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Employment

Department of Molecular Medicine

4. Sept 2023 → present

Professor

Neurobiology Research Unit

Odense C

4. Sept 2023 → present

ACADEMIC DEGREES

1995: B.Sc. in molecular cell biology, Odense University, DK.

1997: M.Sc. in molecular cell biology, Odense University, DK.

2000: Ph.D. in experimental medical neurobiology, Odense University, DK.

APPOINTMENTS

1995-97: Research Assistant, Dept. of Neurosurgery University Hospital of Berne, CH.

2000-04: Assistant Professor, Anatomy and Neurobiology, Inst. of Medical Biology, University of Southern Denmark, DK.

2004 – present: Associate Professor, PI, Department of Neurobiology Research, Inst. of Molecular Medicine, University of Southern Denmark, DK.

Since 2016 affiliated as external researcher at Dept. of Neurology, Zealand University Hospital, Roskilde, DK and since 2020 affiliated as researcher at Department of Neurology, Odense University Hospital, Odense, DK.

MANAGEMENT EXPERIENCES AND OTHER QUALIFICATIONS

2004: Educated in research management, Copenhagen Business School, DK.

2015 - present: Partner and Steering Group member in BRAINSTEM - Stem Cell Center of Excellence in Neurology (www.brainstem.dk - Innovation Fund Denmark).

2018 - present: Member the research council in the Danish Parkinson Foundation.

Co-founder and partner in the previous Danish Stem Cell Research Center (DASC) and member of the national faculty of Danish Stem Cell Research Doctoral School (DASCDOC) (financed by the Danish MRC).

PI in the previous stem cell consortium EuroSTELLS (financed by the ESF).

Previous member of steering committees, Network of European CNS Transplantation and Restoration (NECTAR) and Society for International Neural Transplantation and Repair (INTR).

Previous member of the steering committee of Danish Society for Neuroscience.

Member of national and international appointment/search committees.

Organizer of scientific meetings/symposia.

Reviewer for several international scientific journals and foundations, including the ESF.

SCIENTIFIC FOCUS AREAS

- Neurotrophic factors, cell replacement and gene-based therapeutic strategies for treatment of Parkinson's disease.

- Experimental stem cell research with particular focus on mechanisms stimulating dopaminergic differentiation of human neural stem cells and induced pluripotent stem (iPS) cells.

- Investigation of early cellular changes that underlie the onset of neurodegeneration in Parkinson's disease using genetically engineered and patient-derived iPS cells.

TEACHING EXPERIENCES

2004-present: Lectures and practical exercises in gross anatomy, cellular neurobiology, general histology and embryology for medical, biomedical, pharmacy students. Supervision of several BSc, MSc and PhD students (Parkinson's disease and stem cell-related research projects).

INTERNATIONAL RELATIONS

Collaboration with several national and international universities and companies on projects related to stem cell technologies and Parkinson's disease pathogenesis.

ORAL PRESENTATIONS AND PUBLICATIONS

More than 110 oral presentations at national and international conferences and meetings.
Currently 95 publications in peer-reviewed international journals.

Selected and recent publications (2016-2020)

- 70) Jensen S.S., Meyer M., Petterson S.A., Halle B., Rosager A.M., Aaberg-Jessen C., Thomassen M., Burton M., Kruse T.A., Kristensen B.W. (2016). Establishment and Characterization of a Tumor Stem Cell-Based Glioblastoma Invasion Model (PLoS ONE, DOI 10.1371/journal.pone.0159746).
- 71) Clausen B.H., Degn M., Sivasaravanaparan M., Fogtmann T., Andersen M.G., Trojanowsky M.D., Gao H., Hvidsten S., Baun C., Deierborg T., Finsen B., Kristensen B.W., Bak S.T., Meyer M., Lee J., Nedospasov S.A., Brambilla R., Lambertsen K.L. (2016). Conditional ablation of myeloid TNF increases lesion volume after experimental stroke in mice, possibly via altered ERK1/2 signaling (Science Reports, DOI 10.1038/srep29291).
- 72) Halle B., Thomassen M., Venkatesan R., Kaimal V., Marcusson E.G., Munthe S., Sørensen M.D., Aaberg-Jessen C., Jensen S.S., Meyer M., Kruse T.A., Christiansen H., Schmidt S., Mollenhauer J., Schulz M.K., Andersen C., Kristensen B.W. (2016). Shift of microRNA profile upon orthotopic xenografting of glioblastoma spheroid cultures (J. Neurooncol. 128:395-404, DOI 10.1007/s11060-016-2125-x).
- 75) Momcilovic O., Sivapatham R., Oron T.R., Meyer M., Mooney S.D., Rao M., Zeng X. (2016). Derivation, characterization, and neural differentiation of integration-free induced pluripotent stem cell lines from Parkinson's disease patients carrying SNCA, LRRK2, PARK2, and GBA mutations (PLoS ONE, DOI 10.1371/journal.pone.0154890).
- 76) Holmqvist S., Lehtonen S., Chumarina M., Puttonen K.A., Azevedo C., Lebedeva O., Ruponen M., Oksanen M., Dejloul M., Collin A., Goldwurm S., Meyer M., Lagarkova M., Kiselev S., Koistinaho J., Roybon L. (2016). Creation of a library of induced pluripotent stem cell models from Parkinsonian patients (NPJ Parkinson's Disease, DOI 10.1038/nnpjparkd.2016.9).
- 77) Di Santo S., Seiler S., Ducray A.D., Meyer M., Widmer H.R. (2016). A subpopulation of dopaminergic neurons co-expresses serotonin in ventral mesencephalic cultures but not after intrastriatal transplantation in a rat model of Parkinson's disease (Cell Transplantation, DOI: 10.3727/096368916X693707 CT-1706).
- 78) Nielsen M.M.B., Lambertsen K.L., Clausen B.H., Meyer M., Bhandari D.R., Larsen S.T., Poulsen S.S., Spengler B., Janfelt C., Hansen H.S. (2016) Mass spectrometry imaging of biomarker lipids for phagocytosis and signalling during focal cerebral ischaemia (Scientific Reports, 6:39571. DOI: 10.1038/srep39571).
- 79) Reinert L.S., Lopušná K., Winther H., Sun C., Thomsen M.K., Nandakumar R., Mogensen T.H., Leib D.A., Meyer M., Vægter C., Nyengaard J.R., Fitzgerald K.A., Paludan S.R. (2016). Sensing of HSV-1 by the cGAS-STING pathway in microglia orchestrates antiviral defense in the CNS (Nature Communications, 7:13348, DOI 10.1038).
- 80) Zhang Y., Schmid B., Nikolaisen N.K., Rasmussen M.A., Aldana B.I., Agger M., Calloe K., Stummann T.C., Larsen H.M., Nielsen T.T., Huang J., Xu F., Liu X., Bolund L., Meyer M., Bak L.K., Waagepetersen H.S., Lou Y., Nielsen J.E., Thre FReJ Consortium, Holst B., Clausen C., Hyttel P., Freude K.K (2017). Patient iPSC-Derived Neurons for Disease Modeling of Frontotemporal Dementia with Mutation in CHMP2B (Stem Cell Reports, DOI: <http://dx.doi.org/10.1016/j.stemcr.2017.01.012>).
- 82) Perez-Bouza, A., Di Santo, S., Seiler, S., Meyer, M., Anderegg, L., Huber, A., Guzman, R., Widmer, H. R. (2017). Simultaneous transplantation of fetal ventral mesencephalic tissue and encapsulated genetically modified cells releasing GDNF in a hemiparkinsonian rat model of Parkinson's disease (Cell Transplantation, DOI: 10.3727/096368917X694679).
- 83) Johansen T, Krabbe C, Schmidt SI, Serrano AM, Meyer M. (2017). Comparative analysis of spontaneous and stimulus-evoked calcium transients in proliferating and differentiating human midbrain-derived stem cells (Stem Cells International, DOI: 10.1155/2017/9605432).
- 84) Dindler A, Blaabjerg M, Kamand M, Bogetofte H, Meyer M. (2017). Activation of Group II metabotropic glutamate receptors increases proliferation but does not influence neuronal differentiation of a human neural stem cell line (Basic & Clin. Pharm. & Tox., DOI: 10.1111/bcpt.12920).
- 85) Dreyer-Andersen N, Almeida, AS, Jensen P, Kamand M, Okarmus J, Rosenberg T, Friis SD, Martínez Serrano A, Blaabjerg M, Kristensen BW, Skrydstrup T, Gramsbergen JB, Vieira HLA, Meyer M. (2018). Intermittent, low dose carbon monoxide exposure enhances survival and dopaminergic differentiation of human neural stem cells (PLoS ONE, DOI: 10.1371/journal.pone.0191207).
- 86) Di Santo, S., Meyer, M., Ducray, A. D., Anderegg, L., & Widmer, H. R. (2018). A Combination of NT-4/5 and GDNF is Favorable for Cultured Human Nigral Neural Progenitor Cells (Cell Transplantation, DOI: 10.1177/0963689717753188)
- 87) Blaabjerg, M, Hemdrup, AL, Drici, L, Ruprecht, K, Garred, P, Höftberger, R, Kristensen, BW, Kondziella, D, Sejbaek, T, Hansen, SW, Nielsen, HH, Jensen, P, Meyer, M, Paul, F, Lassmann, H, Larsen, MR & Illes, Z. (2018). Omics-based approach reveals complement-mediated inflammation in chronic lymphocytic inflammation with pontine perivascular enhancement responsive to steroids (CLIPPERS) (Frontiers in Immunology, DOI: 10.3389/fimmu.2018.00741)
- 89) Hey, S. M., Jensen, P., Ryding, M., Martínez Serrano, A., Kristensen, B. W., & Meyer, M. (2018). Nonhypoxic pharmacological stabilization of Hypoxia Inducible Factor 1α: Effects on dopaminergic differentiation of human neural stem cells. Eur J Neurosci. doi:10.1111/ejn.1428490 Okarmus J., Bogetofte H., Schmidt S.I., Ryding M., Lopez S.G., Martínez-Serrano A., Hyttel P., Meyer M. (2019) Lysosomal perturbations in dopaminergic neurons derived from induced pluripotent stem cells with PARK2 mutation (bioRxiv/DOI.org/10.734244).
- 92) Bogetofte H, Jensen P, Okarmus J, Agger M., Ryding M, Schmidt SI, Nørregaard P, Azevedo C, Fenger C, Zeng X, Graakjaer J, Roybon L, Ryan B, Wade-Martins R, Røssel Larsen M, Meyer M. (2019). Defects in migration and neurite outgrowth in human PARK2 knock out iPSC-derived neurons (Neurobiology of Disease 132, 14 s/104581).
- 93) Bogetofte H, Jensen P, Ryding M, Schmidt SI, Okarmus J, Hohnholt M, Bak L, Waagepetersen H, Ryan B, Røssel Larsen M, Wade-Martins R, Meyer M. (2019). Proteomic characterisation of lysosomal and mitochondrial perturbations in isogenic human iPSC-derived neurons with PARK2 mutation (Front. Cell. Neurosci., DOI.org/10.3389/fncel.2019.00297).