Course name: Biochemistry of natural bioactive compounds (USOS Code: B-BTW.2006E)

ECTS: 5

No. of hours: 60 (30 lectures + 30 classes)

Course coordinator: Prof. dr hab. Anna Jarosz-Wilkołazka

Prerequisites: Completed course of biochemistry

Course description: the major groups of bioactive compounds from microbial, algal and plant sources; the major biochemical pathways for the synthesis of these compounds (precursors, enzymes, cofactors, transport) and their regulations in relation to environmental changes; molecular screening assays for the search for new bioactive compounds used in different fields of biotechnology; metabolic engineering in the context of bioactive compounds biosynthesis; databases related to bioactive compounds with potential application properties and their biosynthesis pathways (KEGG, BioCyc, MetaCyc, BRENDA); natural functions of bioactive compounds in biochemical aspects of interactions between organisms in the environment.

Recommended literature: Dewick PM "Medicinal natural products. A biosynthetic approach." John Wiley & Sons, LTD, 2002; Wink M (ed) "Functions and biotechnology of plant secondary metabolites" Wiley-Blackwell, 2010; Samuelsson G., Bohlin L. "Drugs of natural origin" Swefish Pharmaceutical Society, 2009