Katarina Psenakova, MSc
Charles University, Czech Republic
Date of birth: 04/09/1992 in Nove Zamky, Slovak Republic

Research experience:

2012-2018: **Czech Academy of Sciences, Czech Republic**, Research assistant

- Role of protein-protein interactions in the regulation of enzymatic activity using X-ray crystallography, Mass spectrometry, Fluorescence spectroscopy, Bio-SAXS.
- Study of thermodynamic aspects of the protein – DNA interaction using NMR spectroscopy, Isothermal titration calorimetry.

Since 2015: **Charles University, Czech Republic**, Teaching assistant

- Undergraduate course of Biophysical Chemistry

9/2018-10/2018: **National Institute of Health, United States**, Research assistant

- Short-term research stay in the Lab of dr. Fred Dyda

Education:

Charles University in Prague, Czech Republic

- Since 2015: **Ph.D. in Physical chemistry**
- 2013 – 2015: **M.Sc. in Biophysical chemistry**
- 2010 – 2013: **B.Sc. in Chemistry**

Publications:

Psenakova, K., Petrvalska, O., Kylarova, S., Santo, D. L., Kalabova, D., Herman, P., Obsilova, V., Obsil, T.: 14-3-3 protein directly interacts with the kinase domain of calcium/calmodulin-dependent protein kinase kinase; *Biochim Biophys Acta*, vol. 1862(7) p. 1612-1625 (2018)

Kylarova, S., **Psenakova, K.**, Herman, P., Obsilova, V., Obsil, T.: CaMKK2 kinase domain interacts with the autoinhibitory region through the N-terminal lobe including the RP insert; *Biochim Biophys Acta*, vol. 1862(10) p. 2304-2313 (2018)

Smidova, A., Alblova, M., Kalabova, D., **Psenakova, K**., Rosulek, M., Herman, P., Obsil, T. & Obsilova, V. 14-3-3 Protein Masks the Nuclear Localization Sequence of Caspase-2. FEBS J. vol. 285 p. 4196–4213 (2018).

Hagenbuchner, J., Obsilova, V., Kaserer, T., Rass, B., **Psenakova, K.,** Docekal, V., Alblova, M., Kohoutova, K., Spoden, G., Schuster, D., Aneichyk, T., Kofler, R., Vesely, J., Obexer, P., Obsil, T. & Ausserlechner, M.J. Modulation of FOXO3 transcriptional activity by small molecule inhibitors. *Submitted*

Kylarova, S., Kosek, D., Petrvalska, O., **Psenakova, K.**, Man, P., Vecer, J., Herman, P., Obsilova, V., Obsil, T.: Cysteine residues mediate high-affinity binding of thioredoxin to ASK1; *FEBS Journal*, vol. 283 p. 3821–3838 (2016)

Kosek, D., Kylarova, S., **Psenakova, K.**, Rezabkova, L., Herman, P., Vecer, J., Obsilova, V., Obsil, T.: Biophysical and Structural Characterization of the Thioredoxin-binding Domain of Protein Kinase ASK1 and Its Interaction with Reduced Thioredoxin; *JBC,* vol. 289 p. 24463-24474 (2014)

Received grants and awards:

- **STARS – Supporting Talented PhD Research Students**: 2015-2019, Charles University in Prague
- **The Charles University Grant Agency** (#368216): 2015-2018: Structural studies of TRX-binding domain of protein kinase ASK1
- **Charles University Mobility Fund**: 2018, Short-term research stay in the Lab of dr. Fred Dyda, NIH, Bethesda USA

- 42nd FEBS Congress, Jerusalem, Israel 2017 - The 17th FEBS Young Scientists' Forum sponsorship
- The Josef Dadok Prize for the best student contribution: 2nd and 3rd place (2017, 2018) Central European NMR Meeting Valtice
- Prize of the Czech Society for Structural Biology for outstanding student presentation (2018) Discussions in Structural Molecular Biology, Nove Hrady

Extracurricular activities:

I play violoncello in a chamber orchestra and sing in our parish church choir. For eight years I've been a volunteer in a summer camp for children from orphanage and socially disadvantaged environment.

I was a member of a local organizing committee of 43rd FEBS Congress in Prague, Czech Republic 2018 - The 18th FEBS Young Scientists' Forum, where I organized both scientific program and social activities.

References:

Prof. Tomas Obsil, Ph.D.
Department of Physical and Macromolecular Chemistry
Faculty of Science, Charles University in Prague
Hlavova 8, 12840 Prague 2, Czech Republic
E-mail: obsil@natur.cuni.cz
Phone: +420-221951303
https://orcid.org/0000-0003-4602-1272

Vaclav Veverka, Ph.D.
Program leader for biomolecular NMR, Structural Biology
Institute of Organic Chemistry and Biochemistry
AS CR v.v.i., Flemingovo nam. 2, 166 10 Prague 6, Czech Republic
E-mail: vaclav.veverka@uochb.cas.cz
Phone: +420-220183135
https://orcid.org/0000-0003-3782-5279