remain so constant and not evolve?
1903. Speciation of humans?
1904. How does the immune system fight scabies mites?
1905. Why do some plant species have lobed leaves, while similar species in the same habitat don't?
1906. Where is the line between Anaerobic and Aerobic?

1907. Basic Amino Acid Residue Binding Mechanism to DNA
1908. More proteins from diet when common cold and flu?
1909. Why do most animals never seem to evolve over millenia?
1910. Do neurons secrete multiple neurotransmitters, or just one type?
1911. Purpose of poly(A)+ RNA?
1912. Interpretation of picture of human chromosomes
1913. I found a bug on my bedroom floor. Is this a bedbug?
1914. Cooperativity of haemoglobin and oxygen dissociation curve of haemoglobin
1915. What is the meaning of a reported OD600 value?
1916. Do men have more extreme variations than women?
1917. Can proteins move outside cells?
1918. For how long would a flu-contaminated parcel be an effective disease vector?
1919. What kind of microscope should be used to view biological structures (such as spores) roughly 5  $\mu\text{m}$  in length?
1920. How do liver and lung metastases cause death?
1921. Blood pH at Higher Altitudes
1922. Why dogs move their noses when smelling?
1923. How to get rid of mosquitoes in a small lake
1924. What are the units of Q10 (temperature sensitivity)?
1925. How many sensory neurons are in the human body?
1926. Does the human ear adapt to noise levels?
1927. What happens when cells in your body run out of telomeres?
1928. Can adenosine be cleared?
1929. Definitions of hermaphroditism, dioecious and monoecious?

1930. What is the general term for tree-dwelling animals?
1931. Are glycoproteins and glycolipids present only on the cell surface membrane?
1932. Why does dehydration lead to low blood pressure
1933. pI and pH relationship in context of ion exchange protein purification
1934. Why do neurons have a negative resting potential?
1935. Origin of the double membrane of mitochondria and chloroplasts
1936. Is this a crayfish hole? or wasp nest?
1937. Do men have a higher genetic variance than women?
1938. How does Pothos grow in only water?
1939. Why do apples taste sweeter at the bottom?
1940. Help identify this worm-like thing
1941. Effect of transpiration on plant growth
1942. Are there verbs for "undergo mitosis" and "undergo meiosis"?
1943. Are hens and roosters the same species?
1944. What species is this grey insect with red antennae and mouthparts?
1945. What kind of bug is this on my curtain?
1946. How likely is a lack of DNA match with a distant relative?
1947. Hot water and bacteria
1948. Which predators only eat some parts of their prey? (Warning — graphic content)
1949. Is secondary follicle or Graafian follicle arrested in the second metaphase of oogenesis?
1950. Difference between flexion and contraction?
1951. Pharmacokinetics: why do certain drugs follow zero-order kinetics?
1952. Online Molecular and Cellular Biology Video Lectures?

1953. What are sources for learning bioinformatics for self-learning?
1954. What are the consequences of inbreeding?
1955. What is the difference between Single Nucleotide Polymorphism (SNP), Mutation and Structural Variation(SV)?
1956. Anomalous base pairing of nucleotide tautomers
1957. Role of calcium chloride during competent cell preparation
1958. What is the name of this red plant?
1959. Why is there smooth muscle in our bronchioles?
1960. Is the motor cortex identical to the sensorimotor cortex?
1961. What is the magnification necessary to see pond life
1962. What is the name of this fruit?
1963. Explaining a branch with visibly different leaves on *Citrus japonica*
1964. What negative effects can pinhole glasses have on the body?
1965. Do plants have distinctive DNA genomes from each other like humans do?
1966. What are artifacts in microbiology?
1967. What kinds of cells does human saliva contain?
1968. How does sodium ion increase blood pressure?
1969. How do the lungs act as a sieve to trap blood clots?
1970. What is the fastest growing bacterium?
1971. Why did life not evolve to use radio?
1972. Is each blade of grass an individual plant or not?
1973. What happens to lactic acid I eat?
1974. At any given moment, how much energy is stored in the human body as ATP?
1975. Did predators evolve eyes first?



1976. How do birds deal with their eyes drying out at high speeds?
1977. Difference between clonal and subclonal mutations
1978. How statistically significant was the "sweaty T-shirt" experiment?
1979. Black insect with antennas and large abdomen
1980. Does breath-holding cause permanent brain damage?
1981. Did the Zika virus mutate?
1982. Why do we urinate more often in winter compared to summer?
1983. Effect of pH on protein solubility and denaturation
1984. How do I know which molecular structure is glycine's "base state"?
1985. Is there a bacterium that became a virus?
1986. Why does gaining a hydrogen in biology considered reducing a molecule?
1987. Worm in water identification help
1988. Why does the affinity of haemoglobin for oxygen increase at higher elevations?
1989. Is our genome decaying (see "Genetic Entropy"), and, if so, is this evidence for our genome being "young"?
1990. In which direction does ATP synthase rotate?
1991. Do birds ever fly in clouds?
1992. Why Do Nerve Signals Get Crossed?
1993. Effects of Polyphasic vs Monophasic sleep in humans
1994. Why does air from the nasal cavity not go into the oesophagus?
1995. Why does a distraction cause a longer reaction time?
1996. What is the difference between the evolution of fins in whales and fish?
1997. For fish, does a bony skeleton have any advantages over a cartilage skeleton?
1998. Why do sneezes come in pairs or more?

1999. What exactly is the time constant of an ion channel gating?
2000. Why is blood removed from meat?
2001. Mutation That Loses Stop Codon
2002. What are these caterpillars eating a potato plant?
2003. Why Lungs can't work in water and gills can't work in air?
2004. How exactly does alcohol solution kill or neutralize viruses?
2005. Is the rate of photosynthesis higher than the rate of respiration?
2006. What is the fibre axis in the Watson and Crick paper?
2007. Why do sparrows jump instead of walk when they are not flying?
2008. Number of reading frames in nucleotide sequence
2009. Why are urban birds still scared of humans?
2010. Hardy Weinberg Equilibrium after 5 Generations
2011. What is the lowest pressure at which plants can survive?
2012. How does the eye know whether to focus further out or nearer in order to bring a blurry object into focus?
2013. How can you develop a bacterial infection when taking antibiotics for another area of the body with a bacterial infection?
2014. Where to put the gene after eukaryotic promoter for best expression levels?
2015. What is the actual chance of sibling incest child suffering from a genetic disorder?
2016. Examples of plant families that contain species that are safe for human consumption and species that are poisonous to humans?
2017. How can some animals see ultraviolet or infrared light?
2018. Standard Free energy of hydrolysis of phosphoenolpyruvate (PEP)
2019. What is the actual size of a nucleotide?
2020. Why are prions in animal diets not destroyed by the digestive system?

2021. Enzyme kinetics; what happens at the peak of the Gibbs energy graph?

2022. Is global life expectancy normally distributed?

2023. What is the average volume of the hippocampus?

2024. Do spiders learn how to build webs?

2025. On average how many genes / alleles do people share?

2026. What's the difference between blood value units 'mE/l', 'mU/l', 'mIU/l' and 'mEq/l'?

2027. Neurons with thousands of connections: where are the extra connections coming from?

2028. ATP required for cell processes

2029. Why is an HIV infection considered "incurable"?

2030. How do proteins 'know' where to go?

2031. Does the renal vein have a greater glucose concentration than the renal artery?

2032. Is the 6th rib attached to 7th rib, and 7th rib to 8th?

2033. Why DMSO is used as a control?

2034. What's the difference between male and female?

2035. Why do some white blood cells have lobed nuclei?

2036. In SDS-PAGE, why are the sample buffer and running buffer different in concentration?

2037. Are there animal species that sense infrared light with their eyes?

2038. How did the huge dinosaurs cope with gravity and loads on bones, etc.?

2039. What percentage of fish are herbivorous vs. carnivorous?

2040. Spider Identification: Is this an Arizona Recluse?

2041. Are insects attracted to near infrared light?

2042. Action potential and sodium channels

2043. Why do specifically bananas go brown quicker in the fridge?
2044. Can vitamin B17 cure cancer?
2045. Structure of adenoids
2046. How can CI repressor both activate and repress  $P_{RM}$  promoter found in  $\lambda$  phage?
2047. Why are people tired after surgery?
2048. What is (probably) the closest living relative of the trilobite?
2049. Does "Garbage Enzyme cleaner" contain cleaning enzymes?
2050. Molecular cause of cramps, spasms and strengthening in muscles? (incl. intro to muscle contraction)
2051. Hundreds of Red Spiders in Individual Webs
2052. What causes random long white body hairs?
2053. What does 5' and 3' mean in DNA and RNA strands?
2054. Why can white hairs get dark again?
2055. Why do I only breathe out of one nostril?
2056. Why is DNA replication performed in the 5' to 3' direction?
2057. Teens concerned about impregnation through clothes
2058. What could cause hairs to gray at the tips but not the roots?
2059. What's the maximum and minimum temperature a human can survive?
2060. Small worm living in some kind of cocoon, what are these animals?
2061. How long human can survive with just drinking water everyday
2062. How to translate a blood type used in Eastern Europe?
2063. NADH vs. NADPH: Where is each one used and why that instead of the other?
2064. What is the difference between orthologs, paralogs and homologs?

2065. What is a coupled reaction and why do cells couple reactions?
2066. Why do mammalian red blood cells lack a nucleus?
2067. Can a person really die quickly from biting their tongue?
2068. If I squash an insect and it produces red "juice", does it always mean it is a blood-sucking type?
2069. Death because of distilled water consumption
2070. What is the healing process of mouth wounds?
2071. Why do vaccines cause your arm to hurt?
2072. Name (and meaning of the absence) of the white semicircle at the base of the fingernail?
2073. What is it called when one human eye is seeing brighter color than the other?
2074. What happens to the holes in the skull where teeth were developing?
2075. Why Do Healing Wounds Feel Warmer To The Touch?
2076. Why is thymine rather than uracil used in DNA?
2077. Why are my faeces black in color after eating Oreos
2078. What is the female equivalent of the morning erection that some men experience?
2079. How long can an octopus survive out of the water?
2080. Why do I see different hues of colors between each of my eyes?
2081. Many black people I've met have bigger lips than white people, why?
2082. Can dish soap really be used to kill ticks and fleas?
2083. Dorsal vs Posterior and Ventral vs Anterior
2084. Why do we add salt when precipitating DNA?
2085. Deciding between chi square and t test
2086. Blood pressure difference while seated and laid down

2087. Do animal cells have vacuoles?
2088. Why do ladybugs have a different number of points on their backs
2089. What is the difference between local and global sequence alignments?
2090. Which organs do cats not eat on their prey?
2091. how to close a severed artery/vein?
2092. Is it possible for a child to grow taller than their tallest parent?
2093. Why does strenuous exercise cause vision of "lights"?
2094. What is the armpit hair for?
2095. What is the effect of extra-cellular potassium concentration on heart rate and conduction velocity?
2096. How do prokaryotes perform cellular respiration without membrane-bound organelles?
2097. What is the function of the RNA primer in DNA replication?
2098. Why draw blood from veins rather than arteries?
2099. Why don't we breathe nitrogen when it makes up most of the air?
2100. How long can human tissue last without blood?
2101. How do plant cell divide without centrioles?
2102. Do we get 1/4 of our genes from each grandparent?
2103. If the brain has no pain receptors, how come you can get a headache?
2104. Bending your little finger without bending ring finger
2105. Blood Pressure: Significance of difference between systolic and diastolic
2106. Which human cells have the longest and shortest lifespan?
2107. Do humans sneeze or cough in their sleep?
2108. What species of eagle pushes their young to teach them flying?
2109. Why are turtles classified as reptiles and not amphibians?

2110. Why does human facial and head hair continue to grow?
2111. How to store vegetables in the refrigerator: In plastic bags or not?
2112. Why does rabies cause hydrophobia?
2113. Why deoxyribose for DNA and ribose for RNA?
2114. Does DNA have the equivalent of IF-statements, WHILE loops, or function calls? How about GOTO?
2115. Why should plants transform glucose into sucrose before transporting it to other parts?
2116. I'm 20. Can I still grow taller?
2117. Ramifications and possibility of a diet consuming exclusively of human semen
2118. At what stage of meiosis does "first meiotic arrest of oogenesis" occur?
2119. Why do men have a higher hematocrit (red blood cell count) than women?
2120. What type of cell do you start with in Meiosis?
2121. How does laughing gas (N<sub>2</sub>O) work?
2122. Absorption ratios 260/280 and 260/230 for RNA
2123. Why are bacteria and archaea in different domains?
2124. Why are 3 nucleotides used as codons for amino-acid mapping in DNA?
2125. Do male mammals other than humans have nipples?
2126. Differences Between Protein Motifs and Protein Domains?
2127. What is the minimum air pressure the human body can tolerate if oxygen supply is not an issue?
2128. What's the smallest size a human eye can see?
2129. Why can cats interpret things on a monitor/tv, but dogs cannot?
2130. What is this white stuff inside apples?
2131. Why are (some) cats attracted by bleach?

2132. How hot can a beverage get without burning the tongue?
2133. Does Human Female Meiosis II occur after fertilization with sperm?
2134. How can *Valonia ventricosa* cells get so big?
2135. Why can't neurons undergo cell division?
2136. If I put a cup over a spider, and leave it there for a day, will the spider survive?
2137. What is positive and negative supercoiling?
2138. DNA as an acid?
2139. Applying saliva to mosquito bites
2140. Why does pH have an effect on enzymes?
2141. Inoculation vs. vaccination
2142. At what age do babies begin to synthesize their own antibodies?
2143. Is pork poisonous?
2144. Do cows produce milk excessively?
2145. Why is ATP the preferred choice for energy carriers?
2146. Why don't mammals have more than 4 limbs?
2147. How many human cells are there in our body, on average?
2148. Evolutionarily speaking, why do humans have 46 chromosomes
2149. Why do we assume that the first humans were dark-skinned?
2150. How many people are required to maintain genetic diversity?
2151. What magnification do I need to see blood cells?
2152. What is the difference between an antibiotic and an antibacterial?
2153. What is the optimum length of abstinence for maximum ejaculation volume in humans?
2154. Chromosome and chromatid numbers during cell cycle phases



2155. What factors are known to affect evolution?
2156. Why is SOC medium recommended for transformations?
2157. Why can't the brain and red blood cells use fuels other than glucose?
2158. Does freezing microorganisms such as probiotics kill them?
2159. Hoechst or DAPI for nuclear staining?
2160. Why Does Salt Water Help Sore Throats?
2161. Which shades/hues of color are easiest to distinguish for humans?
2162. Why are mosquitoes repelled by smoke?
2163. Why do fingers swell during cold winters?
2164. Does red light preserve your night vision?
2165. Why do eukaryotic organisms have introns in their DNA?
2166. What is the difference between "dikaryotic" and "heterokaryotic" states in the sexual lifecycles of fungi?
2167. Why do Humans not produce Vitamin C like other mammals?
2168. Why is defibrillation in asystole ("flat line") useless?
2169. Experiment to show that carbon dioxide is needed for photosynthesis
2170. Fish "coming back to life" after being frozen
2171. Why is cold water more refreshing than warm water?
2172. What is the meaning behind  $K_{cat} / K_m$ ?
2173. Do humans have enough biological differences to be grouped into races or subspecies?
2174. How do we sweat immediately after drinking water on a hot day?
2175. why can't we digest cellulose
2176. Glomerular Filtration Rate

2177. What nutrients can humans absorb in the mouth?
2178. What is the difference between a graded potential and an action potential?
2179. How can we differentiate between respiration and breathing?
2180. What's the difference between voltage gated and ligand gated neurons?
2181. How does cerebrospinal fluid circulate in the central nervous system?
2182. Why do cockroaches burst from soapy water?
2183. What are the functions and differences between axons and dendrites?
2184. Does sour food cause sweating?
2185. Why do we suffer abdominal pain after we get very angry or stress?
2186. What makes humans omnivores, and not herbivores?
2187. Why do cell membranes let small non-polar molecules through but won't let small polar molecules through?
2188. Why can't we kill ourselves by holding our breath?
2189. Is the ringing sound in the ears caused by dying ear cells?
2190. Mitosis versus Meiosis I: What's the difference?
2191. Do plants with non-green leaves have chlorophyll and photosynthesis?
2192. What is the cause of muscle cramps?
2193. Is it safe to look at infrared LEDs?
2194. Does our DNA change during our lives?
2195. Calculating Possible Combinations of Bases in a DNA Strand of a Given Length
2196. Examples of animals with 12-28 legs?
2197. Why do these 2 dots frequently occur in dogs' eyebrows? Does it serve/served any advantage?
2198. Exsanguination Time from Damage to Major Arteries

2199. A strand of my hair has a grey section in the middle, how is this possible? And why does it happen?

2200. Why was the Davson-Danielli model rejected?

2201. Why do 60S & 40S ribosomal subunits make an 80S ribosome (not 100S)?

2202. How long can a naked human survive on Mars?

2203. Why do the hormones FSH and LH decrease when the follicle is maturing and does size of follicle change during menstruation phase

2204. why male penis not considered as cartilage?

2205. If red blood cells have no mitochondria how are they able to metabolize glucose?

2206. Why is DNA double stranded and RNA single stranded?

2207. Why can blood group O be given to all blood groups?

2208. Why can I raise my left eyebrow independently from the other but not the right?

2209. What organelles are in an onion cell?

2210. Why is the Krebs cycle considered a part of aerobic metabolism if molecular oxygen is not involved in any of the reactions in the cycle

2211. Mitosis in human body

2212. Cranial Nerve Decussation

2213. Why don't we develop immunity against common cold?

2214. Does CPH4 exists?

2215. What is the relationship between independent assortment and cross over?

2216. How to write 100% phenotype ratio?

2217. What would cause a single white eyelash?

2218. Will the heart keep beating if it's separated from the body?

2219. What is the difference between the Ureter and Urethra? also between the Renal papilla and Renal pelvis?

2220. Will I grow taller? How can i tell?
2221. Why can ATP not be stored in excess?
2222. What insect is this? (Black body two orange lines in its back and six legs)
2223. Why do the two hemispheres of the brain control the opposite sides of the body?
2224. What factors affect the rate of transpiration in plant leaves?
2225. How are the paranasal sinuses linked with the capillaries in the ear canals?
2226. Pedigree Probability of Autosomal Recessive Trait
2227. Why does the affinity of haemoglobin for oxygen decrease at high altitudes?
2228. Why does the oxygen produced in the photosynthesis come from water and not carbon dioxide?
2229. What is the effect of the wavelength on the spectrophotometric measurements of protein?
2230. Why is hydrofluoric acid so dangerous if it is a weak acid?
2231. Cats, Dogs and Bears - how are they related?
2232. Is it possible for two brown-eyed parents to have blue-eyed child?
2233. Can swallowed fingernails, hair, or skin get caught in your appendix?
2234. Is it possible to have cancer and normal blood count at the same time?
2235. How do I identify the different stages of meiosis under microscope?
2236. I have a black tiny bug crawling all over the house
2237. How does extracellular potassium ion concentration and calcium ion concentration affect the excitability of a cell?
2238. Can the mating of a couple with Rhesus positive and negative blood types result in miscarriage?
2239. How would the result of Hershey and Chase experiment been different if protein was the genetic material?
2240. Why do cockroaches flip over when they die?

2241. How fast do cancer cells divide (compared to normal cells)?
2242. Is it possible to kill parasitic worms by intoxicating oneself?
2243. Difference between Appendix and the Cecum?
2244. Why there is a very high drop in pressure from arteries to arterioles?
2245. Why can't the human eye focus blue light?
2246. Why do I smell flowers after sneezing?
2247. Linear and Circular DNA
2248. Why do the fastest runners tend to be black?
2249. How does sodium in one's diet affect blood pressure?
2250. What happens to our body when we undergo a sudden temperature change from 40! to 20! ?
2251. If the top epidermal layer is burned away, what is it replaced with?
2252. What is the function of the polar bodies produced during oogenesis?
2253. What is the difference between a phosphotransferase, a phosphatase, a phosphorylase and a kinase?
2254. Why do snails come out after the rain?
2255. How can heart disease cause excessive sweating?
2256. Can humans perceive sounds above 20 kHz?
2257. How do disulphide bonds in hair cause curling?
2258. What is the standard deviation of adult human heights for males and females?
2259. Is there a difference between NADH and NADH<sub>2</sub>?
2260. No. of meiotic divisions to produce specific no. of seeds
2261. What is the difference between osmotic potential and osmotic pressure?
2262. Importance of Double Helix DNA Structure

2263. Are there human-ingestible liquids that do not contain water?
2264. Are humans the only animal that requires "clean water"?
2265. What is the difference of function between palisade and spongy layers of leaf?
2266. Why is 70% ethanol preferred for aseptic techniques?
2267. What is the purpose of using two layers of gel in SDS- PAGE?
2268. Do women tend to have longer legs and shorter torsos than men?
2269. Is this a grass cell?
2270. How to increase pheomelanin production?
2271. Melting point of a fatty acid?
2272. Determining net charge of amino acid at given pH
2273. How do the brain and nerves create electrical pulses?
2274. Will a bone marrow transplant change one's blood type?
2275. What is the importance of hydrogen bonds in water? and other questions:
2276. How many mice are on the Earth?
2277. Can any other animal choke on food?
2278. Is blood regarded as an organ?
2279. Calcium levels and nerve hyperexcitation
2280. Mechanism of Decorticate & Decerebrate Posturing? Also why is only Decorticate Rigidity a misnomer?
2281. are sperms considered living
2282. What E-value BLAST cut-off is best?
2283. How could humans have interbred with Neanderthals if we're a different species?
2284. Do apes and humans share 99% of DNA or 99% of genes? What is the difference?
2285. Why do people have antibodies against other blood types?

2286. Is the human body composition real?
2287. Difference between CDS and cDNA
2288. What organs are absolutely needed by the human body?
2289. Rust on kettle dangerous to consume?
2290. Why does milk contained in cartons of milk expand?
2291. What happens if an IV drip with a saline solution slips out of the vein, but keeps dripping into the body?
2292. How and why did mammals go back to the oceans?
2293. Can nosebleeds cause death?
2294. Agarose vs agar? Why do DNA gels use agarose only and how do you obtain agarose from agar?
2295. What are the risks of elevating the legs too regularly and when tired?
2296. What senses are active while sleeping?
2297. What are the exceptions to Mendel's laws?
2298. Why is fructose not glucose the main energy source of sperm?
2299. How do wild animals get rabies?
2300. What is the biological function of nose, underarm, and pubic hair?
2301. After vasectomy, where does the sperm go?
2302. What is the field of view for the human eyes?
2303. What is inside the male's body in the space where females have the ovaries and the uterus?
2304. Why is saltatory conduction in myelinated axons faster than continuous conduction in unmyelinated axons?
2305. Are mosquitoes repelled by high frequency sound?
2306. Do human anal glands have any function?

2307. Why do dogs try to cover their poop?
2308. Catabolic and Anabolic Reactions
2309. Do white Australians have a distinct look?
2310. How does heat shock transformation work?
2311. Complete list of touch sensitive plants
2312. What is the difference between HPLC and FPLC and why is FPLC preferable for protein purification?
2313. In Japan, the official average body temperature is 36.0 °C. Why so different from that of Europe?
2314. Does a microwave oven disinfect food?
2315. Why is weight gain a symptom of Cushing's Syndrome?
2316. Why are so few foods blue?
2317. What does irregular heartbeat mean in simple language?
2318. What's a non-allelic gene?
2319. Rate of cell division in humans
2320. Does the octopus have an anus? What does it look like?
2321. Which enzyme catalyzes transcription and which translation?
2322. Why do the major and minor groove exist in DNA?
2323. Can the excessive consumption of mineral water lead to kidney stones or other health issues?
2324. Is there any advantage to one blood type over another?
2325. What is the distinction between chemokines, cytokines, interferons and interleukins?
2326. How much vanilla will kill a person?
2327. How many genes do we share with our mother?
2328. What is the contribution of the cockroach to the ecological environment?



2329. Starch vs Cellulose. What are the differences between Alpha and Beta glucose ring structure in them?

2330. Why do adults lose hearing at high frequencies?

2331. What's the difference between shotgun sequencing and clone based sequencing?

2332. Why doesn't water enter my body through my anus or genitals when swimming?

2333. Calculating Protein Concentration from Kilo Units (KU)

2334. Why do we suddenly forget things, like PIN or phone numbers, that we've known for years?

2335. Why does my room suddenly look 'reddish'? My eyes seem to adapt to color

2336. How are amino acids neutral at physiological pH?

2337. How do large herbivores get enough protein?

2338. Blood circulation - How to expand blood capillaries?

2339. Why are plant cells rectangular and animal cells spherical shaped?

2340. If a human takes antibiotics are all bacteria in the body killed?

2341. What causes adenosine build up in the brain when awake?

2342. What is the difference between regular blood, a woman's and a virgin's menstrual blood?

2343. Why cold water results in cough

2344. Are trees the only source of large amounts of oxygen?

2345. Why does a coconut have exactly three "holes"?

2346. Do you produce more sperm after 1 week of abstinence vs 1 year of abstinence

2347. Are humans the only species who drink milk as adults?

2348. Why is the heart not in the middle of the body?

2349. Does DNA replication in 5' to 3' (leading strand) need RNA primase?

2350. How reversible is decerebrate posturing caused by brain stem damage?

2351. What causes muscles to generate heat on contraction?
2352. Was the mitochondrion or chloroplast first?
2353. Can humans survive without consuming life?
2354. What is the normal duration of human sexual intercourse?
2355. What is the inlet/outlet speed of air going in/out of our mouth during inhalation/exhalation
2356. Why do orcas eat only the tongue of whales, liver of sharks, etc.?
2357. What is the average speed of human sneeze?
2358. Is the swimming pool water harmful to frogs who jump in? If so, how?
2359. How do trees use Adhesion and Cohesion to move water against gravity?
2360. Why aren't we allowed to refreeze previously thawed breastmilk in refrigerator?
2361. How many cell membranes are oxygen and carbon dioxide diffuse through in the lungs?
2362. Can you identify these tiny black insects please?
2363. Why does plucking nose hair cause tears in the eyes?
2364. What is the composition of human feces?
2365. Why does the face turn pale in dangerous situations?
2366. What is the difference between transverse section and longitudinal section?
2367. Calculation of the bacterial growth rate from a spectrophotometer growth curve
2368. What is the role of glycine in the running buffer for SDS-polyacrylamide gel electrophoresis
2369. Why do we urinate more when we are nervous?
2370. No bands show up in gel electrophoresis, not even marker
2371. Why does NAD<sup>+</sup> become reduced if it gains a hydrogen proton?
2372. What is a suicide plasmid?

2373. Speciation by polyploidy
2374. What percent of your blood can you lose before you need a transfusion
2375. Can one die from pain?
2376. What is the proper format for genus and species names in latin?
2377. Why do toenails grow much slower than fingernails?
2378. What effect has changing pH and salt concentration on protein complexes?
2379. What is the difference between tonic and phasic firing?
2380. What is the ratio of breathing rate to heart rate?
2381. How long does a signal from the brain take to reach the limbs?
2382. Do Penicillin based antibiotics affect birth control?
2383. What is the difference between intrinsic and extrinsic apoptosis?
2384. Can humans eat grass?
2385. What happens if a non-diabetic receives an injection of insulin?
2386. Are blood vessels organs?
2387. What is the difference between endomysium and sarcolemma
2388. When is Water Produced During Photosynthesis?
2389. How do lipid-soluble substances diffuse through the cell membrane?
2390. Difference between Category, Rank and Taxon
2391. Why does hair grow after trimming but remains at a constant length after a while?
2392. What happens to our umbilical cord internally as we age?
2393. Is it theoretically possible to treat filaggrin deficiency with a dietary supplement?
2394. Origin of term 'confluency' in cell culture
2395. What is special about the N3 buffer for Qiagen minipreps?

2396. Why does the ring finger not move independently?
2397. Why is the DNA helix anti-parallel?
2398. What do the signs  $+/+$   $+/-$  mean in this image?
2399. Why is coffee a laxative?
2400. How many protons are pumped out per pair of electrons from NADH in oxidative phosphorylation?
2401. Identification - What kind of animal leaves these tracks?
2402. What "emotions" can a snake feel?
2403. Arm at Heart Level when Measuring Blood Pressure
2404. Should I dilute DNA with water or elution buffer?
2405. How do archaea relate to eukaryotes and bacteria?
2406. Do biological facts determine when a human fetus is considered alive and human?
2407. What's the minimum distance of focus for the lens of a human eye to reach maximum flatness?
2408. How does a smoker's finger or mustache get yellowish by nicotine?
2409. Molecularly, why can you straighten or perm hair?
2410. Why do cell membranes have a lipid bilayer instead of a monolayer?
2411. What is the anatomical term for a two jointed leg?
2412. How do other primates treat their fingernails?
2413. What is the number of DNA strands per cell?
2414. Age of shells on beach
2415. How much nucleoside triphosphate is required to form one peptide bond during protein synthesis?
2416. How scientists can be confident that human embryo tail is really a tail?
2417. Why do people and animals stretch out their bodies and what is causing this

behaviour?

2418. Why does replication require primers while transcription does not?

2419. Why is it that cats can jump so high for their size, compared with humans?

2420. How does HCl not burn our stomach?

2421. What is the exact chemical composition of human body?

2422. Laying eggs vs giving birth: is there a connection with internal vs. external ears?

2423. Does posture matter while drinking water?

2424. Why do Asian people have black hair and Northern people have golden hair?

2425. Measuring Gross Primary Productivity (GPP) using Light and Dark Bottle methods:  
Sample Question

2426. Why would the stroma have a higher pH during photosynthesis?

2427. What physiological processes within a muscle cause the latent period in a muscle fiber?

2428. How is membrane capacitance related to the increased speed of saltatory conduction?

2429. What's the worst that can happen from eating too many spicy peppers? Can you die?

2430. Why and where do red blood cells die?

2431. Fate of erythrocytes after splenectomy

2432. Why does RNA adopt an A-form helix?

2433. How is ATP involved in muscle contraction?

2434. Why do we have no enzyme to digest cellulose?

2435. Why is a lack of oxygen fatal to cells?

2436. Can humans transdermally absorb minerals from ocean water, and if so how much?

2437. Identify fuzzy black quarter sized spider with orange on abdomen, in Minnesota

2438. How does isopropyl alcohol disinfect less in higher concentration?

2439. What is the minimal focal length of the human eye?
2440. Identifying a thin, black, worm-like creature with a hammer-shaped head
2441. Can all mammals swim?
2442. Why is prothrombin time test not used for heparin
2443. Are male and female brains physically different from birth?
2444. Difference between going against and going down a concentration gradient
2445. How to convert bwa mem output to BAM format without saving SAM file
2446. Why do our eyes close when we sleep?
2447. Do T-cells express MHC molecules?
2448. Why don't rats have a gallbladder, unlike other rodents?
2449. Where do birds and squirrels go to die?
2450. What is the function of E. coli bacteria in the human gut?
2451. Isotropy of sarcomere bands in skeletal muscle cells
2452. What is the evolutionary advantage of red-green color blindness?
2453. Does photosynthesis occur on cloudy days or does it require direct sunlight?
2454. Binomial nomenclature: Why am I seeing different genera with the same species name?
2455. Can breathing in helium (from balloons for example) cause damage to the throat in the long term?
2456. Why do we have the tibia and fibula (a 2nd bone) in the lower leg?
2457. Is consuming proteins different vs. consuming amino-acids and how?
2458. Calculating number of amino acids in mRNA
2459. Are these birch or aspen trees?
2460. What is the difference between taxonomical aids Flora, Manual and Catalogue?

2461. Why is my peripheral vision better for seeing in the dark?
2462. Are there animals / mammals which only have one eye?
2463. Ejaculation without orgasm: is this possible to do it at will without external stimulation?
2464. Do plants produce any heat?
2465. Why is a magnesium ion essential for ATP activity in enzymic reactions?
2466. Difference between Peptone, Peptide and Proteose
2467. Why can't ciliary muscles in the human eye relax like other muscles?
2468. Why do cells vary in shape and function when they have the same genome and the same organelles?
2469. Why are the Galápagos islands so special?
2470. What are homologous chromosomes?
2471. What is the difference between SOLiD, 454, and Illumina next-gen sequencing?
2472. Does the human hand have 27 degrees of freedom?
2473. DNA is charged negative. Where is all the positive charge in my body?
2474. Why is ATP produced in photosynthesis used to synthesize glucose?
2475. Why do human females have permanently prominent breasts?
2476. Does darker skin color make it easier to live under sun?
2477. Difference between intervertebral and vertebral foramina
2478. Explanation of the terms "downstream signaling" and "upstream signaling"
2479. Is diabetes mellitus a sex-linked disease?
2480. What is an apomorphy? What is a plesiomorphy? Can someone confirm these definitions?
2481. Which organs/tissues are defined as "peripheral organs/tissues"
2482. What is vascular cambium?

2483. What's a mouth ulcer/canker sore "made of", and why do they develop?
2484. Which of the cell types commonly found in mammals has the greatest number of mitochondria?
2485. How long does a mosquito take to land on a host, bite, and fly off?
2486. Does drinking alcohol having UTI may help to kill the bacteria?
2487. What is the difference between transformation and transfection?
2488. Are there human cells, apart from red blood cells and platelets, without a nucleus?
2489. Who are humans' closest relatives, after primates?
2490. Are brain cells replaced over time?
2491. Is there a difference between polarity and hydrophobicity?
2492. Why does it hurt when water touches cuts?
2493. How the conjunctivitis virus spread just by seeing a person's eye who is infected
2494. Why is Lamarck's evolutionary theory considered incorrect?
2495. How does a TOPflash/FOPflash assay work to detect beta-catenin protein expression?
2496. What happens when you mix type A with type B blood (and v.v)
2497. How do red blood cells survive without a nucleus?
2498. Why are viruses considered microbes?
2499. Does any organism use both photosynthesis and respiration?
2500. How does a Coronavirus "test kit" work?
2501. Do cold blooded animals generate any heat?
2502. Why is human vision restricted to 400-700 nm?
2503. Are there any non-mammalian species known that lactate?
2504. Why are transcripts translated from 5' to 3' direction?



2505. Can prawns be classified as fish, or is their position ambiguous?
2506. How much gas is exchanged in one human breath?
2507. Why do plants have green leaves and not red?
2508. Are Asian people genetically predisposed to be shorter than Europeans?
2509. Why is the brain dependent on glucose?
2510. What is the difference between these terms: clade, monophyletic group and taxon?
2511. Why does high pH result in the denaturation of DNA?
2512. When designing primers how important is the GC clamp?
2513. What happens to snakes that swallow rodents as a whole?
2514. How many organisms have ever lived on Earth?
2515. Is it possible to genetically modify a plant at home?
2516. Can white eggs be considered as non-vegetarian?
2517. Why is FAD, rather than NAD<sup>+</sup>, reduced in the succinate dehydrogenase reaction of the Tricarboxylic Acid Cycle?
2518. Why do plants fruit?
2519. Do male humans have a mons pubis?
2520. Constantly wiggling moth pupa - will it emerge soon?
2521. Why does an electrical shock freeze up muscles?
2522. Do beneficial viruses exist? If so, what examples are there?
2523. Does cooking or ripening reduce the concentration of solanine in nightshade?
2524. What is solitary flower?
2525. Can birds suddenly suspend in the air in one position?
2526. Time lapse between fresh blood's exposure to air and that same blood turning darker red-brown

2527. Thermodynamics of spontaneous protein folding: role of enthalpy changes

2528. Why do bad smells make us vomit?

2529. What is the purpose of gluconeogenesis?

2530. Are acid-fast bacteria Gram-positive or Gram-negative?

2531. Why have humans evolved much more quickly than other animals?

2532. Dreaming after passing out

2533. Why do some bad traits evolve, and good ones don't?

2534. How many humans have been in my lineage? Is it almost the same for every human currently living?

2535. Difference between facilitated diffusion and secondary active transport in cells

2536. How sterile is working next to a bunsen burner?

2537. Evolutionarily, why do male rats and horses lack nipples?

2538. Why can all animals swim in water without learning to swim but humans cannot?

2539. Can the third sex be categorized as Male or Female?

2540. What causes fingerprints to form and why is the pattern formed unique?

2541. Why is glucose our primary source of energy?

2542. Why does sunburn cause fever?

2543. How does Bernoulli's Principle apply to the cardiovascular system?

2544. Did animals evolve from plants?

2545. Which are mobile and immobile elements in plants?

2546. How late in a human pregnancy can a zygote split?

2547. Why do kefir grains stop growing in soy milk?

2548. Why are the sex chromosomes called X and Y?

2549. NaCl role in CTAB - DNA complex in DNA extraction

2550. How many agarose gel bands are typical for circularised DNA

2551. What do you see when your eyes are closed?

2552. Difference between Genus, Genus sp. and Genus spp

2553. Why are not all species hermaphrodites?

2554. Why does a fetus drink and urinate into the amniotic fluid?

2555. What are the advantages and disadvantages of being ambidextrous?

2556. At what temperature do human bones disintegrate?

2557. Why is Fast Fourier Transform applied to raw EEG data?

2558. Bright green caterpillar with long white stripes, few hairs, no extensions, possibly Noctuidae

2559. What is meant by `individuals do not evolve, populations do`?

2560. Why does scar tissue change color?

2561. What is the cell matrix?

2562. Lifeless Lake in Siberia

2563. How is transgender female different from normal female biologically?

2564. Why 20 amino acids instead of 64?

2565. Why is the opposite of plantar flexion called "dorsiflexion"?

2566. Why can't a corn cob have 13 rows of seeds?

2567. Serotonin - Does being aroused make you sleepy?

2568. Why are men stronger than women?

2569. What determines if an allele is dominant or recessive?

2570. Are there any animals that are both poisonous and venomous?

2571. What is the correct model for enzyme-substrate complementarity?

2572. Why do different bacteria have different shapes?

2573. Why do Type II Restriction Endonucleases cleave at palindromic sequences?
2574. Why doesn't recombination occur in male *Drosophila*?
2575. What is the maximum altitude where humans can survive?
2576. Can DNA be denatured at acidic pH?
2577. Why do bacteria die in a high sugar content environment?
2578. Why is it that heterozygous loci appear as two separate bands during gel electrophoresis while homozygous loci appear as one band?
2579. Branch length in phylogenetic trees
2580. How long does antibiotic-dosed LB maintain good selection?
2581. Is lemon water an alkalizing agent in the body?
2582. How long can a bee survive in a jar?
2583. Why do plants store energy as carbohydrates and not as fats?
2584. What does the (-) in the molecule name mean?
2585. How do SDS-PAGE gels differ in a Bis-Tris system vs. a Tris-Glycine system?
2586. How large is the variability in human bone thickness, and is "big boned" a real thing or not?
2587. What type of Insect Egg is this?
2588. Formula for number of divisions required to form x number of cells (Mitosis and Meiosis)
2589. The number of nipples (breasts) a species has?
2590. Origin, or source, of rhesus negative in human blood
2591. What does the 'V' stand for in ECG electrode names?
2592. Do proteins generally contain phosphorus and sulfur?
2593. Why does a high osmotic pressure pull water in, yet a high hydrostatic pressure pushes water out?

2594. Why do mice have a higher metabolic rate than humans?
2595. On which strand does the promoter sit?
2596. What is the functional difference between hemoglobin and ferritin?
2597. Does taking a shower have the same effect on muscles as warming up?
2598. Why do three nucleotides code for one amino acid? Why not 5 nucleotides?
2599. Does an annealing temp higher than primer's  $T_m$  contribute to primer dimer?
2600. Why is dimethyltryptamine (DMT) released during death?
2601. What am I looking at in Franklin's Photo 51 of DNA?
2602. Why is the number of PCR cycles limited?
2603. Why isn't vomit corrosive?
2604. If we add only 1 primer in PCR
2605. Equation for accurate prediction of PCR yield
2606. RNA polymerase and DNA helicase
2607. What is this white/translucent with brown back, larva/worm creature I found, in the UK, on my lettuce?
2608. Is cell wall and cytoplasm an organelle?
2609. What do the Clustal Alignment Symbols Mean?
2610. Why does temperature shock kill fish?
2611. What do ants do with human finger nails?
2612. How long do the periods of systole and diastole last?
2613. How many honeybees are there, and how has the number changed across time?
2614. Near point and far point of myopic eye
2615. Why do flies leave dirty spots on shiny/glossy surfaces?
2616. Why do yeast ferment Equal sweetener

2617. Why should evolution not be equated with progress?
2618. How many (taxonomic) families are there?
2619. Does one parent transmit more DNA to the offspring than the other one?
2620. If body temperature is 37°C (98.6°F), why are most people more comfortable at around 21°C (70°F)?
2621. Why do we have more sweat glands in our palms?
2622. Why doesn't crossing over happen in mitosis?
2623. Ratio of bleach to water required to disinfect COVID-19?
2624. What is the significance and method behind Ramachandran plots?
2625. Presence of MHC on red blood cells
2626. Do oysters feel pain?
2627. How to protect my mounted insect specimens from ... insects?
2628. How does one calculate how to dilute a solution to working strength?
2629. Why is glycine considered a nonpolar amino acid but a polar molecule?
2630. Do crocodiles age?
2631. Why upper surface of leaves is more green and shiny than the lower one?
2632. Pathophysiology of pink frothy sputum in pulmonary edema
2633. Do all proteins start with methionine?
2634. Value of  $r$  (intrinsic rate of natural increase)
2635. Why does ice reduce swelling?
2636. Nerves, Neurons, Axons and Dendrites by Example
2637. What makes DNA sticky-ends sticky?
2638. Why would taking antibiotics increase stamina and energy?
2639. How do I deal with sticky and viscous samples from cell lysates?

2640. What is the difference between Founder effect and Bottleneck effect?
2641. Why does A pair with T and G with C?
2642. What is the difference between a mechanistic and a statistical predictive model?
2643. What's the technical difference between fainting (and being unconscious) and falling asleep (and sleeping)?
2644. Where does the term "cos site" come from?
2645. Why does a blood test show ethanol when no alcohol was consumed?
2646. Why do I always close my eyes when someone takes a photo of me using a flash?
2647. What's the difference between protein and DNA behaviour during agarose gel electrophoresis?
2648. Does muscle get bigger by increase in size of individual cells or increase in number?
2649. What is the  $H^+$  gradient in mitochondria?
2650. Possible genotypes for blood types?
2651. What fruits will naturally ferment?
2652. What part of the cactus photosynthesizes?
2653. Why do human eyes glow red on a photo and dog's eyes green?
2654. What does "fit" mean in "survival of the fittest"?
2655. Is it painful for the hen to lay eggs?
2656. How much heat can a human sustain?
2657. Stop codons and exons?
2658. Why is PEG important for efficient yeast transformation?
2659. Why are potassium channels slower than sodium channels?
2660. Is it biologically possible for an adult's eye color to change?
2661. Why do I want to urinate when I touch water?

2662. Can a carnivorous animal consume plants with no adverse effects?
2663. What is the difference between a spore and a cyst?
2664. Why does the heart use lipids (and not glucose)?
2665. Why don't the apples seeds from grafted trees produce the same kind of apples?
2666. What is the concentration of ATP in an average cell?
2667. Upon drinking water for the first time in a long time, why do I sweat?
2668. Does capsaicin in food kill bacteria?
2669. Why are there no organisms with metal body parts, like weapons, bones, and armour? (Or are there?)
2670. What are the functions of disulphide bonds?
2671. What is the definition of a stringent/relaxed plasmid?
2672. Do Archaea have membrane-bound organelles?
2673. Why are only 6 water molecules formed in the aerobic degradation of glucose?
2674. How many cells are in prophase on this onion root tip slide?
2675. Why do pigeons kill their chicks when touched by a human?
2676. What is a lip? (upper lip and lower lip)
2677. Why does skin sometimes suddenly itch when you stretch it?
2678. What was the biological mechanism that allowed Tarrare to eat so much?
2679. What effect does vortexing have on a fluid sample that simple mechanical shaking does not?
2680. Does bright environment strain eyes more than dim?
2681. What is the normal blood water content
2682. Are mature erythrocytes prokaryotic?
2683. Explanation of the meaning of high-throughput



2684. What cells would have the CD3 marker on them (other than T-cells)
2685. How come large herbivores have such thin legs?
2686. Do bacteria die of old age?
2687. Why don't McDonald's fries decompose?
2688. What is the purpose of segments in citrus fruit?
2689. Why are hybrids infertile?
2690. Is there an evolutionary reason for the 5 electron transport complexes in plants and animals?
2691. Why does autosomal trisomy have more adverse effects than sex chromosome monosomy or trisomy?
2692. Can you consider a human as alive, or is it the cells on the body that are alive?
2693. What is the role of TATA box in transcriptional regulation?
2694. What is the equivalent of shutter-speed in Human eye?
2695. Why is our voice deeper in the morning?
2696. Why does it hurt when you take sweets, if you have cavities in your teeth?
2697. Do flies actually take off backwards?
2698. Why do we sweat after drinking water and running?
2699. Bad Eyesight and Evolution
2700. RNA or ribosome, which one moves during translation?
2701. How to prepare sample for SDS PAGE?
2702. Possible? When a pregnant woman suffers an organ damage, fetus would send stem cells to the damage organ to help repair it?
2703. What is the difference between absolute and relative fitness?
2704. Why is polyploidy much more common in plants than in animals?
2705. What happens to blood after a person dies?

2706. Does prolonged exposure to low pitch but low volume noise affect hearing or stress?

2707. Species Identification: Waterborne larvae, Texas USA

2708. What are the differences between how glucagon and cortisol work to increase blood sugar?

2709. Confusion on polarity and hydrophobicity of Proline, Tyrosine and Cysteine?

2710. Potato with purple veins!

2711. Are all dinosaur bones radioactive?

2712. Is epimysium same as fascia?

2713. How to calculate relatedness in haplodiploid organisms (mainly full sisters and full brothers)?

2714. Which blood vessel carries the most impure blood?

2715. Do we need to drink less water in humid weather than in dry weather?

2716. How would constantly growing nails have aided early human?

2717. What makes teeth feel sticky after drinking Coca-Cola?

2718. Why do ants live so long?

2719. Why are certain baby (water)fowl yellow?

2720. What is a  $pA(2)$  value?

2721. Why is mRNA needed in the Protein translation?

2722. Why do humans seem so much more prone to disease than animals?

2723. When is the second polar body extruded from the egg nucleus?

2724. What concentration of table salt is needed to kill bacteria in sweaty gym clothes?

2725. What's the evidence against SARS-CoV-2 being engineered by humans?

2726. If I graft two trees together while young, will they grow as one plant?

2727. meaning of the "reads" keyword in terms of RNA-seq or next generation sequencing

2728. How do trees lift water higher than 10 meters?

2729. What are the bare minimum nutrients required to survive as a human?

2730. Under what conditions does the body burn fats, proteins and carbohydrates?

2731. Why are red blood cells considered to be cells?

2732. Does the string "...CATCAT..." appear in the DNA of *Felis catus*?

2733. How do plants get carbon?

2734. Genetic linkage greater than 50 centimorgans

2735. How to obtain bacteria samples at home?

2736. Why is the Trendelenburg position used when placing and removing Central Venous Line catheters in the sub-clavian vein?

2737. Does ethanol destroy RNase?

2738. Why are there exactly four nucleobases in DNA?

2739. What is the explanation for the smaller number of tRNA than codons?

2740. Difference between the spinal cord and vertebrae column

2741. Why do humans have only two nipples?

2742. Does sweat contain DNA information?

2743. How can I resuspend a cell pellet without harming the bacteria?

2744. Does NADH inhibit gluconeogenesis?

2745. What portion of the electromagnetic spectrum do cats see?

2746. Does *Sansevieria trifasciata* really absorb Carbon Dioxide at night?

2747. What causes swelling after impact?

2748. Do octopuses have better eyes than humans?

2749. What is the difference between Reservoir and paratenic hosts?

2750. Why are there no known animals with an odd number of legs?

2751. What species is this black, blue and white bird?

2752. How does the brain's energy consumption depend on mental activity?

2753. Why did humans become bipedal?

2754. Why does the sweat of children not smell like adults?

2755. At what point during an action potential are the sodium potassium pumps working?

2756. Multiple start and stop codons in mRNA and pre-mRNA

2757. What is the difference between sequence, reads, and contigs of genetic material?

2758. How to interpret Percent identity matrix created by Clustal Omega?

2759. Does the DNA sequence of a butterfly match that of the caterpillar it used to be?

2760. How precisely can we sense temperature differences?

2761. Do trap door spiders have 10 legs?

2762. Why do parasites sometimes kill their hosts?

2763. How does a plant grow before photosynthesis is possible?

2764. Why do reptiles still move even after death?

2765. Why can't you taste food when you have a cold?

2766. Can defibrillation be done with a car battery?

2767. What is our skin made up of?

2768. What is the difference between the mitotic spindle and microtubules?

2769. Why isn't acetyl-coA an entry point for gluconeogenesis?

2770. Difference between protein channels, protein carriers and protein pumps?

2771. Does donating blood lower testosterone levels?

2772. How to increase the shelf life of yogurt without refrigeration?

2773. Solving Hardy Weinberg problems

2774. Why is DNA antiparallel? Can it be parallel?

2775. Cannot see images beyond a certain magnification with a microscope

2776. Why does ear wax taste sour?

2777. Is there an acceptable term for 'male fox' other than 'dog'?

2778. What decides whether a lysogenic cycle or a lytic cycle will take place?

2779. Why should I degas my gel solution for polyacrylamide gels?

2780. How many genders are there?

2781. Why is AUG the initiation codon?

2782. Why do cyanide and arsenic smell like almonds and garlic, respectively?

2783. Do we consume DNA and proteins of other organisms?

2784. How many nucleotide pairs code one gene?

2785. How does cholesterol affect the fluidity of a plasma membrane?

2786. What are some of the general characteristics of the DH5 alpha strain?

2787. My hand was stabbed with a pencil tip 10 years ago - why is the graphite still visible?

2788. What animal has the longest juvenile period?

2789. What are the consequences of voluntary total celibacy?

2790. Why can't people talk while inhaling?

2791. How do plants get their O<sub>2</sub> for respiration during the night?

2792. Why do Bee stings cause swelling?

2793. The alignment of fingers in our hand

2794. Why don't we have hair on palms?

2795. What is difference between breed, variant, subspecies and species?

2796. Why do cells not store glucose?

2797. How does the cornea breathe during sleep?

2798. Are all action potentials the same shape and amplitude when graphed with respect to time?

2799. What is the life cycle of a wart?

2800. Why do we produce so many sperm?

2801. How tolerant are ants to cold?

2802. Why does uncompetitive inhibition decrease the Michaelis constant?

2803. Supercomputer Vs Human Brain

2804. What is an 'ex vivo' experiment?

2805. Bug Identification: Is this small tubular, black bug a bed bug?

2806. What are fish seeds?

2807. Are sensory receptors neurons?

2808. Difference between inbreeding and interbreeding

2809. What are the roles of guanidine-HCl and ethanol in binding of DNA to silica?

2810. How does a fetus retain a blood group different from its mother?

2811. Why does cucumber skin kill ants?

2812. Why is the blood thick in Wet Cupping / Hijama

2813. Does mixing alcoholic drinks really make you more drunk?

2814. What's the difference between a plant and an animal?

2815. Why does black and yellow indicate danger?

2816. What is the advantage of circular DNA in bacteria?

2817. How is the fluoride in toothpaste absorbed?

2818. Why are there N's after Sanger sequencing?

2819. What is the mIU unit as used in hCG hormone levels?

2820. Why does closing one eye in bright light allow me to open the other?

2821. Why Doesn't Hypercalcemia Cause Muscle Spasms?

2822. Why aren't organelles considered alive?

2823. Why do we weigh less in the morning?

2824. How do we know the presence of light when our eyes are closed?

2825. Health effect of worm in Guava

2826. Is there an RGB equivalent for smells?

2827. What happens when seeds are refrigerated before planting?

2828. If plants benefit from carbon dioxide, why is car traffic something bad?

2829. How to convert skin temperature to core temperature?

2830. Are all cells organisms?

2831. What is/are the molecular differences between HDL and LDL cholesterol?

2832. Why do birds move their heads abruptly?

2833. Does endo- and (or) exocytosis require energy? Do they belong to active / passive transport?

2834. What is the human energy consumption by organ?

2835. Is it possible for a person to become "reinfected" with the same strain of a virus?

2836. Are gametes diploid or haploid?

2837. Does carbon dioxide from carbonated drinks enter the bloodstream?

2838. Can the human eye distinguish colors in the periphery?

2839. How do warm-blooded animals keep their temperatures constant?

2840. Where do transamination and deamination take place?

2841. What does the human body use oxygen for besides the final electron acceptor in the electron transport chain?

2842. Is there any virus that contains both DNA and RNA in its genome?

2843. What are the differences between white and brown adipose tissue?

2844. Why do neurons die so fast without oxygen and nutrients?

2845. Black/dark-red smooth West African worm, full of red blood

2846. What is this black and white worm in a white case?

2847. Can a person survive on blood in place of water?

2848. Why do some people have cold hands and some have warm?

2849. What is the difference between "cistron" and "gene"?

2850. Why does having cold hands hurt?

2851. What makes a gene dominant or recessive

2852. What's the (or some of the) minimum(s) amount of atmospheric carbon dioxide needed by plants?

2853. GPCRs: Gi and Gs

2854. X Linked Hardy Weinberg Equilibrium Problem

2855. How can histidine be classified both as positively charged and hydrophobic?

2856. Why shouldn't dogs eat chocolate?

2857. What effect does the Barr body have, in relation to female Turner syndrome?

2858. What is a group of tortoises called?

2859. why does blood when oxidized over time become bluish green?

2860. What is the evolutionary reason behind the fragility of teeth?

2861. Why don't phospholipid bilayers dissolve?

2862. Why do different humans look different?

2863. Do camels have nucleated RBCs or enucleated RBCs?

2864. Why is beta-mercaptoethanol often added to cell culture media



2865. Are we more attracted to people of the same ethnicity?
2866. Why does blood come from mouth when people are shot in the chest area?
2867. What kind of a microscope do I need to see cell organelles?
2868. Difference between mutation and DNA damage
2869. What is the difference between hilum of the lung and root of the lung?
2870. Are humans more adapted to "light mode" or "dark mode"?
2871. When has an organism evolved enough to be called a new species?
2872. Why does the intensity of an action potential once generated at the trigger zone remain undisturbed throughout the axon?
2873. Is a butterfly one or two animals?
2874. How many cyclic and non-cyclic photo-phosphorylation is required to produce one molecule of glucose?
2875. Why is the Red Fox colored bright orange?
2876. Is there anything that is completely non-toxic to humans at any dose?
2877. Why are there both stop and start codons?
2878. Which are the best apps and websites for insect identification?
2879. Do human cells contain only one copy of the genome?
2880. What is the distinction between the terms detritivores, decomposers, saprotrophs and saprozoic organisms?
2881. How long will norovirus live?
2882. Effect of closed eyes on balance?
2883. What is the difference between a species tree, a gene tree and a phylogenetic tree?
2884. Why do Guinea Pigs chirp / sing?
2885. For the human head, which direction is anterior, and which direction is ventral?
2886. Why is polyploidy lethal for some organisms while for others is not?

2887. Why is a mosquito feeding on human blood not a parasite?
2888. What's the difference between  $K_i$  and  $IC_{50}$ ?
2889. Why do most mammals have long snouts?
2890. Is there interphase between meiosis I and meiosis II?
2891. If human eyes watch an area, what's the shape of its capturing shape? Rectangular? Half spherical?
2892. What are the advantages and disadvantages of using beta-galactosidase compared to luciferase as a reporter gene?
2893. Why does Edema occur in Kwashiorkor?
2894. Why does anxiety cause diarrhea or constipation?
2895. How do I measure bacterial growth in agar dishes (either by cell mass or by cell count)?
2896. Problem on Probability of a restriction enzyme cutting a random DNA sequence
2897. Why can action potentials not be initiated at dendrites?
2898. What's the difference between stabilizing selection and balancing selection?
2899. How do ants know where they are going without eyes?
2900. Why have whales and dolphins not evolved to have gills?
2901. How should species density be calculated for a clumped distribution?
2902. Are all pathogens parasites?
2903. What is the difference between muscle fascicle and muscle bundle?
2904. Why do pink rain lilies flower only after rains, and not from being watered?
2905. Difference between genetic engineering and synthetic biology
2906. What is the difference between polar and charged amino acids?
2907. How should I ship plasmids?
2908. Why can't we feel pain when the eye lid touches the eye ball?

2909. difference between neurotransmitters and hormones

2910. Blue light in a fridge. Is it really beneficial or just marketing?

2911. Where do migratory birds go when it rains?

2912. Can I drink warm/hot tap water?

2913. How does prolonged exposure to high frequency noise affect hearing?

2914. What is the difference between SNP and STR?

2915. Why are bald heads so "shiny"?

2916. Why doesn't the human skin grow back exactly how it was before being damaged?

2917. Do human somatic cells have 46 chromosomes all the time?

2918. How many abdominal sclerites would be there in a cockroach?

2919. Do trees really get a large share of their mass from the carbon in the air?

2920. Stimulating an axon causes impulses to travel both ways?

2921. What is the difference between the cellular affix -cyte and -blast?

2922. Is it correct that the body only responds to the most painful stimulus?

2923. Why is oxygen needed for the electron transfer phosphorylation?

2924. How did the first life form on Earth reproduce without DNA?

2925. Why do endotherms need more food than ectotherms?

2926. Which organisms have introns?

2927. Are there any motile plants?

2928. Is there any relationship between heartbeat rate and life span of an animal?

2929. Biological siblings possible with <9 months age difference?

2930. Why do grapes not pea shrink when placed in strong sugar solution?

2931. Histidine aromaticity

2932. What is the maximum number of babies a human woman can have?
2933. Is it known how the first viruses formed?
2934. Why extract DNA from certain white blood cells instead of whole blood?
2935. How does inorganic phosphate inhibit alkaline phosphatase?
2936. How does a pine cone open?
2937. How does the body switch between aerobic and anaerobic respiration?
2938. Can plants produce oxygen at night (without light)?
2939. What are these white spots on a dracena
2940. Manual Primer Design for a gene on the reverse strand
2941. What do you call that part of the muscle that connects directly to the bone?
2942. Reasons why people say that AIDS/HIV doesn't exist
2943. Does 1kg of lettuce have more energy than 1kg of beef?
2944. Does sample buffer require EDTA for protein separation on SDS PAGE?
2945. Multi-nucleated cells: advantages and examples?
2946. What is the function of nodes of Ranvier in axons?
2947. What is the difference between sinew and tendon?
2948. For emphysema, which of the respiratory volumes is affected?
2949. What are differences between formation of embryonic disc in chick and mammal embryo?
2950. Relationship between turgor pressure and osmotic pressure?
2951. Can HIV be transmitted via mosquitos?
2952. Strongest muscle of Human Body
2953. Why does sex last so long?
2954. Is the complement system a part of innate or adaptive immunity

2955. How many mosquitoes would it take to "drain" enough blood to put a person into shock?
2956. Will humans and animals be harmed by frequencies outside their hearing range?
2957. Does the use of "var", "x", and/or "ssp" in a scientific name provide specific information?
2958. What does phasing mean?
2959. How do marine mammals control buoyancy?
2960. What is the role of tracrRNA in CRISPR-cas9?
2961. Are there cats with black skin?
2962. What does the term 'bioavailability' mean?
2963. What are these shrimp-like insects in my cat's water bowl that appear overnight
2964. Are spiders part of the study of entomology?
2965. Why can cones detect color but rods can't?
2966. Is it true that viruses cannot be seen with phase-contrast microscopy?
2967. Why sister chromatids and daughter cells but not brother chromatids and son cells?
2968. What is the purpose of measuring both VS (volatile solid) and TS (total solid)?
2969. What is the difference between "Bisphosphate" and "Diphosphate" in biochemistry?
2970. What is genomic imprinting?
2971. Why do red blood cells maintain Iron in the Haem group in the +2 (ferrous) oxidation state?
2972. Why pick just a single bacterial transformed colony
2973. Can cell exist without Ribosomes?
2974. Why babies cry after they are born?
2975. Why scientific names of animals & plants are made difficult to spell & remember?
2976. Why are irises unique?

2977. Is evolution a fact?

2978. Why do you need your room dark for melatonin release?

2979. How did aquatic dinosaurs go extinct?

2980. How difficult is to renature a protein?

2981. Free software for measuring parts of an image?

2982. What are the "minimum requirements" for a single cell?

2983. Why do I see the world in blue when I open my eyes?

2984. Confusion about resting membrane potential and the Na/K pump

2985. How is Hypertonic Urine Produced in a Mammalian Kidney?

2986. Green Film Build up in Glass Water Bottle

2987. Are Whales More Intelligent Than Humans?

2988. How do inward rectifier potassium channels work in the heart?

2989. How many ATP molecules are formed?

2990. Identify little green long legged bug

2991. Small mottled beetle identification

2992. Consequence of touching Formaldehyde

2993. Are identical twins clones?

2994. Apart from nerve cells and muscle cells, what types of cells do not undergo mitosis in adult man?

2995. What is this spider? Two black stripes

2996. What is the appropriate method to send a strain?

2997. What would cause crows to be attracted to a human body?

2998. How is Glyceraldehyde 3-phosphate converted into glucose?

2999. Diffusion of Hypotonic solution into solution with glucose and starch

3000. Why Crocodiles don't eat Hippos?

3001. Does animal blood, esp. human, really have similar salinity as ocean water, and does that prove anything about evolution?

3002. Are there animals which can see movements better than shapes or colors?

3003. Making sense of enzyme  $K_m$  comparisons

3004. Do ants see, have brain?

3005. Do Red blood cells(mammals) really have no organelles?

3006. Why do some vegetables taste bitter?

3007. Why do neurons have only one axon?

3008. Questions about insects eating flour and living in the cracks of a wooden cutting boards

3009. Photosynthesis: What Powers the Splitting of Water?

3010. How is the size of a gene defined?

3011. Is Bramble (blackberry bush) carnivorous?

3012. What's the effect of oxygen deficit on plants?

3013. Is episome a plasmid or a virus?

3014. What are housekeeping and constitutive genes?

3015. Why do snakes not have eyelids?

3016. How does a brain distinguish stimuli?

3017. How do scientists kill the bacteria they themselves made resistant?

3018. Just how dangerous is ethidium bromide?

3019. Why do Hot/Cold drinks taste sweeter once returning to room temperature?

3020. Hamming distance between two DNA strings

3021. Is Chargaff's rule really applicable?

3022. How does boiling water revive cut flowers?
3023. How much weight/volume do microbes occupy within the human body?
3024. Are the social-distancing measures implemented against SARS-CoV-2 also suppressing the spread of other viruses?
3025. Is the promoter region of a gene transcribed?
3026. Life without DNA?
3027. Unsure about definition of "n" and "C" values in mitosis
3028. Why is it beneficial for trees to grow that tall?
3029. Average dimensions of the human back (anthropometry)
3030. Why is only one primer used for DNA sequencing instead of two?
3031. Does human brain produce nicotine?
3032. Larger Ant in trail
3033. How many molecules NADH are produced in the Krebs Cycle?
3034. How do Proteins migrate in MES vs. MOPS
3035. Why is the human ear most sensitive to 4000 Hz tones?
3036. What is the strand specificity of a reference genome?
3037. Why we do not get hurt from HCl secreted in the stomach?
3038. Can you answer Ray Comfort's question on Biological Evolution?
3039. What causes morning wood?
3040. Small yellow bug with black head and three black stripes on the back
3041. Separating DNA Fragments by Gel Electrophoresis. Are all the strands for one size the same?
3042. How long do your eyes need to adapt to darkness and reach full contrast?
3043. Why should benzalkonium chloride (an antifungal agent) be used during your laundry machine's "rinse" cycle, not its "wash" cycle?



3044. What causes the colors we see in eyes?
3045. What is "enzymatic activity"?
3046. How does this headless fish still move?
3047. Why does evolution not make our life longer?
3048. Preferred Aspect Ratio for Human Eyes
3049. Wim Hof Method claims Alkaline Blood is Good. Contradictions? Counterproof?
3050. Do male animals visually perceive females as more/less attractive?
3051. Given ATP synthase's structure, how can 3.33 protons ultimately synthesize one and only one ATP?
3052. How long will a vegetable live for after being harvested?
3053. Why haven't prey evolved the ability to always outrun their predators?
3054. How different are these terms: Phylloclade, Phyllode, Cladophyll and Cladode?
3055. Mechanism of Myosin Head Bending in Cross Bridge Cycle Power Stroke Phase
3056. What is exactly a phosphoester bond?
3057. How does formaldehyde cause protein-DNA crosslinking?
3058. Gel Electrophoresis - loading dye and more
3059. Why is carbon dioxide produced in alcohol fermentation but not in lactic acid fermentation?
3060. How does the human body metabolize gasoline?
3061. What is the speed of blood?
3062. Photosystem 1 and 2; P680/P700; Chlorophyll a/b
3063. Why would a plant evolve to produce an addictive chemical?
3064. How fast can a panda run?
3065. Difference between viral and human genetic material

3066. Why do animals use glycogen for their polysaccharide storage whereas plants use starch?

3067. What causes the human body to “jump” when we get a shock?

3068. Which hormones can cross the blood brain barrier?

3069. Reason for conversion of glucose to fructose in glycolysis

3070. What is the function of epidermal ridges on human fingers (that produce fingerprints)?

3071. what is the difference between early blight of potato and late blight of potato?

3072. Use of amino-acid sequences versus use of nucleotide sequences in phylogenetic analysis

3073. Why is the Hydra Biologically Immortal?

3074. Why does the stomach ache if you take a brisk walk after lunch or dinner

3075. Why do adult insects have 6 legs?

3076. Do birds have navels?

3077. Why do people sing?

3078. Why doesn't the herbicide 2,4-D damage lawn grass?

3079. Carbon Monoxide and High-Oxygen-Affinity Varieties of Hemoglobin

3080. What causes a 'stuffy' or 'runny' nose when you have a cold?

3081. What is the advantage of using starter cultures for growing bacteria?

3082. How's the membrane potential restored to resting state after hyper polarisation?

3083. Do humans have Coelom?

3084. Is it true that cats can drink sea (salted) water?

3085. Can a woman give birth to twins with different fathers?

3086. What is Pan for in pan-caspase?

3087. Is glycolysis the beginning part of fermentation, or does fermentation follow glycolysis?

3088. Are transgender people born physically different from others?
3089. Solubility of DNA in water
3090. What is the benefit of fever during infections?
3091. What is the definition of "dry weight" and "dry cell weight"?
3092. Difference between Condensin and Cohesin proteins?
3093. What is the effect of non-vaccinated people on vaccinated people?
3094. Why did abiogenesis only happen once?
3095. How to calculate the geometric mean titer (GMT) of titers from a haemagglutination assay (influenza)?
3096. Possible reasons for DNA getting stuck in well
3097. What is a microsome?
3098. Why are  $H^+$  ions pumped out instead of in during cellular respiration
3099. Why do we like salt?
3100. How do lilies sense day and night and open and close their flowers?
3101. How are lysosomes formed?
3102. Plasmolysis vs Flaccidity in cells
3103. Do men and women have the same number of genes?
3104. Regulation of Glycolysis and other pathways at 'irreversible' reaction steps
3105. How do I clean phenol contaminated RNA without losing any of the sample?
3106. Do babies resemble their father?
3107. Why isn't a virus "alive"?
3108. Difference between Bioscience and Lifescience
3109. Explanation for hyenas asymmetric legs length
3110. Why do stars disappear when I look at them?

3111. What are chiasmata?
3112. Why do smaller mammals move intermittently?
3113. Why is there more variation in proteins than genes?
3114. What sections of the brain can be removed without causing instant death?
3115. Is there a medical condition in which you can't cut your hair?
3116. How does aspirin "thin" blood?
3117. Trauma, blood loss and thirst
3118. What is the difference between abiogenesis and spontaneous generation?
3119. Why we shiver/tremble/shake while performing some work which requires high accuracy?
3120. Why do obese people tire quickly?
3121. Why cancer disease is named after sun signs ?
3122. How does a Plasmodium move?
3123. Cause of Crease in Drupe Fruit
3124. What is an irreversible reaction?
3125. How did the first self replicating organism come into existence?
3126. How did the Spanish Flu disappear?
3127. Is it better to take a half dose of paracetamol and a half dose of ibuprofen together rather than a full dose of either?
3128. What is immunopanning (vs. immunoprecipitation and FACS)?
3129. Why does yawning impair hearing?
3130. What is the relationship between sexual and natural selection?
3131. Can plants suffer from CO<sub>2</sub> poisoning?
3132. Ammonia smell after physical exercise? What is the explanation?

3133. Essential amino acid codons
3134. Do the enzymes and compounds in saliva help with stain removal?
3135. Do pulled hair from the root grow back?
3136. Why isn't the phosphoglycerate kinase reaction of the glycolysis pathway irreversible?
3137. How do the first and second law of thermodynamics adhere to breakdown of glucose?
3138. What is the difference between second and third generation sequencing
3139. Why is the bond between oxygen and iron in hemoglobin at a specific angle?
3140. What did we learn with Nazi human experimentation?
3141. What would cause bands to appear lower on a nonreduced SDS-PAGE gel?
3142. Why do chickens not try to get up if laid on their backs?
3143. What does dominant generation mean
3144. Can ants sense food from a long distance?
3145. Why do people sleep with their eyes open?
3146. Is human face more resistant to cold than other body parts?
3147. Why are antibiotics prescribed with a viral infection like a cold?
3148. What is the difference between a predator and a parasite?
3149. How does Golgi's neural histological stain work?
3150. Primary function of the enzyme lipoprotein lipase
3151. Why is the neuronal plasma membrane more permeable to potassium ions than sodium ions?
3152. How does a baby deer stand the day it's born?
3153. Why do I still see a bright light after looking directly at it?
3154. Do all cells produce the same proteins?
3155. Is there any complex organism that is both autotroph and heterotroph?

3156. What is the difference between rheobase and threshold?
3157. Why do we squint when tasting very sour things?
3158. If evolution is not about increased complexity, why does so much complexity evolve?
3159. Autosomal Recessive Trait when skipping one generation
3160. Ancestral Allele explanation
3161. What is the closest species to humans in animal kingdom?
3162. Why are plants classified in living things?
3163. Is the DNA different in each type of cell? What DNA is passed to offspring?
3164. How do people who have lost both of their legs produce red blood cells?
3165. What's the name of the fibrous strands that hold the seeds in a pumpkin?
3166. What is a focal copy number variation?
3167. What is the standing genetic variation?
3168. Is cancer caused by vitamin B17 deficiency?
3169. Why do we have nerves in our teeth?
3170. Isopropanol precipitation of DNA - duration and magnitude of cold storage
3171. How long does it take for dopamine to reach normal levels after a significant drop?
3172. Why are bruises not lethal?
3173. Why can't we move our toes and some fingers separately?
3174. Breathing becomes harder in certain wind conditions
3175. What are the major causes of mutations in DNA?
3176. Renin - enzyme or hormone?
3177. Can any protein be phosphorylated?
3178. Is this bedbug or book louse?

3179. Why are 6 turns of the Calvin cycle needed to make one molecule of glucose?

3180. Can animals like squirrels leave "gifts" or tribute for humans?

3181. What does this equation about DNA replication mean?

3182. What causes people to feel sleepy due to recycled air?

3183. What is the meaning of "E-value" in the BLAST search?

3184. What's the reason for isovolumic contraction and isovolumic relaxation?

3185. Why do plants need oxygen through their roots?

3186. What is meant by a muscle fiber being glycerinated?

3187. How do you calculate or predict the charge of a protein at pH 7?

3188. Differences between Gradualism and Uniformitarianism

3189. Are these cats calico?

3190. Can the dendrites of sensory neurons be a meter long?

3191. Do aquatic plants have stomata?

3192. Definition of "Niche Complementarity"

3193. Dark veil when getting up too fast

3194. Difference between strand-specific and not strand-specific RNA-seq data

3195. What is happening when we get a tan?

3196. How much energy does human body fat contain?

3197. How to avoid air bubbles while pipetting?

3198. How did the cardiovascular system evolve?

3199. Why do people feel pleasure when using roller coasters / centrifuges?

3200. Is there a purpose for nucleated red blood cells in reptile, avian and fish blood?

3201. is there an easy way to remember taxonomy?

3202. What is a set of chromosome and what is a pair of chromosome
3203. Interpreting graph of mitosis and meiosis
3204. Identifying whether amino acids are hydrophobic or hydrophilic
3205. Is female the default sex in humans?
3206. Can more than one antibody bind the same antigen
3207. Why is uracil, rather than thymine, used in RNA?
3208. Where does the 'C' in exhaled CO<sub>2</sub>, mostly come from?
3209. Why do stomata close in salt water?
3210. Cyanobacteria: Gram negative or Gram positive?
3211. Identification of small fuzzy flying insect (pic)
3212. How to DIY preserve pet DNA today so that it can be used in 20 years
3213. Solubility of Amylopectin and Glycogen in water
3214. Why aren't drugs delivered directly into arteries, rather than veins?
3215. What determines which strand of DNA is transcribed by RNA polymerase?
3216. What is splice junction pairs?
3217. Difference in length of Okazaki fragments
3218. What are tail currents?
3219. What is this unusual structure inside this banana?
3220. If a mother had a child with her own son, could a paternity test yield positive result for the son's father?
3221. When running gels what is the difference between constant volts or constant amps?
3222. How is the transcription direction of RNA polymerase determined?
3223. Why are there no wheeled animals?
3224. What does it mean to have a Y-DNA Haplogroup "R-M512"?



3225. Writing methods section on PCR amplication in a paper
3226. What determines whether an action potential is inhibitory or excitatory?
3227. What is the difference between vegetable and animal fats?
3228. Does consuming sodium benzoate (preservative E211) cause problems during pregnancy?
3229. Why doesn't nitrogen diffuse into blood?
3230. What is a "mechanistic study"?
3231. How does paracetamol interfere with immune system?
3232. Why is green fur not a thing?
3233. Are tendons and ligaments classified under the muscular or bone system?
3234. Excretion of various wastes and water requirement
3235. Is organ transplantation race dependent?
3236. For how long can a person drink sea water?
3237. What is the difference between the basal membrane and the basal lamina?
3238. Definition of "Effective population size"
3239. Difference/similarity between adaptive radiation and species divergence?
3240. How does the social structure of lion prides prevent incest?
3241. How does ecology differ from biology?
3242. Where does my extra blood volume go after giving birth?
3243. Genes & Map Units
3244. How can alcohol cause blindness?
3245. Did cats evolve from monkeys ? or vice versa?
3246. How to interpret the breeders equation?
3247. Difference between protozoa, protists, protoctista?

3248. Insect identification - Is this a bedbug?

3249. Why does getting soap in your eyes cause redness and irritation?

3250. Do "shooting" animals exist?

3251. What are the advantages of forgetting?

3252. Species Identification - small insect: is this a bed bug?

3253. What is the surface area to volume (SA:V) ratio of a red blood cell?

3254. Can an octopus survive if one of its three hearts stops working?

3255. Why "Having chlorophyll without photosynthesis is actually very dangerous" and "like living with a bomb"?

3256. What is MHC haplotype?

3257. Difference between thylakoids and lamellae in a chloroplast?

3258. What is difference between High quality and low quality proteins

3259. Are human chromosomes connected or separate molecules?

3260. Why do tattoos persist if body cells are regularly renewed?

3261. What determines the spiral direction of plants?

3262. Why does cutting onions cause tears?

3263. Why do we grow so much hair on our heads compared to our bodies?

3264. How many copies of a gene?

3265. Why are some neurones unmyelinated?

3266. Can butterflies still fly after their wings are touched?

3267. Cross section through the right arm question

3268. Why can only small molecules pass through the phospholipid bilayer of the cell membrane?

3269. Why do chameleons move back and forth?

3270. Why do bananas turn black after some time?
3271. Why do I need a flu shot every year, while many other vaccinations last years or even a lifetime?
3272. The real definition of carbohydrates
3273. Behaviour of chromosomes and genes
3274. Can one see flickering of a light bulb at 50 Hz?
3275. How does the NAD<sup>+</sup>/NADH ratio affect lifespan in vertebrates?
3276. Why do you die if you cannot breathe?
3277. Can plants be grown using lights in the home?
3278. Can the human brain be reduced to a binary system?
3279. Spider Identification Michigan
3280. Why do you need the intrinsic pathway when you have faster extrinsic pathway?
3281. Do ants or other insects sleep, and if so why?
3282. what is the function of satellite in a chromosome?
3283. Single hormone opposite effects
3284. Are eukaryotic promoters located in the 5' UTR region?
3285. What prevents backflow of blood from right atrium to vena cava during atrial systole
3286. How many recombination events are there per generation in humans?
3287. DNA topology Linking number vs twist?
3288. When did mouth pipetting stop becoming a way to handle liquids in a lab?
3289. Why are many fruits sour?
3290. What is a DNA-binding domain?
3291. How do bile salts affect lipase activity?
3292. Can ovulation and menstruation occur simultaneously?

- 3293. List of Asymmetric Animals
- 3294. Difference between mice and rats
- 3295. Difference between negative allosteric regulation and non-competitive inhibition
- 3296. What is the longest-lasting protein in a human body?
- 3297. Names of nerves in hands, shins and face
- 3298. Does one wing of fly contain harmful microbes and the other contain only antibodies?
- 3299. what is the difference between pituitary dwarfism and thyroid dwarfism?
- 3300. Why do sneezes come out the mouth?
- 3301. Can bacteria be killed by purely physical trauma?
- 3302. Is there a difference between "cell line" and "cell strain"?
- 3303. How much energy does a lion contain?
- 3304. What is difference between Incest and Inbreeding?
- 3305. Why does so much variation exist within species?
- 3306. Is there any danger in putting a magnet in your ear (next to your brain)
- 3307. Why do men have nipples?
- 3308. How do ants transport water?
- 3309. Alternatives to trypsin for cell detachment?
- 3310. What is a catalytic domain of an enzyme?
- 3311. Headshot = instant kill?
- 3312. Why does immunity from the flu vaccine appear only after two weeks?
- 3313. Why can I see a light flicker when it's in my peripheral vision?
- 3314. A way to measure ripeness of a fruit
- 3315. What causes "ear rumbling"?

3316. Pipetting damage to cells
3317. Is it possible that by mutation a human could see infrared or other 'colours'?
3318. Purifying a linear plasmid after restriction digest?
3319. Why are nitrogenous bases of DNA hydrophobic if they can hydrogen bond?
3320. Do trees grow from the bottom or the top, or is that oversimplifying?
3321. Why does the pET- expression vector contain a LacI gene additionally to the one in the genome?
3322. Measuring protein concentration, Bradford vs. Nanodrop?
3323. What is heteroduplex?
3324. What is the evidence that australopithecines were bipedal?
3325. What determines the size and shape of a cell?
3326. Why do we get bored of certain food items after repeatedly eating them?
3327. Doesn't the sarcomere contract during isometric contraction?
3328. Crow branch pecking behaviour
3329. Has there ever been an attempt to create nutritionally tailored food for adult human consumption?
3330. Is there a correlation between total neurons and intelligence?
3331. How do viruses or bacteria survive outside the body long enough to spread?
3332. Cause of a extra vertebra in the human body
3333. Can animals also get Down syndrome?
3334. How to read cladograms/phylograms?
3335. Is there an advantage to linear chromosomes?
3336. Are all mutagens carcinogens?
3337. Why do people with type O blood have anti-A and anti-B antibodies?

3338. Do tall people have more cells?
3339. Why is beta actin commonly used as a control in Western blots?
3340. What is the difference between sequence alignment and sequence assembly?
3341. Are neural connections one-way?
3342. Why does alcohol cause the hemolysis of RBC in a large proportion?
3343. Insect identification - pantry moth vs clothes moth
3344. Cellular Respiration/Fermentation Problem Leading to Lack of Energy
3345. Do any animals prepare food?
3346. What's the aim of genetically modifying of foods/organisms?
3347. When was it discovered XY chromosomes decide the sex of a child in humans?
3348. Maximum loading volume for agarose gel with 10 well comb
3349. Are 'homeothermic' and 'endothermic' synonymous?
3350. Coracoid vs. Coronoid - Etymology/Naming Choice?
3351. What is the physiological difference between snorting/swallowing cocaine
3352. Programming Languages for Bioinformatics
3353. Do identical twins have the same fingerprint?
3354. What is the purpose of Y-shaped adapters in Illumina sequencing?
3355. Is cell membrane living
3356. Location of t tubule in muscle
3357. How does Artificial Selection work?
3358. What are the differences between cancer and tumour?
3359. How does soap affect membrane permeability? Which component of the membrane does it affect?
3360. What is Biradial Symmetry?

3361. How does alum help in blood coagulation?
3362. Why is the mosquito a definitive host in malaria?
3363. How long does it take for memory to disperse after death?
3364. Effects of lactic acid ingestion
3365. Growth factors vs. mitogens
3366. What does it mean when a patient suffering from malignant tumor (cancer) has been declared cured?
3367. Why didn't the polar bear change its color from white to black during evolution to absorb heat?
3368. Bigger animals needs bigger amount of oxygen?
3369. Can a cancerous cell from outside cause cancer in a healthy person?
3370. Are there predators evolved to eat puffer fish?
3371. How is a bacterial strain defined?
3372. How much of what we eat ends up in the toilet?
3373. Why do some animals have 8 Limbs (e.g. Spiders, Octopuses)?
3374. Do ants have a "stay away" signal?
3375. Is a walnut a nut or a drupe?
3376. Do plants absorb toxins from the soil?
3377. Who created the codon wheel chart (not as a table)?
3378. Why is a slow worm not considered a snake?
3379. What is a gene transcript, how is it different from an allele?
3380. Do men have significant hormonal cycles?
3381. Are there organisms with fewer than 1000 neurons?
3382. Besides hemoglobin, what proteins are present in red blood cells?

3383. Function of the Auricle in heart
3384. How to make  $\mu\text{g/ml}$  concentrations of proteinase-K?
3385. Why is tRNA called an adaptor molecule?
3386. Why can't humans drink sea water?
3387. Does osmosis take place in prokaryotic cells?
3388. Do all chromosomes in one human body contains same genome?
3389. How will rising carbon dioxide levels in the troposphere affect photosynthetic producers?
3390. What is the human ear's temporal resolution?
3391. Like other animals, why humans don't have species & breeds?
3392. Can any plant regenerate missing tissue?
3393. Can humans ever directly see a few photons at a time? Can a human see a single photon?
3394. What if  $B=C$  in Hamilton's rule?
3395. Why haven't we cured the common cold yet?
3396. Is lysergic acid diethylamide (LSD) metabolized in the body?
3397. If I buy a banana at the market, is there any chance that an insect is hiding inside it?
3398. Are Young Girls Stronger than Young Boys?
3399. Why does a cockroach not die even after decapitation?
3400. Are there plants that produce (audible) sound?
3401. Does it make sense to classify all humans in a single species?
3402. Do body lotions enter into bloodstream of people? And how do they do it?
3403. Why don't antiseptic agents kill 100% germs?
3404. Cleanliness of cast iron never cleaned between meals



3405. If alcohol is a depressant, why does it makes certain people more hyperactive?
3406. Why can't we grow more teeth?
3407. How many times has SARS-CoV-2 mutated?
3408. How to find the concentration of an enzyme?
3409. Is there a link between digestion and nightmares?
3410. How does a thymidine block halt DNA synthesis?
3411. Can a reservoir host act as a vector?
3412. Why do some mammals not have testes in a scrotum?
3413. Why Did 6 Great Ape Species Survive But Only 1 Hominid Species?
3414. Virus cannot survive on surface after certain time period, but why and how?
3415. Do humans produce rennin?
3416. Identify this smooth-cocoon worm from Southern India
3417. Why are some vegetables/fruits seasonal?
3418. How do female hormones cause blood to clot?
3419. What determines the colors and patterns of a clam shell?
3420. How do nutrients get to the cells they need to get to?
3421. Do animals get sick from eating dirty food or eating off the floor?
3422. What is the mechanism behind "acquired" alcohol tolerance?
3423. What determines excrement's caliber?
3424. What is the difference between a human being, a Homo sapiens, and a Neanderthal?
3425. Do these things contain amylase?
3426. How many different kinds of polypeptides, each composed of 12 amino acids, could be synthesized using the 20 common amino acids?
3427. Difference between Premature Atrial Contraction and Atrial Fibrillation

3428. Why does mint oil feel cold on the skin?
3429. What hydrolyses aspirin within the digestive tract and blood stream?
3430. What is the difference between cytosol and cytoplasm?
3431. Can the dead be brought back to life by viruses?
3432. What will happen if a scorpion pierces itself?
3433. Can *Naegleria fowleri* enter through your ear?
3434. How are Maggots Sterilized (Disinfected)?
3435. Why do only two sexes exist for animals?
3436. Species identification; clusters of big plump red bugs in Taipei
3437. What's the physical meaning of Svedberg unit?
3438. Why do we see better on stretching our eyelids to the side?
3439. How are arms different from legs?
3440. Causes of monozygotic twins
3441. Are Asians more genetically homogenous than other races?
3442. Cell evolution: immortality vs reproduction
3443. Why are lions the only social cats?
3444. Osmolarity vs. Tonicity
3445. Why is one phase of a plant dominant (Alternation of generation)?
3446. What are hot spots on human body?
3447. Why can't our eyes smoothly transition from side to side without focusing on a moving object?
3448. Is there a maximum amount of antibodies your body can keep?
3449. Why do eyes change colour after death?
3450. Bacterial capsule vs. slime wall

3451. what is meta-sympathetic nervous system?
3452. Why would a single celled organism evolve to be multi-celled?
3453. Why would lactate be high in diabetics?
3454. polarity of DNA
3455. How efficient is the human body at metabolizing food?
3456. What are Codominant vs Dominant Genetic Markers?
3457. Why does max heart rate decrease with age?
3458. what makes our body warm?
3459. Why does Penicillin only affect bacterial cell walls
3460. What's up with this leaf?
3461. Very high 260/230 absorbance ratio of an RNA sample
3462. Do the pH and other ions affect the hydrolysis of ATP
3463. Thermodynamics of Forming Peptide Bonds
3464. Difference between pipette and pipettor
3465. How long can one leave sample in lysis buffer for DNA extraction?
3466. Why is ATP used as a source of energy rather than glucose?
3467. How deep does water have to be so a mosquito can lay viable eggs in it?
3468. What is the evolutionary rationale for palm sweating?
3469. Are there examples of cells with more than one nucleus?
3470. Location of nucleotide synthesis and transport
3471. Are there biological reasons why life expectancy is lower for men in most countries of the world?
3472. The biggest underground living animal
3473. How does lactulose cause the removal of ammonia from the colon?

3474. The GUG start codon in E. coli: identity of initiating tRNA and efficiency of translation

3475. Do ants feel pain?

3476. What is the scientific opinion on plus lens therapy?

3477. How does plant grafting work?

3478. What exactly are computers used for in DNA sequencing?

3479. Can food swallowed when a person is upside down reach the stomach?

3480. How can a monocot get so massive?

3481. Why are pili more common in Gram negative bacteria than in Gram positive?

3482. Are fish and reptilian scales homologous?

3483. Why do live crabs in a bucket prevent each other from escaping?

3484. Circulation through the liver in light of drug metabolism

3485. Why is pepsin able to operate at low pH?

3486. What is the point of a runny nose during a cold?

3487. How do trees manage to grow equally in all directions?

3488. Heterocyst function in cyanobacteria and its localization

3489. Will dissolved proteins pass through a 0.2 micron filter?

3490. Does DNA polymerase always go the same direction?

3491. Gene distance and Recombination Frequency: Mechanism

3492. Why is GTP, not ATP, produced in Gluconeogenesis & TCA Cycle?

3493. Are SNPs and alleles the same thing?

3494. What is the difference between eugenics and evolution by natural selection?

3495. Which organism has the smallest genome length?

3496. Terminology for parts of the leg

3497. How to set up a slow cooling on an AB Veriti thermal cycler?
3498. Will the "frog in boiling water not jumping out" work on warm blooded animals
3499. Why is the function of lacA (encoding thiogalactoside transacetylase) not clearly understood?
3500. Can dead scorpions still sting?
3501. What is a "monomeric polypeptide"?
3502. Does the lung absorb organic food?
3503. What happens to tube nucleus of the pollen tube after fertilisation?
3504. Is the Common Cold an Immune Overreaction?
3505. Significance of upper-case, lower-case and Ns in UCSC DNA files
3506. Surgical vs anatomical neck
3507. How long could Earth's oxygen supply last if no new oxygen were produced?
3508. What is the ratio of head to waist and waist to floor of the human anatomy?
3509. Are there lifeforms that have more than 2 sexes?
3510. Do spouses begin to share genes over time?
3511. Does human eye lens have a magnification of its own?
3512. Evolution- Variations, adaptations and selective advantages
3513. Why Is Most Life Symmetrical Externally But Not Internally?
3514. After how many generations descendant is not more related to ancestor, than to a random individual in an ancestral population?
3515. Light and Dark Reaction of photosynthesis?
3516. What is the difference between Crossbreeding, Outbreeding and Outcrossing?
3517. RNA isolation- role of pH
3518. Are there more/less favourable phases of menstrual cycle to donate blood?

3519. Why is the inside of a cell negatively charged
3520. What is the distance between the sciatic nerve and the colon at the closest point?
3521. What is the role of potassium acetate in plasmid extraction?
3522. Mammal body density
3523. Is Plasmablast a precursor of Plasma cell?
3524. Height and natural selection in humans?
3525. What is full form of r and K in r-selection species and K-selection species?
3526. At what point is a picked flower considered dead?
3527. Are nucleic acids found in cell membranes?
3528. Why do we go blind for a few seconds after switching off the light?
3529. Why do we need red blood cells?
3530. How do bull semen companies get the semen out of the bulls?
3531. Is poison venomous and is venom poisonous?
3532. Calculating pairwise  $F_{st}$  from allele frequencies
3533. Do potassium channel blockers affect the resting membrane potential?
3534. Does coloring affect the perception of depth?
3535. Why does Rigor Mortis occur after death?
3536. Does any animal species have two sexes and more genders?
3537. Why would glucocorticoids promote glycogenesis and not glycogenolysis?
3538. Optical Density conversion to cfu / ml
3539. What are the function(s) of Alu elements in the cell?
3540. What causes the development of antibiotic-resistant strains of bacteria?
3541. What does conditional analysis of a SNP in a GWA study entail?

3542. Are mitochondria dead?
3543. Why are goosebumps so ineffective at keeping us warm?
3544. Earwax versus Mucus
3545. Can the human body create glucose out of fat?
3546. Why does it hurt the next day after doing significant exercise?
3547. What is the difference between embryology and developmental biology?
3548. How do white Caladiums perform enough photosynthesis to support their mass?
3549. Is it possible to exclude article types in a PubMed search?
3550. Is there a downloadable list of all species along with their traditional classification?
3551. How can I preserve hair or saliva for future genome sequencing?
3552. Why don't chilli peppers taste as hot in space?
3553. How does most of lymph get back into the blood stream? (I don't mean the lymphatic system)
3554. On the genetics behind caste marriages
3555. What is the difference between a circular and a cat's-eye (slit) pupil?
3556. Will ants arriving with travel luggage form a new colony?
3557. What is the distinction between F' plasmid and R plasmid?
3558. Does class switching occur both in B cells and Plasma cells?
3559. Does the hepatic portal system form capillary beds?
3560. What is the so called "hepatic glucose production"
3561. Growing E. coli at room temperature?
3562. What part of the brain controls depth perception?
3563. "X" in stock solutions
3564. What is the effect of a pure-oxygen environment on a plant?

3565. Are the asymmetrical positions of owl ears consistent across species with this trait?

3566. Why are proteins always made in N to C direction?

3567. What type of white hard thing grows on lobster

3568. What is the rest state for eyelids - Open or Closed?

3569. Do spinal cord reflexes (such as the knee-jerk reflex) continue to function under general anaesthesia?

3570. How loud a sound would need to be to wake someone up?

3571. Can a human smell through the ears?

3572. Scoring matrices (BLOSUM & PAM) in BLAST and other sequence-comparison programs

3573. Is heat released during work due to ATP breakdown or a increased blood flow?

3574. What is the criticality of the ribosome binding site relative to the start codon in prokaryotic translation?

3575. Why do red blood cells contain haemoglobin and not myoglobin?

3576. How deep under water can humans open their naked eyes without damaging them?

3577. Are mitochondria alive?

3578. Is honey in hot green tea unsafe?

3579. Fetal development, gastrulation and embryonic disc

3580. Depolarization and hyperpolarization in stereocilia of the inner ear

3581. "Higher plants" or "vascular plants"?

3582. Meaning of units in ELISA based tests?

3583. How does the immune system "learn" from a vaccine?

3584. How to check if a fastq file has single or paired end reads

3585. Should we induce fever to assist healing?

3586. What concentration of sugar is optimal for baker's yeast fermentation?



3587. Does THC excretion increase if urine volume increases?

3588. Does our eyeball increase in size as we grow?

3589. What actually happens when my leg 'falls asleep'?

3590. What are tendons made of specifically

3591. Can rats pass on memories of a maze to their offspring?

3592. For how long can a raven stay airborne (a week or more)?

3593. Why isn't Fluorine, or Neon, the final electron acceptor in cellular respiration?

3594. Are the irises an exact match in a human's set of eyes?

3595. Is aquafaba readily digestible?

3596. What is the Shine–Dalgarno sequence?

3597. How can I accurately measure glucose concentration in culture media?

3598. Definition of Cofactor, Coenzyme and Prosthetic Group

3599. Deciduous trees in tropical rainforest

3600. Enzootic vs Epizootic?

3601. Is ovum + ovum fertilization possible for human?

3602. Is nicotine toxic to humans?

3603. Why do human females have periods?

3604. Is sugar absorbed into the bloodstream through the walls of the mouth?

3605. How do we know that everybody's DNA fingerprint is unique?

3606. What is the name of the bond between phosphate and the sugar in a nucleotide?

3607. Examples of enzymes working in reverse?

3608. Introductory biology text for an outsider

3609. Why are the human knees and elbows bent in an opposite direction

3610. How many times did terrestrial life emerge from the ocean?
3611. Wearing sunglasses during a solar eclipse
3612. How many primary oocytes in human female body at birth?
3613. How long does it take for a cricket to die at subzero temperatures?
3614. How do you increase eumelanin but not pheomelanin?
3615. How long can *E. coli* stocks be stored at -20°C?
3616. How can the child and the mother have different blood types?
3617. Is there enough vitamin B12 in lakes, rivers and ponds, for humans not to need to take supplements?
3618. Are there species that occupy several roles in the food hierarchy?
3619. What is the function of the Moderator band?
3620. Dark, long-legged spider with long mouthparts in front, long "pincers" in the back and very short 3rd pair of legs (northern Taiwan)
3621. Background correction when reading ELISA with TMB substrate
3622. Why did the sensitive plant (*Mimosa pudica*) evolve its leaf-closing mechanism?
3623. What is the genetic basis of blood type (ABO) system?
3624. Why does snow not stick to the fur of wolves and some breeds of dogs?
3625. Is this a bedbug or a book lice or what?
3626. what is the reason for using 70% alcohol (ethanol)?
3627. What is this feather like bug with no legs?
3628. Why are vaccines for polio taken orally while vaccines for TB need to be injected?
3629. Magnetic-activated cell sorting vs. FACS
3630. Why is rabies incurable?
3631. Beetle with long, slender iridescent green body and orange legs

3632. Where do mushrooms get their energy from?
3633. Why do flies fly in circles?
3634. Why does the apex of the human heart usually point to the left?
3635. Why do we have five fingers?
3636. Why does the sacrum fuse together?
3637. How does HIV mutate into other strains while keeping their virulent phenotype?
3638. How much oxygen does a plant use up at night?
3639. Do we know all the possible human hair colors?
3640. Why is there a difference in the rotation of the tail fin in fish compared to marine mammals?
3641. Which processes are during the latent period of ventricular contraction?
3642. What is the "lifecycle" of an average eschar and what types of cells are involved in each stage?
3643. Why did humans lose their fur?
3644. Do lobsters possess a nervous system to feel pain?
3645. Amount of blunt force to kill a person
3646. Why are some berries poisonous?
3647. What insect is this? Looks like a spider but with six legs and long antennae
3648. Are Italians genetically separated from other Europeans?
3649. Why is the DNA codon table "equal" to the RNA codon table
3650. What do the letters 'p' and 'c' mean in mutation descriptions?
3651. Why isolated, recombinant plasmid DNA without any restriction is often detected in agarose gel electrophoresis as three DNA bands?
3652. Do colour-blind people see white?
3653. What do butterflies eat?

3654. Do women experience more bonding hormones than men after sex?
3655. Is tyrosine hydrophobic or hydrophilic?
3656. What are good resources for self-learning modern molecular biology concepts?
3657. What happens to deep sea creatures if they reach the surface?
3658. The effect on the efficacy and potency of a non-competitive antagonist binding to the active site of the receptor (dose-response curve)
3659. Ill effects of urea and  $\text{NH}_4^+$  on metabolism
3660. Why human cannot stand still in one place?
3661. Why does crying lead to a running nose and reddened nose tip?
3662. Why does vaccine development take so long?
3663. How does an amoeba move?
3664. How does one determine the sex ratio of a ZZ and ZW cross?
3665. Larva in cat's water dish
3666. Is ATP Synthase a channel or an enzymatic protein?
3667. Doubly-compound leaf examples?
3668. Can Blood Types Change?
3669. Why does my eyes see a red spot when over exposed to light?
3670. How does electrolarynx work?
3671. Does the genetic sequence of SARS-CoV-2 end with 33 A's?
3672. What is the purpose of back-crossing mice for multiple generations?
3673. Why are there no trees in Texas?
3674. Why are organs not harvested from deceased cancer patients?
3675. How did the endoplasmic reticulum come to be?
3676. What is the purpose of the incus?

3677. How does protein denaturation work?

3678. How can I find a complete human genome file?

3679. How does chromosome number get halved in meiosis I?

3680. Why did the process of sleep evolve in many animals? What is its evolutionary advantage?

3681. How does translational coupling work in prokaryotes?

3682. Can you Transfer Cancer Between People via Saliva or other Bodily Fluids?

3683. What is the actual storage form of energy in muscles? ATP or Glycogen?

3684. Why does the kidney of a cow have lobules, why the kidney of a human hasn't any?

3685. What determines testosterone exposure in womb, baby's genetics or mom's body?

3686. Is monogamy a human innate behaviour?

3687. How long can I store extracted RNA?

3688. What is this animal looking like an Axolotl?

3689. Should hydrogen peroxide be applied on a bloody nose?

3690. Can Squirrels Eat Every Mushroom?

3691. How is NAD<sup>+</sup> used in lactic acid fermentation after it is oxidized from NADH?

3692. Why didn't Escobar's hippos introduced in a single event die out due to inbreeding?

3693. Is "computational biology" different from "bioinformatics"?

3694. Do the right-handed people tend to use the right side teeth of their jaw to chew food more often than the left-handed people?

3695. Hardy-Weinberg Color-blind

3696. What animal has the strongest immune system?

3697. When do the spindle fibers attach to the chromosome?

3698. If sperm contains only 50% of someone's DNA how can it be used to identify someone?

3699. How fast is water transported from roots to leaves?
3700. How do animals decide what to eat and what not?
3701. How "exactly" is Rabies transmitted?
3702. Why are there six reading frames if only one strand of DNA is referred to as the 'coding strand'?
3703. Differences between synaptic connections
3704. What could cause a forest of bent trees?
3705. How does a virus take control over the host cell?
3706. Will salting the ground kill insects and spiders?
3707. How do download a list of the gene length of all genes?
3708. Why can't we see in low light if staring long enough?
3709. What is the role of acetylcholine in blood pressure regulation?
3710. What percent of the population has some form of synesthesia?
3711. What is dental health like in animals?
3712. Is it true that bees and wasps don't sting if struck by hand while they are in flight?
3713. What implications has the missing 2'-OH on the capability of DNA to form 3D structures?
3714. Do large animals experience a meaningful delay when moving their most distant appendages?
3715. How do I read a sequence logo?
3716. How does waking up from an alarm clock work?
3717. Human evolution: Where \*exactly\* did the first human come from, whose parents were not?
3718. What is the best way to clean immersion oil from the microscope lens?
3719. How can a drink contain 1.8 kcal energy while 0 g fat/carbs/protein?

3720. Transfer of antibodies in breast milk of humans

3721. Why Do Ruminants Require A Multi-Compartment Stomach To Digest Food?

3722. Which of the two chromosomes in a pair is expressed?

3723. A new species of small bird?

3724. Why does a gene have two alleles?

3725. Name of This Black and White Dove

3726. What prevents predator overpopulation?

3727. Gene & Protein nomenclature: N-Myc, c-Myc, et. al

3728. Are there any solitary species of ant or termite?

3729. How many cells does the smallest animal have?

3730. Why do crabs spit?

3731. Why don't we bleed interstitial fluid?

3732. What does static electricity generated by plastic combs do to our hair?

3733. Binary fission in amoeba

3734. Examples of animals with different number of chromosomes that can interbreed?

3735. Is it possible to stop yourself from going into shock?

3736. Why do humans seem to be the only mammals that like spicy food?

3737. Why are human immune systems comparatively weaker than other animal immune systems?

3738. What is the size (diameter) of the SARS-CoV-2 virus?

3739. Can two humans with 44 chromosomes produce viable offspring?

3740. Is there any use of CO<sub>2</sub> in human body?

3741. Why does wood become darker when it ages?

3742. Breathing faster to lose (more) weight?

3743. Which surfaces contain no epithelial tissues and which epithelial tissues are vascular?

3744. Is there a durable surface that ants can't pass?

3745. ECG wave names origin

3746. What is the difference between a polysaccharide and a macromolecule?

3747. Do male marsupials have a pouch?

3748. The probability of indirect human fertilization?

3749. Is a DNA molecule a single strand of polynucleotide or two of them linked together?

3750. Can beavers control the direction a tree falls?

3751. Chitin, homo or heteropolysaccharide?

3752. Do animals other than humans have different blood types?

3753. How does the Pectoralis Major work when doing a bench press?

3754. What is Mendelian Randomization, and how is it used to infer causality in epidemiology?

3755. difference between transcriptional activator and general transcription factors?

3756. I just saw this bird outside my apartment. Anyone know what it is? (Texas, US)

3757. Why do antidepressants have a delayed onset of action?

3758. What is the biochemical explanation for tingling and burning sensation in brain due to certain food?

3759. What would happen if one eats silica gel?

3760. Can species be paraphyletic?

3761. Books on population or evolutionary genetics?

3762. Albinism inheritance problem: what are the father's alleles if he got an albino kid?

3763. Why can hair grow without limit while eyebrow cannot?

3764. What is "chain identifier" in PDB?



3765. What is 'refractile' cell morphology?
3766. What are the differences between isozymes, allozymes and isoforms?
3767. What is the fastest marine mammal?
3768. Do all sea creatures that have scales have to have fins?
3769. fibroblast cells and fibers
3770. The pectoral fins of a whale and a shark. Are they analogous organs?
3771. Why does ostrich meat look and taste more like beef than chicken?
3772. Over winding vs under winding of a DNA
3773. Why does a light object appear lighter in your peripheral vision when it's dark?
3774. Why are oceans said to have "low productivity" in terms of photosynthesis?
3775. DpnI over-digestion
3776. Identification of beetle: black with orange stripe and 2 orange dots
3777. What is this worm-like creature?
3778. Is it possible to move your arms above your head when handcuffed in the back?
3779. What made this tiny honeycomb-like structure?
3780. Why do we have two eyes?
3781. Is it possible to be allergic to the yolk of an egg but not the egg white?
3782. What is the significance of and biological mechanisms demonstrated in lac operon?
3783. What is the evolutionary advantage of having pubic hair?
3784. Species-area relation graph
3785. If a gene is located on the X chromosome, does that mean males are never heterozygous for these genes?
3786. Why are cell lines frozen in vapor phase?
3787. How does Australia fit into 'New World' / 'Old World' dichotomy?

3788. What part of food gives the blood red color?
3789. Do all parts of a plant contain the same type of cell?
3790. Can HIV mutate to become airborne?
3791. Is there a reason why human eyesight and plants make use of the same wavelength of light?
3792. What is this droplet of liquid that comes out of a mosquito?
3793. Species Identification: Small white maggot/larvae, Missouri USA
3794. How do dopamine agonists like amphetamine/methylphenidate affect acetylcholine signalling?
3795. Do all Gram negative bacteria cause septic shock?
3796. Why do we have two kidneys but one liver?
3797. How does strength of a pulse related to EKG(ECG)?
3798. Can the Monkeypox virus be spread by mosquitoes?
3799. Where do the four ADPs come from in the second stage of glycolysis?
3800. Why are the genomes of Humans 99.5% the same?
3801. Why animals can move and plants cannot in general?
3802. Why do bulls have a hump?
3803. What are the identifying characteristics of a Jellyfish?
3804. Why do we use an autoclave at 121°C (250F)? (Origin)
3805. Is there any biological reason that professional swimming is dominated by white people?
3806. Identity By Descent vs Identity By State
3807. why didn't natives of south america evolve darker skin?
3808. How do I get a brighter DNA bands
3809. Are these microscopic star-like structures on a dead leaf some sort of organism? If

so, which one?

3810. How the lungs clear themselves?

3811. Are pulp cells (in oranges) normal plant cells?

3812. Can animals train to be noticeably stronger, faster, more agile... than other animals of the same species?

3813. Are human teeth only diphyodont or both diphyodont and monodont?

3814. How much time does HIV live outside the body?

3815. Was the dodo a dinosaur?

3816. How many species have existed on earth?

3817. How is eye color in humans inherited?

3818. What is the Giemsa staining of chromosomes?

3819. What is in the space between neurons in a brain?

3820. Why are sugars in whole fruits not digested the same way sugars in juice are?

3821. Are there any open plant databases (database/library/collection), containing species information and pictures?

3822. Chart of blood pH across different animal species?

3823. Do fishes die from old age?

3824. What limits the speed of human perception?

3825. Does osmosis require a protein channel?

3826. The human has 46 double chromosomes or simple chromosomes?

3827. What is the brain's preferred energy source? Glucose or ketones?

3828. Please help me to identify this red worm

3829. Why do organisms excrete nitrogenous wastes?

3830. How does evolution produce complex organs

3831. Why does DNA have its name?
3832. 0.1 M sodium citrate in 10% ethanol and DNA solubility
3833. Is the eukaryotic nucleus composed of a single or double membrane?
3834. Why do humans suffer anxiety when they view "Trypophobia trigger images"?
3835. What is an isolated beta bridge?
3836. Where do amino acids get attached to tRNA and where is it synthesized?
3837. what is the ancestral relationship between dogs and cats and bears?
3838. How does coconut water solidify into hardened coconut meat?
3839. Why cytotoxic T cells don't kill dendritic cells when they present antigen?
3840. difference between "Petri dishes" and "Petri plates"?
3841. Is the Michael Jackson skin pigmentation disease realistic?
3842. What is the difference between "lineage restriction" and "differentiated" in terms of stem cell biology
3843. Was HindIII the first restriction endonuclease to be extracted?
3844. How do ants sense imminent rainfall?
3845. How does non-homologous end joining (NHEJ) work?
3846. Why some eggs are bile stained?
3847. Do insects' muscles become stronger with exercise?
3848. Using anatomical terms for human organs and parts of plants
3849. How can natural selection occur at species level whilst not occurring at the individual level?
3850. Why is the Kakapo more attracted to humans than its own kind?
3851. Why does depolarisation by high intracellular  $K^+$  trigger calcium channels opening?
3852. Does pH affect Michaelis constant?

3853. Difference between sequential and conformational epitope

3854. What gives things their colour?

3855. Restriction Mapping of Plasmid Assignment

3856. Why do flies "rub" their front legs when resting?

3857. Why are there more stomatal openings on the lower surface of a dicot leaf?

3858. Clarify pre-column pressure vs. system pressure vs. backpressure for preppacked columns used with the äkta purification system

3859. Why doesn't ovulation occur in both ovaries simultaneously?

3860. What's the recommended maximum passage number for mammalian cells (NCI-H441)?

3861. Transcription and translation of prokaryotic operons

3862. Is there an evolutionary purpose to armpit perspiration?

3863. Why does supercoiled DNA run faster?

3864. Abdominal muscles during inspiration/inhalation

3865. How is vitamin B12 stored in the body although it is water-soluble?

3866. Complementarity Determining Regions (CDRs)

3867. Is there any kind of immortality in plants?

3868. Earth overshoot day: is it a sound concept?

3869. Why can't amylase break down glycogen?

3870. What evolutionary reason is there for having the urinary duct and reproductive organs so close together?

3871. Why do my muscles move slowly when cold?

3872. Is a stab wound to the back lethal?

3873. Can you be immune to a coronavirus?

3874. How can grass-fed livestock generate fat?

3875. What is the point of Meiosis II, considering Meiosis I already produced haploid cells?

3876. Why should a tumor look like a crab?

3877. Why do bananas grow curved?

3878. What kind of spider is this? Brown with white spots

3879. How accurate is facial reconstruction in forensics?

3880. Do animals exhibit handedness (paw-ness?) preference?

3881. What are two butterflies doing when they fly together, 'hitting' each other?

3882. Why are considered to be exceptions to the cell theory?

3883. What species is this rabbit-like animal?

3884. Why aren't we ambidextrous?

3885. How do you break up cell clumps when passaging?

3886. Classification and differences between homologous, homoplastic, analogous, derived and ancestral traits?

3887. How to interpret dual luciferase assay result (RLU)?

3888. Why should we use the NA12878 dataset for benchmarking?

3889. What do the names of Immunoglobulin subtypes mean?

3890. How to find the amino acid that is bound to a tRNA with the anticodon?

3891. Perception of distant lights without glasses

3892. How does the counter-current multiplier work in the nephrons?

3893. Is it possible to condition the body to reduce bruising?

3894. How long do viruses, such as Zika, stay in the body?

3895. Transmission of disease from mother to fetus

3896. Is death by cyanide the same as suffocation?

3897. Is kissing a natural human activity?

3898. When contracting a muscle will the muscle spindle stretch or contract?
3899. Does scratched Teflon coated frying pans contain carcinogens which can cause cancer?
3900. Differentiating *Taenia solium* and *Taenia saginata* Infections
3901. What is the average Leg-to-Foot Length/Width Ratio?
3902. Why don't animals produce alcohol
3903. Why are some genes dominant over others? What is the mechanism behind it?
3904. Purpose of dilution streaking or streak purification
3905. How efficient is the sodium-potassium pump ?
3906. How is centriole number maintained during meiosis?
3907. How does a tree trunk sprout and grow after being cut?
3908. Why doesn't glucagon promote glycogenolysis in muscle?
3909. What is this brown spider with black and white stripes? (Atlanta, Georgia)
3910. How to edit/insert new gene after cutting with CRISPR/cas9
3911. What is the difference between multiple allelism and polymorphism?
3912. How does this illusion work?
3913. Are chromosomes from each parent split between gametes with equal probability (esp. in humans)?
3914. What does vitamin B6 and B12 absorption depend upon?
3915. How long can Cholera bacteria survive in a dead host?
3916. Why is allolactose the LacI inducer?
3917. Are all emerging viral diseases of the past 100 years zoonoses?
3918. Crossing white eyed *Drosophila* with sepia eye
3919. What is cytoplasmic localization?

3920. Photolysis of Water?
3921. What is this insect in Southern California?
3922. Why do we get 'bags under our eyes'?
3923. Is it impossible for a retrovirus to be lysogenic?
3924. Is Pork more prone to carrying higher loads of parasites than Beef?
3925. Basic step by step methods for PCR & Gel electrophoresis class
3926. Why do humans find baby animals cute?
3927. iodine: how did they manage without it in old ages? (People who were living far from the sea)
3928. Why aren't nucleic acids on Nutrition labels?
3929. What is this stick-like creature?
3930. Assume the gene for freckles is dominant. A woman with freckles has a son that does not. What would have to be the genotype of the mother?
3931. How long does a tan last?
3932. How to identify the age of a "living" person?
3933. How many species did Carl Linnaeus classify?
3934. Why our body does not produce polyunsaturated fatty acids?
3935. What does a diamond symbol actually mean in pedigree?
3936. How much do crocodiles eat?
3937. Hardy-Weinberg sex linked formula
3938. Identification: Creepy 'nope'
3939. How does water buffer a sudden drop in temperature?
3940. Are fully vaccinated people more likely to not get infected at all with COVID-19?
3941. What is the difference between naive and adjusted p-values in a GWAS study?



3942. Effects of mRNA vaccines on human body processes
3943. Highest Pressure Human Body Can Survive In?
3944. What kinds of bacteria live in water bottles?
3945. How many species can have the same scientific name?
3946. Why is the pituitary gland located in the brain?
3947. What are the genus and species name of different breeds of dog?
3948. Are Pond Algae Edible for Humans?
3949. Orientations of codon and anticodon
3950. Do viruses or bacteria have a flavour?
3951. Can viruses be toxic?
3952. Gibbs free energy and its change for the hydrolysis of ATP
3953. Why do living fossils like crocodiles remain so constant and not evolve?
3954. Speciation of humans?
3955. How does the immune system fight scabies mites?
3956. Why do some plant species have lobed leaves, while similar species in the same habitat don't?
3957. Where is the line between Anaerobic and Aerobic?
3958. Basic Amino Acid Residue Binding Mechanism to DNA
3959. More proteins from diet when common cold and flu?
3960. Why do most animals never seem to evolve over millenia?
3961. Do neurons secrete multiple neurotransmitters, or just one type?
3962. Purpose of poly(A)+ RNA?
3963. Interpretation of picture of human chromosomes
3964. I found a bug on my bedroom floor. Is this a bedbug?

3965. Cooperativity of haemoglobin and oxygen dissociation curve of haemoglobin

3966. What is the meaning of a reported OD600 value?

3967. Do men have more extreme variations than women?

3968. Can proteins move outside cells?

3969. For how long would a flu-contaminated parcel be an effective disease vector?

3970. What kind of microscope should be used to view biological structures (such as spores) roughly 5  $\mu\text{m}$  in length?

3971. How do liver and lung metastases cause death?

3972. Blood pH at Higher Altitudes

3973. Why dogs move their noses when smelling?

3974. How to get rid of mosquitoes in a small lake

3975. What are the units of Q10 (temperature sensitivity)?

3976. How many sensory neurons are in the human body?

3977. Does the human ear adapt to noise levels?

3978. What happens when cells in your body run out of telomeres?

3979. Can adenosine be cleared?

3980. Definitions of hermaphroditism, dioecious and monoecious?

3981. What is the general term for tree-dwelling animals?

3982. Are glycoproteins and glycolipids present only on the cell surface membrane?

3983. Why does dehydration lead to low blood pressure

3984. pI and pH relationship in context of ion exchange protein purification

3985. Why do neurons have a negative resting potential?

3986. Origin of the double membrane of mitochondria and chloroplasts

3987. Is this a crayfish hole? or wasp nest?

3988. Do men have a higher genetic variance than women?
3989. How does Pothos grow in only water?
3990. Why do apples taste sweeter at the bottom?
3991. Help identify this worm-like thing
3992. Effect of transpiration on plant growth
3993. Are there verbs for "undergo mitosis" and "undergo meiosis"?
3994. Are hens and roosters the same species?
3995. What species is this grey insect with red antennae and mouthparts?
3996. What kind of bug is this on my curtain?
3997. How likely is a lack of DNA match with a distant relative?
3998. Hot water and bacteria
3999. Which predators only eat some parts of their prey? (Warning — graphic content)
4000. Is secondary follicle or Graafian follicle arrested in the second metaphase of oogenesis?
4001. Difference between flexion and contraction?
4002. Pharmacokinetics: why do certain drugs follow zero-order kinetics?
4003. Online Molecular and Cellular Biology Video Lectures?
4004. What are sources for learning bioinformatics for self-learning?
4005. What are the consequences of inbreeding?
4006. What is the difference between Single Nucleotide Polymorphism (SNP), Mutation and Structural Variation(SV)?
4007. Anomalous base pairing of nucleotide tautomers
4008. Role of calcium chloride during competent cell preparation
4009. What is the name of this red plant?

- 4010. Why is there smooth muscle in our bronchioles?
- 4011. Is the motor cortex identical to the sensorimotor cortex?
- 4012. What is the magnification necessary to see pond life
- 4013. What is the name of this fruit?
- 4014. Explaining a branch with visibly different leaves on *Citrus japonica*
- 4015. What negative effects can pinhole glasses have on the body?
- 4016. Do plants have distinctive DNA genomes from each other like humans do?
- 4017. What are artifacts in microbiology?
- 4018. What kinds of cells does human saliva contain?
- 4019. How does sodium ion increase blood pressure?
- 4020. How do the lungs act as a sieve to trap blood clots?
- 4021. What is the fastest growing bacterium?
- 4022. Why did life not evolve to use radio?
- 4023. Is each blade of grass an individual plant or not?
- 4024. What happens to lactic acid I eat?
- 4025. At any given moment, how much energy is stored in the human body as ATP?
- 4026. Did predators evolve eyes first?
- 4027. How do birds deal with their eyes drying out at high speeds?
- 4028. Difference between clonal and subclonal mutations
- 4029. How statistically significant was the "sweaty T-shirt" experiment?
- 4030. Black insect with antennae and large abdomen
- 4031. Does breath-holding cause permanent brain damage?
- 4032. Did the Zika virus mutate?

4033. Why do we urinate more often in winter compared to summer?

4034. Effect of pH on protein solubility and denaturation

4035. How do I know which molecular structure is glycine's "base state"?

4036. Is there a bacterium that became a virus?

4037. Why does gaining a hydrogen in biology considered reducing a molecule?

4038. Worm in water identification help

4039. Why does the affinity of haemoglobin for oxygen increase at higher elevations?

4040. Is our genome decaying (see "Genetic Entropy"), and, if so, is this evidence for our genome being "young"?

4041. In which direction does ATP synthase rotate?

4042. Do birds ever fly in clouds?

4043. Why Do Nerve Signals Get Crossed?

4044. Effects of Polyphasic vs Monophasic sleep in humans

4045. Why does air from the nasal cavity not go into the oesophagus?

4046. Why does a distraction cause a longer reaction time?

4047. What is the difference between the evolution of fins in whales and fish?

4048. For fish, does a bony skeleton have any advantages over a cartilage skeleton?

4049. Why do sneezes come in pairs or more?

4050. What exactly is the time constant of an ion channel gating?

4051. Why is blood removed from meat?

4052. Mutation That Loses Stop Codon

4053. What are these caterpillars eating a potato plant?

4054. Why Lungs can't work in water and gills can't work in air?

4055. How exactly does alcohol solution kill or neutralize viruses?

4056. Is the rate of photosynthesis higher than the rate of respiration?
4057. What is the fibre axis in the Watson and Crick paper?
4058. Why do sparrows jump instead of walk when they are not flying?
4059. Number of reading frames in nucleotide sequence
4060. Why are urban birds still scared of humans?
4061. Hardy Weinberg Equilibrium after 5 Generations
4062. What is the lowest pressure at which plants can survive?
4063. How does the eye know whether to focus further out or nearer in order to bring a blurry object into focus?
4064. How can you develop a bacterial infection when taking antibiotics for another area of the body with a bacterial infection?
4065. Where to put the gene after eukaryotic promoter for best expression levels?
4066. What is the actual chance of sibling incest child suffering from a genetic disorder?
4067. Examples of plant families that contain species that are safe for human consumption and species that are poisonous to humans?
4068. How can some animals see ultraviolet or infrared light?
4069. Standard Free energy of hydrolysis of phosphoenolpyruvate (PEP)
4070. What is the actual size of a nucleotide?
4071. Why are prions in animal diets not destroyed by the digestive system?
4072. Enzyme kinetics; what happens at the peak of the Gibbs energy graph?
4073. Is global life expectancy normally distributed?
4074. What is the average volume of the hippocampus?
4075. Do spiders learn how to build webs?
4076. On average how many genes / alleles do people share?
4077. What's the difference between blood value units 'mEq/l', 'mU/l', 'mIU/l' and 'mEq/l'?

4078. Neurons with thousands of connections: where are the extra connections coming from?

4079. ATP required for cell processes

4080. Why is an HIV infection considered "incurable"?

4081. How do proteins 'know' where to go?

4082. Does the renal vein have a greater glucose concentration than the renal artery?

4083. Is the 6th rib attached to 7th rib, and 7th rib to 8th?

4084. Why DMSO is used as a control?

4085. What's the difference between male and female?

4086. Why do some white blood cells have lobed nuclei?

4087. In SDS-PAGE, why are the sample buffer and running buffer different in concentration?

4088. Are there animal species that sense infrared light with their eyes?

4089. How did the huge dinosaurs cope with gravity and loads on bones, etc.?

4090. What percentage of fish are herbivorous vs. carnivorous?

4091. Spider Identification: Is this an Arizona Recluse?

4092. Are insects attracted to near infrared light?

4093. Action potential and sodium channels

4094. Why do specifically bananas go brown quicker in the fridge?

4095. Can vitamin B17 cure cancer?

4096. Structure of adenoids

4097. How can CI repressor both activate and repress  $P_{RM}$  promoter found in  $\lambda$  phage?

4098. Why are people tired after surgery?

4099. What is (probably) the closest living relative of the trilobite?

4100. Does "Garbage Enzyme cleaner" contain cleaning enzymes?

4101. Molecular cause of cramps, spasms and strengthening in muscles? (incl. intro to muscle contraction)

4102. Hundreds of Red Spiders in Individual Webs