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Forskningsprofil

The research of Peter Kristensen is centered on the technical development and application of methods that allow Darwinian evolution of proteins using directed evolution technologies.

The main scientific contributions have more specifically been in the area of recombinant antibodies and methods of isolating such antibodies from large libraries. In addition Peter Kristensen was the first to develop technologies which allow isolation of proteins with improved stabilities from large libraries of mutants. The interest to make technological developments based on recombinant antibodies and for manipulating protein stability and activity, were initiated while Peter Kristensen performed his post doc at the MRC-LMB in Cambridge in the group of Nobel Laureate Sir Greg Winter. However to justify technological development, the technology developed should be able to provide new insight or solve important problems and here we have especially focused attention at finding novel biomarkers which can be used in characterization of important human conditions, such as age related diseases and rare circulating cells in the blood, just to mention the most relevant example. Most recently, the research has involved the use of non-natural amino acids for immobilization and conjugation of recombinant antibodies and proteins of industrial interest and novel biosensors building on recombinant antibody technology.

Kvalifikationer

Chemistry and Biotechnology, PhD, Aarhus University
1992 → 2 okt. 1995
Dimissionsdato: 2 okt. 1995
Chemistry and Biotechnology, MSc, Aarhus University
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Dimissionsdato: 1 jun. 1992

Ansættelse

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Lektor (MSK)

Department of Engineering, Aarhus University, Gustav Wieds Vej 10C, Aarhus C, DK-8000, Denmark.

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Lektor (MSK)

Department of Molecular Biology and Genetics, Aarhus University, Gustav Wieds Vej 10, Aarhus, Denmark.

1 jan. 2003 → 1 jan. 2010

Senior Scientist

Aarhus Universityhospital, Denmark

1 jan. 2001 → 1 jan. 2002

Forsknings lektor

Department of Molecular Biology and Genetics, Aarhus University, Gustav Wieds Vej 10, Aarhus, Denmark.

1 jan. 2000 → 1 jan. 2001

Forsknings Adjunkt

Department of Molecular Biology and Genetics, Aarhus University, Gustav Wieds Vej 10, Aarhus, Denmark.

1 jan. 1998 → 1 jan. 2000

Research Scientist

Medical Research Council Centre, Laboratory for Molecular Biology (MRC-LMB)

Cambridge, Storbritannien

1 jan. 1997 → 1 jan. 1998

Post-doctoral Fellow

Medical Research Council Centre, Laboratory for Molecular Biology (MRC-LMB)

Cambridge, Storbritannien

1 jan. 1995 → 1 jan. 1997

Publikationer

Structural trends in antibody-antigen binding interfaces: a computational analysis of 1833 experimentally determined 3D structures

Madsen, A. V., Mejias-Gomez, O., Pedersen, L. E., Morth, J. P., Kristensen, P., Jenkins, T. P. & Goletz, S., dec. 2024, I: Computational and Structural Biotechnology Journal. 23, s. 199-211 13 s.

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Targeting of phage particles towards endothelial cells by antibodies selected through a multi-parameter selection strategy

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Larsen, S. A., Meldgaard, T., Lykkemark, S., Mandrup, O. A. & Kristensen, P., 1 jan. 2015, I: *Journal of Cellular and Molecular Medicine*. 19, 8, s. 1939-1948 10 s.

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Sánchez-Martín, D., Sørensen, M. D., Lykkemark, S., Sanz, L., Kristensen, P., Ruoslahti, E. & Álvarez-Vallina, L., 1 jan. 2015, I: *Trends in Biotechnology*. 33, 5, s. 292-301 10 s.

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Jørgensen, M. L., Friis, N. A., Just, J., Madsen, P., Petersen, S. V. & Kristensen, P., 15 jan. 2014, I: *Microbial Cell Factories*. 13, 1, 9.

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