HOWARD HUGHES MEDICAL INSTITUTE

SEA-PHAGES IN SITU WORKSHOP 8A

University of Maryland Baltimore County | June 21 - 26, 2015 SEA Lab Room 201 Meyerhoff Chemistry Building

	Sunday, June 21	Monday, June 22	Tuesday, June 23		
7:30 AM	-	7:30 Breakfast 161 Patapsco	7:30 Breakfast 161 Patapsco		
8:00 AM	8:00-3:00 Participants Arrive Check-In to				
8:30 AM	Patapsco Hall anytime after 8:00 AM	8:30 LECTURE: Processing Soil Samples:	8:30 Lab Meeting SEA Lab		
8:45 AM		Enrichment Part 2 (with Serial Dilution) and	8:45 Participant Lab Work: Check Enrichment		
9:00 AM		Direct Plating Emily Fisher 120 Meyerhoff 9:00 Laboratory Module: Aseptic Technique	and Direct Plating Plates, Decide Next Steps Katie Mageeney, Scott Michael SEA Lab		
9.00 AIVI		Kristen Butela SEA Lab	9:15 DEMO: Confirming Your Phage (with the		
9:15 AM		9:15 DEMO: Processing Soil Samples:			
		Enrichment Part 2 (with Serial Dilution) and	Spot Test) Emily Fisher SEA Lab		
9:30 AM		Direct Plating Emily Fisher SEA Lab	9:30 Participant Lab Work: Confirming Your		
9:45 AM		9:45 Participant Lab Work: Processing Soil	Phage (with the Spot Test) Emily Fisher, Nick		
		Samples: Enrichment Part 2 (with Serial	Edgington SEA Lab		
		Dilution) and Direct Plating Emily Fisher,			
10:15 114		Kristen Butela SEA Lab	40.45 Burst 250.44 to 60		
10:15 AM 10:30 AM		10:15 Break 256 Meyerhoff	10:15 Break 256 Meyerhoff		
10:30 AIVI		10:30 Participant Lab Work: Processing Soil Samples: Enrichment Part 2 (with Serial	10:30 DEMO: Purifying Your Phage (with Stick Streak) Marianne Poxleitner <i>SEA Lab</i>		
10:45 AM		Dilution) and Direct Plating (Continued) Emily	10:45 DEMO: Purifying Your Phage (with		
10.43741		Fisher, Kristen Butela SEA Lab	Serial Dilution) Kristen Butela SEA Lab		
11:00 AM			11:00 Participant Lab Work: Purifying Your		
			Phage (with Stick Streak and Serial Dilution)		
			Marianne Poxleitner, Kristen Butela SEA Lab		
12:15 PM		12:15 Lunch 256 Meyerhoff	12:15 Lunch <i>256 Meyerhoff</i>		
1:00 PM		1:00 In Lab Lecture: Working with the	1:00 LECTURE: Making Phage Stocks (Web		
		Bacterial Host (Media, Culture and Streak	Plates and MTL) Emily Fisher 120 Meyerhoff		
1:15 PM		Plates) Katie Mageeney SEA Lab	1:15 LECTURE: Making Phage Stocks (The		
1:30 PM		1:30 DEMO: Working with the Bacterial Host (Cultures and Streak Plates) Katie Mageeney	Empirical Test and HTL Harvest) Emily Fisher 120 Meyerhoff		
		SEA Lab	120 Weyernojj		
1:45 PM		1:45 Participant Lab Work: Working with the	1:45 Participant Lab Work: Purifying Your		
		Bacterial Host (Cultures and Streak Plates)	Phage (with Stick Streak and Serial Dilution)		
		Katie Mageeney, Marianne Poxleitner SEA Lab	(Continued) and Open Lab Marianne		
2:15 PM		2:15 Participant Lab Work: Open Lab Scott	Poxleitner, Kristen Butela SEA Lab		
3:00 PM	3:00 Course Directors Welcome and	Michael, Marianne Poxleitner SEA Lab			
	Workshop Overview Sharon Isern, Scott				
3:15 PM	Michael 120 Meyerhoff 3:15 LECTURE: Course Overview and	3:15 Break 256 Meyerhoff	3:15 Break 256 Meyerhoff		
3.131101	Resources Sharon Isern 120 Meyerhoff	3.13 Break 230 Weyernojj	3.13 Bleak 230 Weyernogy		
3:30 PM	3:30 LECTURE: Using the Resource Guide, Lab	3:30 In Lab Lecture: Supplies and Logistics	3:30 LECTURE: Isolating Phage Genomic DNA		
	Manual, and TA Handbook Kevin Bradley	Kevin Bradley SEA Lab	Marianne Poxleitner 120 Meyerhoff		
	120 Meyerhoff				
3:45 PM	3:45 LECTURE: Phage Biology Primer Scott				
	Michael 120 Meyerhoff				
4:00 PM	4:00 LECTURE: Processing Soil Samples:	4:00 Participant Lab Work: Open Lab Nick	4:00 DEMO: Isolating Phage Genomic DNA		
	Enrichment Part 1 Kristen Butela 120 Meyerhoff	Edgington, Sharon Isern SEA Lab	Marianne Poxleitner SEA Lab		
4:15 PM	4:15 Collect Soil Samples UMBC grounds		4:15 Participant Lab Work: Isolating Phage		
4:30 PM	4:30 Lab Safety and Orientation Kevin	4:30 LECTURE: Confirming Your Phage (with	Genomic DNA (Purification and Quantitation) Marianne Poxleitner, Nick Edgington SEA Lab		
	Bradley SEA Lab	the Spot Test) Emily Fisher 120 Meyerhoff			
4:45 PM	4:45 DEMO: Processing Soil Samples:	, , , , , , , , , , , , , , , , , , , ,			
	Enrichment Part 1 Kristen Butela SEA Lab				
5:00 PM	5:00 Participant Lab Work: Processing Soil	5:00 LECTURE: Purifying Your Phage (with			
	Samples: Enrichment Part 1 Kristen Butela,	Stick Streak, Serial Dilution, and Calculating			
5:30 PM	Nick Edgington SEA Lab	Titer) Kristen Butela 120 Meyerhoff 5:30 REORIENTATION and Q&A Sharon Isern,	E-20 DEODIENTATION and CO A Sharen laster		
5:30 PIVI 5:45 PM		Scott Michael 120 Meyerhoff	5:30 REORIENTATION and Q&A Sharon Isern, Scott Michael <i>120 Meyerhoff</i>		
6:00 PM	6:00 Dinner 256 Meyerhoff	6:00 Dinner 256 Meyerhoff	6:00 Dinner 256 Meyerhoff		
7:00 PM	7:00 Faculty 7:00 TA Bonding	7:00 Faculty 7:00 TA Lab Primer	7:00 Faculty 7:00 TA Activity		
	Bonding Kristen Katie Mageeney SEA	Pedagogy Moment 1 Part 1 Kevin Bradley,	Pedagogy Moment 2 Kevin Bradley, Sharon		
	Butela, Nick Edgington Lab	Nick Edgington 120 Katie Mageeney SEA	Emily Fisher 120 Isern, Scott Michael		
	256 Meyerhoff	Meyerhoff Lab	Meyerhoff SEA Lab		
8:00 PM	8:00 Refreshments/Social Commons Game	8:00 Refreshments/Social Commons Game	8:00 Refreshments/Social Commons Game		
	Room	HOMEWORK PEADING: Tame WER: Input	Room HOMEWORK READING: Dissect WEB: Get an		
	HOMEWORK READING: Capture and Cultures WEB: Find seaphages.org and phagesdb.org	HOMEWORK READING : Tame WEB : Input school shipping info in seaphages.org	account on PhagesDB.org		
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	Wednesday, June 24	Thursday	/, June 25	Friday, June 26
7:30 AM	7:30 Breakfast 161 Patapsco	7:30 Breakfast <i>161 P</i>		7:30 Breakfast 161 Patapsco
8:30 AM	8:30 LECTURE: Analyzing Phage Genomic DNA	8:30-1:30 Group 1:	8:30-12:15 Group 2:	8:30 Participant Lab Work: Individual Bench
0.30 AIVI	(with Restriction Analysis) Nick Edgington	Analyzing Phage (with	Analyzing Phage	Clean-Up, Lab Notebook Catch-up, Prepare for
	120 Meyerhoff	Electron Microscopy-	Genomic DNA (with	Lab Meeting SEA Lab
9:00 AM	9:00 LECTURE: Analyzing Phage Genomic DNA	Staining and	Restriction Analysis-	9:00 In Lab Lecture: Reagents and Media
	(Checking DNA Quality Before Sequencing)	Visualization), Open	Load and Run Gel),	Prep, Final Culture Observation Kevin Bradley
	Scott Michael 120 Meyerhoff	Lab Marianne	Final Experimental	SEA Lab
9:15 AM	9:15 LECTURE: Making Phage Stocks	Poxleitner, Katie	Choices Kristen	9:15 In-Lab LAB MEETING All Participants and
	(Archiving) Sharon Isern 120 Meyerhoff	Mageeney SEA Lab	Butela, Nick Edgington	Faculty SEA Lab
9:30 AM	9:30 Participant Lab Work: Analyzing Phage		SEA Lab	
	Genomic DNA (Restriction Analysis Set Up, DNA			
	Quantitation (Continued) Nick Edgington,			
10:15 484	Kristen Butela SEA Lab	40.45 5 1 056.44	1 66	10.15 D.
10:15 AM	10:15 Break 256 Meyerhoff	10:15 Break 256 Mey		10:15 Break 256 Meyerhoff
10:30 AM	10:30 Participant Lab Work: Check Spot Test, Stick Streak, and Serial Dilution Plates, Decide	10:30 Group 1: Analyzing Phage (with	10:30 Group 2: Analyzing Phage	10:30 Participant Lab Work: Lab Clean Up SEA Lab
	Next Steps Nick Edgington, Katie Mageeney	Electron Microscopy-	Genomic DNA (with	SEA LUD
	SEA Lab	Staining and	Restriction Analysis-	
10:45 AM	10:45 Participant Lab Work: Open Lab Katie	Visualization), Open	Load and Run Gel),	
11:00 AM	Mageeney, Emily Fisher SEA Lab	Lab (Continued)	Final Experimental	11:00 REORIENTATION and Q&A Sharon
		Marianne Poxleitner,	Choices (Continued)	Isern, Scott Michael 120 Meyerhoff
11:30 AM		Katie Mageeney SEA	Kristen Butela, Nick	11:30 Final Exam and Awards SEA Lab
		Lab	Edgington SEA Lab	
12:15 PM	12:15 Lunch <i>256 Meyerhoff</i>	12:15 Lunch-Assessme		12:15 Lunch <i>256 Meyerhoff</i>
1.00 DM	4.00 Particles at lab Ward Occasion Control	Kristen Butela 256 Meg		4.00 Badistanta Banad
1:00 PM 1:15 PM	1:00 Participant Lab Work: Open Lab Scott Michael, Emily Fisher SEA Lab	1:00 Group 1: Analyzing Phage (with	1:00-5:00 Group 2: Analyzing Phage (with	1:00 Participants Depart
1.13 FIVI	Whichael, Lithiy Fisher SLA Lub	Electron Microscopy-	Electron Microscopy-	HHMI STAFF
		Staining and	Staining and	SEA Office 208 Meyerhoff
		Visualization)	Visualization), Open	(410) 455-1628
		(Continued)	Lab Marianne	SEA Lab 201 Meyerhoff
1:30 PM		1:30-5:00 Group 1 :	Poxleitner, Katie	David J. Asai
		Analyzing Phage	Mageeney SEA Lab	asaid@hhmi.org
		Genomic DNA (with		Billy Biederman
		Restriction Analysis-		biederma@hhmi.org
		Load and Run Gel),		Cell (301) 806-5508
		Final Experimental		Kevin Bradley
		Choices Kristen		bradleyk@hhmi.org
		Butela, Nick		Cell (240) 507-6923
3:15 PM	3:15 Break 256 Meyerhoff	Edgington SEA Lab 3:15 Break 256 Meyer	erhoff	Vic Sivanathan
3:30 PM	3:30 LECTURE: Analyzing Phage (with Electron	3:30 Group 1:	3:30 Group 2 :	sivanathanv@hhmi.org HHMI (301) 215-8985
	Microscopy) Scott Michael 120 Meyerhoff	Analyzing Phage	Analyzing Phage (with	
4:00 PM	4:00 DEMO: Analyzing Phage (with Electron	Genomic DNA (with	Electron Microscopy-	COURSE DIRECTORS
	Microscopy) Group 1 Marianne Poxleitner,	Restriction Analysis-	Staining and	Sharon Isern
	Scott Michael Open Lab Group 2 Kristen	Load and Run Gel),	Visualization), Open	Florida Gulf Coast University
	Butela, Sharon Isern SEA Lab	Final Experimental	Lab (Continued)	Cell (239) 405-4401
4:45 PM	4:45 DEMO: Analyzing Phage (with Electron	Choices (Continued)	Marianne Poxleitner,	Scott Michael
	Microscopy) Group 2 Marianne Poxleitner,	Kristen Butela, Nick	Katie Mageeney SEA	Florida Gulf Coast University
	Scott Michael Open Lab Group 1 Kristen	Edgington SEA Lab	Lab	Cell (239) 405-4402
E+20 DM	Butela, Sharon Isern SEA Lab	E-20 DEODIENTATION	and ORA Charer learn	FACILITATORS
5:30 PM	5:30 REORIENTATION and Q&A Sharon Isern, Scott Michael <i>120 Meyerhoff</i>	5:30 REORIENTATION and Q&A Sharon Isern, Scott Michael <i>120 Meyerhoff</i>		Kristen Butela
6:00 PM	6:00 Dinner 256 Meyerhoff	6:00 Dinner 256 Meyerhoff		Seton Hill University
7:00 PM	7:00 Faculty 7:00 TA Activity	7:00 Faculty	7:00 TA Lab Primer	Nick Edgington
	Pedagogy Moment 3 Kevin Bradley, Sharon	Pedagogy Moment 4 -	Part 2 Kevin Bradley,	Southern Connecticut State University
	Marianne Poxleitner Isern, Scott Michael	Beyond In Situ	Katie Mageeney SEA	Emily Fisher
	120 Meyerhoff SEA Lab	Sharon Isern 120	Lab	Johns Hopkins University
0.00.01	0.0010 () 1 () () ()	Meyerhoff		Katie Mageeney
8:00 PM	8:00 Refreshments/Social Commons Game	8:00 Refreshments/Social Commons Game Room HOMEWORK Study for Final Exam		Lehigh University
	Room HOMEWORK READING: Review Resource			Marianne Poxleitner Gonzaga University
	Guide			Conzaga Oniversity
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