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## Employment

### Assistant Professor

Neurobiologisk Forskning  
University of Southern Denmark  
Odense C  
1. Jul 2017 → 30. Jun 2020

### Assistant Professor

BRIDGE, Brain Research - Inter-Disciplinary Guided Excellence  
University of Southern Denmark  
1. Mar 2018 → present

## Research outputs

### Oligodendrocytes modulate the immune-inflammatory response in EAE via TNFR2 signaling

Madsen, P. M., Desu, H. L., Pablo de Rivero Vaccari, J., Florimon, Y., Ellman, D. G., Keane, R. W., Clausen, B. H., Lambertsen, K. L. & Brambilla, R., Feb 2020, In : Brain, Behavior, and Immunity. 84, p. 132-146

### Topical Administration of a Soluble TNF Inhibitor Reduces Infarct Volume After Focal Cerebral Ischemia in Mice

Yli-Karjanmaa, M. L. K., Clausen, B. H., Degn, M., Novrup, H. G., Ellman, D. G., Jensen, P. T., Szymkowski, D. E., Stensballe, A., Meyer, M., Brambilla, R. & Lambertsen, K. L., Aug 2019, In : Frontiers in Neuroscience. 13, JUL, 18 p., 781.

### Selectivity, efficacy and toxicity studies of UCCB01-144, a dimeric neuroprotective PSD-95 inhibitor

Bach, A., Clausen, B. H., Kristensen, L. K., Andersen, M. G., Ellman, D. G., Hansen, P. B. L., Hasseldam, H., Heitz, M., Özcelik, D., Tuck, E. J., Kopanitsa, M. V., Grant, S. G. N., Lykke-Hartmann, K., Johansen, F. F., Lambertsen, K. L. & Strømgaard, K., 15. May 2019, In : Neuropharmacology. 150, p. 100-111

### Post-stroke inflammation – target or tool for therapy?

Lambertsen, K. L., Finsen, B. & Clausen, B. H., May 2019, In : Acta Neuropathologica. 137, 5, p. 693-714

### Distal middle cerebral artery occlusion does not result in depression-like behaviours

Couch, Y., Clausen, B. H., Ormhøj, M., Andersen, M. G., Nygaard, C. K., Møller-Nielsen, M. & Lambertsen, K. L., 7. Sep 2018, In : F1000Research. 12 p., 1430.

### Inflammation leads to distinct populations of extracellular vesicles from microglia

Yang, Y., Boza-Serrano, A., Dunning, C. J. R., Clausen, B. H., Lambertsen, K. L. & Deierborg, T., 28. May 2018, In : Journal of Neuroinflammation. 15, 19 p., 168.

### Beneficial potential of intravenously administered IL-6 in improving outcome after murine experimental stroke

Grønhøj, M. B., Clausen, B. H., Fenger, C., Lambertsen, K. L. & Finsen, B., Oct 2017, In : Brain, Behavior, and Immunity. 65, p. 296-311

#### **Fumarate decreases edema volume and improves functional outcome after experimental stroke**

Clausen, B. H., Lundberg, L., Yli-Karjanmaa, M. L. K., Martin, N. A., Svensson, M., Zeiler Alfsen, M., Flæng, S. B., Lyngsø, K. S., Boza-Serrano, A., Nielsen, H. H., Hansen, P. B. L., Finsen, B., Deierborg, T., Illés, Z. & Lambertsen, K. L., Sep 2017, In : *Experimental Neurology*. 295, p. 144–154

#### **Spontaneous ischaemic stroke lesions in a dog brain: Neuropathological characterisation and comparison to human ischaemic stroke**

Thomsen, B. B., Gredal, H., Nielsen, M. W., Kristensen, B. W., Clausen, B. H., Iarsen, A. E., Finsen, B., Berendt, M. & Lambertsen, K. L., 13. Jan 2017, In : *Acta Veterinaria Scandinavica (Online Edition)*. 59, 9 p., 7.

#### **Cortical morphogenesis during embryonic development is regulated by miR-34c and miR-204**

Venø, M. T., Venø, S. T., Rehberg, K., van Asperen, J. V., Clausen, B. H., Holm, I. E., Pasterkamp, R. J., Finsen, B. & Kjems, J., 2017, In : *Frontiers in Molecular Neuroscience*. 10, 10 p., 31.

#### **The effect of TNF-blockade on T cell-enhanced microglial clearance of myelin debris**

Jensen, K. T., Davidsen, L. I., Grebing, M., Clausen, B. H., Lambertsen, K. L., Nielsen, H. H. & Finsen, B., 2017.

#### **The effect of TNF-blockade on T cell-enhanced microglial clearance of myelin debris.**

Jensen, K. T., Grebing, M., Clausen, B. H., Lambertsen, K. L., Nielsen, H. H. & Finsen, B., 2017.

#### **Topical administration of TNF-inhibitor XPro1595 decreases infarct volume after experimental stroke**

Yli-Karjanmaa, M. L. K., Clausen, B. H., Novrup, H. G., Szymkowski, D. E., Meyer, M., Brambilla, R. & Lambertsen, K. L., 2017.

#### **Mass spectrometry imaging of biomarker lipids for phagocytosis and signalling during focal cerebral ischaemia**

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., 22. Dec 2016, In : *Scientific Reports*. 6, p. 1-14 39571.

#### **Conditional ablation of myeloid TNF increases lesion volume after experimental stroke in mice, possibly via altered ERK1/2 signaling**

Clausen, B. H., Degn, M., Sivasaravanaparan, M., Fogtman, 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., 7. Jul 2016, In : *Scientific Reports*. 6, 29291.

#### **Tnf-alpha inhibitor for treating stroke**

Lambertsen, K. L., Clausen, B. H. & Meyer, M., 26. May 2016, IPC No. WO2016078672 A1, Patent No. PCT/DK2015/050358, 26. May 2016, Priority date 20. Nov 2014, Priority No. DK20140070728

#### **Dérivés d'acide fumarique á usage médical**

Illés, Z., Lambertsen, K. L., Finsen, B., Nielsen, H. H. & Clausen, B. H., 19. May 2016, IPC No. WO2016074684 A1, Patent No. PCT/DK2015/050344, 19. May 2016, Priority date 11. Nov 2014, Priority No. 62/078,05

#### **Fumaric acid for derivatives for medical use**

Illés, Z., Lambertsen, K. L., Finsen, B., Nielsen, H. H. & Clausen, B. H., 19. May 2016, Patent No. WO2016074684 (A1), 19. May 2016, Priority date 11. Nov 2014, Priority No. US201462078051P

#### **Glutamate-system defects behind psychiatric manifestations in a familial hemiplegic migraine type 2 disease-mutation mouse model**

Bøttger, P., Glerup, S., Gesslein, B., Illarionova, N. B., Isaksen, T. J., Heuck, A., Clausen, B. H., Füchtbauer, E-M., Gramsbergen, J. B., Gunnarson, E., Aperia, A., Lauritzen, M., Lambertsen, K. L., Nissen, P. & Lykke-Hartmann, K., 25. Feb 2016, In : *Scientific Reports*. 6, 21 p., 22047.

#### **Angiotensin AT2-receptor stimulation improves survival and neurological outcome after experimental stroke in mice**

Schwengel, K., Namsolleck, P., Lucht, K., Clausen, B. H., Lambertsen, K. L., Valero-Esquitino, V., Thöne-Reineke, C., Müller, S., Widdop, R. E., Denton, K. M., Horiuchi, M., Iwai, M., Boato, F., Dahlöf, B., Hallberg, A., Unger, T. & Steckelings, U. M., 2016, In : *Journal of Molecular Medicine*. 94, 8, p. 957-966

**Cell therapy centered on IL-1Ra is neuroprotective in experimental stroke**

Clausen, B. H., Lambertsen, K. L., Dagnæs-Hansen, F., Babcock, A., von Linstow, C. U., Meldgaard, M., Kristensen, B. W., Deierborg, T. & Finsen, B., 2016, In : *Acta Neuropathologica*. 131, 5, p. 775-91

**Genetic ablation of soluble TNF does not affect lesion size and functional recovery after moderate spinal cord injury in mice**

Ellman, D. G., Degn, M., Lund, M. C., Clausen, B. H., Novrup, H. G., Flæng, S. B., Jørgensen, L. H., Suntharalingam, L., Fex Svenningsen, Å., Brambilla, R. & Lambertsen, K. L., 2016, In : *Mediators of Inflammation*. 2016, 2684098.

**Genetic ablation of soluble tumor necrosis factor with preservation of membrane tumor necrosis factor is associated with neuroprotection after focal cerebral ischemia**

Madsen, P. M., Clausen, B. H., Degn, M., Thyssen, S., Kristensen, L. K., Svensson, M., Ditzel, N., Finsen, B., Deierborg, T., Brambilla, R. & Lambertsen, K. L., 2016, In : *Journal of Cerebral Blood Flow and Metabolism*. 36, 9, p. 1553-69

**Myelin-specific T cells induce interleukin-1beta expression in lesion-reactive microglial-like cells in zones of axonal degeneration**

Grebing, M., Nielsen, H. H., Fenger, C. D., T Jensen, K., von Linstow, C. U., Clausen, B. H., Söderman, A. M., Lambertsen, K. L., Thomassen, M., Kruse, T. A. & Finsen, B., 2016, In : *Glia*. 64, 3, p. 407-424

**Cytokine-producing microglia have an altered beta-amyloid load in aged APP/PS1 Tg mice**

Babcock, A. A., Ilkjær, L., Clausen, B. H., Villadsen, B., Dissing-Olesen, L., Bendixen, A. T. M., Lyck, L., Lambertsen, K. L. & Finsen, B., 12. Mar 2015, In : *Brain, Behavior, and Immunity*. 48, August, p. 86–101

**Endogenous IFN-β signaling exerts anti-inflammatory actions in experimentally induced focal cerebral ischemia**

Inacio, A. R., Liu, Y., Clausen, B. H., Svensson, M., Kucharz, K., Yang, Y., Stankovich, T., Khoroshi, R. M. H., Lambertsen, K. L., Issazadeh-Navikas, S. & Deierborg, T., 2015, In : *Journal of Neuroinflammation*. 12, 18 p., 211.

**Preserved Cerebral Microcirculation After Cardiac Arrest in a Rat Model**

Secher, N., Østergaard, L., Iversen, N. K., Lambertsen, K. L., Clausen, B. H., Tønnesen, E. & Granfeldt, A., 2015, In : *Microcirculation*. 22, 6, p. 464-474

**Spatio-temporal regulation of circular RNA expression during porcine embryonic brain development**

Venø, M. T., Hansen, T. B., Venø, S. T., Clausen, B. H., Grebing, M., Finsen, B., Holm, I. E. & Kjems, J., 2015, In : *Genome Biology (Online Edition)*. 16, November , 17 p., 245.

**The impact of TNFalpha on the developing brain**

Breton, A., Stolp, H., Ferrara, L., Lundberg, L., Sa-Pereira, I., Finsen, B., Clausen, B. H., Lambertsen, K. L. & Anthony, D., 2015, In : *Glia*. 63, S1, p. E305-E306 T11-02B.

**Systemically administered anti-TNF therapy ameliorates functional outcomes after focal cerebral ischemia**

Clausen, B. H., Degn, M., Martin, N. A., Couch, Y., Karimi, L., Ormhøj, M., Mortensen, M-L. B., Gredal, H., Gardiner, C., Sargent, I. I. L., Szymkowski, D. E., Petit, G., Deierborg, T., Finsen, B., Anthony, D. & Lambertsen, K. L., 12. Dec 2014, In : *Journal of Neuroinflammation*. 11, 1, p. 203

**No effect of ablation of surfactant protein-D on acute cerebral infarction in mice**

Lambertsen, K. L., Østergaard, K., Clausen, B. H., Hansen, S., Stenvang, J., Thorsen, S. B., Meldgaard, M., Kristensen, B. W., Hansen, P. B. L., Sørensen, G. L. & Finsen, B., Jul 2014, In : *Journal of Neuroinflammation*. 11, 13 p., 123.

**Effect of monomethyl-fumarate on experimental stroke**

Illés, Z., Clausen, B. H., Finsen, B., Nielsen, H. H., Lundberg, L. & Lambertsen, K. L., 2014, In : *Journal of Neuroimmunology*. 275, 1-2, p. 221 1 p.

**Myelin specific T cells induce inflammasome activation in microglia in zones of axonal degeneration**

Grebing, M. M., Nielsen, H. H., Fenger, C., Clausen, B. H., von Linstow, C. U., Jensen, K. T., Soderman, M., Lambertsen, K. L., Thomassen, M., Kruse, T. A. & Finsen, B., 2014, In : *Journal of Neuroimmunology*. 275, 1-2, p. 151-151

**Natural RNA circles function as efficient microRNA sponges**

Hansen, T. B., Jensen, T. I., Clausen, B. H., Bramsen, J. B., Finsen, B., Damgaard, C. K. & Kjems, J., 21. Mar 2013, In : Nature. 495, 7441, p. 384-8

**Distinct subsets of interleukin-1 receptor antagonist producing cells are neuroprotective after focal cerebral ischemia in mice**

Clausen, B. H., 2013.

**Distinct subsets of interleukin-1 receptor antagonist producing cells are neuroprotective after focal cerebral ischemia in mice. *Glia*, Volume 61, Issue Suppl 1, S130**

Clausen, B. H., Lambertsen, K. L., Babcock, A., von Linstow, C. U. & Finsen, B., 2013.

**In situ hybridization of cytokine mRNA using alkaline phosphatase-labelled oligodeoxynucleotide probes**

Clausen, B. H., Fenger, C. & Finsen, B., 2013, In : Methods in Molecular Biology. 1041, p. 83-91

**Stimulation of the IL-1 signaling pathway by CNS-infiltrating myelin reactive T cells in zones of axonal degeneration. *Glia*, Volume 61, Issue Suppl 1, S176.**

Grebing, M., Fenger, C., Clausen, B. H., Lambertsen, K. L. & Finsen, B., 2013.

**A high-affinity, dimeric inhibitor of PSD-95 bivalently interacts with PDZ1-2 and protects against ischemic brain damage**

Bach, A., Clausen, B. H., Moller, M., Vestergaard, B., Chi, C. N., Round, A., Sorensen, P. L., Nissen, K. B., Kastrup, J. S., Gajhede, M., Jemth, P., Kristensen, A. S., Lundstrom, P., Lambertsen, K. L. & Stromgaard, K., 2012, In : Proceedings of the National Academy of Sciences of the United States of America. 109, 9, p. 3317-3322 6 p.

**Differences in Origin of Reactive Microglia in Bone Marrow Chimeric Mouse and Rat After Transient Global Ischemia**

Lambertsen, K. L., Deierborg, T., Gregersen, R., Clausen, B. H., Wirenfeldt, M., Nielsen, H. H., Dalmau, I., Diemer, N. H., Dagnaes-Hansen, F., Johansen, F. F., Keating, A. & Finsen, B., 2011, In : Journal of Neuropathology and Experimental Neurology. 70, 6, p. 481-494

**CSF transthyretin neuroprotection in a mouse model of brain ischemia**

Santos, S. D., Lambertsen, K. L., Clausen, B. H., Akinc, A., Alvarez, R., Finsen, B. & Saraiva, M. J., 1. Dec 2010, In : Journal of Neurochemistry. 115, 6, p. 1434-44 11 p.

**Functional diversity of microglia-macrophages and the therapeutic use of gene-modified microglia progenitor cells in the traumatized central nervous system**

Clausen, B. H., 2010, Syddansk Universitet. Det Sundhedsvidenskabelige Fakultet.

**Nuclear translocation of endonuclease G in degenerating neurons after permanent middle cerebral artery occlusion in mice.**

Nielsen, M., Lambertsen, K. L., Clausen, B. H., Meldgaard, M., Diemer, N. H., Zimmer, J. & Finsen, B., 1. Mar 2009, In : Experimental Brain Research. 194, 1, p. 17-27

**Microglia protect neurons against ischemia by synthesis of tumor necrosis factor: Microglial Neuroprotection in Experimental Stroke**

Lambertsen, K. L., Clausen, B. H., Babcock, A., Gregersen, R., Fenger, C., Nielsen, H. H., Haugaard, L. S., Wirenfeldt, M., Nielsen, M., Dagnaes-Hansen, F., Bluethmann, H., Færgeman, N. J., Meldgaard, M., Deierborg, T. & Finsen, B., 2009, In : Journal of Neuroscience. 29, 5, p. 1319-30 11 p.

**Interleukin-1beta and tumor necrosis factor-alpha are expressed by different subsets of microglia and macrophages after ischemic stroke in mice**

Clausen, B. H., Lambertsen, K. L., Babcock, A. A., Holm, T. H., Dagnaes-Hansen, F. & Finsen, B., 1. Jan 2008, In : Journal of Neuroinflammation. 5, p. 46

#### **Changes in brain levels of N-acylethanolamines and 2-arachidonoylglycerol in focal cerebral ischemia in mice**

Degn, M., Lambertsen, K. L., Petersen, G., Meldgaard, M., Artmann, A., Clausen, B. H., Hansen, S. H., Finsen, B., Hansen, H. S. & Lund, T. M., 1. Dec 2007, In : Journal of Neurochemistry. 103, 5, p. 1907-16 9 p.

#### **Microglia and macrophages express tumor necrosis factor receptor p75 following middle cerebral artery occlusion in mice**

Lambertsen, K. L., Clausen, B. H., Fenger, C., Johansson, H. W., Owens, T., Dagnaes-Hansen, F., Meldgaard, M. & Finsen, B., 9. Feb 2007, In : Neuroscience. 144, 3, p. 934-49 15 p.

#### **Glyceraldehyde-3-phosphate dehydrogenase versus toluidine blue as a marker for infarct volume estimation following permanent middle cerebral artery occlusion in mice.**

Clausen, B. H., Lambertsen, K. L. & Finsen, B., 1. Oct 2006, In : Experimental Brain Research. 175, p. 60-67 7 p.

#### **A quantitative in situ hybridization and polymerase chain reaction study of microglial-macrophage expression of IL-1b mRNA following middle cerebral artery occlusion in mice.**

Clausen, B. H., Lambertsen, K. L., Meldgaard, M. & Finsen, B., 2005, In : Neurosciences. 132, p. 879-892 13 p.

#### **A role for interferon-gamma in focal cerebral ischemia in mice**

Lambertsen, K. L., Gregersen, R., Meldgaard, M., Clausen, B. H., Hejbøl, E. K., Ladeby, R., Knudsen, J., Frandsen, A., Owens, T. & Finsen, B., 1. Sep 2004, In : Journal of Neuropathology and Experimental Neurology. 63, 9, p. 942-55 13 p.

## **Activities**

### **TNF Superfamily Meeting 2019**

Bettina Hjelm Clausen (Participant)

3. Jun 2019 → 7. Jun 2019

### **10th international symposium on neuroprotection and neurorepair**

Bettina Hjelm Clausen (Guest lecturer)

9. Oct 2018 → 11. Oct 2018

### **Nordic Stroke**

Bettina Hjelm Clausen (Participant)

23. Aug 2017 → 25. Aug 2017

### **9th International Symposium on Neuroprotection and Neurorepair**

Bettina Hjelm Clausen (Participant)

19. Apr 2016 → 22. Apr 2016

### **42th annual meeting of the Scandinavian Society of Immunology**

Bettina Hjelm Clausen (Participant)

11. Jun 2014 → 14. Jun 2014

### **8th International Symposium on Neuroprotection and Neurorepair**

Bettina Hjelm Clausen (Participant)

9. Apr 2014 → 12. Apr 2014

### **Department of Gynaecological Oncology, Chris O'Brien Lifehouse and The University of Sydney, Camperdown, NSW, 2050, Australia.**

Bettina Hjelm Clausen (Visiting researcher)

21. Sep 2013 → 20. Dec 2013

### **XI European Meeting on Glial Cells in Health and Disease (GLIA 2013) July 3 – 6 2013, Berlin, Germany**

Bettina Hjelm Clausen (Participant)

3. Jul 2013 → 6. Jul 2013

**X Northern Lights Neuroscience Symposium (NLNS) 2013**

Bettina Hjelm Clausen (Participant)  
23. May 2013 → 25. May 2013

**ISN 2013 Glia Satellite**

Bettina Hjelm Clausen (Participant)  
15. Apr 2013 → 22. Apr 2013

**11th ISNI Congress in Boston**

Bettina Hjelm Clausen (Participant)  
31. Oct 2012 → 8. Nov 2012

**7th International Symposium on Neuroprotection and Neurorepair**

Bettina Hjelm Clausen (Participant)  
3. May 2012

**Laboratory for Experimental Brain Research**

Bettina Hjelm Clausen (Visiting researcher)  
1. Jun 2011 → 30. Jul 2011