

Curriculum Vitae, Erik Lindahl

Date of birth: March 14, 1972

URL: <http://www.scilifelab.se/researchers/erik-lindahl/>

ORCID 0000-0002-2734-2794

1. Degrees

1991-1995 Master of Science in Engineering Physics, Lund Institute of Technology, Sweden
1992-1993 Studies in Russian language, Stockholm University (Part of military service)
2000-04-07 Licentiate in Theoretical Biophysics, Royal Inst. of Technology, Stockholm, Sweden
2001-06-29 PhD in Theoretical Biophysics, KTH, Stockholm, Sweden
2007 Readership (Swedish 'docent' title), Theoretical chemistry, Stockholm University

2. Positions/appointments

2009- Professor of Biophysics, Dept. Biochemistry & Biophysics, Stockholm University
2010- Professor of Theoretical Biophysics, KTH (secondary appointment)
2001 Postdoctoral scholar, Groningen University, Netherlands, Prof. Herman Berendsen
2001-2003 Postdoctoral scholar, Stanford University School of Medicine, USA, Michael Levitt.
2004 Visiting scientist, École Normale Supérieure & Institut Pasteur, Paris, France
2004-2009 Assistant & associate professor, Dept. Biochemistry & Biophysics (VR position)

4. Awards & prizes

1996 Fellowship of Excellency for PhD studies Sep 1996-Jun 2001, KTH, Stockholm
2003 "Prix Jeune Chercheur Blaise Pascal", École Normale Supérieure, EUR 75k (PI)
2005 Sven and Ebba-Christina Hagberg Prize, Royal Academy of Sciences, SEK 250k (PI)
2009 Wallenberg Consortium North, "SU Star of 2009" (award)
2011-2016 Member of the Young Academy of Sweden
2011-2017 Senior Research Fellow of the Swedish Research Council

5. Selected research funding track record

2001-2013 9 different projects totaling 15 MSEK (PI)
2008-2011 Drug Initiative for Channels & Transporters (EDICT), FP7, SEK 800k (co-applicant)
2008-2013 ERC Starting independent researcher grant (consolidator category), EUR 1.3M (PI)
2008-2013 Future Research Leaders round III, Foundation for Strategic Res., SEK 8.5M (PI)
2010-2013 EU FP7, Scalable Life Science Software Infrastructure grant, SEK 3.6M total (co-PI)
2010- 1/10 PIs for the Swedish eScience Research Center (SeRC) strategic research area
2011-2014 EU FP7, "CRESTA", EUR 400k
2011-2016 STINT institutional collaboration grant CBR-University of Virginia, SEK 1.6M (PI)
2012-2013 ERC Proof-of-Concept grant, EUR 120k (PI)
2014-2017 Project grant from Swedish Research Council, SEK 3.6M total (PI)
2014-2020 KAW "Dynamics and regulation of mammalian channels", SEK 26M (co-I)
2015-2018 BioExcel, EU center-of-excellence, SEK 4.5M (lead scientist)
2015-2020 SSF Infrastructure Fellow development project, supporting scientific PI
2017-2020 Cryo-EM computational infrastructure, Science for Life Laboratory, SEK 3M (PI)
2017-2022 NIH project grant for biomolecular software (co-investigator).

6. Supervision of students & postdoctoral fellows

- Guided 7 students to PhD degrees as main advisor, 1 to licentiate degree.
- 5 current PhD students
- Mentored 7 previous postdoctoral fellows, 3 of which have PI positions (Virginia, LiU, UU), another 3 are now permanent researchers in academia.
- Currently mentoring 4 postdoctoral fellows.

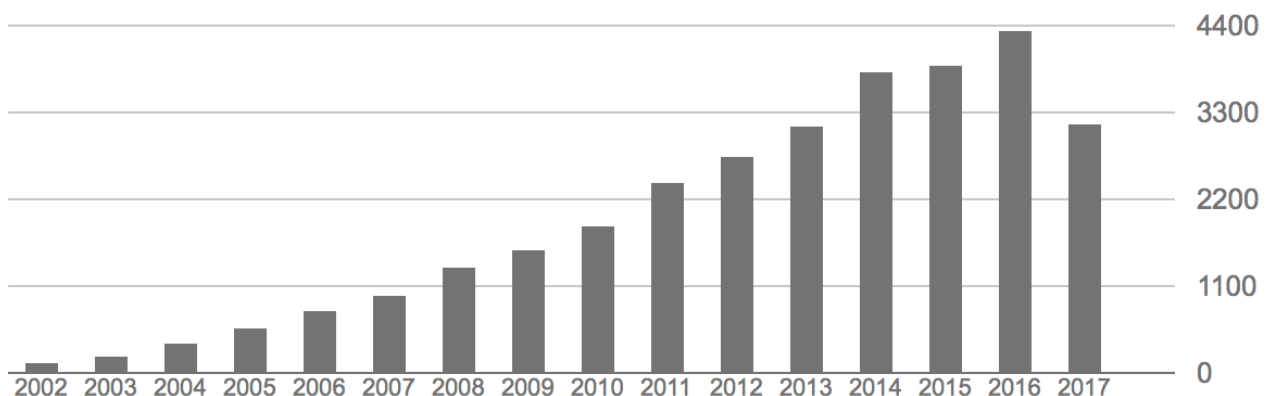
7. Commission of trust

2006-2007 IVA Mentor4Research commercialization program
2008-2010 Board of directors, Center for Parallel Computers, Royal Institute of Technology
2009-2014 Steering group, Swedish eScience Research Center
2011-2016 Gender equality board, School of Engineering Science, Royal Inst. Technology
2011 Founder, BinaryBio AB
2011-2013 Chair of election panel, Young Academy of Sweden
2012- Platform director for Bioinformatics, Science for Life Laboratory, Stockholm
2012-2016 Board of directors, Swedish National Infrastructure for Computing
2013-2015 Scientific Steering Committee, EU PRACE computing infrastructure
2013-2014 Development of SU-KTH-KI Master's program in Molecular Life Sciences
2014- Program director, SU-KTH-KI Master's program in Molecular Life Sciences
2014- Vice director, Swedish e-Science Research Center
2015-2018 Scientific leader, BioExcel Center of Excellence in Biomolecular Simulation (EU)
2016 Vice chair, Scientific Steering Committee, EU "PRACE" HPC infrastructure
2016- Scientific advisory board, Multiscale genomics consortium, Barcelona, ES
2016- Council member, Centre Européen de Calcul Atomique et Moléculaire, Lausanne
2016- Scientific advisory board, CSCS, Zurich, Switzerland
2017 Chair, Scientific Steering Committee, EU "PRACE" HPC infrastructure
2017 Board of Directors, EU "PRACE" HPC infrastructure
2018 Chair, PASC18 Conference, Basel, Switzerland

7. Research impact metrics

>100 publications, >31,000 citations, 4 pubs above 1,000, 25 above 100. h-index 45, m-index 2.4, i10-index 72, >100 invited talks. Google scholar public profile: <https://goo.gl/zKzue2>

Citations per year



Selected publications, Erik Lindahl

- ¹Hess B., Kutzner, C., van der Spoel, D., and **Lindahl, E.** (2008) GROMACS 4.0: Algorithms for highly efficient, load balanced, and scalable molecular simulation. *J. Chem. Theory Comput.* 4, 435-447. Number of citations: 7,935
- Bjelkmar, P., Niemelä, P., Vattulainen, I., and **Lindahl, E.** (2009) Conformational changes and slow dynamics through microsecond polarized atomistic molecular simulation of an integral Kv1.2 ion channel, *PLoS Comp. Biol.* 5, e1000289. Number of citations: 102
- Murail, S., Wallner, B. Trudell, JR, Bertaccini, E., and **Lindahl E.** (2011), Microsecond simulations indicate that ethanol binds between subunits and could stabilize an open-state model of a glycine receptor, *Biophys. J.* 100, 1642-50. Citations: 59
- Schwaiger, S., Bjelkmar, P., Hess, B., and **Lindahl, E.** (2011) 3(10)-helix conformation facilitates the transition of a voltage sensor S4 segment toward the down state., *Biophys. J.* 100, 1446-54. Number of citations: 30
- Howard, RJ., Murail, S., Ondricek, KE., Corringer, PJ., **Lindahl, E.**, Trudell, JR., and Harris, RA. (2011), Structural basis for alcohol modulation of a pentameric ligand-gated ion channel, *Proc. Natl. Acad. Sci. USA* 108, 12149-12154. Citations: 75
- Murail, S., Howard, RJ., Brömstrup, T., Bertaccini, EJ., Harris, RA., Trudell, JR., and **Lindahl, E.** (2012), Molecular mechanism for the dual alcohol modulation of cys-loop receptors, *PLoS Comput. Biol* 8, e1002710. Number of citations: 25
- ²Pronk, S., Pall, S., Schulz, R., Larsson, P., Bjelkmar, P., Apostolov, R., Shirts, MR., Smith, JC, Kasson, P, van der Spoel, D., Hess, B., and **Lindahl, E.** (2013) GROMACS 4.5: A high-throughput and highly parallel open source molecular simulation toolkit, *Bioinformatics* 29, 845-854. Number of citations: 2,189
- Brömstrup, T., Howard, RJ., Trudell, JR., Harris, RA, and **Lindahl, E.** (2013) Inhibition versus potentiation of ligand-gated ion channels can be altered by a single mutation that moves ligands between intra- and intersubunit sites, *Structure* 21, 1307-16. Number of citations: 16
- ³Abraham, MJ., Murtola, T., Schulz, R., Pall, S., Smith, JC., Hess, B., and **Lindahl, E.**, GROMACS: High performance molecular simulations through multi-level parallelism from laptops to supercomputers, *SoftwareX* 1, 19-25. Number of citations: 196
- Yazdi, S., Stein, M., Elinder, F., Andersson, M., and **Lindahl, E.** (2016) The molecular basis of polyunsaturated fatty acid interactions with the Shaker voltage-gated potassium channel. *PLoS Comp. Biol.* 12, e1004704. Number of citations: 7
- Kimanius, D., Forsberg, B., Scheres S.H.W., **Lindahl, E.** (2016) Accelerated cryo-EM structure determination with parallelism using GPUs in RELION-2. *eLife* 2016;5:e18722. Number of citations: 49

¹ Essential Science Indicators: Highly cited paper & Research Front

² ESI Highly cited paper, Most cited Swedish paper in WoS during 2014, #23 in the world.

³ Most downloaded paper from SoftwareX.