

## Curriculum Vitae

### Personal Data

Title	<b>Prof Dr med</b>
First name	<b>Peter</b>
Name	<b>Kohl</b>
Current position	W3 Full Professor Director, permanent appointment
Current institution(s)/site(s), country	Institute for Experimental Cardiovascular Medicine (IEKM) University Heart Center (UHZ) University Medical Center and Faculty of Medicine (UKF) University of Freiburg, Freiburg, DE
Identifiers/ORCID	<a href="https://orcid.org/0000-0003-0416-6270">0000-0003-0416-6270</a> / <a href="https://scholar.google.com/citations?user=...">Google Scholar</a>

### Qualifications and Career

Stages	Periods and Details
Degree programme	1987 MSc (hons) in Medicine and Biophysics, Russian State Medical University, Moscow, RU 1981 - 1987 Study of Medicine and Biophysics, Russian State Medical University, Moscow, RU
Doctorate	1990 PhD, Russian State Medical University, Moscow, RU and Charité Berlin, Berlin, DE 1987 MD, Russian State Medical University, Moscow, RU
Stages of academic/ professional career	Since 2016 Professor, Director of IEKM, Scientific Director of UHZ, University of Freiburg, Freiburg, DE 2010 - 2015 Professor, Chair in Cardiac Biophysics and Systems Biology, Imperial College London, National Heart and Lung Institute, London, GB Deputy Director for Research, The Magdi Yacoub Institute, London, GB 1992 - 2010 Reader in Cardiac Physiology (2004 - 2010) University Research Lecturer (2000 - 2004) Junior Group Leader (1997 - 2000) Postdoc (1992 - 1997), University of Oxford, Dept of Physiology, Anatomy and Genetics, Oxford, GB 1991 Certificate of Specialist Education (Facharzt) in Physiology, Charité Berlin, Berlin, DE 1987 - 1992 PhD Student/ Research Scientist, Humboldt University Berlin, Charité, Berlin, DE

### Supplementary Career Information

3 children

## Activities in the Research System

### *Organisation of Scientific Meetings (selection)*

2025	Chair, 10 <sup>th</sup> Cardiac Mechano-Electric Coupling and Arrhythmias Workshop (series inaugurated and organised roughly every 3 years since 1999), GB/ DE
2015	Chair, Cardiac Arrhythmia Mechanisms Gordon Research Conference, IT
2015	Chair, Keystone Symposium: Beyond the Myocyte-Centric View of the Heart, US
2013	Vice-Chair, Cardiac Arrhythmia Mechanisms Gordon Research Conference, US

### *Committees and Faculty Responsibilities*

Since 2023	Member of the Faculty Board, Faculty of Medicine, University of Freiburg, DE
Since 2021	Member of the Faculty of Engineering, University of Freiburg, DE
2021-2025	Commission for Experimental Cardiology (KEK) of the DGK; since 2023, Deputy Speaker
Since 2021	Associate Investigator of the Freiburg Excellence Cluster Centre for Integrative Biological Signalling Studies
2020-2025	Speaker of CRC1425 'Heterocellular Nature of Cardiac Lesions', University of Freiburg, DE
Since 2019	Faculty Member of Spemann Graduate School for Biology and Medicine, Freiburg, DE
Since 2016	Visiting Professor, Cardiovascular Physiology, University of Oxford, Oxford, GB
Since 2016	Visiting Professor, National Heart and Lung Inst., Imperial College, London, GB
2012 - 2016	Japanese High-Performance Computing Initiative, Bioscience Advisory Board, Chair
2012 - 2015	British Heart Foundation Project Grants Committee
2008 - 2010	International Liaison Committee on Resuscitation ILCOR 2010 author
2004 - 2009	Medical Research Council GB, Physiological Systems & Clinical Science Panel of Experts
1998 - 2004	ESC Steering Committee of WG on Cardiac Cellular Electrophysiology

### *Editorial Boards:*

2022 - 2023	Editor-in-Chief, The Journal of Physiology
2018 - 2020	Editor-in-Chief, Progress of Biophysics and Molecular Biology

### *Peer Review Activities:*

Journals:	<i>Nature, Nat Rev Cardiol, Proc Natl Acad Sci USA, Circ Res, Circulation, Cardiovasc Res, J Mol Cell Cardiol, J Physiol, Biophys J, Prog Biophys Mol Biol, Pflugers Arch</i> , and others
Funding:	ERC (EU), DFG (DE), Wellcome Trust (GB), Medical Research Council (GB), British Biosciences & Biotechnology Research Council (BBSRC, GB), British Heart Foundation (GB), and others

## Supervision of Researchers in Early Career Phases

Supervision of 12 doctoral dissertations, 5 Masters dissertations, 3 Bachelor dissertations (within the last 5 years and ongoing).

Hosting of 8 postdoctoral researchers (within the last 5 years and ongoing).

## Scientific Results

### Recent Peer-Reviewed Papers:

Models of cardiomyocyte-non-myocyte electrical interactions. Simon-Chica A, Loewe A, [Kohl P](#) (2025). *Journal of Physiology* in press. [10.1113/JP287295](#) (OA)

Disturbed repolarization-relaxation coupling during acute myocardial ischemia permits systolic mechano-arrhythmogenesis. Cameron BA, Baumeister PA, Lawen T, Rafferty SA, Taeb B, Stoyek MR, Greiner J, Uzelac I, Fenton FH, Peyronnet R, [Kohl P](#), Quinn TA (2025). *Circulation Research* 137, 363-382. [10.1161/CIRCRESAHA.124.326057](#) (OA)

Electron microscopy of cardiac 3D nanodynamics. [Kohl P](#), Greiner J, [Rog-Zielinska EA](#) (2022). *Nature Reviews Cardiology* 19, 607-619. [10.1038/s41569-022-00677-x](#)

The NSL complex maintains nuclear architecture stability via lamin A/C acetylation. Karoutas A, Szymanski W, Rausch T, Guhathakurta S, [Rog-Zielinska EA](#), Peyronnet R, Seyfferth J, Chen HR, de Leeuw R, Herquel B, Kimura H, Mittler G, [Kohl P](#), Medalia O, Korbel JO, [Akhtar A](#) (2019). *Nature Cell Biology* 21, 1248-1260. [10.1038/s41556-019-0397-z](#)

Potassium channel-based optogenetic silencing. Bernal Sierra YA, Rost BR, Pofahl M, Fernandes AM, Kopton RA, Moser S, Holtkamp D, Masala N, Beed P, Tukker JJ, Oldani S, Bönigk W, [Kohl P](#), Baier H, Schneider-Warme F, Hegemann P, Beck H, Seifert R, Schmitz D (2018). *Nature Communications* 9, 4611. [10.1038/s41467-018-07038-8](#) (OA)

Cell-accurate optical mapping across the entire developing heart. Weber M, Scherf N, Meyer AM, Panáková D, [Kohl P](#), Huisken J (2017). *eLife* 29, 6:e28307. [10.7554/eLife.28307](#) (OA)

Quantitative assessment of passive electrical properties of the cardiac T-tubular system by FRAP microscopy. Scardigli M, Crocini C, Ferrantini C, Gabbriellini T, Silvestri L, Coppini R, Tesi C, [Rog-Zielinska EA](#), [Kohl P](#), Cerbai E, Poggesi C, Pavone FS, Sacconi L (2017). *Proceedings of the National Academy of Sciences of the United States of America* 114:5737-5742. [10.1073/pnas.1702188114](#) (OA)

Macrophages facilitate electrical conduction in the heart. Hulsmans M, Clauss S, Xiao L, Aguirre AD, King KR, Hanley A, Hucker WJ, Wülfers EM, Seemann G, Courties G, Iwamoto Y, Sun Y, Savol AJ, Sager HB, Lavine KJ, Fishbein GA, Capen DE, Da Silva N, Miquerol L, Wakimoto H, Seidman CE, Seidman JG, Sadreyev RI, Naxerova K, Mitchell RN, Brown D, Libby P, Weissleder R, Swirski FK, [Kohl P](#), Vinegoni C, Milan DJ, Ellinor PT, Nahrendorf M (2017). *Cell* 169, 510-522.e20. [10.1016/j.cell.2017.03.050](#) (OA)

Transformation diffusion reconstruction of three-dimensional histology volumes from two-dimensional image stacks. Casero R, Siedlecka U, Jones ES, Gruscheski L, Gibb M, Schneider JE, [Kohl P](#), Grau V (2017). *Medical Image Analysis* 38, 184-204. [10.1016/j.media.2017.03.004](#) (OA)

Electrotonic coupling of excitable and nonexcitable cells in the heart revealed by optogenetics. Quinn TA, Camelliti P, [Rog-Zielinska EA](#), Siedlecka U, Poggioli T, O'Toole ET, Knöpfel T, [Kohl P](#) (2016). *Proceedings of the National Academy of Sciences of the United States of America* 113, 14852–14857. [10.1073/pnas.1611184114](#) (OA)

### Other Output

A Deep Learning-enabled toolkit for the 3D segmentation of ventricular cardiomyocytes. Greiner J, Frangiamore F, Sonak F, Madl J, Seidel T, [Kohl P](#), [Rog-Zielinska EA](#) (2025). *Authorea* [10.22541/au.173697566.64378528/v2](#)

Cardiac fibrosis affects electrical conduction and arrhythmogenesis in a pacing-rate-dependent manner. Sacconi L, Giardini F, Olianti C, Marchal GA, Campos F, Steyer J, Madl J, Piersanti R, Arecchi G, Vanaja IP, Biasci V, Nesi G, Loew L, Cerbai E, Chelko S, Regazzoni F, Loewe A, Bishop M, Mongillo M, [Kohl P](#), Zaglia T, Zgierski-Johnston CM (2025). *Research Square* [10.21203/rs.3.rs-5804800/v1](#)

3D structure of fibroblasts and macrophages in the healthy and cryo-ablated heart. Fernández MC, Wülfers EM, Madl J, Perez Feliz S, [Kohl P](#), Zgierski-Johnston CM, Schneider-Warme F (2023). *bioRxiv* 11.30.569388 [10.1101/2023.11.30.569388](#)

### **Academic Distinctions**

2005 - 2015 Senior Fellow, British Heart Foundation, London  
2013 CardioNECT, ERC Advanced Grant, PI  
1997 - 2005 Royal Society University Research Fellow, University of Oxford, Oxford  
1997 MA (honorary), University of Oxford, Oxford  
Fellow of International Union of Physiological Sciences (FIUPS),  
Physiological Society (London),  
American Heart Association (FAHA),  
Heart Rhythm Society (FHRS)

### **Other Information**

not specified