

# My Personal BioX Journey

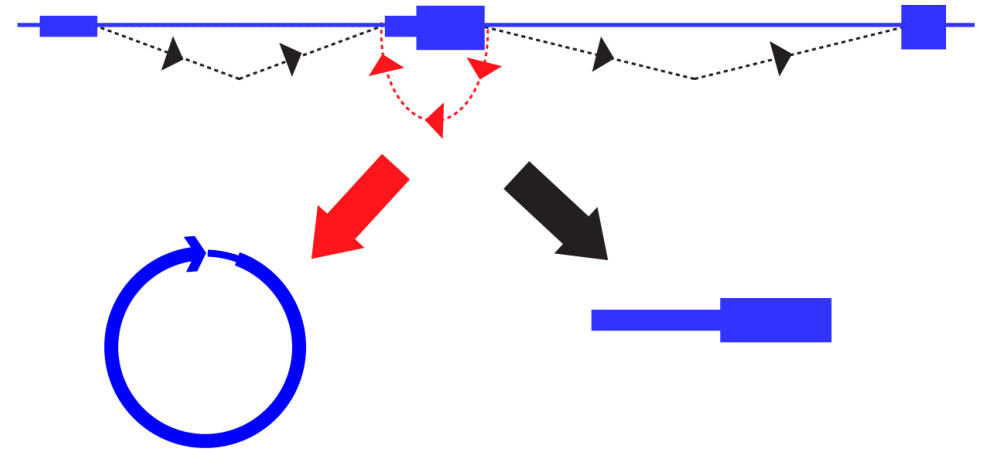
Lucas Bishop, M.S.  
Nevada Bioinformatics Center

# My Story - Wet lab to computer lab

- Always knew I liked science, DNA in particular really interested me.
- Cryptozoologist - interesting field, not practical career choice.
- Undergrad at UNR: started working in fly genetics lab. The experiments were slowww. 3 month time trial experiment for 1 figure?
- Some of the wet lab work was fun, but analyzing the qPCR data was one of my favorite parts.

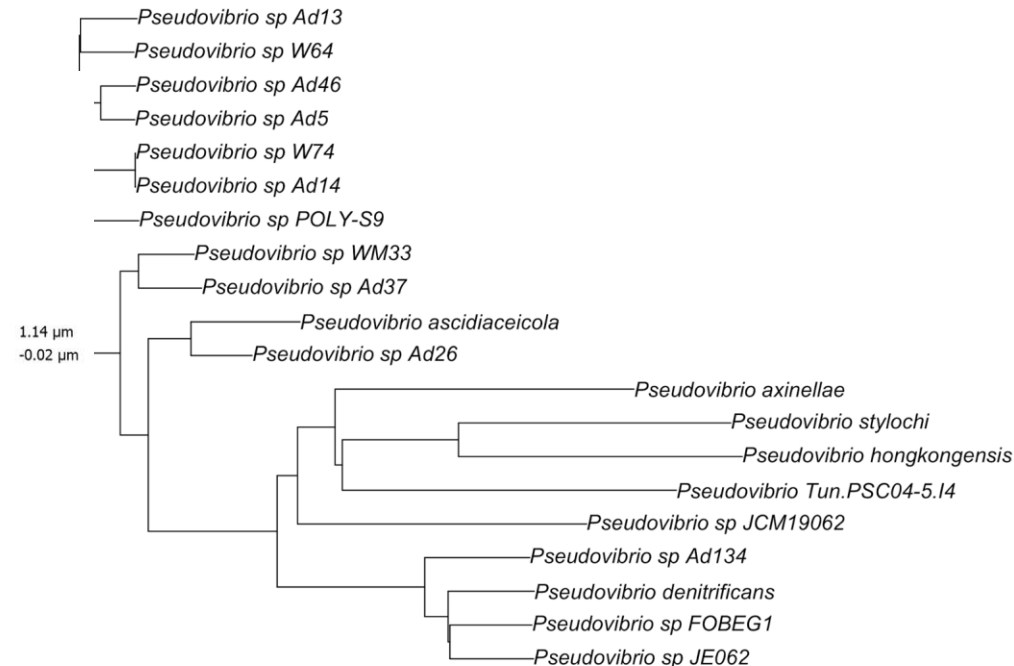
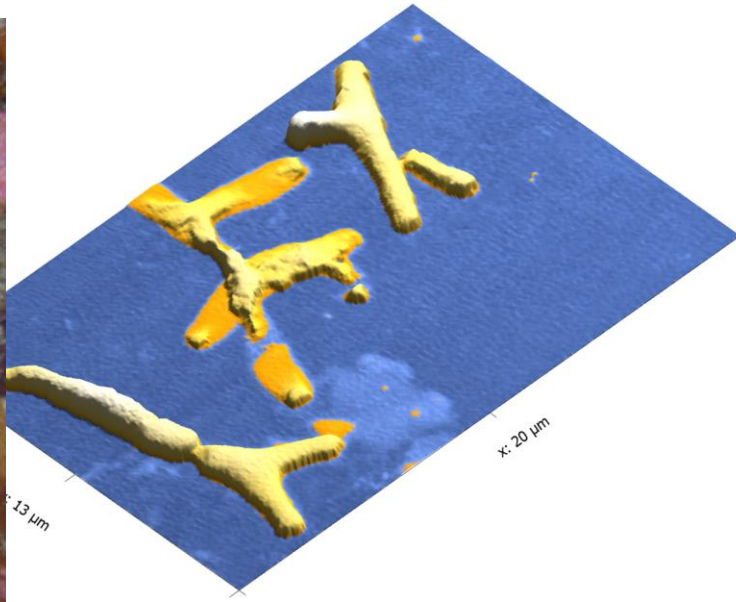


## Circular RNAs



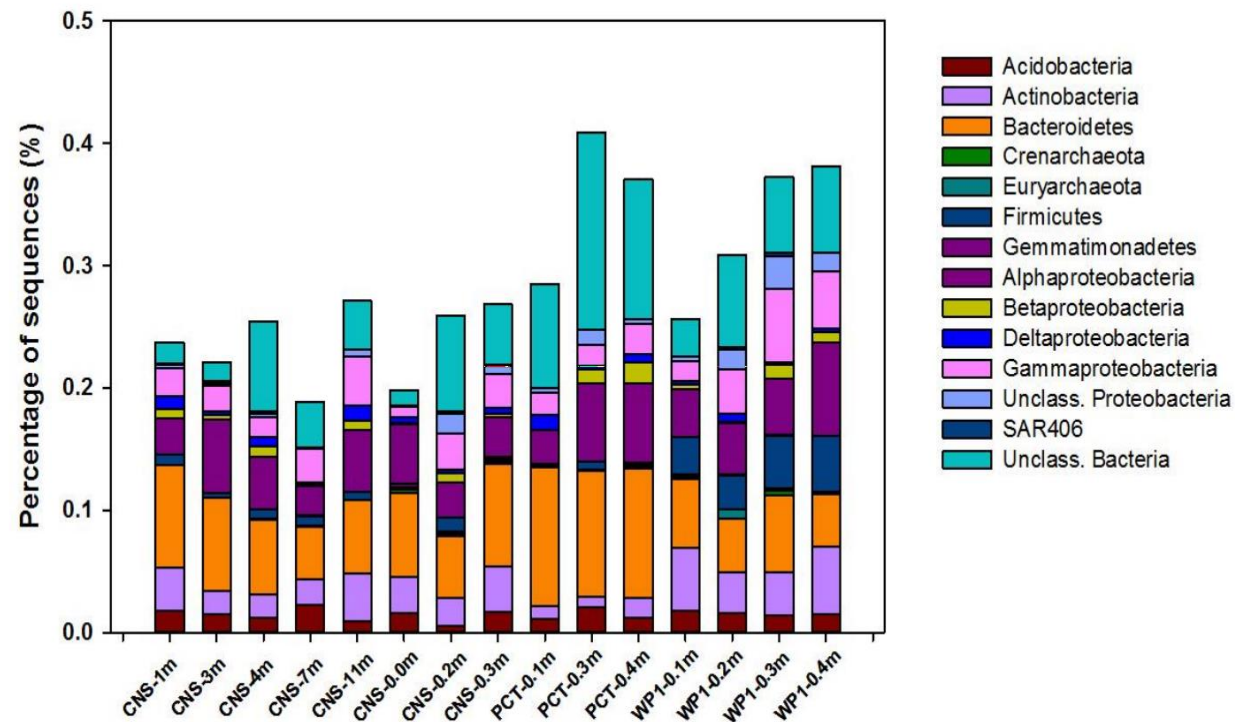
# My story - wet lab to computer lab

- Left fly genetics lab, started work in immunology lab running ELISA's. Again, data analysis was the highlight.
- Internship in flow cytometry lab. Found out what I don't want to do.
- M.S. at DRI: worked on variety of bacterial ecology projects with Antarctic/cold environment samples.
- Took first bioinformatics class, research emphasis on sequence analysis, started writing code to visualize some results.

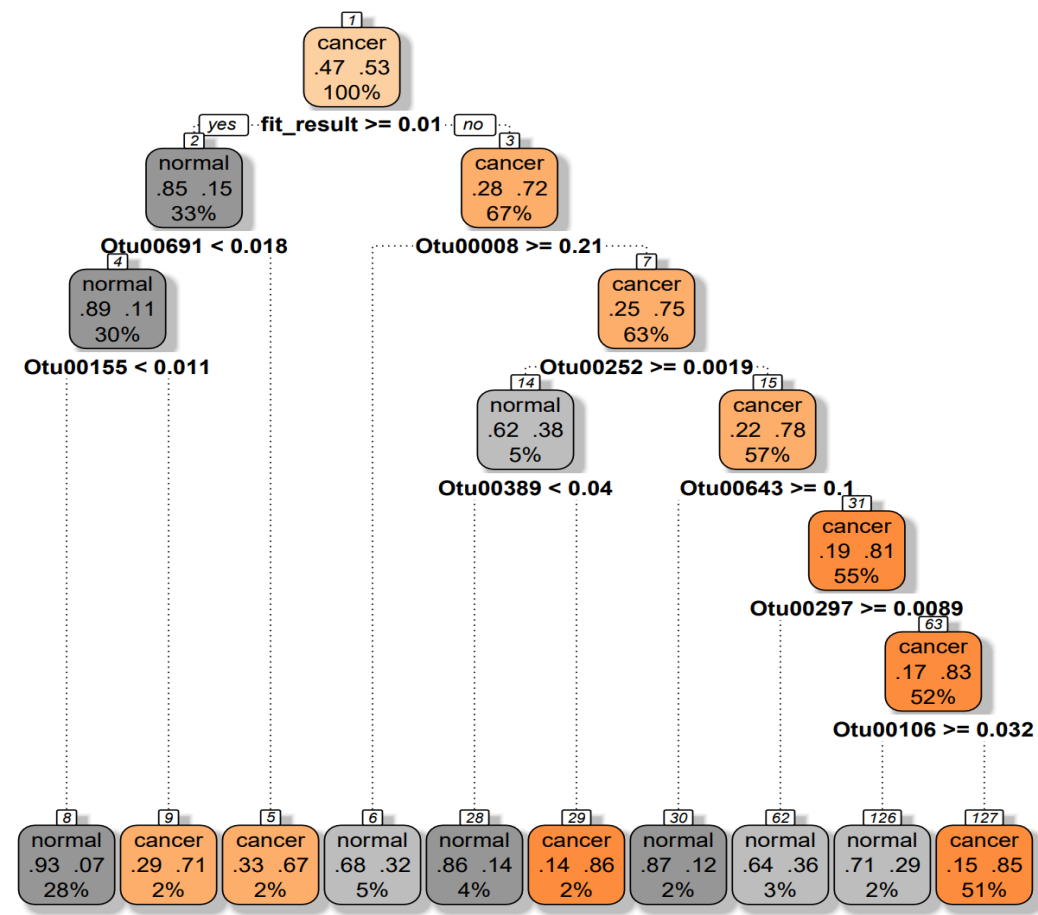
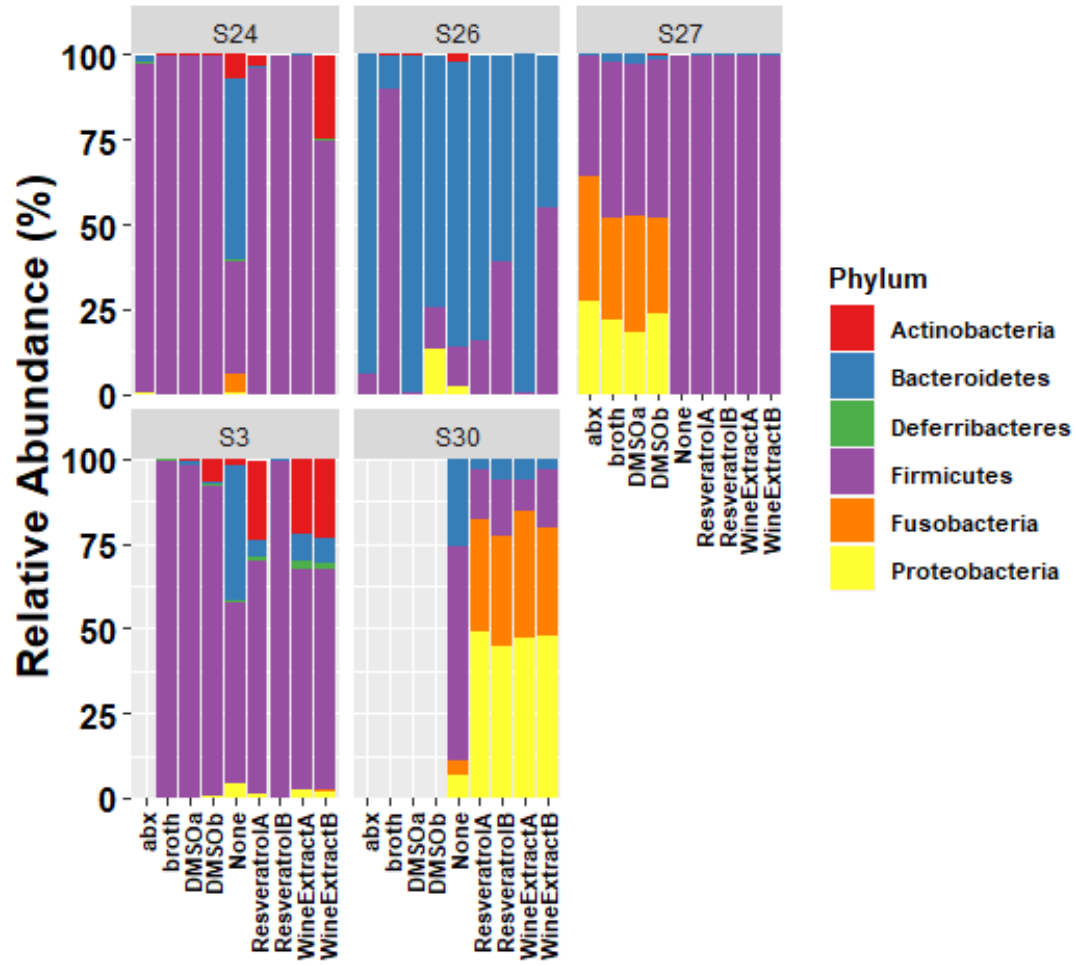




- After graduation, continued work at DRI, more computationally focused.
- Field work, samples, sequence, analysis.
- Continued to practice analysis from command line, less reliance on GUI.
- Still made crappy figures.

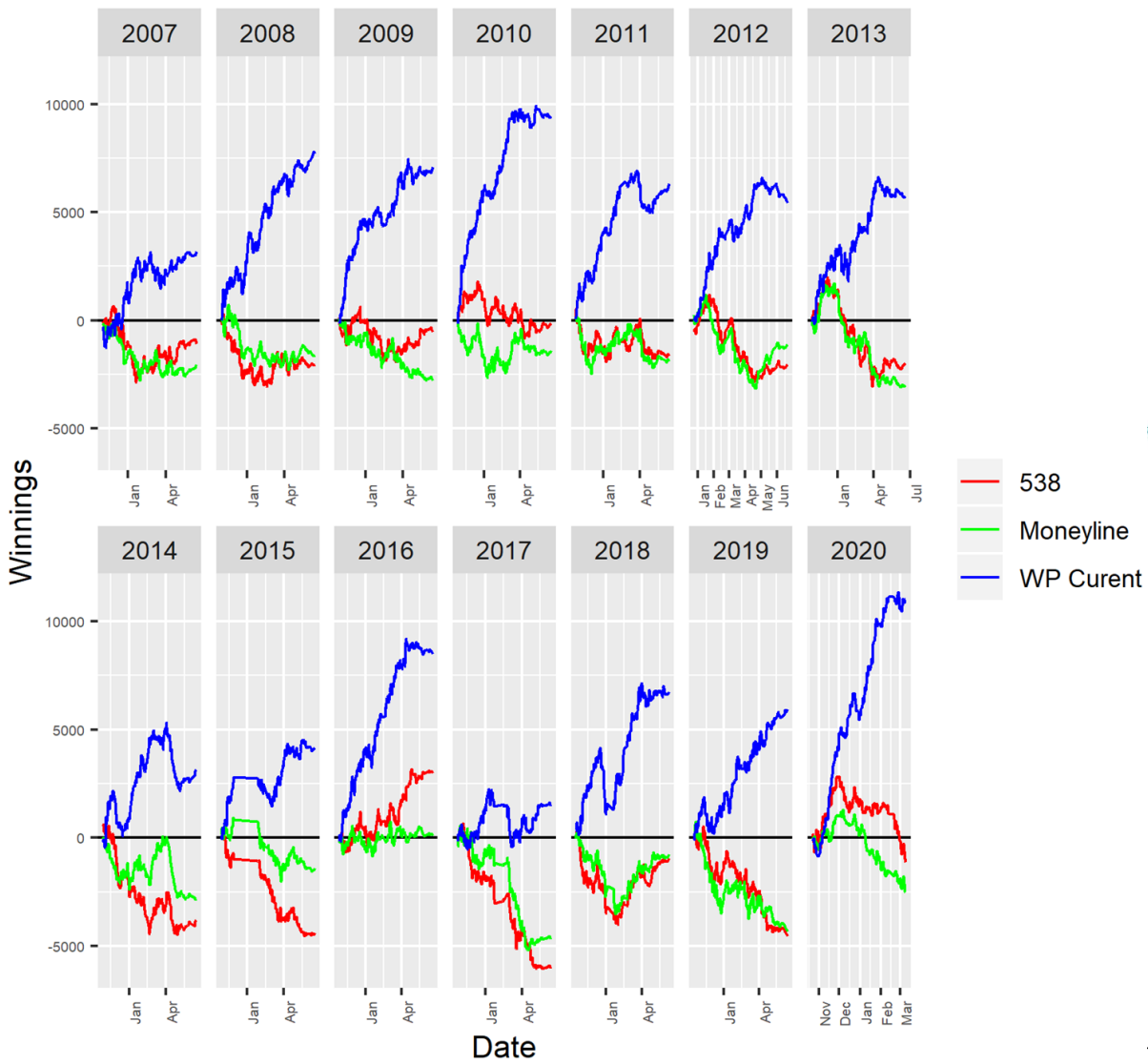


- Got technician job in Microbiome lab @ UM generating very large (>1000 samples) NGS datasets.
- Took workshops, audited classes, took on side projects
- Coding skills, interest increase.



# Data analysis can be fun!

Gambling loses money - regardless of model  
All data since 2007 season when moneyline data became available

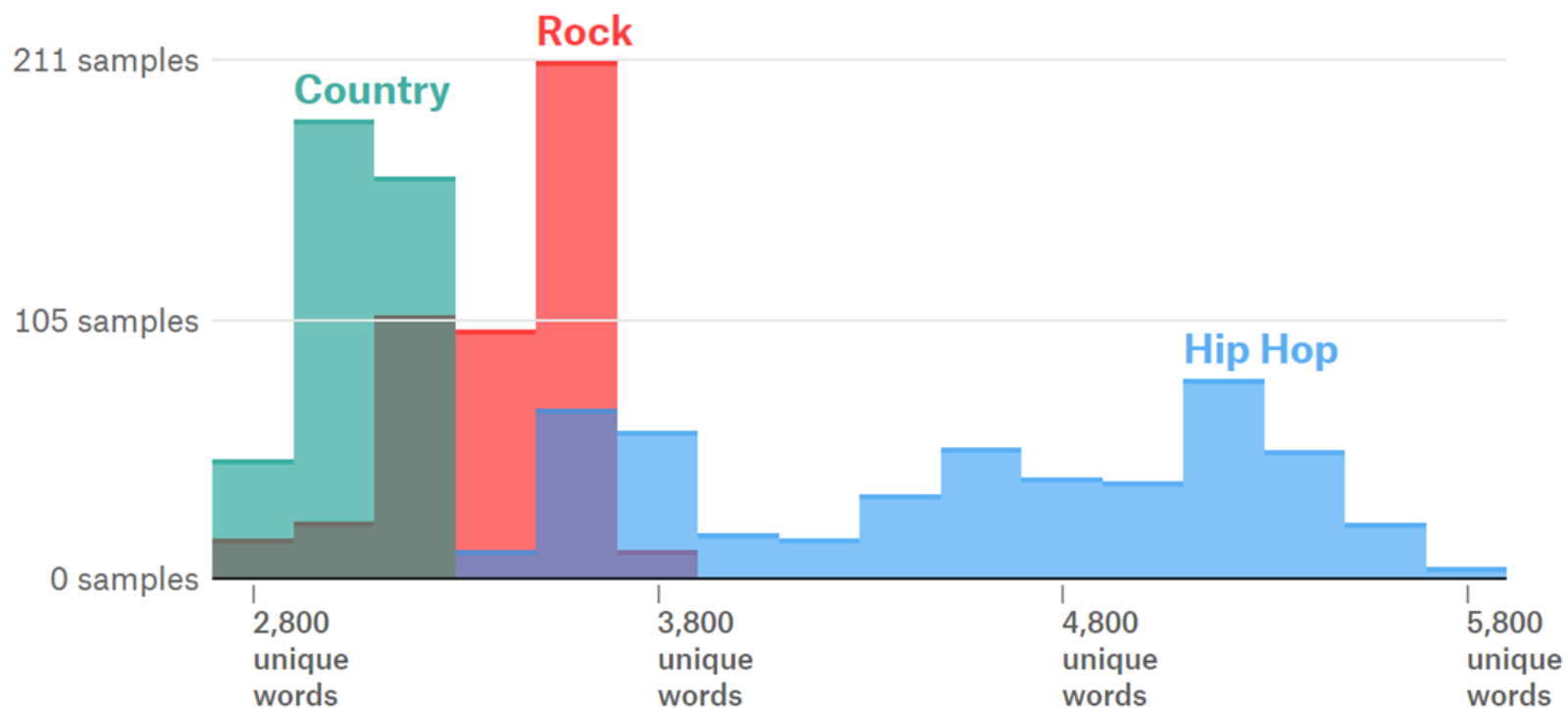




# Data analysis can be fun!

- <https://pudding.cool/> (like below)
- <https://www.kaggle.com/datasets> (competitions, tutorials, datasets)
- <https://fivethirtyeight.com/>

# of Unique Words Used in 500 Random Samples of 35,000 Lyrics from Country, Rock, Hip Hop



Raw Lyrics Data via [John W. Miller](#)

# Data analysis - many good resources

- <https://training.galaxyproject.org/training-material/>
  - Galaxy - updated and maintained regularly, little of everything
- <http://www.riffomonas.org/>
  - The riffomonas project - introductions to R and microbiome analysis
- <http://evomics.org/workshops/2016-workshop-on-microbial-genomics-harvard-university/>
  - Harvard workshops: many top U's are really good about posting free workshops
- <https://mgm.jgi.doe.gov/img-webinar-series/>
  - Joint Genome Institute host's webinars and workshops regularly
- <https://meetings.cshl.edu/courses.html>
  - CSHL another great place for online/ in person workshops and courses