

Curriculum Vitae

Matthias Ochs Professor, Dr. med.
d.o.b. December 05th, 1967, in Kassel, Germany

University Education

2004 Habilitation Anatomy, University of Bern
1998 Doctorate Medicine, Georg August University Göttingen
1987–1994 Studies of Medicine, Georg August University Göttingen

Scientific Career

2024–2026 Speaker, Alliance Center Electron Microscopy (ACEM), Berlin University Alliance (BUA)
2020–2024 Member, Review Board Basic Research in Biology and Medicine,
German Research Federation (DFG)
Since 2019 Full Professor (W3) and Chair, Institute of Functional Anatomy,
Charité - Universitätsmedizin Berlin
Since 2019 Director, Core Facility Electron Microscopy, Charité - Universitätsmedizin Berlin
2012–2019 Co-coordinator, Platform Imaging, German Center for Lung Research (DZL)
2012–2018 Steering Committee Member, REBIRTH Cluster of Excellence, Hannover
2009–2018 Full Professor (W3) and Chair, Institute of Functional and Applied Anatomy
Hannover Medical School
2007–2009 Co-Chair, American Thoracic Society / European Respiratory Society Task Force,
Quantitative Assessment of Lung Structure
2005–2009 Docent and Associate Professor, Institute of Anatomy, University of Bern
2003–2004 Visiting Postdoc, Cardiovascular Research Institute,
University of California San Francisco
2002–2004 Junior Professor (W1), Institute of Anatomy, Georg August University Göttingen
1994–2002 Scientific Assistant, Institute of Anatomy, Georg August University Göttingen

Awards and Honors

2020 Teaching Award, Charité - Universitätsmedizin Berlin
2012–2017 Adjunct Professor, University of Saskatchewan, Saskatoon
2010/12–14/
16–18 Teaching Awards, Hannover Medical School
2009 Teacher of the Year, Medical Faculty, University of Bern
2008 Elected Member, Fleischner Society for Thoracic Imaging and Diagnosis
2003–2004 Feodor Lynen Fellowship, Alexander von Humboldt Foundation
1999 Promotion Award, German Society for Thoracic & Cardiovascular Surgery

Citation Record

Total citations: 14,369; h-index: 58; h-index since 2021: 34 (Google Scholar March 2, 2026)

Top-10 selected Publications

Vanhecke D, Nyengaard JR, Haenni B, Schipke J, **Ochs M**. Ultrastructural analysis of lamellar bodies in type II alveolar epithelial cells in the human lung. *Am J Physiol Lung Cell Mol Physiol* 328:L113-L119, 2025.

Lettau M, Timm S, Dittmayer C, Lopez-Rodriguez E, **Ochs M**. The ultrastructural heterogeneity of lung surfactant revealed by serial section electron tomography: insights into the 3D architecture of human tubular myelin. *Am J Physiol Lung Cell Mol Physiol* 322: L873-L881, 2022.

Ochs M, Timm S, Elezkurtaj S, Horst D, Meinhardt J, Heppner F, Weber-Carstens S, Hocke AC, Witzenrath M. Collapse induration of alveoli is an ultrastructural finding in a COVID-19 patient. *Eur Respir J* 57: 2004165, 2021.

Ochs M, Hegermann J, Lopez-Rodriguez E, Timm S, Nouailles G, Matuszak J, Simmons S, Witzenrath M, Kuebler WM. On top of the alveolar epithelium: surfactant and the glycocalyx. *Int J Mol Sci* 21: 3075, 2020.

Schneider JP, Wrede C, Hegermann J, Weibel ER, Mühlfeld C, **Ochs M**. On the topological complexity of human alveolar epithelial type 1 cells. *Am J Respir Crit Care Med* 199: 1153-1156, 2019.

Knudsen L, **Ochs M**. The micromechanics of lung alveoli: structure and function of surfactant and tissue components. *Histochem Cell Biol* 150: 661-676, 2018.

Ochs M, Knudsen L, Hegermann J, Wrede C, Grothausmann R, Mühlfeld C. Using electron microscopes to look into the lung. *Histochem Cell Biol* 146: 695-707, 2016.

Vasilescu DM, Gao Z, Saha PK, Yin L, Wang G, Haefeli-Bleuer B, **Ochs M**, Weibel ER, Hoffman EA. Assessment of morphometry of pulmonary acini in mouse lungs by non-destructive imaging using multi-scale micro-computed tomography. *Proc Natl Acad Sci USA* 109: 17105-17110, 2012.

Hsia CCW, Hyde DM, **Ochs M**, Weibel ER. An official research policy statement of the American Thoracic Society / European Respiratory Society: Standards for quantitative assessment of lung structure. *Am J Respir Crit Care Med* 181:394-418, 2010.

Ochs M, Nyengaard JR, Jung A, Knudsen L, Voigt M, Wahlers T, Richter J, Gundersen HJG. The number of alveoli in the human lung. *Am J Respir Crit Care Med* 169:120-124, 2004.