

Teaching the Genome Generation
Bowdoin College, Brunswick, ME
June 23 – 28, 2019

DAILY SCHEDULE

All meals will be served in Thorne Dining Hall, unless otherwise noted
All lecture, discussion and bioinformatics sessions will be held in Kanbar 107
Connecticut cohort lab sessions will be held in Hatch 202
Maine cohort lab sessions will be held in Druckenmiller 124

SUNDAY

3:00 – 7:00 **Arrival and Housing Check in**
Bowdoin Events Office – Coles Tower

6:00-6.45 **Dinner**

MONDAY

7:00 **Breakfast**

8:00 **Program, DNA Basics and Genomics Intro**
Faculty: Charlie Wray and Mike McKernan

9:00 **Informed Consent Primer**
Faculty: Mike McKernan and Dana Waring

9:30 **Introduction to Curricular Integration**
Faculty: Mike McKernan

10:00 **Lab: Micropipetting Exercise and DNA extraction (Protocol 1 & 1b)**
Faculty: Charlie Wray, Sarah Wojiski, Alison Kieffer, Laura Butterfield

11:30 **Lunch**

12:30 **Lab: DNA extraction, long method (Protocol 1)**
Faculty: Charlie Wray, Sarah Wojiski, Alison Kieffer, Laura Butterfield

2:30 **Ethics 1: Introduction to Personal Genetics**
Faculty: Dana Waring

3:30 **Bioinformatics 1: Bioinformatics introduction**
Faculty: Charlie Wray

4:30 **Departure**

6:00 **Group dinner at Bolos Kitchen, Cantina & Candlepin**
7 Dunlap Street Brunswick, Maine 04011

TUESDAY

7:00 **Breakfast**

- 8:00 **Lab: Polymerase Chain Reaction (Protocol 2a –ACE)**
- 10:00 **Neal Hanchard Talk**
- 11:30 **Explanation of education research**
Faculty: Michael McKernan
- 12:00 **Lunch**
- 1:00 **Bioinformatics 2: Curious Case of Jim Lupski**
Faculty: Sarah Wojiski and Emaly Piecuch
- 2:30 **Ethics 2: Introduction to Personal Genetics recap & Genetics, History and the American Eugenics Movement**
Faculty: Dana Waring
- 4:00 **Lab: Gel Electrophoresis (Protocol 4 - ACE) and Polymerase Chain Reaction (Protocol 2a and 2b - OXTR and CYP2C19)**
- 6:00 **Dinner**

WEDNESDAY

- 7:00 **Breakfast**
- 8:00 **Lab: Restriction Digestion (Protocol 3 - OXTR and CYP2C19), Gel Electrophoresis (Protocol 4 - OXTR and CYP2C19) and Polymerase Chain Reaction (Protocol 2a - ACTN3 and TAS2R38)**
- 11:00 **Bioinformatics 3: Case Study – 5xFAD Breakthrough Case**
Faculty: Emaly Piecuch and Sarah Wojiski
- 12:00 **Lunch**
- 1:00 **Curricular Integration**
Faculty: TBD
- 2:30 **Ethics 3: Genetic editing and CRISPR & scenario discussion**
Faculty: Dana Waring
- 4:00 **Lab: Gel Electrophoresis (Protocol 4 – ACTN3 and TAS2R38)**
- 5:00 **Lab: PCR clean-up for sequencing (Protocol 5 - ACTN3, TAS2R38 and CYP2C19)**
- 6:00 **Dinner**
- 7:00 **Movie Night and Ethics 5: Twitch and Direct to Consumer Genomic Testing**
Faculty: Dana Waring and Charlie Wray
Location: TBD

THURSDAY

- 7:00 **Breakfast**
- 8:00 **Bioinformatics 4: BLAST, BLAT and CLUSTAL**
Faculty: Charlie Wray
- 9:30 **Ethics 4: Sex and Athletics**
Faculty: Dana Waring
- 10:30 **Bioinformatics 5: Sequence and Genotype Analysis (Protocol 6 - ACTN3, TAS2R38 and CYP2C19)**
Faculty: Charlie Wray
- 11:30 **Breakout: Innovation in TtGG**
- 12:00 **Working Lunch (Focus groups)**
- 2:00 **Break**
- 3:00 **Ethics 5: Genetic Engineering and the world around us**
Faculty: Dana Waring
- 4:00 **Social hour: Networking and Discussion**
Faculty: Stephanie Dumont and Laura Butterfield
Location: Thorne Dining Hall
- 5:30 **Dinner**

FRIDAY

- 7:00 **Breakfast**
- 8:00 **Introduction to Sharepoint and reserving your mobile lab kit**
Faculty: Alison Kieffer
- 8:30 **Ethics 6: Reproductive Genetic Screening: Technology, access and decision making & DNA, Crime and Law Enforcement**
Faculty: Dana Waring
- 10:30 **Report out on curricular integration**
Faculty: Mike McKernan
- 11:30 **Course Evaluations**
Faculty: Mike McKernan
- 12:00 **Lunch**
- 1:00 **Departure**