

CV

Lasse Kristoffer Bak
MSc (pharmacy), PhD
Senior staff scientist

at Department of Clinical Biochemistry, Rigshospitalet - Glostrup

Address and personal details

2A Nordvænget, 4000, Roskilde, Denmark; Phone: +45 91 53 56 40; date of birth: 24. January 1975; married, two children aged 15 and 17

Academic degrees and continuous education activities

- 2022-2027** EU-certified specialist training in clinical biochemistry (five-year, part-time study program); Danish Society for Clinical Biochemistry
- 2020-2021** Strategic leadership (15 ECTS); Danish University of Technical Sciences and Djøf (Danish union for academics within law, economics, and related degrees)
- 2009-2019** Several courses in project management, university management, and leadership
- 2003-2006** PhD in neuropharmacology; Danish University of Pharmaceutical Sciences (DUPS), now University of Copenhagen (UCPH)
- 1996-2003** MSc in pharmacy; DUPS

Current and past positions and organizational responsibilities

- Sep 2021-** Senior staff scientist at Dept. of Clinical Biochemistry, Rigshospitalet - Glostrup
- Sep 2021-** Guest researcher at Dept. of Drug Design and Pharmacology (DDP), UCPH
- 2018-2021** Head of teaching at DDP (*managing/leadership function in relation to the department's course portfolio*)
- 2017** Appointed member of the departmental teaching committee with specific responsibilities in first year educational activities
- 2015-2021** Appointed member of the departmental Health and Occupational Safety Committee
- 2009-2021** Associate professor of biochemical pharmacology at DDP

Longer stays abroad

- 2008** Twelve months in Prof. Philip Robinson's lab at the Children's Medical Research Institute, Sydney, Australia – working on mitochondrial protein biochemistry
- 2005** Six months in Prof. Stefan Bröer's lab at the Australian National University, Canberra, Australia – working on glutamine transport in brain cells

Research activities

Summary

My research has always been focused on understanding fundamental and applied biochemistry in relation to disease.

From 2002 to 2016, I was part of the Neurobiology lab headed by prof. Arne Schousboe that later became the NeuroMet lab headed by prof. Helle S. Waagepetersen. During this time, I studied neuronal and astrocytic metabolism and how this was affected by disease employing *in vitro*, *ex vivo*, and *in vivo* model systems. We employed a range of analytical techniques including LC-MS to study intermediary metabolism of brain cells using a focused metabolomics approach.

From 2016 to early 2020, I ran my own lab, the Cell Signalling Pharmacology Lab. We aimed to understand how spatiotemporally restricted intracellular signalling events dictate cellular function and metabolism, and how this is disturbed in disease. Our goal was to devise novel therapeutic approaches based on peptide drugs targeting spatiotemporal signalling events. The lab employed cell cultures, tissue models, molecular tools, fluorescent dye and biosensor-based single cell imaging, and a range of plate-based bioassays to interrogate cellular signalling, function, and metabolism.

From early 2020 until I moved to Rigshospitalet, I was again part of the NeuroMet lab, now headed by assoc. prof. Blanca Aldana.

Since 2021, my research has been in the process of shifting towards understanding biomarker biology, clinical bioanalysis, and PK/PD studies, as detailed in my research strategy.

My accumulated funding as PI amounts to 8,116,394 DKK (please see <https://orcid.org/0000-0003-0784-7864> for grant details) plus numerous grants as co-PI. Academic publication efficiency measured as grants received divided by number of publications: 98,980 DKK/publication.

Bibliographical data

Web of Science Citations: **3,085**; h-index: **31**
Scopus Citations: **3,417**; h-index: **33**
Google Scholar Citations: **5,129**; h-index: **35**
iCite-RCR 1.67 ± 0.28

Peer-reviewed publications

Corresponding authorships: **28** Original papers: **52**
 Review papers: **21** Book chapters: **9**

Top five topics

(Source: Web of Science)

77% Neuroscience
 46% Biochemistry & molecular biology
 6% Endocrinology & metabolism
 6% Gastroenterology & hepatology
 3% Clinical neurology

Mentorship & supervision	<i>Post docs</i>	4
	<i>PhDs</i>	5
	<i>PhD thesis examinations</i>	8
	<i>MSc students</i>	32
	<i>BSc students</i>	15
	<i>Individual study units</i>	14
	<i>Student mentees</i>	24
Awards, appointments, memberships, and honours	2023-2027	Treasurer and member of the Committee for the Specialist Training Program in Clinical Biochemistry in Denmark organized by the Danish Society for Clinical Biochemistry
	2022-	Member of the Danish Society for Clinical Academics
	2021-	Member of the Danish Society for Clinical Biochemistry
	2018-	Member of The Danish Academy of Natural Sciences
	2018-	Member of the editorial board of Frontiers in Neuroscience and Nutrition
	2017-	Member of "Selskabet for Teoretisk og Anvendt Terapi/Jakobinerklubben", the Society for Theoretical and Practical Therapy
	2017-2021	Appointed member of the committee under the Danish Ministry of Science entrusted to rank the basal biomedical journals for bibliometric purposes (funding is to some extent allocated to university departments based on bibliometric data)
	2015-2017	Appointed as member of the Committee for Aid and Education in Neurochemistry for the International Society for Neurochemistry
	2014-2020	Judging the annual "Forskerspire" competition (Danish high school students competing in writing scientific project proposals)
	2013-	Local ambassador for the UK-based Biochemical Society
	2011-	Member of the editorial board of Neurochemical Research
	2008	Post doctoral stay awarded at Children's Medical Research Institute, Australia; Mentor: Dr. P. Robinson
	2007-2009	Post doc fellowship from the Carlsberg Foundation

	<i>2002-2006</i>	Several travel awards and oral presentations at international meetings as a MSc student and graduate student
Conference or seminar participation as speaker, chair, or organizer	<i>May 2022</i>	8th Conference of the Mediterranean Neuroscience Society, Dubrovnik, Slovenia (invited speaker; attendance cancelled)
	<i>Sep 2018</i>	Europhysiology 2018, London, UK (speaker at live debate organized by the Journal of Physiology's CrossTalk debates section)
	<i>Jun 2018</i>	Gordon Research Conference on phosphorylation and G-protein mediated signaling networks, Biddeford, USA (speaker)
	<i>May 2017</i>	Invited speaker at the Institute of Biomedicine in Valencia, Spain
	<i>Feb 2017</i>	Invited speaker at Monash University, VIC, Australia (2 separate talks)
	<i>May 2016</i>	12th Int. Conference on Brain Energy Metabolism, Hong Kong, China (speaker)
	<i>Aug 2015</i>	Int. Soc. of Neurochemistry Biennial Meeting, Cairns, Australia (chair & speaker)
	<i>May 2014</i>	Kraków/Wierzba meeting on glutamate/GABA in the brain, Kraków, Poland (chair & speaker)
	<i>May 2014</i>	11th International Conference on Brain Energy Metabolism, Helsingør, Denmark (co-organizer)
	<i>Mar 2014</i>	American Society for Neurochemistry Annual Meeting, Long Beach, CA, USA (speaker)
	<i>Apr 2013</i>	The brain in flux; satellite meeting of the joint ISN biennial meeting, Cancun, Mexico (speaker)
	<i>May 2012</i>	15th Symposium of the Int. Soc. for Hepatic Encephalopathy and Nitrogen Metabolism, Grenaa, Denmark (speaker)
	<i>Mar 2011</i>	American Society for Neurochemistry Annual Meeting 2011, St. Louis, MO, USA (speaker)
	<i>Jul 2010</i>	9th International Conference on Brain Energy Metabolism, Budapest, Hungary (chair)
	<i>Mar 2010</i>	American Society for Neurochemistry Annual Meeting 2010, Santa Fe, NM, USA (speaker)
	<i>Sep 2008</i>	Invited speaker at the University of Newcastle, NSW, Australia

	<i>Jun 2008</i>	3rd ISN special Neurochemistry Conference, 8th International Meeting on Brain Energy Metabolism, Beijing, PR China (speaker)
	<i>Aug 2006</i>	7th International Conference on Brain Energy Metabolism, Lausanne, Switzerland (chair & speaker in student session)
	<i>Aug 2005</i>	3rd Wierzba Conference, Wierzba, Poland (speaker in student session)
	<i>Aug 2004</i>	American Society for Neurochemistry Annual Meeting 2004, New York, USA (speaker in student session)
	<i>Aug 2002</i>	2nd Wierzba Conference, Wierzba, Poland (speaker in student session)

Educational activities

Summary

While at UCPH, my primary focus was first year cell biology/biochemistry and pharmacology for the pharmacy program. I strived to deliver high quality, research-based teaching to support the courses offered at all levels of education. I was fortunate to have an excellent alignment between my research and teaching interests which offered an advantage for both these aspects of my work. During my time at UCPH, I also devoted myself to studying and teaching project management and strategies for academic research and co-developed a PhD course on this topic.

Besides teaching at courses, I took on the role of course director for several years before being promoted to departmental head of teaching in 2018, a position I held until I left UCPH. In this position, I had both managerial responsibilities and a leadership role towards the strategic development of the department's entire course portfolio.

Please see my attached teaching portfolio/teaching plan for my full teaching CV and my reflections on own teaching practises and strategic development of courses and course portfolios.