Team 10 Meeting 10
2024-12-02

1. **Review Slides**
    a. ***Background***
        - Title: more conclusive statement that aligns with data and speaks to takeaways mentioned in conclusion
            - Relate it to the model, because that is our main result
                - “Developing a predictive model based off age, smoke, MS”
        - Cut down more text in background slide
            - Bullet point, keep characterization
            - Add point about why age is relevant and other factors
            - Can remove indicator taxa from background
            - Need to introduce age and smoking in one point each, convey emphasis on project
    b. ***Aims slide/outline slide good***
        - Need to add workflow, i.e. binning, location, smoke
        - Where we got data from
            - Above could be added in an approach slide AFTER hypothesis
            - Cohort slide
    c. ***Hypothesis***
        - Move to after aims slide
        - Very broad hypothesis
            - Increase in taxonomic biomarkers of age, smoking, pMS
    d. ***Aim 1***
        - Make beta legend a bit larger in PP
        - Older and younger instead of old and young
        - Remove aim 1 takeaway slide
        - Good to keep “what about smoking?” transition
    e. ***Aim 2***
        - Specify difference in Alpha diversity across age smoke MS status
        - Also change older and younger
        - Microbial differences
        - highlight/redboxes for beta to specify the one that we actually care about (comparison 2)
        - Give the group one sentence to encapsulate differences between comparisons
    f. ***Aim 3***
        - Transition, we did not find significant changes in broader aims 1 and 2, but looking at more specific/narrow
        - Remove functional difference
        - What should we be talking about from here?
        - Add arrows on plot, make legend for just c_Verr larger
        - Figure labels larger on taxabar
        - Put ALDEx following off of the taxabar (we saw these changes, here is the plot)
            - Small volcano plot that feeds into RF

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- DELETE coremicrobiome analysis

g. Aim 4

- Verrucomicrobia
    1. Good info, will it take too long to explain it?
        a. For manuscript include all
        b. For presentation just talk about inflammatory mechanism, not so much how it aligns with literature
    2. Move it to the very end after the RF before conclusion
    3. Only if there is time, not absolutely necessary for presentation, moreso for a comprehensive story
- RF
    4. Remove explanation/background of RF
        a. Tell team to say used machine learning model, focus more on findings than the model
    5. Justification for biggest contributors
    6. Akkermansia is increased with age normally
    7. Add a reference that 1.0 is most important
    8. Combined model is best model and akkermansia is a top contributor
    9. Remove graphs and just indicate train/test values and put more significance on the importance, give a scale of what is important vs not important, pick some factors that are interesting across multiple

h. Conclusion

- Add part about model

i. Future Directions

- Write in a more conclusive way
    - Using picrust, what mechanisms would we be interested in and **what would this add** to our findings and how it relates to mucin pathways/inflammation
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100 words for each speaker notes