



Genomic Science and Leadership Initiative

Fort Lewis College, Durango, CO

May 22 – 26, 2017

Presented by

J. Craig Venter Institute, Cold Spring Harbor Laboratory, University of Wyoming, Fort Lewis College College

Instructors

Dr. Agnes Chan, Stephanie Mounaud (JCVI); Dr. David Jackson, Dr. Joslynn Lee (CSHL); Dr. Anne Sylvester (UW); Arron Shiffer (NAU); Dr. Jennifer Lowell (FLC)

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Detailed Agenda

Monday
May 22, 2017

Arrival

- 4:00 / 5:00 PM Arrive at Fort Lewis College (FLC) campus
- 5:00 PM Check in to dorms and walk around campus
- 6:00 PM Welcome dinner in Durango, CO
- 8:00 PM Head back to campus

Tuesday
May 23, 2017

Workshop Day 1 - DNA Isolation from Water Sources

- 7:00 - 8:00 AM Breakfast in FLC Campus Center
- 8:00 AM Walk to Chemistry Hall
- 8:15 – 8:30AM Welcome Introduction, Jennifer Lowell, FLC Dept of Public Health
Opening Blessing by Clyde Benally, FLC Elder-in-Residence
- 8:30 - 9:00 AM Group Introductions (2-3 min per person)
- 9:00 - 10:00 AM **Lecture/Discussion**
Workshop Introduction, Anne Sylvester, University of Wyoming
- Part 1: Water Quality Testing using Genetics and Genomics
 - Part 2: Lab Safety
- 10:00 AM - noon **Wet-lab**, Stephanie Mounaud, JCVI
- Lab 1: Using Pipettes
 - Lab 2: DNA Extraction from Water Sources
- 12:30 - 1:30 PM **Lunch/ Break**

- 1:30 – 2:30 PM **Lecture/Discussion**
Sample Collection, Joslynn Lee, CSHL DNALC
- 2:00 - 5:30 PM **Wet-lab**, Dave Jackson, CSHL; Stephanie Mounaud, JCVI
- Lab 3: PCR Amplification
 - Lab 4: DNA Quantification Nanodrop
 - Lab 5: Agarose Gel Electrophoresis and Analysis

5:30 - 6:00 PM Break

6:00 - 8:00 PM Dinner

8:00 -9:00 PM Watching movie/shows in Chemistry Hall

Wednesday
May 24, 2017

Workshop Day 2 - Visit local area

- 8:00 - 9:00 AM Breakfast at FLC Campus Center
- 9:00 - 10:00 AM Drive to location we picked on Monday! Mesa Verde or Silverton
- 10:00 - 12:00 PM Getting to visit and hang out in Mesa Verde or Silverton
- 12:00 - 1:00 PM Lunch
- 1:00 - 3:00 PM Afternoon adventures in Mesa Verde or Silverton
- 3:00 - 4:00 PM Drive back to FLC campus
- 4:00-4:30 PM Break before dinner
- 5:30 – 7:00 PM Dinner in Durango
- 7:00 – 8:00 PM **Talk: Microbiome Research: Altering the human gut microbiome via Fecal Microbiome transplant and by using modified exercise and nutrition conditions**, Arron Shiffer, Northern Arizona University

Thursday
May 25, 2017

Workshop Day 3 - Decoding and Identification of DNA Sequences

- 8:00 - 8:15 AM Breakfast at FLC Campus Center, Walk to Chem Hall
- 8:15 - 9:30 AM **Lecture/Discussion**, Agnes Chan, JCVI; Joslynn Lee, CSHL DNALC
- Part 1: DNA Sequencing
 - Part 2: 16S ribosomal RNA analysis
- 9:30 - Noon **Computer Lab**, Joslynn Lee, CSHL DNALC
- Lab 1: How to read a journal article
 - Lab 2: Basics of Unix/Linux and Cloud Computing
- Noon - 1:00 PM Lunch/Break
- 1:00 - 2:00 PM **Talk: Microbiome Research**, Jennifer Lowell, FLC Public Health
- 2:00 - 5:00 PM **Computer Lab**, Joslynn Lee, CSHL DNALC
- Lab 3: QIIME Analysis of 16S samples
 - Lab 4: Comparison to Mother Analysis, Results by Yongwook Choi, JCVI
- 5:30 - 6:00 PM Break
- 6:00 PM Dinner at Les Sommerville's Home, FLC Chemistry

Friday
May 26, 2017

Closing of Workshop and Departure

8:00 - 9:00 AM

Breakfast at FLC Campus Center

9:00 -11:00 AM

Lecture/Discussion

Wrap Up

- Part 1: Brandon Francis: Research and sampling results
- Part 2: Closing Remarks from organizers
- Part 3: Closing Blessing by Clyde Benally
- Part 4: Post-survey

11:00 AM - noon

Dorm check-out
Depart campus