

Personal information

Jan Kristian Jensen
Ph.D., M.Sc., PI-R.



CONTACT INFORMATION

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Career

2019 - present: Project manager on contracted drug-development research program with Catalyst Biosciences hosted at Department of Molecular Biology and Genetics, Aarhus University.

2018 - 2022: Scientific Consultant contract, Catalyst Biosciences (<https://Catalystbiosciences.com>).

2017: Scientific Consultant contract with Redhill Biopharma Ltd (www.redhillbio.com).

2016, 2017: Project/laboratory Manager on a contracted drug-development research program with Redhill Biopharma Ltd. hosted at Aarhus University.

2016 – Present: Full-time employment as project Manager, Building services Science and Technology, Aarhus University.

2013 - 2016: Associate professor, Department of Molecular Biology and Genetics, Aarhus University

2009 – 2013: Assistant professor, Department of Molecular Biology and Genetics, Aarhus University.

2009: Postdoctoral fellow, Department of Molecular Biology, Aarhus University, laboratory of Peter A. Andreasen.

2006 –2009: Postdoctoral fellow, Department of Biochemistry and Molecular Genetics, University of Illinois at Chicago, laboratory of Peter G.W. Gettins.

1998: First-lieutenant of the reserve, Royal Danish army.

1997: Second-lieutenant, Royal Danish army.

1996: Sergeant of the reserve, Royal Danish army.

Education and training

2006: Ph.D. degree in nanotechnology, Department of Molecular Biology, Aarhus University.

2003: Ph.D. student in nanotechnology; supervisor Peter A. Andreasen; co-supervisors Niels Chr. Nielsen and Flemming Besenbacher.

2003: Master's degree in Molecular Biology, Aarhus University.

1997: Enrolled as a chemistry-molecular biology student at Aarhus University.

Scientific summary

AREA OF RESEARCH

My research interest covers the biochemical and biophysical characterization of proteins within the family of serine proteases including their natural inhibitors and receptors. My research strategy combines the analysis of molecular interactions and enzymatic activities with detailed structural information and information on protein flexibility and dynamics in order to develop conformationally sensitive probes and inhibitors by directed evolution. Such compounds not only allow for the study of physiological roles and mechanisms behind protease trafficking, activation, catalysis and inhibition in cell culture and animal model systems, but also for the development of new principles for pharmacological intervention with pathophysiological functions associated with matriptase and related proteases.

BIBLIOMETRIC SUMMARY

Peer-reviewed articles: 62

Book chapters and reviews: 3

Structures deposited in RCSB Protein Data Bank: 9 (1 NMR)

Total citations: 1457, H-index 23

Invited talks: 2015: ASBMB symposium on membrane anchored serine proteases, Washington Abstracts at international meetings: 4 oral presentations, 7 poster presentations

INTERNATIONAL COLLABORATORS

Preben Morth, Oslo, Norway; Cynthia Peterson, Tennessee, USA; Jim Huntington, Cambridge, GB; Peter Gettins, Chicago, USA; Thomas Kietzmann, Oulu, Finland; Mingdong Huang, Fuzhuo, China; Jacky Ngo, Hong Kong, China; Wiktor Kozminski, Poland; Chris Spronk, Litauen.

Boards, appointments and awards

2019 - present: Chairman of the board, Voldumegnensfriskole
2017 - present: Treasurer of Indian klub Danmark.
2016 - 2019: Chairman of the board, Dagtilbud Hadsten Opland.
2016 - present: Vice Chairman, Ølst water supply.
2016: Danish management committee member (Substitute) of the MOBIEU COST action to set-up the ARBRE network (Association of Resources for Biophysical Resource in Europe).
2014: "Best abstract award", 7th International Symposium on Serpin Biology, Structure and Function, Leogang, Austria.
2008: "Young Investigator Award", at the 5th International Symposium on Serpin Biology, Structure and Function in Leuven, Belgium.

Research Funding

2020 - 2022: Research program contract (Work package employing six FTE (2 Post doc, 1 Guest researcher and 3 technicians), with the Biotech company Catalyst Biosciences.
2019: Research program contract (Work package employing two FTE (1 Post doc and 1 Guest researcher), with the Biotech company Catalyst Biosciences.
2017: Research program contract (Two parallel work packages, employing a Post doc and a research assistant), with the pharmaceutical company Redhill Biopharma.
2016: Research program contract (Two parallel work packages, each employing a scientific research assistant), with the pharmaceutical company Redhill Biopharma.
2014: Co-applicant on the 1-year project "New receptors for complement C3" with start January 1st 2015, funded by the Novo nordisk foundation.
2012: Co-applicant on the three-year project "Antagonising the tumour biological functions of matriptase" with start ultimo 2013 funded by the Danish Cancer Society.
2011: Co-applicant on a three-year project "Regulatory mechanisms for matriptase in the secretory pathway" which started January 1st 2012 funded by the Lundbeck Foundation.
2009: Three-year project "Biochemical and structural characterization of the type II transmembrane serine protease (TTSP) family" funded by the Lundbeck Foundation.
2008: One-year postdoctoral fellowship extension from the Carlsberg Foundation.
2006: Two-year postdoctoral fellowship on the project "Structural characterization of serine-protease-inhibitor complexes binding to members of the low-density lipoprotein receptor family" funded by the Danish Agency for Science, Technology and Innovation.

Teaching and supervision

FORMAL PEDAGOGICAL TRAINING

1995-1996: Completed educational programs in basic pedagogy, teaching principles and group psychology both at sergeant school (group leader education) and later lieutenant school (platoon leader and artillery observer education) in the Royal Danish army.

TEACHING ACTIVITIES

Previous: Teacher in the undergraduate courses Enzymology and Protein Technology, instructor in undergraduate theoretical and laboratory courses in physical biochemistry, biochemistry, molecular cell biology, protein technology, NMR spectroscopy at Aarhus University; instructor in post-graduate courses in nanotechnology and protein structures at Aarhus University.

RESEARCH SUPERVISION

Past: 9 graduate, 13 undergraduate, 1 technician apprentice

Research competences

Protein structure function, in relation to serine proteases and their inhibitors, and receptors. Recombinant protein production (bacteria, yeast, insect and mammalian cells) and DNA technology. Chromatography, FPLC and HPLC and electrochemical separation. Broad enzymology tool-set, including assays for: enzyme optimum profiling, kinetics of catalysis, inhibitor profiling. ELISA. Western blotting. NMR spectroscopy, including MD simulation. Small angle X-ray scattering (SAXS). X-ray protein crystallography. Surface plasmon resonance (Biacore, Reichert). Fluorescence spectroscopy, both steady-state and stopped-flow rapid kinetics. Isothermal titration and differential scanning calorimetry. Circular dichroism spectroscopy. Dynamic light scattering. Analytical ultracentrifugation. Directed evolution. Proficient IT-skills, including the following platforms: Dos, OS-2, Windows and Linux.

Evaluation of others work

Research project proposals: The Austrian Science Fund (FWF)

Peer review journals: J. Struct. Biol., Thromb. Haemostas., ChemMedChem, Scand. J. Clin. Lab. Invest.

Public outreach and patents

INNOVATION: Patent: WO 2021/257480 A2: COMPLEMENT FACTOR I-RELATED COMPOSITIONS AND METHODS

KNOWLEDGE EXCHANGE: http://nyheder.ku.dk/alle_nyheder/2011/2011.2/ny_front_mod_cancer/ Radio interview: Jyllandsposten online radio march 2011, "Rundt om Matriptase ny viden om kræft".

Recent work:

<https://www.redhillbio.com/RedHill//userdata/SendFile.asp?DBID=1&LNGID=1&GID=7076>

<https://www.redhillbio.com/RedHill//userdata/SendFile.asp?DBID=1&LNGID=1&GID=7077>