



Cold
Spring
Harbor
Laboratory

Advanced Sequencing Technologies & Bioinformatics Analysis (Virtual)

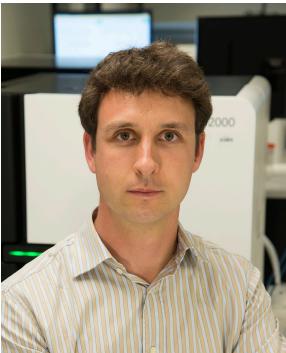
<http://meetings.cshl.edu/courses.html>

Introductions to Bioinformatics instructors



Malachi Griffith

Assistant Professor of Medicine
Assistant Professor of Genetics
Assistant Director, MGI



Obi Griffith

Associate Professor of Medicine
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Assistant Director, MGI



Felicia Gomez

Instructor of Medicine



Allegra Petti

Assistant Professor of Medicine



Aaron Quinlan

Professor of Human Genetics and of Biomedical Informatics



Huiming Xia
PhD candidate



Kelsy Cotto
PhD candidate



Megan Richters
PhD candidate

PETTI LAB

sites.wustl.edu/pettilab



John Chamberlin
Graduate Student



Simone Longo
Graduate Student

 **GRIFFITH LAB**

griffithlab.org rnabio.org genviz.org pmbio.org

 Washington University in St. Louis
SCHOOL OF MEDICINE

QUINLAN LAB @ UU

quinlanlab.org

 THE
UNIVERSITY
OF UTAH

rnabio.org

Introduction to SEQTEC Informatics – philosophy and goals

Do “the bioinformatics” for someone, and you help them for a day. Teach someone to do bioinformatics, and you help them for a lifetime.

- Ancient Chinese proverb

- Course goals
 - Learn concepts and develop skills for sequence analysis
 - Build the foundation for tackling your own analysis challenges
 - Learn to think like a bioinformatician
 - Have fun

Course outline

Monday - Introduction to technologies

Tuesday - Bioinformatics basics and NGS data fundamentals

Wednesday - RNAseq expression analysis

Thursday - RNAseq differential expression analysis and interpretation

Friday - Single cell RNAseq

Course format for a typical day

- Lecture
- BREAK
- Practical exercises
- Lunch
- Practical exercises
- BREAK
- Practical exercises
- Wrap-up and Q&A

Student poll

Not counting the pre-requisites and materials for this course:

- Do you consider yourself a bioinformatician?
- Are you familiar with linux/command line?
 - Intermediate?
 - Expert?
- Do you sometimes write code?
- Are you familiar with R?
 - Intermediate?
 - Expert?
- Do you use git/github?
- What organism do you work with?
- Are you interested in bulk RNAseq (Yes), scRNAseq (No), or both (hand)?
- Who has a dual monitor setup?