

„Next generation DNA sequencing – methods and applications”



Workshop on this topic was organized by Applied Genetics and Genomics Consortium POLAPGEN (www.polapgen.pl) and Institute of Plant Genetics PAS on 21 October 2011. During the workshop posters were presented which showed some results of the project POLAPGEN-BD. The participants were given materials describing the funding and purpose of the project. The talks concerned the new technologies of DNA sequencing called „next generation sequencing” (NGS). This topic is especially important for the area in which the Consortium is acting, as the new techniques allow to obtain information about the genomic sequences, which are determining such properties of plants like resistance to drought. The event was partially inspired by participation in the COST Action TD 0801 Statseq and aimed also at promotion of collaboration among Polish research groups in the field of NGS application.

The talks were given by:

Wojciech Karłowski (Adam Mickiewicz University, Poznań): *Annotation of functional sRNA on the basis of NGS.*

Paweł Krajewski, Pedro Madrigal (Institute of Plant Genetics PAS, Poznań): *Computational methods for localization of genomic protein binding sites on the basis of ChIP-Seq experiments.*

Mirosław Kwaśniewski (Silesian University, Katowice): *Pirosequencing in the GS Junior (Roche) system – capacities, restrictions and perspectives.*

Agnieszka Żmieńko, Marek Figlerowicz (Institute of Bioorganic Chemistry PAS, Poznań): *Application of mass sequencing in the functional RNA analysis.*

Discussion concerned the details of NGS technologies, problems of technical replicability and biological variability, and the importance of NGS for the development of genetics and genomics. The workshop was attended by about 70 participants (scientists and students) representing the Consortium partners and: Wrocław University of Technology, Institute of Human Genetics PAS, Institute of Plant Breeding and Acclimatization, Wrocław University of Environmental and Life Sciences, and Universität Rostock.



