

Hopkins Microbiology Course 2013

Morning Lecture Schedule

Hopkins Marine Station, Agassiz 10

Week of Monday, June 17, 2013

Friday, June 21

2:00 PM *Course Overview: Microbe-Environment Interactions and Microbial Diversity, Introduction to Vibrio Population Genetics Experiment, Microbial mats*

4:00 pm Safety Training (Boat Works)

Chris Patton, HMS

5:00 pm BBQ

Saturday, June 22

8:00 AM *Introduction to the Elkhorn Slough & Field trip*

Chris, all

1:30 PM *Microscopy*
Start enrichments

Alfred, all

Sunday, June 23

7:00 AM *Field trip to Pt Lobos & Hopkins Marine Station sites*

All

10:00 AM *Isolation of Microorganisms (Growth, and Selection)*

Alfred

Hopkins Microbiology Course 2013

Morning Lecture Schedule

Hopkins Marine Station, Agassiz 10

Week of Monday, June 24, 2013

Monday, June 24

8:30 AM	<i>How Microbes Use Energy</i>	Alfred
10:00 AM	<i>Microbial Life, Metabolic Pathways, and Microbial Diversity</i>	Alfred
1:00 PM	<i>Microbial Life as a Chemotroph and Phototroph</i>	Alfred
evening	5 min student chalk board talks	

Tuesday, June 25

8:30 AM	<i>Fermenters</i>	Alfred
10:00AM	<i>Physiology and Ecology Sulfate reducers</i>	Alfred
evening	<i>Large Scale Fermentation Experiment</i>	

Wednesday, June 26

8:30 AM	<i>Microbial Nitrogen Cycling</i>	Chris
10:30 AM	<i>Ecology and Evolution of Holobionts</i>	Forest Rohwer, SDSU

Thursday, June 27

8:30 AM	<i>Syntrophs, Homoacetogens, Methanogens</i>	Alfred
10:00 AM	<i>The Chemostat as a Tool for Ecophysiological and Competition Studies</i>	Gijs Kuenen Delft University

Friday, June 28

8:30 AM	<i>Divergent Evolution of Enzyme Function: Examples from (β/α)8-Barrels</i>	John Gerlt, UIUC
10:00 AM	<i>Ecophysiology of Common and Exotic Sulfur-oxidizing Bacteria</i>	Gijs Kuenen Delft University
1pm 4p	Kuenen quiz, Gerlt quiz	

Saturday, June 29

MiniSymposium

8:30 AM	<i>Predicting and Discovering New Functions in the Enolase Superfamily</i>	John Gerlt, UIUC
	<i>Promiscuity, Serendipity and Evolutionary Innovation</i>	Shelley Copley, U Colorado
	<i>The Discovery of Anaerobic Ammonium Oxidation (“Anammox”) and Beyond</i>	Gijs Kuenen Delft University

All lectures are open to the Hopkins Community

Hopkins Microbiology Course 2013

Morning Lecture Schedule

Hopkins Marine Station, Agassiz 10

Week of Monday, July 1, 2013

This week

Monday, July 1

8:30 AM	<i>The Oddities of Life at High pH: the Microbiology of a California Serpentinization Site</i>	Ken Neelson, USC
10:00 AM	<i>Biology of Marine Vibrios I</i>	Ned Ruby, UW Madison
1pm	Ruby quiz	
4pm	Neelson quiz	

Tuesday, July 2

8:30 AM	<i>Use of a Metabolically Versatile Phototroph for Bioenergy Production</i>	Carrie Harwood, U Washington
10:00 AM	<i>Biology of Marine Vibrios II</i>	Paul
4pm	Harwood quiz	
evening	<i>Tyranny of the Obvious</i>	John Roth, UC Davis

Wednesday, July 3

8:30 AM	<i>Microbial Metal Cycling</i>	Chris
10:00 AM	<i>Microbial Nitrogen Cycling Part II</i>	Chris

Thursday, July 4

8:30 AM	<i>Introduction to Evolution and Population Genetics</i>	Paul
9:00 AM	<i>Biological Diversity through the Eyes of an Ecologist</i>	Tad Fukami, Stanford

Friday, July 5

8:30 AM	<i>Cyanobacteria and Marine Photosynthesis</i>	Arthur Grossman, Stanford & Carnegie Institution
10:00 AM	<i>Bridging the Gap between 'Omics generated Hypotheses and Metabolic Function of Microorganisms in the Environment.</i>	Victoria Orphan, CalTech

All lectures are open to the Hopkins Community

Hopkins Microbiology Course 2013

Morning Lecture Schedule Hopkins Marine Station, Agassiz 10

Week of Monday, July 8, 2013

Monday, July 8

8:30 AM *Evolution in Bacterial Populations* Paul

Tuesday, July 9

8:30 AM *Maintenance of Diversity* Paul

evening *Genomics Tutorial*

Wednesday, July 10

8:30 AM *Population Genetics of Marine Vibrios* Paul

10:00 AM *Selection, Mutation and Bacterial Growth* **John Roth**, UC Davis

evening Roth quiz, *Origin of Life*

Thursday, July 11

8:30 AM *Microbial Population Genetics and Concept of Microbial Species* **David Guttman**, U Toronto

evening Student run Discussion on the Microbial Species concept

Friday, July 12

8:30 AM *Experimental Design and Statistics for Microbial Community Studies* **Rob Knight**, U Colorado

10:00 AM *Multivariate Ecology* **Susan Holmes**, Stanford

Saturday, July 13

MiniSymposium

8:30 AM

Dissecting Immune Recognition of Pathogens using Molecular Signatures of natural Selection

David Guttman, U Toronto

Testing Spatially and Temporally Explicit Hypotheses about Microbial Community Structure

Rob Knight, U Colorado

Microbial Species, a Genomic-Ecological Perspective

John Roth, UC Davis

All lectures are open to the Hopkins Community

Hopkins Microbiology Course 2013

Morning Lecture Schedule Hopkins Marine Station, Agassiz 10

Week of Monday, July 15, 2013

Monday, July 15

8:30 AM *Data analysis* All

5:00 PM *General Group meeting* All

Tuesday, July 16

8:30 AM *Data analysis* All

2:00 PM *Large-scale experimentally-driven annotation of microorganisms* **Adam Arkin,**
LBL, UC Berkeley

5:00 PM *General Group meeting* All

Wednesday, July 17

8:30 AM *Data analysis* All

1:30 PM *Monterey Bay Aquarium* Monterey Bay Aquarium

7:00 PM *General Group meeting* All

Thursday, July 18

All day *Data analysis* All

PM *Packing the lab*

Evening *Student presentations: Enrichments & Isolations* All

Friday, July 19

8:30 AM *Student project presentations:*
Clone library, Vibrio population genetics, Vibrio genomics, Experimental Evolution

1PM *Course evaluations, packing the truck*

continuing into *Graduation and Farewell Party*

All lectures are open to the Hopkins Community