

## September 2020 meeting planning

Frederick J. Boehm

9/15/2020

→ started *Macrophage* project

→ Planning *NRSA* *SP Abbas*

### Accomplishments from last year

1. Aided Clare et al. in analyzing CC lines
2. Began developing "reduced models" project for DO and CC QTL mapping studies
3. Learned some aspects of TIMBR for allelic series
4. Presented poster at Keystone TB meeting in January
5. Taught QTL mapping tutorial to lab members
6. Became JOSS editor
7. Became member of GSA ECS Committee
8. JSE mentoring paper provisionally accepted!
9. Journal club with Abbas
10. Began exploring RNAseq DO data from FDA. gbrs is installed on GHPCC!
11. Aided Clare's student Rachel in working with Github
12. Started thinking about approaches to promoting racial equity and diversity in science professions
13. Presented thesis research at GSA ECS Webinar in October (or late September??)

→ *Michelle assistance w/ Rys*

→ *Established collaborations*

*Thank @ how all benefit*

*- start of 'being a good collaborator'*

### Research Goals for September 2021

1. Continue collaboration with FDA & DO mice (allelic series-informed, reduced models as one idea)
- Analyze existing bulk blood RNAseq data from DO mice
- Analyze individual TNseq traits in CC
- Map resulting gene expression traits (from DO RNAseq) in pre-vaccination mice
- Also, examine DE gene expression traits (differentially expressed between pre- and post-vaccination)
- Learn methods for DE studies from bulk RNAseq data
- Meet more regularly, at least once per month, with Sherry Kurtz

Continue working with Abbas - macrophage cell lines

- Develop analytical pipeline for scRNAseq analysis from DO and CC-derived macrophages
- Develop and implement quality control methods for scRNAseq from macrophages
- Implement statistical design principles for macrophage cell line experiment planning
- Clarify - with Abbas and Chris - scientific goals for macrophage cell line studies
- Are additional 'omics measurements useful or needed?

*Phenotype differences to mac lines → phenotype*

### Professional and Personal Goals for September 2021

Continue as JOSS editor

Contribute to JOSS 4-year paper writing

Continue with GSA ECS committee

Choose one research meeting to present at - maybe ENAR Spring 2021 or a summer meeting?

Write a covid19 JSE paper with Bret H.

*Allelic series exp from RNAseq*

*Can we refine CC position by using DO data?*

*1st priority*

*paper*

*cc Dan Gatti, too.*

*2nd exp*

*- hotspots Tissue & reduced models*

*reduced & pleiotesting models*

*Mee & Ant Larar*

*- differ (?) from*

*DO & CC mice*

*- Replicate confounding*

- Microbiology / not ~~the~~ networking
- work on networking / home message for not dz crowd
  - find platform & accessible story

Continue weekly journal club with Abbas. Maybe advertise it to other scientists?

Complete UMass book club on "How to be an antiracist".

Think about how I might connect with other biostatisticians.

Grow my professional network in biostatistics and biology.

### Feedback for PI

I'm very grateful for the scientific, professional, and personal support.

I also appreciate your enthusiasm for group discussions about outreach and activities to promote equity in STEM.

You've been very available to me, yet I've been reluctant to schedule more regular meetings. Maybe I feel like I'd be imposing? I'm not sure, but I think that I'd benefit from more communication between us.

Equity

- Christina B.

- Lisa L.

- Charlotte R.

Fred, Abbas, Megan collab get  
strengthen collab this year

- monitor bandwidth

- monitor daily time use

→ once per week  
QA on Tuesdays

9:30 AM next wk.

Spring/Summer  
μ mtgs

- Peer resubmission help
- Continue to advocate for my training

μ crowd

↓  
thank @ timing

↓  
un interested  
in process

↓  
need funding

↓  
possible  
candidates

↓  
stat &

Worcester TB  
Meeting