

## CURRICULUM VITAE OF NIKOLAY OSKOLKOV



Nikolay Oskolkov, PhD,  
Senior Bioinformatician, permanent employment

Science for Life Laboratory (SciLifeLab)  
[www.scilifelab.se/](http://www.scilifelab.se/)  
National Bioinformatics Infrastructure Sweden  
[www.nbis.se](http://www.nbis.se)

Biology Department, Lund University  
Sölvegatan 35, 22362 Lund, Sweden

Phone: +46 761463349

Email: [nikolay.oskolkov@scilifelab.se](mailto:nikolay.oskolkov@scilifelab.se)  
[Nikolay.Oskolkov@biol.lu.se](mailto:Nikolay.Oskolkov@biol.lu.se)

### Education and Career

1. 2016-present NBIS SciLifeLab, Lund University, Biology department, Sweden, **Senior Bioinformatician**
2. 2012-2016 Clinic Research Centre, Lund University Diabetes Centre, Department of Clinical Sciences, Sweden, **Associate Researcher**
3. 2010-2011 DTU Nanotech, Technical University of Denmark, Denmark, **Postdoctoral Fellow**
4. 2009-2010 Chemistry Department, University of North Carolina, USA, **Postdoctoral Fellow**
5. 2007-2009 Physical Chemistry Department, University of Lund, Sweden, **Postdoctoral Fellow**
6. 2004-2007 Moscow State University, Russia, and University of Ulm, Germany, **PhD in Theoretical Physics**

### Achievements

43 scientific articles (24% first author, 10% last author, and 10% corresponding author), h-index: 22, i10-index: 27, 3 164 citations, >70 oral and invited talks at scientific conferences

### Funding and Grants

Diabetesfonden research grant (2016), Crafoord Foundation research grant (2016), Hjärt och Lungfonden research grant (2015), Sydvästra Skåne Diabetes Föreningen research grant (2015), Lindhes Advokatebyrå AB research grant (2015), Swedish Diabetes Society grant (2014)

### Distinctions and Awards

Helmholtz Zentrum Muenchen Award for Interdisciplinary Cooperation (2017), Young Investigator Award of European Diabetes Association (2015), Danish Diabetes Academy Award (2014), DAAD Leonard Euler Stipendium (2005), Garant scholarship (2004)

### **Professional skills**

1. Computational approaches: mathematical statistics and machine learning
2. Programming languages: R, Python, Bash, C++
3. Languages: Russian(native), English, Swedish, German

### **Marital status**

Married. Wife: Malin Zackrisson Oskolkova, PhD in Chemistry. Three children: Anton (15 y), Vera (13 y), and Alexander (9 y)

### **Teaching experience**

Bioinformatics mentor for 7 PhD students, "Omics Integration" course leader, [https://github.com/NBISweden/workshop\\_omics\\_integration](https://github.com/NBISweden/workshop_omics_integration), teaching "scRNAseq", "Advanced R" and "Deep Learning" NBIS courses

### **Research experience**

1. Precision medicine, cell biology, microbiome, evolutionary research
2. Genomics, transcriptomics and epigenomics: array and sequencing data
3. Single cell Omics data analysis: scRNAseq, scBSseq, scATACseq
4. Multi-Omics analysis, data integration and systems biology
5. Genome-Wide Associations Studies (GWAS) and eQTL analysis
6. Sedimentary and environmental DNA metagenomic analysis
7. Ancient genomics, population genomics, metagenomics and proteomics
8. Microscopy imaging: deep learning cell detection and segmentation
9. Epidemiology: causal inference and Mendelian randomization
10. Time series data analysis: allele frequency trajectory analysis
11. Natural Language Processing (NLP): word frequency based analysis
12. Atomistic molecular dynamics computer simulation: GROMACS

### **Board participation**

COMPUTE Lund University research school <https://www.compute.lu.se/> steering group member, statistics service co-leader at Biology dept of Lund University, opponent and examiner at >10 MSc defenses

### **Scientific blogging**

1. "Mathematical statistics and machine learning for Life Sciences" at Towards Data Science: <https://medium.com/tag/stats-ml-life-sciences>
2. "Deep learning for Life Sciences" scientific blog at Medium / Towards Data Science: <https://medium.com/tag/dl-for-life-sciences>