Mgr. Katarína Vaškovičová

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Education

2012 – present
Ph.D. studies in Molecular and Cell Biology, Genetics and Virology
Charles University, Czech Republic
Ph.D. thesis: *Changes in Domain Organization of the Plasma Membrane in Stress Response*

2010 – 2012
Mgr. studies in Biology, specialization: Cellular and Developmental Biology, Physiology of the Cell
Faculty of Science, Charles University, Czech Republic
M.Sc. thesis: *The Determination of the Role of Protein Kinase C α in Amoeboid Invasion of Cancer Cells*

2007 – 2010
Bc. studies in Special Chemical and Biological Programmes
Faculty of Science, Charles University, Czech Republic
B.Sc. thesis: *The Role of the Exocyst in Development and Maintaining of Cell Migration structures*

Research experience

2012 – present
Department of Functional Organization of Biomembranes (Assoc. Prof. Jan Malínský, Ph.D.)
Institute of Experimental Medicine, AS CR, Prague, Czech Republic

- Designed, performed and analyzed experiments focusing on the role of membrane compartmentalization in the physiology of yeast cells
- Prepared manuscripts, including figures
- Performed literature searches, summarized literature for projects, created databases in EndNote and Mendeley
- Carried out statistical analyses in SigmaPlot and Excel
- Analyzed data in Photoshop and ImageJ
- Supervised one B.Sc. and one M.Sc. student project
- Supervised high-school student in the project “Open Science”
- Organization of Ph.D. student conference
- Co-operated with M.Sc. Mária Balážová, Ph.D., Institute of Biochemistry and Animal Genetics, Slovak Academy of Sciences, Bratislava, Slovakia

2008-2012
Laboratory of Cancer Cell Invasion Mechanisms (Assoc. Prof. Jan Brábek, Ph.D.)
Faculty of Science, Charles University, Prague, Czech Republic

- Designed, performed and analyzed experiments focusing on cancer cell invasiveness and amoeboid-mesenchymal transition
- Performed literature searches, summarized literature for projects

Summer 2011 **Weaver laboratory (Alissa Weaver, M.D., Ph.D.)**
Vanderbilt International Summer Research Academy
Vanderbilt University, Nashville, Tennessee, USA
Working on the project: *The Characterization of Cell Invasion Potential in Breast Cancer Tumor Progression Model*

- Designed, performed and analyzed experiments

Conference presentations

Oral presentations

MCC/eisosomes: specialized microdomains in the yeast plasma membrane.
PhD conference of the Institute of Experimental Medicine
Loučeň, Czech Republic (3.-5.6.2019)

Enzymatic activity of Xrn1 exoribonuclease is regulated through its localization.
Prague Membrane Discussions
Prague, Czech Republic (24.11.2016)

The enzymatic activity of the conserved 5´-3´ exoribonuclease Xrn1 is down-regulated via its sequestration at specialized plasma membrane microdomain in yeast.
XI. Interdisciplinary Meeting of Young Biologists, Biochemists and Chemists
Milovy, Czech Republic (10.5. – 13.5.2015)

Novel mechanism of RNA decay regulation at specific microdomain in yeast.
Prague Membrane Discussions
Prague, Czech Republic (3.12.2015)

Plasma Membrane Microdomains Can Be Imported by Heterologous Gene Expression.
30th International Specialized Symposium on Yeast
"Cell Surface and Organelles in Yeast: from basics to applications"
Stará Lesná (High Tatras), Slovakia (18.6. – 22.6.2013)

Poster presentations

System for Monitoring the Assembly of Eisosomes, Specialized Plasma Membrane-Associated Microcompartments.
28th International Conference on Yeast Genetics and Molecular Biology (ICYGMB)
Prague, Czech Republic (27.8.-1.9.2017)

Specialized microdomain of the yeast plasma membrane, MCC/eisosome, plays a role in Xrn1-mediated mRNA decay.
Mechanisms and Functions of Membrane Compartmentalization
Münster, Germany (6.-10.9.2015)

Conference attendance:

Dijon Domains 2012 – International Conference on Membrane Domains
Dijon, France (27.11. – 30.11.2012)

Courses

Course for university teachers (spring 2018)
Lifelong learning programme (M.Sc. Helena Ferklová)
Research Support Department, Faculty of Science, Charles University

CELSA PhD Academy on Soft Skills (16.-19.4.2018)
Central Europe Leuven Strategic Alliance (CELSA) (RNDr. Helena Kvačková)

37th Progress in Molecular Biology and Genetics (4.11. – 15.11.2013),
The Academy of Sciences of the Czech Republic (prof. MUDr. Jiří Jonák, DrSc.)

Course on Fundamentals of the Scientific Work (11.3. – 15.3.2013)
The Academy of Sciences of the Czech Republic (prof. RNDr. Jan Zima, DrSc.)

Image Acquisition and Processing in Biomedical Microscopy (15.10. – 19.10.2012)
Czechoslovak Microscopic Society and IMG AS CR (prof. RNDr. Pavel Hozák, DrSc.)

Scientific Writing and **Scientific Presentations** workshops (2013) (Jason Hwang)

Languages:

Slovak (native), Czech, English (C1-C2, FCE certificate), German (basics), Spanish (beginner)

Publications – relevant for the dissertation thesis

Vaškovičová K., Awadová T., Veselá P., Balážová M., Opekarová M., and Malinsky J. (2017) *mRNA decay is regulated via sequestration of the conserved 5'-3' exoribonuclease Xrn1 at eisosome in yeast*. Eur J Cell Biol 96(6) 591-599.

Vaskovicova K., Stradalova V., Efenberk A., Opekarova M., and Malinsky J. (2015) *Assembly of fission yeast eisosomes in the plasma membrane of budding yeast: import of foreign membrane microdomains.* Eur J Cell Biol 94(1): 1-11.

Publications - other

Vaškovičová K., Szabadosová E., Čermák V., Gandalovičová A., Kasalová L., Rösel D., and Brábek J. (2015) *PKCα promotes the mesenchymal to amoeboid transition and increases cancer cell invasiveness.* BMC Cancer 15: 263.

Vaškovičová K., Žárský V., Rösel D., Nikolič M., Buccione R., Cvrčková F., and Brábek J. (2013) *Invasive cells in animals and plants: searching for LECA machineries in later eukaryotic life.* Biol Direct 8: 8.