Markéta Martínková

Born May 17, 1976 in Opava, Czech Republic (maiden name Mikšanová)

Education

1999	Charles University, Prague, CZ	M.Sc. (Mgr.)	Biochemistry
2001	Charles University, Prague, CZ	RNDr.	Biochemistry
2003	Charles University, Prague, CZ	Ph.D.	Biochemistry

Positions and Employment

1999-2003	Research Scientist, Department of Biochemistry, Faculty of Science, Charles University, Prague, CZ
2004-2006	Postdoctoral fellow at Professor Toru Shimizu laboratory, Tohoku University, IMRAM, Sendai, Japan
2006-2013	Assistant Professor, Department of Biochemistry, Faculty of Science, Charles University, Prague, CZ
2013-2022	Vice-Dean for Student Affairs and Education, Faculty of Science, Charles University, Prague, CZ
2013-2023	Associate Professor (docent) of biochemistry, Faculty of Science, Charles University, Prague, CZ
2022 –	Vice-Rector for Education, Charles University, Prague, CZ
2023–	Professor of biochemistry, Faculty of Science, Charles University, Prague, CZ

Research Stays Abroad and Other Experience

2004-2006	Tohoku University, IMRAM, Sendai, Japan (27 months)

Honors and Prizes

2002	„PRIX DE CHIMIE“ Chemistry price awarded by the French embassy in Czech Republic and the Rhodia company
2004	Japan Society for the Promotion of Science Postdoctoral Fellowship

Publications and citation record

ResearcherID in “Web of Science“**: E-3748-2012**; ORCID ID: 0000-0002-0865-8785

Areas of Scientific Interest

- Activation of carcinogens mediated by **heme enzymes** (cytochromes P450, peroxidases) and reductases - structure-function relationships of activation enzymes
- Metabolism of various chemical compounds (*o*-anisidine, *o*-nitroanisole, Remazol Brilliant Blue R, phenol) by animal, plant and microbial organisms including human
- Initiation of carcinogenesis caused by chemical carcinogens on molecular level
- Regulation of protein expression (mainly regulation of translation - heme regulated eIF-2a kinase - HRI) - structures and roles of **thiolate-heme proteins**
- **Heme-containing sensor proteins** – structure-function relationships and mechanism of signal transduction

Educational Activities and Lectures

- From 2009 a lecture „Clinical and analytical biochemistry MC250P19B“ together with its practical course „ Practical course in clinical biochemistry MC250C44“
- From 2019 a lecture „Biochemistry as a theoretical tool of biomedicine, MC250C44“
- From 2017 to 2021 a member of the Scientific Council of Faculty of Science, UK
- From 2019 a member of the Subject area board of Biochemistry, UK
- From 2019 a member of the Subject area board of Biochemistry and bioorganic chemistry, VŠCHT
- From 2020 a guarantor of Bachelor and Master Biochemistry study programs
- 4 + 1 Ph.D. students, 11 + 4 M.Sc. students, 27 + 1 Bc. students

International Collaboration

The scientific team has cooperation with the Laboratory of Pediatric Infection Diseases, Nijmegen, Netherlands (Dr. Marien de Jonge), the Cyprus University of Technology (Prof. Constantinos Varotsis and Dr. Eftychia Pinakoulaki) and the Laboratoire d´Optique et Bioscience, France (Dr. Marten Vos)

Languages

English - fluently; German and Russian – passive; basic Japanese

Selected projects funding

JPIAMR 2019-087; 2020-2022; Prevention of antibiotic resistance by TARGEted Treatment of pneumonia in children (TARGET) (international consortium, principal investigator)

GAČR 15-19883S; 2015-2017; Molecular mechanisms of intraprotein/interdomain signal transduction in model heme sensor proteins

IPSEN Pharma, os.; 2014-2015; External sponsored study “Comparison of the adsorption capacity and trapping effectiveness of diosmectite and charcoal on the compounds causing the 10 most frequent intoxications in acute medicine”

Contact:

Prof. Marketa Martinkova, Ph.D.
Department of Biochemistry
Faculty of Science
Charles University in Prague
Albertov (Hlavova) 2030
CZ-128 43 Prague 2, Czech Republic
Phone: +420-221951242
Fax: +420-221951283
E-mail: marketa.martinkova@natur.cuni.cz
www.natur.cuni.cz/martinkova