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

<table>
<thead>
<tr>
<th>DAILY SCHEDULE</th>
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| 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