
Lukas Käll

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Higher Level Education

Docent: KTH - Royal Institute of Technology, June 2012.

Postdoc: University of Washington, Department of Genome Sciences 2006-08.

PhD: Karolinska Institutet, Center for Genomics and Bioinformatics, 2002-06.

M.Sc. Engineering Physics: Uppsala University, 1989-94

Licence de Physique: Ecole Normal Supérieur de Lyon, 1991-92

Professional experience

Royal Institute of Technology (2018-): Professor.

Royal Institute of Technology (2013-2017): Associate Professor ("Lektor").

Royal Institute of Technology (2011-2013): Assistant Professor ("Bitädande Lektor").

Stockholm University (2008-2011): Assistant Professor ("Forskarassistent"), Department of Biochemistry and Biophysics.

University of Washington (2006-08): Postdoctoral research fellow, Department of Genome Sciences.

Karolinska Institutet (2002-06): PhD Student, Center for Genomics and Bioinformatics.

Spacemetric (2001-02): Software architect, image processing application at a start-up company.

Swedish Space Corporation (1997-2001): Project Leader for the Spacecraft Simulator of the lunar probe SMART-1.

Pharmacia Biotech AB (1994-97): Programmer, algorithmic design for the DNA sequencer ALF Express.

Tutoring experience

Supervised the following academic personell:

- 2 PhDs graduated as main supervisor (Luminita Moruz, Viktor Granholm).
- 5 PhD student in progress, 3 as main supervisor.
- 5 Postdocs (1 ongoing)

Refereed Publications

52 Publications; h-index of 28; and a total of 6634 citations according to Google Scholar:
<http://scholar.google.se/citations?user=aZALISYAAAAJ>.

Five selected publications:

- L Käll, J Canterbury, J Weston, WS Noble and MJ MacCoss, Semi-supervised learning

for peptide identification from shotgun proteomics datasets, *Nature Methods*, **4**:923-25, 2007.

- **L Käll**, JD Storey, MJ MacCoss and WS Noble, Assigning confidence measures to peptides identified by tandem mass spectrometry, *Journal of Proteome Research*, **7**(1):29-34, 2008

- J Boekel, JM Chilton, IR Cooke, PL Horvatovich, PD Jagtap, **L Käll**, J Lehtiö, P Lukasse, PD Moerland and TJ Griffin, Multi-omic data analysis using Galaxy, *Nature Biotechnology*, **33**(2):137-139, 2015.

-M The and **L Käll**, MaRaCluster: A Fragment Rarity Metric for Clustering Fragment Spectra in Shotgun Proteomics. *Journal of proteome research*, **15**(3): 713-720.

- B Zhang, M Pirmoradian, R Zubarev, **L Käll**, Covariation of Peptide Abundances Accurately Reflects Protein Concentration Differences, *Molecular & Cellular Proteomics*, **16**(5):936-948, 2017

Other scientific experience

Faculty opponent at 3 PhD defenses (University of Copenhagen, University of Gent and University of Bergen). Keynote/invited speaker at 18 international conferences.

Active Grants

I have listed our funding first as a table, and subsequently describe the grants in detail.

PI	Years	Total Amount	Funding Body
Lukas Käll, KTH	2016-18	1 million SEK	SciLifeLab
Juleen Zierath, KI	2013-18	28 million SEK	AstraZenica
Lagergren, KTH	2017-2021	28 million SEK	Stiftelsen för Strategisk Forskning
Lukas Käll, KTH	2018-21	3.2 million SEK	Swedish Research Council

Teaching

I am involved in the following courses:

Kemisk analys 10,5 hp, KD1280 I am responsible for the Statistics part of this course, spring 2016 and spring 2017.

Analysis of data from high-throughput molecular biology experiments, 7.5 hp, BB2490/BB2491 Course responsible and examiner (every second year) since 2011.

Bioinformatics and Biostatistics, 7.0 hp, BB2440/BB2441 Course responsible and examiner (every third year) since 2013.

I am one of the four coordinators of the VR funded "Swedish National Graduate School in Medical Bioinformatics". We are currently starting up the research school, and accepted 20 PhD students in 2017, 20 more 2018 and plan to accept 20 more during 2019.