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CURRICULUM VITAE

+ EDUCATION & WORKING EXPERIENCE

- 2016 – present **Business analyst - Digital Health**
Merck Ventures, Amsterdam, The Netherlands
- 2016 – present **Business Developer**
Owl Tech, Delft, The Netherlands
- 2011 – 2016 **PhD researcher in bioinformatics**
Vrije University Amsterdam, supported by BE-BASIC consortium, Amsterdam, The Netherlands
Project: Assembly and annotation of the genomes of *Folsomia candida* and *Orchesella cincta* and comparative genomics of stress defense systems.
- 2010 – 2011 **MSc internship**
Leiden University Medical Center, Leiden, The Netherlands
Project: Development of an evolutionary based approach to identify sequence errors in genomes of RNA viruses.
- 2008 – 2010 **MSc internship**
The Institute for Information Transmission Problems, Moscow, Russia
Project: Evolution of proteins in bacterial genomes by the shift of stop-codons.
- 2007 – 2008 **MSc internship**
The A.N. Belozersky Institute Of Physico-Chemical Biology
Project: Properties of Thrombin binding DNA aptamers.
- 2006 – 2011 **MSc in bioengineering & bioinformatics**
Lomonosov Moscow State University

+ LIST OF PUBLICATIONS

- **Faddeeva-Vakhrusheva A**, Derks M.F.L., Anvar S.Y., Agamenzone V, Suring W, Kraaijeveld K, Kampfraath A.A., Ellers J, Le Ngoc G, Mariën J, Smit S, Van Straalen N.M., Roelofs D. Coping with the challenges of soil-living: the genome of the parthenogenetic springtail *Folsomia candida*. In preparation for the submission.
- Suring W, Meusemann K, Blanke A, Mariën J, Schol T, Agamenzone V, **Faddeeva-Vakhrusheva A**, Berg M.P., Brouwer B, iKITE Basal Hexapod consortium, Van Straalen N.M., Roelofs D. Evolutionary radiation of penicillin gene clusters in animals. In preparation for the submission.
- **Anna Faddeeva-Vakhrusheva**, Martijn F.L. Derks, Yahya Anvar, Valeria Agamenzone, Wouter Suring, Sandra Smit, Nico M. van Straalen, Dick Roelofs. Gene family evolution reflects adaptation to soil environmental stressors in the genome of the collembolan *Orchesella cincta*. *Genome Biology and Evolution*. 2016; 8(7): 2106-17.
- **Faddeeva A**, Studer RA, Kraaijeveld K, Sie D, Ylstra B, Mariën J, op den Camp HJ, Datema E, den Dunnen JT, van Straalen NM, Roelofs D. Collembolan Transcriptomes Highlight Molecular Evolution of Hexapods and Provide Clues on the Adaptation to Terrestrial Life. *PLoS One*. 2015; 10(6): e0130600.
- Roelofs D, Timmermans MJ, Hensbergen P, van Leeuwen H, Koopman J, **Faddeeva A**, Suring W, de Boer TE, Mariën J, Boer R, Bovenberg R, van Straalen NM. A functional isopenicillin N synthase in an animal genome. *Mol Biol Evol*. 2013; 30(3): 541-8.
- **Vakhrusheva AA**, Kazanov MD, Mironov AA, Bazykin GA. Evolution of prokaryotic genes by shift of stop codons. *J Mol Evol*. 2011; 72(2): 138-46.

