

**Teaching the Genome Generation
The Jackson Laboratory, Bar Harbor
July 11-15, 2016**

PRELIMINARY SCHEDULE as of August 2015

General Information:

The Course will begin at 8:30 am Monday, July 11

The Course will end by 3 pm on Friday, July 15.

The course will begin every day at 8:30 am.

DAILY SCHEDULE

SUNDAY 7/10

Arrival and Check in to course housing

Cottages: JAX check in after 12:00 pm

MONDAY 7/11

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| 7:00 am | Breakfast
Location: Roscoe's |
| 8:00 | Registration and visitor badging at the Main Lab Security Desk |
| 8:30 | Introductions and Grand Overview of Course: Techniques, Bioinformatics and
Genome Ethics
Location: GRB 3225
Faculty: Charlie Wray and Mike McKernan |
| 10:00 | Laboratory Skills Refresher and Genomics Laboratory Procedures: DNA
extraction
Location: GRB Training Lab
Faculty: Charlie Wray and Kelly LaRue |
| 11:00 | Ethics 1: Overarching Topics in Bioethics
Location: GRB 3225
Faculty: Dana Waring |
| 12:30 pm | Working Lunch: Introduction to Canvas™ LMS
Location: GRB 3225
Faculty: Kelly LaRue |
| 1:30 | Genomics Laboratory Procedures: DNA extraction
Location: GRB Training Lab
Faculty: Charlie Wray and Kelly LaRue |

- 3:00 **Bioinformatics 1:** The NCBI Gene Interface
Location: GRB 3225
Faculty: Charlie Wray
- 4:00 **Genomics Laboratory Procedures:** Polymerase Chain Reaction (ACE – Introductory Biology)
Location: GRB Training Lab
Faculty: Charlie Wray and Kelly LaRue
- 5:30 **Debrief**
Faculty: Charlie Wray, Dana Waring, Kelly LaRue
- 6:00 Dinner on your own

TUESDAY 7/12

- 7:00 am **Breakfast**
Location: Roscoe's
- 8:30 **Genomics Laboratory Procedures:** Gel Electrophoresis (ACE – Introductory Biology)
- Genomics Laboratory Procedures:** Polymerase Chain Reaction (OXTR or CYP2C19 – Honors/AP Biology)
Location: GRB Training Lab
Faculty: Charlie Wray and Kelly LaRue
- 10:30 **Ethics 2:** Ethics and Reproductive Biology
Location: GRB 3225
Faculty: Dana Waring
- 12:00 pm **Lunch**
Location: Roscoe's
- 1:00 **Genomics Laboratory Procedures:** Restriction Digestion and Gel Electrophoresis (OXTR or CYP2C19 – Honors/AP Biology)
Location: GRB Training Lab
Faculty: Charlie Wray and Kelly LaRue
- 1:30 **Science Café: Genomics in the news**
Location: GRB 3225
Faculty: Charlie Wray and Dana Waring
- 2:30 **Genomics Laboratory Procedures:** Gel Electrophoresis (OXTR or CYP2C19 – Honors/AP Biology)
- Genomics Laboratory Procedures:** Polymerase Chain Reaction (ACTN3 or CYP2C19 – Advanced Laboratories)

Location: GRB Training Lab
Faculty: Charlie Wray and Kelly LaRue

5:30 **Debrief**
Faculty: Charlie Wray, Dana Waring, Kelly LaRue

6:00 Dinner on your own

WEDNESDAY 7/13

7:00 am **Breakfast**
Location: Roscoe's

8:30 am **Genomics Laboratory Procedures:** Gel Electrophoresis and PCR clean-up for sequencing (ACTN3 or CYP2C19 – Advanced Laboratories)
Location: GRB Training Laboratory
Faculty: Charlie Wray and Kelly LaRue

11:00 **Bioinformatics 2:** BLAST and CLUSTAL Sequence Analysis
Location: GRB 3225
Faculty: Charlie Wray

12:00 pm **Lunch**
Location: Roscoe's

1:00 **Ethics 3:** Athletic Performance, Genetic Complexity and Bioethics
Location: GRB 3225
Faculty: Dana Waring

2:30 **(Optional) Genomics Laboratory Procedures:** Practice
Location: GRB Training Laboratory
Faculty: Charlie Wray and Kelly LaRue

4:00 **Reception with research scientists**
Location: Oasis Lounge

6:00 Dinner on your own

THURSDAY 7/14

7:00 am **Breakfast**
Location: Roscoe's

8:30 am **Genomics Laboratory Procedures:** Sequence Analysis (ACTN3 or CYP2C19 – Advanced Laboratories), Tour of sequencing facility
Location: GRB Training Laboratory
Faculty: Charlie Wray and Kelly LaRue

- 10:00 **Ethics 4:** Genetics, Behavior and Criminal Activity
Location: GRB 3225
Faculty: Dana Waring
- 11:30 pm **Working Lunch:** Barriers to implementing genetics education in high schools with *TtGG* alumni
Location: GRB 3225
Faculty: TtGG alumni
- 12:30 **Genomics Laboratory Procedures:** Sequence and Genotype Analysis (ACTN3 or CYP2C19 – Advanced Laboratories)
Location: GRB Training Laboratory
Faculty: Charlie Wray and Kelly LaRue
- 2:00 **Teaching resources with *TtGG* alumni and “Out of the Box” practice**
Location: Staff Conference Room
Faculty: TtGG alumni and Kelly LaRue
- 5:30 **Debrief**
Faculty: All
- 6:00 Group dinner, Bar Harbor

FRIDAY 7/15

- 9:00 am **Roundtable discussion:** Direct to Consumer Genomic Testing
Location: GRB 3225
Faculty: Dana Waring
- 10:00 **Curriculum/Unit/Lesson Plan Development**
Locations: GRB 3225, Education Beehive
Faculty: TtGG alumni
- Optional: Implementation practice
Location: GRB Training Laboratory
Faculty: Charlie Wray and Kelly LaRue
- 12:00 pm **Working Lunch:** Continue Curriculum/Unit/Lesson Plan Development
Location: GRB 3225, Education Beehive
- 1:00 **Curriculum/Unit/Lesson Plan Report Out and Discussion**
Location: GRB 3225
Faculty: TtGG alumni
- 2:30 **Evaluations**
- 3:00 **Final debrief**
- 3:30 Departure
Optional: Guided hike in Acadia National Park