

## ***Personal information form for Fellow members of EAMBES***

### **Personal Info**



**Name:** Katja Schenke-Layland

**Year and place of birth:** March 21<sup>st</sup> 1977; Eisenach, Germany

**Present affiliations and functions:** Professor, Dept. of Women's Health, Research Institute for Women's Health, Eberhard Karls University Tübingen, Germany; Department Head, Fraunhofer IGB, Dept. of Cell and Tissue Engineering, Stuttgart, Germany; Adj. Associate Professor, University of California Los Angeles (UCLA), Dept. of Medicine/ Cardiology, Los Angeles/CA, USA

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### **Short CV**

#### **1. Education/training:**

- 2000 MSc in Biology, Sociology and Psychology, Friedrich Schiller University (FSU) Jena, Faculty of Biology and Pharmacy, Germany
- 2004 PhD (Dr.rer.nat.) in Biology/ Cardiovascular Tissue Engineering, FSU Jena, Germany

#### **2. Professional affiliations**

- 2004 Postdoc, FSU Jena, Dept. of Cardiothoracic Surgery, Jena, Germany
- 2004-2005 Postdoc, Children's Hospital Los Angeles, Saban Research Institute, University of Southern California (USC), Los Angeles/CA, USA
- 2005-2008 Postdoc, UCLA, Dept. of Medicine/ Cardiology, Cardiovascular Research Laboratories, Los Angeles/CA, USA
- 2008-2009 Assistant Research Professor, UCLA, Dept. of Medicine/ Cardiology, Cardiovascular Research Laboratories, Los Angeles/CA, USA
- 2010-2013 Deputy Department Head and Group Leader, Fraunhofer IGB, Dept. of Cell and Tissue Engineering, Stuttgart, Germany
- 2010-2013 Visiting Scholar, UCLA, Dept. of Medicine/ Cardiology, Cardiovascular Research Laboratories, Los Angeles/CA, USA
- since 2011 Professor, Dept. of Women's Health, Research Institute for Women's Health, Eberhard Karls University Tübingen, Germany
- since 2013 Department Head, Fraunhofer IGB, Dept. of Cell and Tissue Engineering, Stuttgart, Germany
- since 2013 Adjunct Associate Professor, UCLA, Dept. of Medicine/ Cardiology, Los Angeles/CA, USA

### **3. Other experience and major activities**

- Executive Editor, Advanced Drug Delivery Reviews (Elsevier) (since 2012)
- bone-tec Scientific Board (since 2012)
- Editorial Board, Journal of Materials Chemistry B (Wiley) (since 2014)
- Editorial Board, Tissue Engineering, Parts A, B and C (Mary Ann Liebert) (since 2015)
- Editorial Board, Scientific Reports (Nature Publishing Group) (since 2015)
- Professional memberships:
  - *German Society for Matrix Biology (DGMB)*
  - *Tissue Engineering and Regenerative Medicine International Society (TERMIS)*
  - *American Association of Anatomist (AAA)*
  - *International Society for Stem Cell Research (ISSCR)*

### **4. Major scientific interest**

The aim of our group is to discover important biological mechanisms in human development and leverage that knowledge to develop critical applications for the fields of tissue engineering and regenerative medicine.

#### *Fields of research interest*

- Biomaterials and medical product design
- Advanced therapy medicinal product (ATMP) certification processes
- Human-based three-dimensional (3D) in vitro test systems (healthy and *disease-in-a-dish*)
- Stem cell and extracellular matrix biology
- (Non-invasive) Biomedical imaging

### **5. Bibliographical Data**

Number of publications: 79; Total citations: 2086 (without self citations: 1881); H-index: 26

Patents: 1

### **6. Four references to papers you find most important and relevant**

1. Schenke-Layland K, Rhodes KE, Angelis E, Butylkova Y, Heydarkhan-Hagvall S, Gekas C, Zhang R, Goldhaber JI, Mikkola HK, Plath K, MacLellan WR. Reprogrammed mouse fibroblasts differentiate into cells of the cardiovascular and hematopoietic lineages. *Stem Cells* 26(6): 1537-1546, 2008
2. Schenke-Layland K, Stock UA, Nsair A, Xie J, Angelis E, Fonseca CG, Larbig R, Mahajan A, Shivkumar K, Fishbein MC, MacLellan WR. Cardiomyopathy is associated with structural remodelling of heart valve extracellular matrix. *Eur Heart J* 30(18): 2254-2265, 2009
3. Votteler M, Berrio DAC, Horke A, Sabatier L, Reinhardt DP, Nsair A, Aikawa E, Schenke-Layland K. Elastogenesis at the early onset of human cardiac valve development. *Development* 140: 2345-53, 2013
4. Hinderer S, Seifert J, Votteler M, Shen N, Rheinlaender J, Schäffer TE, Schenke-Layland K. Engineering of a bio-functionalized hybrid off-the-shelf heart valve. *Biomaterials* 35(7): 2130-39, 2014

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**Recognitions:**

***Honors and awards***

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| 09/2004      | Best Young Researcher Award/ Family Klee Prize, German Society for Biomedical Engineering (DGBMT) |
| 04/2010      | American Association of Anatomists (AAA) Young Investigator Morphological Sciences Award          |
| 2010         | <i>Academia.net</i> top 100 female scientists in Germany  |
| 2012-2013    | IZST Teaching Prize, Best Module - Vital Implants   |
| 2013-2014    | IZST Teaching Prize, Best Module - Vital Implants   |
| 2014         | TERMIS-EU Young Scientist Award   |
| 2015-present | Fellow, European Alliance for Medical and Biological Engineering and Science (EAMBES)             |
| 2015-present | Member of the Fraunhofer Vintage Class  |

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