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Gdansk University of Technology
April 11 – 15, 2016
Lecture abstract

Title

“Proteomics and Metabolomics: Analytics and Bioinformatics”

Main focus of 2016 year lecture will be to link analytics of proteomics and metabolomics with bioinformatics. New generation of mass spectrometers due to increased speed of data acquisition, sensitivity and accuracy provide unprecedented amount of analytical data. At the same time posing challenge in converting these data to information and subsequently to knowledge as well as analytical and bioinformatics validation. Thus this course is designed to offer students a comprehensive overview of the current status of full unbiased and targeted experimental approaches in quantitative profiling with emphasis on label free techniques. It will be followed by data analyses. It will include database searches as well as data presentation and visualization. Mass spectrometry techniques based on Electrospray Ionization (ESI) will be used as platform for this series of lectures. Although it is expected that students will have basic knowledge in mass spectrometry, we will briefly discuss an overview of quadropole time of flight (qTOF) and linear ion trap analyzers. We will discuss an applicability of Multiple Reaction Monitoring (MRM) and related mass spectrometry based techniques for validation of profiling data. Participating students are expected to be familiar with principles of liquid chromatography.

Termin	Dzień tygodnia	Godzina	Miejsce
11.04.2016	Poniedziałek	11.15 – 14.00	Sala 112/113 Chemia A
12.04.2016	Wtorek	11.15 – 14.00	Sala 112/113 Chemia A
13.04.2016	Środa	11.15 – 14.00	Sala 112/113 Chemia A
14.04.2016	Czwartek	13.15 – 15.00	Sala 112/113 Chemia A
15.04.2016	Piątek	14.15 – 17.00	Sala 112/113 Chemia A