

TRAINING BURSARY PROGRAMME REPORT (2021)

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Training bursary program destination: University of Padua (Padua).

1) What was the motivation to apply for training in this Centre?

The Rheumatology Unit of Padua, Italy, has a well-established expertise in treatment of patients with different systemic autoimmune rheumatic diseases and hosts a large cohort of over 250 patients with systemic lupus erythematosus (SLE). Hence, the clinical objectives of my fellowship were to attend different parts of the Rheumatology center, e.g. the outpatient clinics including the dedicated lupus clinic, and participate in clinical meetings and case discussions in order to gain a broader perspective of the clinical care of patients with rheumatic diseases, especially SLE.

My doctoral project is entitled “Biomarkers and patient-reported outcomes in systemic lupus erythematosus”, and my current research areas aligned very well with the long-standing research focus of novel biomarkers in lupus at the Rheumatology Unit of the University of Padua. After discussion with the host University (Professor Andrea Doria and MD PhD Mariele Gatto), the overall aim of the suggested research plan was that I would take part in the evaluation of prognostic biomarkers in patients with lupus nephritis (LN). More specifically, I would be involved in the testing of a composite cytokine panel in serum samples from patients with LN collected at different time points from the time of LN diagnosis or relapse. I would also contribute to the construction of a database with clinical, epidemiological, routine laboratory and histopathological data, and compile data to evaluate the response to standard immunosuppressive therapy. Next, the experimental data from the cytokine screening would be associated with the information in this database, in order to determine the predictive value of different markers as biomarkers of response or non-response to therapy. The project would allow me to improve my laboratory skills and enhance the translational nature of my scientific thinking.

2) How were the objectives fulfilled by the training?

The clinical objectives were fulfilled by visiting the lupus outpatient and participate in interactive clinical meetings and case discussions each week. The lupus outpatient clinic was held every Thursday and offered the opportunity to meet and examine patients with SLE under supervision of senior rheumatologists with well-established expertise in the treatment of patients with SLE. By participation in these activities, the training bursary programme has broadened my clinical perspective within rheumatology and SLE.

The scientific objectives were fulfilled by several activities. Importantly, I created an extensive electronic case report form (eCRF) and began the construction of a database of LN patients by registering clinical, epidemiological, routine laboratory, and histopathological data from patients. Although the testing of the cytokine panel in serum samples from LN was not deemed feasible during my relatively short visit, I still visited the laboratory facility to improve my laboratory skills. The lupus outpatient clinic also served as inspiration of how clinical work and scientific work can be integrated using standardised indices and by the collection of biological samples used for both clinical and research purposes. In addition, interactive seminars were held each week that discussed both clinical and scientific perspectives of different rheumatological diseases. Thus, the scientific activities increased my understanding of how clinical work and research can be integrated, improved my experience in data collection, improved my laboratory skills, and enhanced the translational nature of my scientific thinking.

3) What are the main opportunities / strengths this centre offers for future applicants?

- The Rheumatology Unit of Padua, Italy, has a well-established expertise in treatment of patients with different systemic autoimmune rheumatic diseases and hosts a large cohort of over 250 patients with SLE.
- The centre has a dedicated lupus outpatient clinic that offers supervision of younger clinicians by more senior rheumatologists with well-established expertise in the treatment of patients with SLE.
- The lupus outpatient clinic is well integrated with research using standardised indices and by the collection of biological samples used for both clinical and research purposes. In addition, interactive seminars are held each week that discuss both clinical and scientific perspectives of different rheumatological diseases.
- The interactive and educative clinical meetings and case discussions creates a good learning environment for young physicians.

4) Practical advice for future applicants to the SLEuro training bursary

As the time is relatively short, spend the time wisely by prioritising those clinical and scientific activities that contribute the most to fulfilling your objectives. Furthermore, be ready to constantly revise your research plan based on the situation and the conditions. Finally, consider the training an opportunity to initiate collaborations and make plans for a continued collaboration.