



## MARA LISE ZANINI: Brazil

### Clinical production of Radiopharmaceuticals.



Ms. Mara Lise Zanini has been a Chemistry professor in the Department of Chemistry at the Pontifical Catholic University of Rio Grande Does Sul for the past 18 years. She teaches Organic Chemistry, Organic Analysis and Organic Synthesis in the Chemistry program and also in the Faculty of Pharmacy and Chemistry Engineering.

Until 2006, the production and use of short half-lived radiopharmaceuticals was restricted to centers linked to the Federal Government that were located in the middle of Brazil. Since Brazil is such a large country, states further away from the center were in need of more qualified people in the radiochemistry area. To allow for such growth in other parts of the country, the Ministry of Health, the ministry of Science and Technology and the International Atomic Energy Agency (IAEA) created a program that provides experience and knowledge in

the radiochemistry area to support the expansion of the current production and research in radiochemistry.

At the Pontifical Catholic University of Rio Grande Does Sul, the Departments of Medicine, Pharmacy and Physics created the Instituto do Cerebro —InsCer (Brain Institute) subsidized by the Ministry of Health, the State Health Secretariat and the University. The purpose of this institute is to do basic research and to investigate and treat neurological diseases such as Parkinson's, Alzheimer and Epilepsy, together with cardiology and oncology disorders. This institute has different modern equipment such as the PET-CT, SPECT, micro PET and MRI.

Through the IAEA Fellowship Program, Ms. Zanini is undergoing a 1 month fellowship in the Mallinckrodt Institute of Radiology at Washington University School of Medicine in Saint Louis, MO. She is working under the direction of Dr. Carmen S. Dence. This training program will allow Ms. Zanini to learn the routine clinical production of radiopharmaceuticals in a laboratory. She will also gain experience in the synthesis of different tracers marked with other radionuclides and their associated quality control, in order to better establish a quality assurance program in a PET center. Ms. Zanini hopes that this fellowship will facilitate bringing new approaches and technologies in this area in order to supply the increasing demand for radiopharmaceuticals in Brazil. The fellowship will also increase Ms. Zanini's knowledge in radiopharmacy, radioprotection, radiopharmacology and clinical applications of radiopharmaceuticals. She will be able to study new trends in radiopharmacy which could be useful for improving clinical research in radiopharmaceutical fields at her home institution. It is expected that new approaches for radiopharmaceutical production and development will arise from this fellowship.

**Trained 1/30/2012—3/02/2012**