

Curriculum vitae

Personal information:

Name: Bartelt, Alexander
Date of birth: 13.09.1982
Nationality: Germany
Marital Status: Married, 2 children (9 and 13)

Education:

2010 **PhD *summa cum laude***, Topic: Role of Apolipoprotein E in insulin resistance
Faculty of Mathematics, Informatics and Natural Sciences, University of Hamburg,
Germany
PhD Supervisor: Prof. Dr. Joerg Heeren

2007 **Diploma in Biochemistry** (1.0, M.Sc. equivalent)
Faculty of Mathematics, Informatics and Natural Sciences, University of Hamburg,
Germany

Present and past positions:

2018 – **Principal Investigator**
Institute for Cardiovascular Prevention (Chair: Prof. Dr. med. Christian Weber),
Ludwig-Maximilians-University Munich, Germany

2013 – 2018 **Research Associate**
Gökhan Hotamisligil Lab, Department of Genetics and Complex Diseases & Sabri
Ülker Center, Harvard T.H. Chan School of Public Health, Boston, USA

2010 – 2013 **Postdoctoral fellow**
Andreas Niemeier Lab, Institute for Biochemistry and Molecular Cell Biology,
University Medical Center Hamburg-Eppendorf, Germany

2007 – 2010 **PhD student**
Jörg Heeren Lab, Institute for Biochemistry and Molecular Cell Biology, University
Medical Center Hamburg-Eppendorf, Germany

2006 – 2007 **Diploma student**
Department of Biochemistry and Molecular Biology, University Medical Center
Hamburg-Eppendorf, Germany

Institutional Leadership:

2014 – 2017 Organizer of the Department of Genetics and Complex Disease Research
Seminar Series, Harvard T.H. Chan School of Public Health, Boston, USA

Commission of trust:

2013 – **Ad-hoc Reviewer** (80+) for international grant applications and scientific journals
including Cell Metabolism, Cell Reports, EMBO Journal, Diabetes, Diabetes Care,
Endocrinology, Atherosclerosis, European Journal of Physiology, International
Journal of Obesity, Molecular Metabolism u.a.
(<https://publons.com/author/1218892/alexander-bartelt#profile>)

Selected publication list, awards, stipends, invited lectures, patents

TOP 5 Publications as main or corresponding author (in reverse chronological order):

1. **Bartelt A***, Widenmaier SW*, Schlein C, Johann K, Goncalves RL, Eguchi K, Fischer AW, Parlakgöl G, Snyder N, Nguyen TB, Bruns OT, Franke D, Bawendi MG, Lynes MD, Leiria LO, Tseng YH, Inouye K, Arruda AP and Hotamisligil GS. **Brown adipose tissue thermogenic adaptation requires Nrf1-mediated proteasomal activity.** *Nat Med.* 2018 Mar;24(3):292-303. (*co-first)

2. **Bartelt A****, John C*, Schaltenberg N*, Berbée JF*, Worthmann A*, Cherradi ML, Schlein C, Julia Piepenburg J, Boon MR, Rinninger F, Heine M, Toedter K, Niemeier A, Nilsson SK, Fischer M, Wijers SL, van Marken Lichtenbelt W, Scheja L, Rensen PC#, Heeren J#. **Thermogenic adipocytes promote HDL turnover and reverse cholesterol transport.** *Nat. Commun.* 2017 Apr 19;8:15010. (*co-first, #co-corresponding)

3. Berbée JF*, Boon MR*, Khedoe PP*, **Bartelt A****, Schlein C, Worthmann A, Kooijman S, Hoeke G, Mol IM, John C, Jung C, Vazirpanah N, Brouwers LP, Gordts PL, Esko JD, Hiemstra PS, Havekes LM, Scheja L, Heeren J#, Rensen PC#. **Brown fat activation reduces hypercholesterolemia and protects from atherosclerosis development.** *Nat Commun.* 2015 Mar 10;6:6356. (*co-first, #co-corresponding)

4. **Bartelt A#**, Heeren J#. **Adipose tissue browning and metabolic health.** *Nat Rev Endocrinol.* 2014 Jan;10(1):24-36. (#co-corresponding)

5. **Bartelt A#**, Bruns OT, Reimer R, Hohenberg H, Ittrich H, Peldschus K, Kaul MG, Tromsdorf UI, Weller H, Waurisch C, Eychmüller A, Gordts PLSM, Rinninger F, Bruegelmann K, Freund B, Nielsen P, Merkel M and Heeren J#. **Brown adipose tissue activity controls triglyceride clearance.** *Nat Med.* 2011 Feb;17(2):200-5. (#co-corresponding)

Other selected publications (in reverse chronological order):

1. **Bartelt A**, Behler-Janbeck F, Beil FT, Koehne T, Müller B, Schmidt T, Heine M, Ochs L, Yilmaz T, Dietrich M, Tuckermann JP, Amling M, Herz J, Schinke T, Heeren J, Niemeier A. Lrp1 in osteoblasts controls osteoclast activity and protects against osteoporosis by limiting PDGF-RANKL signaling. *Bone Res.* 2018 Feb 26;6:4.

2. Widenmaier SB, Snyder NA, Nguyen TB, Arduini A, Lee GY, Arruda AP, Saksi JK, **Bartelt A**, Hotamisligil GS. Nrf1 is an ER membrane sensor that is central to cholesterol homeostasis. *Cell.* 2017 Nov 16;171(5):1094-1109.

3. Bruns OT, Bischof TS, Harris DK, Shi Y, Riedemann L, **Bartelt A**, Jaworski FB, Franke D, Carr JA, Rowlands CJ, Wilson MWB, Chen O, Wei H, Hwang GW, Montana D, Coropceanu I, Kloepper J, Heeren J, So PTC, Fukumura D, Jensen KF, Jain RK, Bawendi MG. Next-generation in vivo optical imaging with short-wave infrared quantum dots. *Nat Biomed Eng.* 2017;1. pii: 0056.

4. Lynes M, Leiria LO, Lundh M, **Bartelt A**, Shamsi F, Huang TL, Takahashi H, Hirshman MF, Schlein C, Lee A, Baer LA, May FJ, Gao F, Narain NR, Chen EY, Kiebish MA, Cypess AM, Blüher M, Goodyear LJ, Hotamisligil GS, Stanford KI, Tseng YH. A cold-induced lipokine that supports thermogenesis and facilitates fatty acid metabolism. *Nat Med.* 2017 May;23(5):631-637.

6. **Bartelt A**, Weigelt C, Cherradi ML, Toedter K, Niemeier A, Scheja L, Heeren J. Effects of adipocyte lipoprotein lipase in de novo lipogenesis and white adipose tissue browning. *Biochim Biophys Acta.* 2013 May;1831(5):934-42.

7. **Bartelt A***, Orlando P*, Mele C, Ligresti A, Toedter K, Scheja L, Heeren J and Di Marzo V. Altered endocannabinoid signalling after a high-fat diet in Apoe(-/-) mice: relevance to adipose tissue inflammation, hepatic steatosis and insulin resistance. *Diabetologia.* 2011 Nov;54(11):2900-10. (*co-first)

Awards and honors:

- 2017 Best oral presentation, Therapeutic Perspective on Brown fat, Copenhagen, DEN
- 2016 Keystone Symposia Scholarship, Obesity and Adipose Tissue Biology, Banff, AB, CAN
- 2015 Keystone Symposia Scholarship, Diabetes and Metabolic Dysfunction, Santa Fe, NM, USA
- 2014 Early Career Award, International Society for the Study of Fatty Acids and Lipids (ISSFAL)
- 2013 Research Prize for Experimental Medicine, University Medical Center Hamburg-Eppendorf
- 2012 Oral Communication Prize, The Physiological Society Themed Meeting on Brown fat
- 2012 Young Investigator Award, European Atherosclerosis Society (EAS)
- 2011 Karl-Heinz Hölzer Prize for Interdisciplinary Medical Research, University Hamburg
- 2011 Werner Otto Prize for the Advancement of Medical Research, Werner Otto Stiftung
- 2011 President's Poster Competition Award, American Society for Bone and Mineral Research
- 2011 Karl Lohmann Prize, German Society for Biochemistry and Molecular Biology (GBM)
- 2011 Joachim Ziegenhorn Young Investigator Award, 34th European Lipoprotein Club (ELC)
- 2010 New Investigator Award, International Society for the Study of Fatty Acids and Lipids
- 2009 Young Investigator Award, International Atherosclerosis Society (IAS)
- 2007 Outstanding Diploma Award, German Society for Biochemistry and Molecular Biology
- 2007 Outstanding Diploma Award, University of Hamburg

Stipends and fellowships:

- 2013 Research Fellowship German Research Council (DFG)
- 2013 Human Frontiers in Science (HFSP) Long-Term Fellowship (declined)
- 2012 European Molecular Biology Organization (EMBO) Long-Term Fellowship (declined)
- 2011 European Atherosclerosis Society (EAS) Postdoctoral Fellowship
- 2008 PhD Fellowship Ernst Schering Foundation

Invited lectures in the last 5 years:

- 2018 FASEB SRC Immunological Aspects of Metabolic Syndrome, Snowmass Village, CO, USA
- 2018 7th International Graz Symposium on Lipid and Membrane Biology, Graz, AUT
- 2018 Novo Nordisk Foundation for Metabolic Research, Copenhagen, DEN
- 2017 EPFL/EMBO Symposium: Frontiers in Medicine, Lausanne, CHE
- 2017 SFB1123 Atherosclerosis: Mechanisms and Networks of Novel Therapeutics, LMU, GER
- 2016 Institute of Pharmacology and Toxicology, Friedrich-Wilhelms-University Bonn, GER
- 2016 SFB944 Cellular microcompartments, University Osnabrück, GER
- 2016 Max Planck Institute for Metabolism Research/University of Cologne, GER
- 2016 International Biomedicine and Genome Institute iBG, Izmir, TUR
- 2016 Department of Biochemistry and Molecular Cell Biology, University Hamburg, GER
- 2015 Institute of Physiological Chemistry, University of Leipzig, GER
- 2015 Department of Biochemistry and Molecular Cell Biology, University Hamburg, GER
- 2015 Symposium for Physiology, University Hospital Tübingen, GER
- 2014 Early Career Award Prize Lecture, 11th Congress ISSFAL, Stockholm, SWE
- 2014 The Wenner-Gren Institute, Stockholm University, SWE
- 2014 SFB1042 Obesity Mechanisms, University of Leipzig, GER
- 2014 Institute of Pharmacology, Charité – Universitätsmedizin Berlin, GER
- 2013 Institute of Pharmacology and Toxicology, University of Würzburg, GER

Patents:

Visualization of lipid metabolism. Oliver Bruns, Heinrich Hohenberg, Rudolph Reimer, Ulrich Tromsdorf, Horst Weller, Gerhard Adam, Harald Itrich, Michael Kaul, Peter Nielsen, Barbara Freund, **Alexander Bartelt**, Jörg Heeren. Germany, Universitätsklinikum Hamburg-Eppendorf, Centrum für Angewandte Nanotechnologie (CAN) GmbH, Heinrich-Pette-Institut. Patent: WO 2012098226 (A2) 2012-01-20.