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Positions

2021-present: Associate professor, Dept. of Molecular Biology and Genetics
2016-2021: Team Leader, DANDRITE
2016-2020: Assistant professor, Dept. of Molecular Biology and Genetics
2016-2019: AIAS COFUND Research Fellow
2014-2016: postdoc, Dept. of Molecular Biology and Genetics and iNANO, Aarhus University
2011-2014: postdoc, Dept. of Chemistry, Cambridge University
2010-2011: postdoc, Dept. of Biology, University of Copenhagen

Education & training

2010: Ph.D. in Biochemistry, University of Copenhagen
2009: Visiting Ph.D. student, The Scripps Research Institute
2007: M.Sc. in Biochemistry, University of Copenhagen
2005-6: Visiting student, University of California, San Diego

Scientific Summary

Research interests:

• Intrinsically disordered proteins - sequence-function relationships, biotechnological applications• Membraneless organelles - role in biology and biotechnological applications• Structure and function of flexible proteins from the post-synaptic density and their role in synaptic plasticity

Techniques: NMR spectroscopy, single molecule FRET, protein biophysics.

Bibliometrics:<https://scholar.google.com/citations?user=Sj12rHAAAAAJ&hl=en&oi=ao>

Research Funding

Novo Nordisk Foundation, Lundbeck Foundation, Villum Foundation, Carlsberg Foundation, Danish National Research Foundation "Center of Excellence" PROMEMO, Innovation Fund Denmark, Independent Research Fund Denmark (FTP/FNU)

Research publications

Molecular properties and diagnostic potential of monoclonal antibodies targeting cytotoxic α -synuclein oligomers

Nielsen, J., Lauritsen, J., Pedersen, J. N., Nowak, J. S., Bendtsen, M. K., Kleijwegt, G., Lusser, K., Pitarch, L. C., Moreno, J. V., Schneider, M. M., Krainer, G., Goksøyr, L., Khalifé, P., Kaalund, S. S., Aznar, S., Kjærgaard, M., Sereikaité, V., Strømgaard, K., Knowles, T. P. J. & Nielsen, M. A. & 3 others, Sander, A. F., Romero-Ramos, M. & Otzen, D. E., 29 Jul 2024, In: npj Parkinson's Disease . 10, 1, p. 139

Entering the Next Phase: Predicting Biological Effects of Biomolecular Condensates

Davis, M. C., André, A. A. M. & Kjærgaard, M., Jun 2024, (E-pub ahead of print) In: Journal of Molecular Biology. 168645.

Enhanced hexamerization of insulin via assembly pathway rerouting revealed by single particle studies

Bohr, F., Bohr, S. S. R., Mishra, N. K., González-Foutel, N. S., Pinholt, H. D., Wu, S., Nielsen, E. M., Zhang, M., Kjærgaard, M., Jensen, K. J. & Hatzakis, N. S., Dec 2023, In: Communications Biology. 6, 1, 178.

A Semester-Long Learning Path Teaching Computational Skills via Molecular Graphics in PyMOL

Kjærgaard, M., Rasmussen, L. S., Vinther, J. N., Andersen, K. R., Andersen, E. S., Lorentzen, E., Thirup, S. S., Otzen, D. & Brodersen, D. E., Dec 2022, In: The Biophysicist. 3, 2, p. 106–114 9 p.

The optimal docking strength for reversibly tethered kinases

Dyla, M., González Foutel, N. S., Otzen, D. E. & Kjærgaard, M., 21 Jun 2022, In: Proceedings of the National Academy of Sciences. 119, 25, e2203098119.

