

Maria Bloksgaard Mølgaard, PhD

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Born 18.03.1977, Married, 2 children (October 2006, November 2010)

Professional qualifications on the basis of education

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| February 17 th 2010 | Ph.D. in Molecular Biology and Biophysics, SDU |
| March 30 th 2005 | M. Sc. in Molecular and Cellular Biology, SDU |
| Feb. 1 st 2000 | B.Sc. in Biomedicine, SDU |

Employments

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| April 1 st 2015-present | Assistant Professor , Vascular Physiology and Pharmacology Imaging Group, Dept. Cardiovascular and Renal Research, IMM, SDU |
| Jan. 15 th 2013-Mar31 st 2015 | Postdoc. Medical Molecular Pharmacology Group, Dept. Cardiovascular and Renal Research, IMM, SDU |
| Feb. 17 th 2010-Jul. 5 th 2012 | Postdoc. with Unilever R&D, Membrane Biophysics and Biophotonics Group, Dept. Biochemistry and Molecular Biology/MEMPHYS Center, SDU |
| Nov 1 st 2009-Feb. 17 th 2010 | Research Assistant , Dept. Biochemistry and Molecular Biology, SDU |
| Apr. 1 st 2005-Oct 23 rd 2009 | PhD student , Dept. Biochemistry and Molecular Biology, SDU |
| Jun. 1 st 2004-Mar. 30 th 2005 | Research Assistant , Dept. Biochemistry and Molecular Biology, SDU |

Grants/stipends

The A. P. Møller Foundation for the Advancement of Medical Science, Dec 2015, 40.000DKK
Lundbeck Travel Grant for the International Symposium on Resistance Arteries (ISRA), Canada, Sept 2014, 11.000DKK
OUH Research Council 2012, 550.000DKK (co-applicant with Dr. Viggo Svane-Knudsen, OUH, Dept. Otorhinolaryngology)
BioNET/Villum Kann Rasmussen Foundation PhD stipend 2005-2009
Novo Nordic/Novozymes Scholarship 2004, 60.000DKK
Niels Vinges Mindelegat 2003, 5.000DKK

Leaves

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| Jul. 5 th 2012-Jan 15 th 2013 | Fundraising, project management course |
| Oct. 12 th 2010-Aug. 16 th 2011 | Maternity leave |
| September 2006-August 2007 | Maternity leave |

Other professional qualifications

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| December 2015-June 2017 | Lecturer Training Programme at SDU |
| October-December 2014 | Career Development Programme for young researchers at SDU (career management, strategical planning, personal development) |
| October 2014 | Advanced Fluorescence Imaging and Dynamics , Laboratory for Fluorescence Dynamics, University of California, Irvine, USA |
| August-September 2012 | Project Management Course, University College Lillebælt, 10 ECTS, grade12 |

Teaching activities Pharmacology B, Mastercourse SDU (SU803), 2015-
Basic Pharmacology, undergrad. course SDU (SU503/SU512), 2015-
Artery Disease, CIMA/OUH/SDU PhD Course, 2014 - present
Laboratory Animal Science, 2014-
Fluorescence and Biophotonics, SDU PhD course, 2011-

Supervision 2015/16 PhD students 2 (co-supervisor)
M.Sc students 3 (1 as co-supervisor)
Undergraduate students 3 (2 as co-supervisor)

References

Jo De Mey Professor, Institute of Molecular medicine, Univ. Southern Denmark (SDU)
jdemey@health.sdu.dk, +45 6550 3757

Luis Bagatolli Professor, Department of Biochemistry and Molecular Biology, SDU
bagatolli@bmb.sdu.dk, +45 6550 3476

Lars Melholt Rasmussen Professor, MD, Consultant and Director, Center for Individualized Medicine in
Arterial Diseases - CIMA – Odense University Hospital
Lars.Melholt.Rasmussen@rsyd.dk, +45 2442 2160

Paul Vanhoutte Professor, Department of Pharmacology & Pharmacy, Li Ka Shing Faculty of
Medicine, The University of Hong Kong, *vanhoutt@hku.hk*

PUBLICATION LIST (FULL)

Peer reviewed publications: 17

Research papers 15

Invited reviews 2

Published Conference proceedings 3

1. Bai B, Man AW, Yang K, Guo Y, Xu C, Tse HF, Han W, **Bloksgaard M**, De Mey JG, Vanhoutte PM, Xu A, Wang Y. *Endothelial SIRT1 prevents adverse arterial remodeling by facilitating HERC2-mediated degradation of acetylated LKB1*. *Oncotarget*. 2016 May 29. doi: 10.18632/oncotarget.9687. [Epub ahead of print]
2. Leurgans T, **Bloksgaard M**, Fredgart MH, Lyck Hansen M, Melholt Rasmussen L, Irmukhamedov A, De Mey J.G.R. *Endothelin-1 shifts the mediator of bradykinin-induced relaxation from NO to H₂O₂ in resistance arteries from cardiovascular disease patients*. *Br J Pharmacol*. 2016 Feb 23. doi: 10.1111/bph.13467. [Epub ahead of print]
3. Thorsted B, **Bloksgaard M**, Groza A, Schousboe LP, Færgeman NJ, Sørensen JA, Svane-Knudsen V, Brewer JR. *Biochemical and Bioimaging Evidence of Cholesterol in Acquired Cholesteatoma*, *Annals of Otology, Rhinology & Laryngology* 1–7, 2016, DOI: 10.1177/0003489416642784
4. Bek S, Neess D, Dixen K, **Bloksgaard M**, Marcher AB, Chemnitz J, Færgeman N, Mandrup S, *Compromised epidermal barrier stimulates Harderian gland activity and hypertrophy in ACBP-/- mice*, *JLR* 2015 Sep;56(9):1738-46.
5. **Bloksgaard M**, Leurgans TM, Nissen I, Jensen PS, Hansen ML, Brewer JR, Bagatolli LA, Marcussen N, Irmukhamedov A, Rasmussen LM, De Mey JGR, *Elastin organization in pig and cardiovascular disease patients' pericardial resistance arteries*, *J. Vasc.Res.* 2015 (1): 1-11 DOI: 10.1159/000376548
6. **Bloksgaard M**, Neess D, Færgeman NJ, Mandrup S, *Acyl-CoA binding protein and epidermal barrier function*, *Biochim Biophys Acta*. 2014 Mar;1841(3):369-76. Review
7. **Bloksgaard M**, Brewer J, Pashkovski E, Ananthapadmanabhan KP, Sørensen JA, and Bagatolli LA, *Effect of detergents on the physico-chemical properties of skin stratum corneum: A two-photon excitation fluorescence microscopy study*. *Int J Cosmet Sci*. 2014, Feb 36, 39–45
8. Neess D, Bek S, **Bloksgaard M**, Marcher AB, Færgeman N, Mandrup S, *Delayed Hepatic Adaptation to Weaning in ACBP-/- Mice is caused by Disruption of the Epidermal Barrier*, *Cell Rep*. 2013 Dec 12;5(5):1403-12
9. **Bloksgaard M**[§], Brewer J[§], Bagatolli LA. *Structural and dynamical aspects of skin studied by multiphoton excitation fluorescence microscopy-based methods*, [§]Shared first author, *Eur J Pharm Sci*. 2013 Dec 18;50(5):586-94 Review.
10. Brewer J, **Bloksgaard M**, Kubiak J, Sørensen JA, Bagatolli LA. *Spatially resolved two-color diffusion measurements in human skin applied to transdermal liposome penetration*. *J Invest Dermatol*. 2013 May;133(5):1260-8. doi: 10.1038/jid.2012.461. Epub 2012 Dec 6.
11. **Bloksgaard M**, Bek S, Marcher AB, Neess D, Brewer J, Hannibal-Bach HK, Helledie T, Fenger C, Due M, Berzina Z, Neubert R, Chemnitz J, Finsen B, Clemmensen A, Wilbertz J, Saxtorph H, Knudsen J, Bagatolli L, Mandrup S. *The acyl-CoA binding protein is required for normal epidermal barrier function in mice*. *J Lipid Res*. 2012 Oct;53(10):2162-74.
12. Iwai I, Han H, den Hollander L, Svensson S, Ofverstedt LG, Anwar J, Brewer J, **Bloksgaard M**, Laloef A, Nosek D, Masich S, Bagatolli LA, Skoglund U, Norlén L. *The human skin barrier is organized as stacked bilayers of fully extended ceramides with cholesterol molecules associated with the ceramide sphingoid moiety*. *J Invest Dermatol*. 2012 Sep;132(9):2215-25.

13. Langaa S, Bloksgaard M, Bek S, Neess D, Nørregaard R, Hansen PB, Marcher AB, Frøkiær J, Mandrup S, Jensen BL. *Mice with targeted disruption of the acyl-CoA binding protein display attenuated urine concentrating ability and diminished renal aquaporin-3 abundance.* Am J Physiol Renal Physiol. 2012 Apr 15;302(8):F1034-44. doi: 10.1152/ajprenal.00371.2011. Epub 2012 Jan 11.
14. Bloksgaard M, Svane-Knudsen V, Sørensen JA, Bagatolli L, Brewer J. *Structural characterization and lipid composition of acquired cholesteatoma: a comparative study with normal skin.* Otol Neurotol. 2012 Feb;33(2):177-83. doi: 10.1097/MAO.0b013e318241be63.
15. Neess D[§], **Bloksgaard M[§]**, Sørensen SB, Marcher A-B, Elle IC, Helledie T et al. *Disruption of the acyl-CoA binding protein gene delays hepatic adaptation to metabolic changes at weaning.* [§]shared first author Journal of Biological Chemistry. 2011;286:3460-3472.
16. Carobbio S, Frigerio F, Rubi B, Vetterli L, **Bloksgaard M**, Gjinovci A, Pournourmohammadi S, Herrera PL, Reith W, Mandrup S, Maechler P, *Deletion of Glutamate Dehydrogenase in β -Cells Abolishes Part of the Insulin Secretory Response Not Required for Glucose Homeostasis,* J. Biol. Chem., Jan 2009; 284: 921 - 929.
17. Sandberg MB, **Bloksgaard M**, Duran-Sandoval D, Duval C, Staels B, Mandrup S, *The Gene Encoding Acyl-CoA-binding Protein Is Subject to Metabolic Regulation by Both Sterol Regulatory Element-binding Protein and Peroxisome Proliferator-activated Receptor α in Hepatocytes,* J. Biol. Chem., Feb 2005; 280: 5258 - 5266.

Conference proceedings

18. **Bloksgaard M**, Leurgans TM, Rosenstand K, Nissen I, Brewer JR, Irmukhamedov A, Rasmussen LM, De Mey JGR, *Microarchitecture of the internal elastic lamina (IEL) in human resistance arteries from different vascular beds,* Acta Physiol. 2015, 2015 (Suppl.703): 1-21
19. **Bloksgaard M**, Leurgans T, Rosenstand K, Jensen PS, Hansen ML, Brewer JR, Bagatolli LA, Marcussen N, Irmukhamedov A, Rasmussen LM, and De Mey JGR, *Pericardial resistance arteries show biaxial mechanics and pressure dependent microarchitecture of the extracellular matrix.* J Vasc Res 2014;51(Suppl 2):1–156, DOI 10.1159/000369652.
20. **Bloksgaard M**, Leurgans T, Rosenstand K, Brewer J, Bagatolli L, Irmukhamedov, A, Rasmussen, LM, De Mey J. *Elastin and mechanics of pig pericardial resistance arteries (pPRA),* Angiogenesis (2014) 17:275–322.