CURRICULUM VITAE

- Name: **Zuzana Chromiková**
- Date of birth: **31st May 1978**
- Place of birth: **Bratislava, Slovak Republic**
- Address: **Zdravotnícka 6, 900 31 Stupava, Slovak Republic**
- Contact: **+421 2 593074 12; zuzana.chromikova@savba.sk**

Employment

2001-present, Slovak Academy of Sciences

- Research scientist at the Institute of Molecular Biology, Department of Microbial Genetics, supervisor RNDr. Imrich Barák, CSc.

Education

2001-2010, PhD training at the Institute of Molecular Biology, Slovak Academy of Sciences

- PhD thesis: "Activation of SigF during sporulation in *Bacillus subtilis*"

1996-2001, Undergraduate study at Commenius University, Slovak Republic

- Master Degree at the Faculty of Natural Sciences, Department of Molecular Biology
- Master thesis at the Institute of Molecular Biology, Slovak Academy of Sciences: "Asymmetric cell division in *Bacillus subtilis*", supervisor RNDr. Imrich Barák, CSc.

Languages

English – proficient, good knowledge

- Fluent + good reading and writing skills

German – basic knowledge

- Passive + decent reading skills

Swedish – elementary knowledge

Research skills

- Molecular biology techniques; cloning, recombinant strain production, genomic and subgenomic library construction, gene expression analyses
- Fluorescence microscopy and imaging
- Detection of biomolecular interactions techniques; yeast/bacterial two hybrid system, affinity chromatography pull-down; SPR, MST.
- Protein isolation and purification using conventional columns for ion exchange, gel filtration and affinity chromatography.

- Standard computer skills (Microsoft office); Molecular biology design software (Vector NTi; CLC; Benchling); Graphics software (Corel, Photoscape, Krita); Image analysis software (ImageJ, Fiji)

Internships

- May 2018- July 2019 as a part-time research scientist in the group of Prof. Dr. Monika Ehling-Schulz, at the Institute of Microbiology, Veterinary University of Vienna (VetMedUni), Vienna, Austria
- April 2015– June 2015 as a research fellow in the group of Professor Rizlan Bernier-Latmani at the Environmental Microbiology Laboratory (EML), EPFL Lausanne, Switzerland
- April 2003– May 2003 Fellow visitor in the group of Professor Anthony J. Wilkinson at York Structural Biology Laboratory (YSBL), York, UK

Project participation (last 5 years)

International projects

- Swiss National Science Foundation – Scopes, Switzerland, IZ73Z0_152527 / 1, "The role of metal homeostasis, reduction and sporulation in the metal resistance of gram-positive bacteria"
  Consortium: R. Bernier-Latmani, EPFL, Lausanne, Switzerland; I. Barak, IMB SAS, Bratislava Slovakia; D. Radnović, University of Novi Sad, Serbia; 2014-2017
- The Royal Society, UK - International Exchanges Scheme - 2014/R3, "Single-molecule in vivo imaging to study sporulation in *Bacillus subtilis*"
  Consortium: M. Leake, University of York, UK; Barak I., IMB SAS, Bratislava Slovakia; 2015-2017

National projects

- APVV-18-0104; "Asymetrické bunkové delenie počas tvorby bakteriálnej endospóry / Asymmetric cell division during bacterial endospore formation"; awarded to I. Barak, IMB SAS, Bratislava; 2018-present
- VEGA 2/0001/21; "Ako bunka nájde miesto asymetrického delenia počas sporulácie Bacillus subtilis/ How the cell finds the asymetric site of septation during sporulation of *Bacillus subtilis*"; awarded to I. Barak, IMB SAS, Bratislava; 2021-present
- VEGA 2/0007/17; Mechanizmy asymetrického bunkového delenia počas sporulácie *Bacillus subtilis*/ Mechanisms of asymmetric cell division during sporulation of *Bacillus subtilis*; awarded to I. Barak, IMB SAS, Bratislava; 2017-2021

- VEGA 2/0009/13; Štruktúra a funkcia proteínov zúčastňujúcich sa regulácie základných bunkových procesov *Bacillus subtilis*/ Structure and function of proteins involved in regulation of basic cell processes in *Bacillus subtilis*; awarded to I. Barak, IMB SAS, Bratislava; 2013/2017

List of Publications

1. Chromiková, Z. [45%], Chovanová –Kalianková, R. [15%], Tamindžija, D.[10%], Bártová, B.[5%], Radnović D.[5%], Bernier-Latmani, R.[10%], Barák, I [10%]. Implantation of *Bacillus pseudomycoides* Chromate Transporter Increases Chromate Tolerance in *Bacillus subtilis*. (2022) Frontiers in Microbiology, 13, URL=https://www.frontiersin.org/articles/10.3389/fmicb.2022.842623, DOI=10.3389/fmicb.2022.842623
   Citations: 0
   Impact Factor: 6.064 (2022)
2. Gacek-Matthews, A. [30%], Chromiková, Z. [25%], Sulyok, M. [2.5%], Lücking, G. [2.5%], Barák, I. [20%], Ehling-Schulz, M. [20%] Beyond toxin transport: Novel role of ABC transporter for enzymatic machinery of cereulide NRPS assembly line. (2020) mBio, 11 (5), art. no. e01577-20, pp. 1-16. DOI: 10.1128/mBio.01577-20
   Citations: 7
   Impact Factor: 6.784 (2019)
3. Muchová, K. [40%], Chromiková, Z. [20%], Barák, I. [40%] Linking the peptidoglycan synthesis protein complex with asymmetric cell division during *Bacillus subtilis* sporulation. (2020) International Journal of Molecular Sciences, 21 (12), art. no. 4513, pp. 1-13. DOI: 10.3390/ijms21124513
   Citations: 1
   Impact Factor: 5.923 (2020)
4. Wollman, A.J.M. [30%], Muchová, K. [15%], Chromiková, Z. [15%], Wilkinson, A.J. [10%], Barák, I. [10%], Leake, M.C. [20%]. Single-molecule optical microscopy of protein dynamics and computational analysis of images to determine cell structure development in differentiating *Bacillus subtilis*.(2020) Computational and Structural Biotechnology Journal, 18, pp. 1474-1486. DOI: 10.1016/j.csbj.2020.06.005
   Citations: 2
   Impact Factor: 7.271 (2020)
5. Tamindžija, D.[50%], Chromikova, Z. [15%], Spaić, A. [5%], Barak, I. [15%], Bernier-Latmani, R. [15%], Radnović, D. [5%]. Chromate tolerance and removal of bacterial strains isolated from uncontaminated and chromium-polluted environments. (2019) World Journal of Microbiology and Biotechnology, 35 (4), art. no. 56, DOI: 10.1007/s11274-019-2638-5
   Citations: 6
   Impact Factor: 2.477 (2019)
6. Muchová, K. [40%], Chromiková, Z. [25%], Valencíková, R. [15%], Barák, I. [20%]. Interaction of the morphogenic protein RodZ with the *Bacillus subtilis* Min system. (2018) Frontiers in Microbiology, 8 (JAN), art. no. 2650, . DOI: 10.3389/fmicb.2017.02650

Citations: 4
Impact Factor: 5.26 (2020)

7. Jamroskovic, J. [20%], Chromikova, Z. [25%], List, C. [25%], Bartova, B. [10%], Barak, I. [10%], Bernier-Latmani, R. [10%]. Variability in DPA and calcium content in the spores of Clostridium species. (2016) Frontiers in Microbiology, 7 (NOV), art. no. 1791, . DOI: 10.3389/fmicb.2016.01791
   Citations: 19
   Impact Factor: 5.26 (2020)
8. Muchová, K. [35%], Chromiková, Z. [25%], Bradshaw, N.[5%], Wilkinson, A.J. [15%], Barák, I. [20%]. Morphogenic protein RodZ interacts with sporulation specific SpoIIE in *Bacillus subtilis.* (2016) PLoS ONE, 11 (7), art. no. e0159076, . DOI: 10.1371/journal.pone.0159076
   Citations: 7
   Impact Factor: 3.240 (2020)
9. Muchová, K. [50%], Chromiková, Z.[25%], Barák, I. [25%]. Control of *Bacillus subtilis* cell shape by RodZ. (2013) Environmental Microbiology, 15 (12), pp. 3259-3271. DOI: 10.1111/1462-2920.12200
   Citations: 22
   Impact Factor: 4.933 (2020)
10. Chromiková, Z. [90%], Barák, I. [10%]. Gene asymmetry during sporulation process of *Bacillus subtilis*. (2002) Biologia – Section Cellular and Molecular Biology, 57 (6), pp. 707-712.
    Citations: 0
    Impact Factor: 1.139 (2020)
11. Prepiak, P. [50%], Chromiková, Z.[20%], Barák, I. [30%]. Use of yeast two-hybrid system for detection of *Bacillus subtilis* FtsZ protein partners. (2001) Folia Microbiologica, 46 (4), pp. 292-296. DOI: 10.1007/BF02815616
    Citations: 2
    Impact Factor: 2.131 (2020)