

REPORT ON NF-POGO PAP FELLOWSHIP PROGRAMME 2017

Trainee's Report

Name of Trainee: Jessica Song

Supervisor (Parent Institution): Dr. Moritz Mueller

Supervisor (Host Institution): Dr Claire Evans **Dates of Training:** 18/03/17 – 31/05/2017

Subject of Training: “Determination of the growth and mortality rates of the different Prochlorococcus ecotypes found throughout the water column in the Atlantic Ocean”

1) Please provide a brief description of activities during the training period:

Onboard the cruise, I was responsible for sampling surface water from the CTD every two days which was used to set up incubation experiments. The water sampled (approximately 70L) was filtered twice (0.2um and 30kDa) and siphoned into smaller bottles which were later incubated in a large plastic bath for 24 hours.

Subsamples were taken from each bottle both before and after incubation to perform cell counts which were carried out using a Flow Cytometer. The scatter plots were then analyzed and interpreted accordingly, and the cell counts of the different microbial populations tabulated. Using these numbers, a direct comparison was then made of the cell counts at 0h and 24h and their mortality rates calculated. All of this was carried out independently based on prior training received from Dr. Claire Evans upon my arrival at the National Oceanography Centre (NOC).

2) What applications of the training received do you envision at your parent institution?

As I am currently pursuing a PhD in Environmental Microbiology, many of the skills acquired during this training period are translatable to my research. For instance, the experience I have acquired in setting up *in-situ* experiments will contribute greatly to my own plans to study changes in microbial communities in freshwater environments over a fixed time-scale. Additionally, the technical knowledge I have acquired in flow cytometer operation and data interpretation is widely applicable in many areas of my work involving enumeration of microbial communities and other culture-based analyses.

In addition, during my training I was also afforded the opportunity to engage in discussions with other scientists, well-established in their respective fields, which has helped sharpen my perspective and approach to research as a whole. I am also more confident as a person and researcher after having been given the chance to interact and work closely with these esteemed individuals, which consequently has contributed to improving my social skills and ability to communicate my work to others.

3) Please provide your comments on the Fellowship Programme.

With the support of the Fellowship Programme, I was given the opportunity to work on another continent in an internationally renowned research institute; an endeavour I otherwise would not have been able to make on my own. The process both pre- and post-application went very smoothly with a clear line of communication between myself and the individuals involved with whom I liaised, affording me the comfort of concentrating on my research without worry.

4) Please provide details as to how your contribution towards living expenses was spent.

The living expenses I was provided was spent predominantly on accommodation at approximately 600 pounds a month (total approx. 1200 GBP) and food which averaged about 50 pounds a week, providing me with a relatively comfortable stay.

Please return completed form by e-mail to: pogoadmin@pml.ac.uk