

## *Curriculum Vitae*

**Lars Knudsen**      Professor, Dr. med., MME  
d.o.b. April 26th, 1978, in Husum, Germany

### **University Education**

2011-2013      Master Degree in Medical Education (MME), University of Heidelberg, Germany  
2008            Doctorate Medicine, University of Göttingen, Germany  
1998-2005      Studies of Medicine, University of Göttingen, Germany

### **Scientific Career**

Since 2019      Full Professorship in Anatomy at Hannover Medical School, Germany  
2016 – 2019    Junior Professorship in Anatomy at Hannover Medical School, Germany  
2014 – 2015    Clinics for Internal Medicine, General Hospital Großburwedel, Germany  
2011 – 2014    Junior Professorship in Anatomy at Hannover Medical School, Germany  
2009 – 2011    Institute of Anatomy and Clinics for Pulmonology, Hannover Medical School, Germany  
2007 – 2009    Clinics for Pulmonology, University Hospital Bern, Switzerland  
2005 – 2007    Clinics for Internal Medicine, General Hospital, Gütersloh, Germany

### **Awards and Honors**

2022            Teaching award at Hannover Medical School  
2021            Award for Innovative Medical Education at Hannover Medical School  
2021            Teaching award at Hannover Medical School  
2020            Teaching award at Hannover Medical School  
2017            Teaching award at Hannover Medical School  
2013            Young Teacher's Award at Hannover Medical School  
2009            Research Award, Pneumo-Update, University of Innsbruck, Austria  
2009            Award for the doctoral thesis at the University of Göttingen, Germany

### **Citation Record**

*Total citations: 3,614; h-index:30; h-index since 2017: 24* (Google Scholar Sep 26<sup>th</sup>, 2022)

## Top-10 selected Publications

Albert K, Krischer JM, Pfaffenroth A, Wilde S, Lopez-Rodriguez E, Braun A, Smith BJ, and **Knudsen L**. Hidden microatelectases increase vulnerability to ventilation-induced lung injury. *Front Physiol*. 2020; 11:530485.

Beike L, Wrede C, Hegermann J, Lopez-Rodriguez E, Kloth C, Gauldie J, Kolb M, Maus UA, Ochs M, and **Knudsen L**. Surfactant dysfunction and alveolar collapse are linked with fibrotic septal wall remodeling in the TGF- $\beta$ 1-induced mouse model of pulmonary fibrosis. *Lab Invest*. 2019; 99(6):830-852.

**Knudsen L**, Lopez-Rodriguez E, Berndt L, Steffen L, Ruppert C, Bates JHT, Ochs M, and Smith BJ. Alveolar micromechanics in bleomycin-induced lung injury. *Am J Respir Cell Mol Biol*. 2018; 59(6):757-769.

Steffen L, Ruppert C, Hoymann HG, Funke M, Ebener S, Kloth C, Mühlfeld C, Ochs M, **Knudsen L\***, and Lopez-Rodriguez E\*. Surfactant replacement therapy reduces acute lung injury and collapse induration related lung remodeling in the bleomycin model. *Am J Physiol Lung Cell Mol Physiol* 2017, 313(2):L313-L327. \*authors contributed equally and share last authorship

Lopez-Rodriguez E, Boden C, Echaide M, Perez-Gil J, Kolb M, Gauldie J, Maus UA, Ochs M, and **Knudsen L**. Surfactant dysfunction during overexpression of TGF- $\beta$ 1 precedes profibrotic lung remodeling in vivo. *Am J Physiol Lung Cell Mol Physiol*. 2016; 310(11):L1260-71

Birkelbach B, Lutz D, Ruppert C, Henneke I, Lopez-Rodriguez E, Günther A, Ochs M, Mahavadi P\*, and **Knudsen L\***. Linking progression of fibrotic lung remodeling and ultrastructural alterations of alveolar epithelial type II cells in the amiodarone mouse model. *Am J Physiol Lung Cell Mol Physiol* 2015; 309(1):L63-75. (\* contributed equally to this work and share senior authorship)

**Knudsen L**, Atochina-Vasserman EN, Massa CB, Birkelbach B, Guo CJ, Scott P, Haenni B, Beers MF, Ochs M, and Gow AJ. The role of inducible nitric oxide synthase for interstitial remodeling of alveolar septa in surfactant protein D-deficient mice. *Am J Physiol Lung Cell Mol Physiol*. 2015; 309(9):L959-69

Lutz D, Gazdhar A, Lopez-Rodriguez E, Ruppert C, Mahavadi P, Günther A, Klepetko W, Bates JH, Smith B, Geiser T, Ochs M, and **Knudsen L**. Alveolar derecruitment and collapse induration as crucial mechanisms in lung injury and fibrosis. *Am J Respir Cell Mol Biol* 2015; 52(2):232-43.

**Knudsen L**, Boxler L, Mühlfeld C, Schaefer IM, Becker L, Bussinger C, von Stietencron I, Madershahian N, Richter J, Wahlers T, Wittwer T, and Ochs M. Lung preservation in experimental ischemia/reperfusion injury and lung transplantation: A comparison of natural and synthetic surfactants. *J Heart Lung Transplant*. 2012; 31: 85-93.

**Knudsen L**, Gundersen G, Weibel ER, Weinstein F, and Ochs M. Efficient and accurate stereological estimation of airspace intercept length distribution in normal and emphysematous lungs. *J Appl Physiol*. 2010; 108:412-421.