

**2018 NF-POGO- GEOMAR Fellowship for  
Ship-board Training on-board RV Meteor cruise M148**

**Fellowship Report**

**Name of Trainee: Felipe Ohade Lopes Branco**

**Name of Supervisor (Parent Institution): Silvia Keiko Kawakami**

**Supervisor (Host Institution): Marcus Dengler**

**Dates of Training: May 24 to June 30, 2018**

**Section A**

**(To be completed by the fellow and returned to the POGO Secretariat)**

*Please note Q1-Q3 will be passed on to the host and parent supervisor and made publicly available on the OTP website; Q4 will be read only by the POGO Secretariat and remain confidential*

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

During the training period, I was able either to improve my abilities in chemical oceanography and to get to know better about the physical oceanography processes in large scale and how to study them. On my working watch, I was responsible for the samples and measurements for dissolved oxygen, and to help the nutrients analyses when needed. When I was off watching, I was responsible for the processing and to interpret the data of dissolved oxygen distribution and to calibrate the equipment. Also, there were lectures and seminars about physical oceanography and the studied processes during the cruise, so as about the Matlab software that was used to process the cruise data.

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

As I worked with chemical oceanography for my bachelor's degree, the applications I was learning during the cruise, I was already using in my bachelor thesis. Now that I've already finished, a huge interest that was numb started to grow again to study the biogeochemical processes on the Amazon rivers, similar the ones were studied during the cruise and by the scientists that were onboard.

**3) Please provide your comments on the Fellowship Programme.**

I have just finished my bachelor's degree, so to have this experience on the Fellowship Programme was wonderful to open my mind for the options to start my master's degree studying the oceans processes, and the great institutions where I can do it. Also, to have the chance to learn how to use the instruments of physical oceanography and process their data was a unique opportunity. I can't forget to talk about the amazing scientific crew, that was always there to teach and help for whatever it was necessary, that made a great working environment.

**Signed**

**FELIPE BRANCO**

**Date: August 02, 2018**

## Section B

**(To be completed by host supervisor and returned to the POGO Secretariat)**

*Please note Q1-Q3 will be passed on to the parent supervisor and trainee and made publicly available on the OTP website; Q4 will be read only by the POGO Secretariat and remain confidential*

### **1) Please provide your comments on the performance of the trainee.**

Felipe was very enthusiastic about all aspects of data sampling and eager to learn about seawater analysis for chemical and oceanographic parameters as well as the preparation and deployment of instrumentation to observe the ocean. Despite some difficulties with the English language, he performed all tasks entrusted to him with great responsibility. My colleagues from the Chemical Oceanography department of GEOMAR were very impressed by the progress of Felipe's skills during the training programme. After some training, he analysed water samples for oxygen concentrations using Winkler titration at full responsibility. Overall, I experienced him as a very motivated young scientist who is fascinated by the secrets of the ocean that is eager to reveal them.

### **2) Is this exchange likely to lead to future collaboration with the trainee's parent institution? If so please give example(s) of how this collaboration may be pursued.**

Currently, there are no existing collaborations between the Faculty of Oceanography at the Federal University of Pará and GEOMAR. Felipe's application to the announcement for volunteers to join the cruise M148 was on his own initiative. During the programme, we did not get in contact with other staff from the Faculty of Oceanography. It is thus currently unclear if there will be future collaboration with the institution.

### **3) Please provide your comments on the Fellowship Programme.**

The NF-POGO Fellowship for Ship-board Training is an ideal program for students from developing countries and from countries in transition to experience oceanographic data collection at sea and to interact with researchers, technicians and students from developed countries. This experience as such is in many aspects of great benefit for the fellow's career. The targeting of post-graduate students is exemplary due to their high level of receptiveness and professional qualification. Despite some gaps in knowledge of the fellow's that we were happy to address, a prominent outcome of the NF-POGO- GEOMAR Fellowship program was that we learned from each other while advancing our knowledge about ocean science integrated in the cultural and political dimension of the human, country and ocean interactions. Perhaps the last aspect could be foregrounded in the program.

**Signature**

**M. DENGLER**

**Date: 07.10.2018**

## SECTION C

**(To be completed by parent supervisor and returned to the POGO Secretariat)**

*Please note Q1 will be passed on to the host supervisor and trainee and made publicly available on the OTP website; Q2 will be read only by the POGO Secretariat and remain confidential*

**1) Do you agree with the above comments and do you have any additional feedback you wish to provide?**

I am very pleased that international opportunities like the one POGO-GEOMAR has provided are open to undergraduates from developing countries. Felipe is pro-active, certainly learned a lot, and can continue his studies successfully. I am sure he will make good choices based on the positive professional environment that the experience delivered. Here, research opportunities and job positions are forwarded to students groups whenever possible by course coordinators, teachers/supervisors, and others and so on. I was one of them who forwarded the POGO-GEOMAR call on to new graduates, although I recognise language is somewhat a bit challenging for international trainee's programme. In Brazil only few institutions (Universidade de São Paulo-USP, Universidade Federal do Rio Grande-FURG, Universidade Federal de Pernambuco-UFPE) have undertaken ocean cruises comprising mainly the South Atlantic and Antarctic waters, as they are better structured and can find ways to manage financial costs with ships.

Here at the Faculty of Oceanography of the Federal University of Pará-UFPA only now we have an approved post-graduate programme in Oceanography (commencing on Sept/2019 or so) that I hope will boost scientific research and cooperation in Marine Sciences. We at the Faculty are very keen on having international partnerships in all marine interdisciplinary subjects (Physical, Chemical, Biology, Geology, and Human). So far our Faculty team has been scattered in different research groups of the university, with focus directed to many areas but marine. With the post-graduate programme in Oceanography we will have more chances to provide official support to our students and researchers to pursuit international exchange in excellent marine research centres like the GEOMAR and PML-UK. Finally, I find important to point that the universities from the North Brazil, particularly the UFPA, have a strong social role in the Amazon region as they are located in a less developed part of Brazil and are committed to embrace people from all sorts of ethnicities and traditional communities. I believe the academic exchange can be fulfilling for all and also bring important advances in human resources in future.

**Signature**

**Profa Dra Silvia K. Kawakami**

**Date: 15/October/2018**