**Naughton REU Application**

**SUMMER INTERNSHIP OFFER OF TRAINING FORM SUMMER 2022**

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| **Proposer details:** | |
| Title: | Dr |
| Name: | Siobhan O’Brien |
| Email: | Siobhan.o-brien@tcd.ie |
| Website: | https://siobhaneobrien.wordpress.com/ |
| If your grade does not allow you to supervise students, please supply the name of support PI: |  |

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| **Student required:** | |
| Specify any previous training / experience the student should have: | |
| General microbiology lab experience would be beneficial– pipetting, working under sterile conditions, plating out cultures, working with pathogens. | |
| Study level (3rd year, 4th year) | 3rd year or 4th year |
| Any other requirements: | General enthusiasm for microbial ecology and evolution is highly desired! |

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| **Traineeship offered:** | |
| Brief job description: (please include (1) type of work, (2) what student should hope to achieve at end of the process, (3) who will supervise student on daily basis (post-doc etc.)) | |
| Cystic fibrosis (CF) is a fatal genetic disorder affecting over 35,000 people in Europe. The most common cause of mortality in CF is chronic lung infection with Pseudomonas aeruginosa, a virulent pathogen that is virtually impossible to eradicate once established. It is now well understood that P. aeruginosa interacts with other microbial species in the CF lung (the “lung microbiome”) to potentially create more virulent infections. This project will investigate how interactions between different species in the CF lung could drive the severity of disease.  You will use well-established techniques in microbial evolution and ecology such as experimental evolution, ecological competition assays and phenotypic assays for antibiotic resistance. The student should have a particular interest in ecology and evolution, which is the focus of our lab. You will be trained and supervised on a day to day basis by the PI. | |
| Link to research group or supervisor webpage: | https://siobhaneobrien.wordpress.com/ |
| Location of lab: | The Moyne Institute, Trinity College Dublin |

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| **Working hours:** | |
| Number of Weeks offered: | 8 to 12 weeks |
| Hours per week: | Full time |
| Earliest Start Date possible: | Anytime |
| Latest End Date possible: | Anytime |