

|          | Sunday                                                                                           | Monday                                                                                                         | Tuesday                                                                                                                |
|----------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 7:30 AM  | Pre-Arrival Assignment:<br>Protocol p5.1                                                         | 7:30   Breakfast   Springhill Suites Hotel                                                                     | 7:30   Breakfast   Springhill Suites Hotel                                                                             |
| 8:00 AM  |                                                                                                  |                                                                                                                |                                                                                                                        |
| 8:30 AM  |                                                                                                  |                                                                                                                |                                                                                                                        |
| 8:45 AM  |                                                                                                  |                                                                                                                |                                                                                                                        |
| 9:00 AM  |                                                                                                  | 9:00   Shuttle   Springhill Suites Hotel to UMBC                                                               |                                                                                                                        |
| 9:15 AM  |                                                                                                  | 9:15   Lab Meeting   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                                       |                                                                                                                        |
| 9:30 AM  |                                                                                                  | 9:30   Lec: Isolation - Direct Isolation, Plaque Assay   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff   |                                                                                                                        |
| 10:00 AM |                                                                                                  |                                                                                                                | 10:00   Shuttle   Springhill Suites Hotel to UMBC                                                                      |
| 10:15 AM |                                                                                                  | 10:15 - 10:30   Break   145 Meyerhoff                                                                          | 10:15 - 10:30   Break   145 Meyerhoff                                                                                  |
| 10:30 AM |                                                                                                  | 10:30   Demo: Isolation - Direct Isolation, Plaque Assay   Jackie Washington   201 Meyerhoff                   | 10:30   Lab Meeting   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                                              |
| 11:00 AM |                                                                                                  | 11:00   Lab: Isolation - Direct Isolation, Plaque Assay   Jackie Washington & Elvira Eivazova   201 Meyerhoff  | 11:00   Lec: Ordering, Preparing Reagents, Working with Bacteria   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff |
| 11:15 AM |                                                                                                  |                                                                                                                |                                                                                                                        |
| 12:00 PM |                                                                                                  | 12:00 - 1:00   Lunch   145 Meyerhoff                                                                           | 12:00 - 1:00   Lunch   145 Meyerhoff                                                                                   |
| 1:00 PM  |                                                                                                  | 1:00   Lec: Isolation - Enriched Isolation, Spot Test   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff    | 1:00   Lab: Working with Bacteria   Vic Sivanathan & Pushpa Ramakrishna, SEA Team   201 Meyerhoff                      |
| 1:30 PM  |                                                                                                  | 1:30   Demo: Isolation - Enriched Isolation, Spot Test   Jackie Washington   201 Meyerhoff                     | 1:30   Lec: Purification - Picking Plaques, Plaque Assay   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff         |
| 1:45 PM  |                                                                                                  | 1:45   Lab: Isolation - Enriched Isolation, Spot Test   Jackie Washington & Elvira Eivazova   201 Meyerhoff    |                                                                                                                        |
| 2:00 PM  |                                                                                                  | p5.5: Enriched Isolation; p5.6: Spot Test                                                                      | 2:00   Lab Meeting - Review Isolation & Purification I plates   SEA Team   201 Meyerhoff                               |
| 2:30 PM  | 2:30   Shuttle Hotel to UMBC   145 Meyerhoff                                                     |                                                                                                                | 2:30   Demo: Purification - Picking Plaques, Plaque Assay   Elvira Eivazova   201 Meyerhoff                            |
| 2:45 PM  |                                                                                                  | 2:45   Lec: Purification - Serial Dilution, Plaque Assay   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff | 2:45   Lab: Purification - Picking Plaques, Plaque Assay   Elvira Eivazova & Jackie Washington   201 Meyerhoff         |
| 3:00 PM  | 3:00   Welcome   Vic Sivanathan & Pushpa Ramakrishna   145 Meyerhoff                             |                                                                                                                |                                                                                                                        |
| 3:15 PM  |                                                                                                  | 3:15 - 3:30   Break   145 Meyerhoff                                                                            | 3:15 - 3:30   Break   145 Meyerhoff                                                                                    |
| 3:30 PM  | 3:30   Lec: Isolation - Phage Extraction   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff   | 3:30   Demo: Purification - Serial Dilution, Plaque Assay   Jackie Washington   201 Meyerhoff                  | 3:30   Review SEA Studies & Begin Developing Implementation Plan   145 Meyerhoff                                       |
| 4:00 PM  | 4:00   Demo: Lab Safety   Vic Sivanathan & Pushpa Ramakrishna   201 Meyerhoff                    | 4:00   Lab: Purification - Serial Dilution, Plaque Assay   Jackie Washington & Elvira Eivazova   201 Meyerhoff |                                                                                                                        |
| 4:15 PM  | 4:15   Demo: Sterile Technique, Isolation - Phage Extraction   Tom D'Elia   201 Meyerhoff        | p6.2: Serial Dilution; p5.3: Plaque Assay                                                                      |                                                                                                                        |
| 4:30 PM  | 4:30   Lab: Isolation - Phage Extraction   Tom D'Elia & Kristen Butela   201 Meyerhoff           |                                                                                                                |                                                                                                                        |
|          | p5.5: Enriched Isolation                                                                         |                                                                                                                |                                                                                                                        |
| 5:00 PM  | 5:00   Lec: Phage Biology Primer   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff           |                                                                                                                |                                                                                                                        |
| 5:30 PM  | 5:30   Lec: Isolation - Enriched Isolation   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff |                                                                                                                |                                                                                                                        |
| 6:00 PM  | 6:00 - 7:30   Dinner & Social   145 Meyerhoff                                                    | 6:00 - 7:30   Dinner & Faculty Talk   Tom D'Elia   Commons Skylight Room                                       | 6:00 - 7:30   Dinner & Faculty Talk   Jackie Washington   Commons Skylight Room                                        |
| 7:30 PM  | 7:30   Demo: Isolation - Enriched Isolation   Tom D'Elia   201 Meyerhoff                         | 7:30   Debriefing & Social   Commons Game Room                                                                 | 7:30   Debriefing & Social   Commons Sports Zone                                                                       |
| 7:45 PM  | 7:45   Lab: Isolation - Enriched Isolation   Tom D'Elia & Kristen Butela   201 Meyerhoff         |                                                                                                                |                                                                                                                        |
|          | p5.5: Enriched Isolation                                                                         |                                                                                                                |                                                                                                                        |
| 8:30 PM  | 8:30   Shuttle   Fine Arts Loop to Springhill Suites                                             | 8:30   Shuttle   Commons Loop to Springhill Suites                                                             | 8:30   Shuttle   Commons Loop to Springhill Suites                                                                     |
| 9:00 PM  | 9:00   Homework                                                                                  | 9:00   Homework                                                                                                | 9:00   Homework                                                                                                        |
| 10:00 PM |                                                                                                  |                                                                                                                |                                                                                                                        |

|          | Wednesday                                                                                                                               | Thursday                                                                                                                                                     | Friday                                                                                         |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 7:30 AM  | 7:30   Breakfast   Springhill Suites Hotel                                                                                              | 7:30   Breakfast   Springhill Suites Hotel                                                                                                                   | 7:30   Breakfast   Springhill Suites Hotel                                                     |
| 8:00 AM  | 8:00   Shuttle   Springhill Suites Hotel to UMBC                                                                                        | 8:00   Shuttle   Springhill Suites Hotel to UMBC                                                                                                             | 8:00   Shuttle   Springhill Suites Hotel to UMBC                                               |
| 8:30 AM  | 8:30   Lab Meeting   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                                                                | 8:30   Lab Meeting   Vic Sivanathan & Pushpa Ramakrishna   201 Meyerhoff                                                                                     | 8:30   Lab Meeting   Vic Sivanathan & Pushpa Ramakrishna   201 Meyerhoff                       |
| 8:45 AM  | 8:45   Lec: Purification - Collecting Plate Lysates, Spot Titer, Full Plate Titer   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff | 8:45   Demo: Characterization - Gel Electrophoresis   Tom D'Elia   201 Meyerhoff                                                                             | 8:45   Lab: Microscopy - Grid Setup & Imaging   Kristen Butela & Tom D'Elia   201 Meyerhoff    |
| 9:00 AM  |                                                                                                                                         | p10.3: Gel Electrophoresis of Restriction Enzyme Digests<br>9:00   Lab: Characterization - Gel Electrophoresis   Tom D'Elia & Kristen Butela   201 Meyerhoff | p8.1a&b: Mounting Phage Samples for TEM<br>*Review Webbed Plates; Prepare for Phage Nomination |
| 9:15 AM  | 9:15   Demo: Purification - Collecting Plate Lysates: Flood, Spot Titer, Full Plate Titer   Elvira Eivazova   201 Meyerhoff             | p10.3: Gel Electrophoresis of Restriction Enzyme Digests                                                                                                     |                                                                                                |
| 9:30 AM  | 9:30   Lab: Purification - Collecting Plate Lysates (Flood ONLY)   Elvira Eivazova & Jackie Washington   201 Meyerhoff                  |                                                                                                                                                              |                                                                                                |
| 10:00 AM | p6.3: Collecting Plate Lysates                                                                                                          | 10:00   Group Photo   Depart from 201 Meyerhoff                                                                                                              |                                                                                                |
| 10:15 AM | 10:15 - 10:30   Break   145 Meyerhoff                                                                                                   | 10:15 - 10:30   Break   145 Meyerhoff                                                                                                                        | 10:15 - 10:30   Break   145 Meyerhoff                                                          |
| 10:30 AM | 10:30   Lab: Purification - Spot Titer, Full Plate Titer   Elvira Eivazova & Jackie Washington   201 Meyerhoff                          | 10:30   Lec: Amplification - Calculate Titer & Preparing Webbed Plates   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                                 | 10:30   Lab: Microscopy - Grid Setup & Imaging   Kristen Butela & Tom D'Elia   201 Meyerhoff   |
| 11:00 AM | p6.4: Spot Titer, p6.5: Full Plate Titer                                                                                                |                                                                                                                                                              | p8.1a&b: Mounting Phage Samples for TEM                                                        |
| 11:15 AM |                                                                                                                                         | 11:15   Lab: Amplification - Calculate Titer   SEA Team   201 Meyerhoff                                                                                      | *Review Webbed Plates; Prepare for Phage Nomination                                            |
| 12:00 PM | 12:00 - 1:00   Lunch   145 Meyerhoff                                                                                                    | 12:00 - 1:00   Lunch, Implementation Discussion   145 Meyerhoff                                                                                              | 12:00 - 1:00   Lunch   145 Meyerhoff                                                           |
| 1:00 PM  | 1:00   Lec: DNA Extraction   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                                                        | 1:00   Lab: Amplification - Webbed Plates   Elvira Eivazova & Jackie Washington   201 Meyerhoff                                                              | 1:00   Lab: Finalize Microscopy & Clean Up   201 Meyerhoff                                     |
| 1:30 PM  | 1:30   Demo: DNA Extraction   Kristen Butela   201 Meyerhoff                                                                            |                                                                                                                                                              |                                                                                                |
| 1:45 PM  | 1:45   Lab: DNA Extraction   Kristen Butela & Tom D'Elia   201 Meyerhoff                                                                | p7.1: Making Webbed Plates                                                                                                                                   |                                                                                                |
| 2:00 PM  | p9.1: Phage DNA Extraction                                                                                                              |                                                                                                                                                              | 2:00   Lec: Archiving   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                    |
| 2:30 PM  |                                                                                                                                         | 2:30   Lab Meeting: Data Analyses   SEA Team   201 Meyerhoff                                                                                                 | 2:30   Lec: Assessment   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                   |
| 2:45 PM  |                                                                                                                                         | p6.4: Spot Titer; p6.5: Full Plate Titer; p10.5: Analyzing Restriction Enzyme Gels                                                                           |                                                                                                |
| 3:00 PM  |                                                                                                                                         |                                                                                                                                                              |                                                                                                |
| 3:15 PM  | 3:15 - 3:30   Break   145 Meyerhoff                                                                                                     | 3:15 - 3:30   Break   145 Meyerhoff                                                                                                                          | 3:15 - 3:30   Break   145 Meyerhoff                                                            |
| 3:30 PM  | 3:30   Lec: Characterization - Restriction Enzyme Digest   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                          | 3:30   Lec: Microscopy   Vic Sivanathan & Pushpa Ramakrishna   120 Meyerhoff                                                                                 | 3:30   Phage Nomination & Voting   SEA Team   120 Meyerhoff                                    |
| 4:00 PM  | 4:00   Demo: Characterization - Restriction Enzyme Digest   Kristen Butela   201 Meyerhoff                                              | 4:00   Demo: Microscopy - Grid Setup   Vic Sivanathan   201 Meyerhoff                                                                                        |                                                                                                |
| 4:15 PM  | 4:15   Lab: Characterization - Restriction Enzyme Digest   Kristen Butela & Tom D'Elia   201 Meyerhoff                                  |                                                                                                                                                              |                                                                                                |
| 4:30 PM  | p10.1: Setting Up Restriction Enzyme Digests                                                                                            | 4:30   Lab: Microscopy - Grid Setup & Make Webbed Plates   SEA Team   201 Meyerhoff                                                                          | 4:30   Implementation Q&A   SEA Team   120 Meyerhoff                                           |
| 5:00 PM  |                                                                                                                                         | p8.1a&b: Mounting Phage Samples for TEM                                                                                                                      |                                                                                                |
| 5:30 PM  |                                                                                                                                         | Note: Course Prep & Implementation Strategy Development, Phage Nomination                                                                                    |                                                                                                |
| 6:00 PM  | 6:00 - 7:30   Dinner & Faculty Talk   Elvira Eivazova   Commons Skylight Room                                                           | 6:00 - 7:30   Dinner & Faculty Talk   Kristen Butela   Commons Skylight Room                                                                                 | 6:00 - 7:30   Dinner & Faculty Talk   Danielle Heller   Commons Skylight Room                  |
| 7:30 PM  | 7:30   Debriefing & Social   Commons Game Room                                                                                          | 7:30   Debriefing & Social   Commons Game Room                                                                                                               | 7:30   Final Exam & Certification   Commons Flat Tuesday                                       |
| 7:45 PM  |                                                                                                                                         |                                                                                                                                                              |                                                                                                |
| 8:30 PM  | 8:30   Shuttle   Commons Loop to Springhill Suites                                                                                      | 8:30   Shuttle   Commons Loop to Springhill Suites                                                                                                           |                                                                                                |
| 9:00 PM  | 9:00   Homework                                                                                                                         | 9:00   Homework                                                                                                                                              | 9:00   Shuttle   Commons Loop to Springhill Suites                                             |
| 10:00 PM |                                                                                                                                         |                                                                                                                                                              | 10:00   Shuttle   Commons Loop to Springhill Suites                                            |