

CV

Univ.-Prof. Dr. rer. nat. Dipl.-Biochem. Alexander Bartelt

Date of birth: 13.09.1982

Nationality: Germany

Education:

- 2010 **PhD** (summa cum laude)
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:

- 2019 – **Professor of Cardiovascular Metabolism**
Institute for Cardiovascular Prevention (Chair: Prof. Dr. med. Christian Weber), Ludwig-Maximilians-University Munich, Germany
- 2019 - **Principal Investigator Helmholtz Diabetes Center**
Institute for Diabetes and Cancer (Chair: Prof. Dr. Stephan Herzig), Helmholtz Center Munich, Germany
- 2019 - **Visiting Scientist**
Department of Molecular Metabolism & Sabri Ülker Center, Harvard T.H. Chan School of Public Health, Boston, USA
- 2013 – 2018 **Research Associate**
Department of Genetics and Complex Diseases & Sabri Ülker Center, Harvard T.H. Chan School of Public Health, Boston, USA (Mentor: Gökhan Hotamisligil)
- 2010 – 2013 **Postdoctoral fellow**
Institute for Biochemistry and Molecular Cell Biology, University Medical Center Hamburg-Eppendorf, Germany (Mentor: Andreas Niemeier)
- 2007 – 2010 **PhD student**
Institute for Biochemistry and Molecular Cell Biology, University Medical Center Hamburg-Eppendorf, Germany (Mentor: Jörg Heeren)
- 2006 – 2007 **Diploma student**
Department of Biochemistry and Molecular Biology, University Medical Center Hamburg - Eppendorf, Germany (Mentor: Ulrike Beisiegel)

Institutional/Societal Leadership:

- 2023 – 2027 Chairman of the EAS European Lipoprotein Club
- 2020 – 2022 Organizing Committee EAS European Lipoprotein Club
- 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 (400+) for international grant applications and scientific journals including Nature, Nature Metabolism, Nature Communications, Cell Metabolism, Cell Reports, The EMBO Journal, EMBO Molecular Medicine, EMBO Reports, Diabetes, Diabetes Care, Endocrinology, Atherosclerosis, European Journal of Physiology, International Journal of Obesity, Molecular Metabolism u.a.
(<https://www.webofscience.com/wos/author/record/1160827>)
- 2019 - Senior Editor: Endocrine Connections; Editorial Board Member: Molecular Metabolism, Naunyn-Schmiedeberg's Archives of Pharmacology, AJP-Endocrinology and Metabolism

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

Bibliometric measures (Web of Science as of 19.09.22):

- Total of 50 peer-reviewed publications (<https://www.ncbi.nlm.nih.gov/pubmed/?term=bartelt+alexander>)
- Total citations: 3749 (Average citation per paper = 74); H-index: 20; i10-index: 30

Publications of the last 5 years (2018-2022)

1. Willemssen N, Arigoni I, Studencka-Turski M, Krüger E, **Bartelt A**. Proteasome dysfunction disrupts adipogenesis and induces inflammation via ATF3. **Mol Metab.** **2022** Aug;62:101518. doi: 10.1016/j.molmet.2022.101518. Epub 2022 May 28.
2. Egea V, Megens RTA, Santovito D, Wantha S, Brandl R, Siess W, Khani S, Soehnlein O, **Bartelt A**, Weber C, Ries C. Properties and fate of human mesenchymal stem cells upon miRNA let-7f-promoted recruitment to atherosclerotic plaques. **Cardiovasc Res.** **2022** Mar 3;cvac022. doi: 10.1093/cvr/cvac022. Online ahead of print.
3. Kotschi S, Jung A, Willemssen N, Ofoghi A, Proneth B, Conrad M, **Bartelt A**. NFE2L1-mediated proteasome function protects from ferroptosis. **Mol Metab.** **2022** Mar;57:101436. doi: 10.1016/j.molmet.2022.101436. Epub 2022 Jan 6.
4. Worthmann A, **Bartelt A**. MALDI MSI for a fresh view on atherosclerotic plaque lipids. **Pflugers Arch.** **2022** Feb;474(2):185-186. doi: 10.1007/s00424-021-02654-8. Epub 2021 Dec 20.
5. Sebag SC, Zhang Z, Qian Q, Li M, Zhu Z, Harata M, Li W, Zingman LV, Liu L, Lira VA, Potthoff MJ, **Bartelt A**, Yang L. ADH5-mediated NO bioactivity maintains metabolic homeostasis in brown adipose tissue. **Cell Rep.** **2021** Nov 16;37(7):110003. doi: 10.1016/j.celrep.2021.110003.
6. Muley C, Kotschi S, **Bartelt A**. Role of Ubiquilins for Brown Adipocyte Proteostasis and Thermogenesis. **Front Endocrinol (Lausanne).** **2021** Sep 28;12:739021. doi: 10.3389/fendo.2021.739021. eCollection 2021.
7. Giroud M, Jodeleit H, Prentice KJ, **Bartelt A**. Adipocyte function and the development of cardiometabolic disease. **J Physiol.** **2022** Mar;600(5):1189-1208. doi: 10.1113/JP281979. Epub 2021 Oct 21.
8. Chondronikola M, **Bartelt A**, Vidal-Puig A, Virtanen KA. Editorial: Brown Adipose Tissue: From Heat Production in Rodents to Metabolic Health in Humans. **Front Endocrinol (Lausanne).** **2021** Jul 26;12:739065. doi: 10.3389/fendo.2021.739065. eCollection 2021.
9. Muley C, **Bartelt A**. Fuse your mitochondria, lose appetite: an anorexic, anti-obesity sphingolipid. **EMBO Mol Med.** **2021** Aug 9;13(8):e14618. doi: 10.15252/emmm.202114618. Epub 2021 Jul 19.
10. Egea V, Kessenbrock K, Lawson D, **Bartelt A**, Weber C, Ries C. Let-7f miRNA regulates SDF-1 α - and hypoxia-promoted migration of mesenchymal stem cells and attenuates mammary tumor growth upon exosomal release. **Cell Death Dis.** **2021** May 20;12(6):516. doi: 10.1038/s41419-021-03789-3.
11. Giroud M, Tsokanos FF, Caratti G, Kotschi S, Khani S, Jouffe C, Vogl ES, Irmeler M, Glantschnig C, Gil-Lozano M, Hass D, Khan AA, Garcia MR, Mattijssen F, Maida A, Tews D, Fischer-Posovszky P, Feuchtinger A, Virtanen KA, Beckers J, Wabitsch M, Uhlenhaut H, Blüher M, Tuckermann J, Scheideler M, **Bartelt A**, Herzig S. HAND2 is a novel obesity-linked adipogenic transcription factor regulated by glucocorticoid signalling. **Diabetologia.** **2021** Aug;64(8):1850-1865. doi: 10.1007/s00125-021-05470-y. Epub 2021 May 20.
12. Tsokanos FF, Muley C, Khani S, Hass D, Fleming T, Wolff G, **Bartelt A**, Nawroth P, Herzig S. Methylglyoxal Drives a Distinct, Nonclassical Macrophage Activation Status. **Thromb Haemost.** **2021** Nov;121(11):1464-1475. doi: 10.1055/s-0041-1726346. Epub 2021 May 9.
13. Lemmer IL, Willemssen N, Hilal N, **Bartelt A**. A guide to understanding endoplasmic reticulum stress in metabolic disorders. **Mol Metab.** **2021** May;47:101169. doi: 10.1016/j.molmet.2021.101169. Epub 2021 Jan 20.
14. Schlein C, Fischer AW, Sass F, Worthmann A, Tödter K, Jaeckstein MY, Behrens J, Lynes MD, Kiebish MA, Narain NR, Bussberg V, Darkwah A, Jespersen NZ, Nielsen S, Scheele C, Schweizer M, Braren I, **Bartelt A**, Tseng YH, Heeren J, Scheja L. Endogenous Fatty Acid Synthesis Drives Brown Adipose Tissue Involution. **Cell Rep.** **2021** Jan 12;34(2):108624. doi: 10.1016/j.celrep.2020.108624.
15. Goncalves RLS, Schlame M, **Bartelt A**, Brand MD, Hotamisligil GS. Cardiolipin deficiency in Barth syndrome is not associated with increased superoxide/H₂O₂ production in heart and skeletal muscle mitochondria. **FEBS Lett.** **2021** Feb;595(3):415-432. doi: 10.1002/1873-3468.13973. Epub 2020 Nov 19.
16. **Bartelt A**, Weber C. Mitochondrial Ejection for Cardiac Protection: The Macrophage Connection. **Cell Metab.** **2020** Oct 6;32(4):512-513. doi: 10.1016/j.cmet.2020.09.014.
17. **Bartelt A**, Widenmaier SB. Proteostasis in thermogenesis and obesity. **Biol Chem.** **2020** Aug 27;401(9):1019-1030. doi: 10.1515/hsz-2019-0427.
18. **Bartelt A**, Leipsic J, Weber C. The new age of radiomic risk profiling: perivascular fat at the heart of the matter. **Eur Heart J.** **2019** Nov 14;40(43):3544-3546. doi: 10.1093/eurheartj/ehz717.
19. Leiria LO, Wang CH, Lynes MD, Yang K, Shamsi F, Sato M, Sugimoto S, Chen EY, Bussberg V, Narain NR, Sansbury BE, Darcy J, Huang TL, Kodani SD, Sakaguchi M, Rocha AL, Schulz TJ, **Bartelt A**, Hotamisligil GS, Hirshman MF, van Leyen K, Goodyear LJ, Blüher M, Cypess AM, Kiebish MA, Spite M, Tseng YH. 12-Lipoxygenase Regulates Cold Adaptation and Glucose Metabolism by Producing the Omega-3 Lipid 12-HEPE from Brown Fat. **Cell Metab.** **2019** Oct 1;30(4):768-783.e7. doi: 10.1016/j.cmet.2019.07.001. Epub 2019 Jul 25.

20. Worthmann A, Schlein C, Berbée JFP, Rensen PCN, Heeren J, **Bartelt A**. Effects of Pharmacological Thermogenic Adipocyte Activation on Metabolism and Atherosclerotic Plaque Regression. **Nutrients**. **2019** Feb 23;11(2):463. doi: 10.3390/nu11020463.
21. **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 Nfe2l1-induced proteasomal activity. **Nat Med**. **2018** Mar;24(3):292-303. (*co-first)
22. **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.

Awards and honors:

2021 Research Award of the German Obesity Society (DAG)
 2018 Friedmund Neumann Prize for Outstanding Basic Research, Ernst Schering Foundation
 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
 2010 New Investigator Award, International Society for the Study of Fatty Acids and Lipids
 2009 Young Investigator Award, International Atherosclerosis Society
 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:

2022 Research Center for Molecular Medicine of the Austrian Academy of Sciences, Vienna, AUT
 2022 Fat Sensing and the Brain Workshop, Baeza, SPA
 2022 Helmholtz Diabetes Research School, Munich, GER
 2022 International Symposium on Atherosclerosis, Munich, GER
 2022 Keystone Meeting Adipose Tissue Biology, Whistler, CAN
 2022 IMPC Online Symposium
 2022 Research Seminar German Society for Pharmacy, Hamburg, GER
 2022 3R Welfare Seminar, Charité Berlin, Berlin, GER
 2021 Research Seminar, University of Greifswald, Greifswald, GER
 2021 Lipid Meeting, University of Leipzig, Leipzig, GER
 2021 Conference on Vascular Biology, San Servolo, Venice, ITA
 2021 Helmholtz Immunology Symposium, Helmholtz Center Munich, Munich, GER
 2021 Boston Nutrition Center Seminar Series, Boston University, Boston, USA
 2020 DBMR Research Conference, Bern, SUI
 2020 Atherometabolism Zoominar
 2020 2020 Research Seminar HI-MAG Leipzig, Leipzig, GER
 2020 Joint Meeting on Vascular biology, Inflammation, and Thrombosis, Vienna, AUT
 2020 88th European Atherosclerosis Society Congress, Geneva, SUI
 2019 Helmholtz Pioneer Campus Research Seminar, Munich, GER
 2019 Helmholtz Diabetes Conference, Munich, GER
 2019 Paul Ehrlich Award Symposium, Frankfurt, GER
 2019 Research Seminar VIB Center for Inflammation Research, Ghent, BEL
 2019 Keynote Lecture 25th Austrian Atherosclerosis Society Meeting, St. Gilgen, AUT
 2019 DZHK NCCR Meeting Hamburg, GER
 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

Funding of the last 5 years (2018-2022)

07/2019-07/2024	DZHK Excellence program Junior Research Group	€1,474,868.00
04/2019-06/2022	DFG-CRC1123 on Atherosclerosis Project B10	€311,757.00
12/2019-11/2024	ERC StG PROTEOFIT	€1,746,825.00
06/2021-05/2024	DFG-SPP2306 on Ferroptosis	€259,150.00
01/2022-12/2022	DFG International Scientific Events (45 th ELC Meeting Tutzing)	€20,000.00
07/2022-06-2026	DFG-CRC1123 on Atherosclerosis Project B10	€588,000.00
09/2022-08/2024	FAPESP-BAYLAT Workshop on Energy Metabolism	€31,000.00

Patents:

Visualization of lipid metabolism. Oliver Bruns, Heinrich Hohenberg, Rudolph Reimer, Ulrich Tromsdorf, Horst Weller, Gerhard Adam, Harald Iltich, 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.



Alexander Bartelt - Munich, 25.09.22