RESEARCH VISIT TO POLAND

Prepared by Chrizelle Beukes

From June 26th to July 18th this year, Prof. Emma Steenkamp and Ms Chrizelle Beukes visited Prof Tomasz Stępkowski at the Institute of Bioorganic Chemistry, which forms part of the Polish Academy of Sciences situated in Poznań (Poland). Prof Stępkowski is well-known internationally for his work on nitrogen-fixing symbiotic root-nodule bacteria in the genus *Bradyrhizobium* and most current models on the evolution of host-specificity in the legume-rhizobium symbiosis incorporate ideas that have emerged from his research.

Apart from cementing collaboration with Prof Stępkowski, the primary aim of the 2011 visit was to subject several strains of bradyhizobia to molecular analyses. These strains were isolated from specific legumes in the tribes Crotalarieae and Genisteae that are indigenous to southern African. They were collected and isolated during Prof Stępkowski's visit to FABI in 2010. During that visit and with the assistance of Prof Ben-Erik van Wyk (Department of Botany, University of Johannesburg) and his students, a number of field trips were undertaken to obtain various bacterial samples.

In Poznań, Chrizelle amplified and sequenced various genomic loci for 36 isolates. Together with the information for additional strains that are in the process of being generated at FABI, the sequence data will be subjected to population genetic and phylogenetic analyses. The results of this study are anticipated to form an integral part of Chrizelle's future research as she is hoping to enrol for a PhD in 2012. Chrizelle and Emma both feel that Prof Stępkowski will bring his considerable knowledge and experience to the project, and as such he has undertaken to take on the role of co-supervisor.

Buildings on the *Stary Rynek* (Old Market Square), which is in the Old Town neighbourhood of Poznań.

The Poznań Crosses, which was erected in remembrance of the victims of the June 1956 uprising against the communist government of the People's Republic of Poland.