

## Curriculum Vitae – Status: 02.2023

NAME <b>Katja Schenke-Layland</b>		POSITION <b>Professor of Medical Technologies and Regenerative Medicine</b>	
EDUCATION/ TRAINING			
<b>INSTITUTION AND LOCATION</b>	<b>DEGREE(s)</b>	<b>YEAR(s)</b>	<b>FIELD(s) OF STUDY</b>
UCLA, Cardiovascular Research Laboratories, Los Angeles/CA, USA	Postdoctoral Research Fellow	2005-2008	Stem Cell Research/ Cardiovascular Tissue Engineering
Children's Hospital Los Angeles, Saban Research Institute, Los Angeles/CA, USA	Postdoctoral Research Fellow	2004-2005	Cardiovascular Tissue Engineering
Friedrich Schiller University (FSU) Jena, Germany	Dr.rer.nat.	2001-2004 (23.9.2004)	Biology/ Cardiovascular Tissue Engineering
Friedrich Schiller University (FSU) Jena, Germany	M.Sc.	1995-2000	Biology, Sociology, Psychology

**Personal Information:**

Birth Date/Place: March 21<sup>st</sup> 1977; Eisenach, Germany  
 Citizenship: Dual Nationality: German and U.S.A.  
 Website: <http://www.schenke-layland-lab.com>  
 Work Addresses: [Eberhard Karls University Tübingen](#)  
[Institute of Biomedical Engineering](#)  
[Dept. for Medical Technologies and Regenerative Medicine](#)  
 Silcherstrasse 7/1, 72076 Tübingen, Germany  
[NMI Natural and Medical Sciences Institute at the University of Tübingen](#)  
 Markwiesenstr. 55, 72770 Reutlingen, Germany

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Work E-Mail: [katja.schenke-layland@uni-tuebingen.de](mailto:katja.schenke-layland@uni-tuebingen.de)  
[katja.schenke-layland@nmi.de](mailto:katja.schenke-layland@nmi.de)

ORCID: <https://orcid.org/0000-0001-8066-5157>

**Professional Experience:**

since 04/2018 **Director**, Natural and Medical Sciences Institute at the University of Tübingen, Reutlingen, Germany ([www.nmi.de/en](http://www.nmi.de/en))

since 11/2011 **Full Professor (W3)**, Eberhard Karls University Tübingen (EKUT), Medical Faculty, Tübingen, Germany

since 01/2020 **CEO**, NMI-Technology Transfer (NMI-TT) GmbH, Reutlingen, Germany

since 01/2018 **Co-Editor-in-Chief**, Tissue Engineering, Part B (Mary Ann Liebert)

since 01/2012 **Executive Editor**, Advanced Drug Delivery Reviews (ADDR) (Elsevier)

08/2018-06/2022 **Project Scientist**, University of California Los Angeles (UCLA), Dept. of Medicine/ Cardiology, Cardiovascular Research Laboratories (CVRL), Los Angeles, CA, USA

11/2013-07/2018 **Adjunct Associate Professor**, UCLA, Dept. of Medicine/ Cardiology, Los Angeles, CA, USA

01/2016-11/2017 **Director (interim, executive)**, Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB), Stuttgart, Germany

04/2013-11/2017 **Department Head**, Fraunhofer IGB, Dept. of Cell and Tissue Engineering, Stuttgart, Germany

01/2010-09/2013 **Visiting Associate Professor**, UCLA, Dept. of Medicine/ Cardiology, Los Angeles, CA, USA

01/2010-12/2014 **ATTRACT-Group Leader**, Fraunhofer IGB, Stuttgart, Germany

01/2010-03/2013 **Deputy Department Head**, Fraunhofer IGB, Dept. of Cell and Tissue Engineering, Stuttgart, Germany

11/2008-12/2009 **Assistant Research Professor**, UCLA, Dept. of Medicine/ Cardiology, Los Angeles, CA, USA

**Overview of Peer-Reviewed Publications:**

<b>Peer-Reviewed Articles</b>	Original Articles:	162
	Review Articles, Editorials, Commentaries, etc.:	29
	Senior/First Authorships:	63/24
	Book Chapters:	6
<b>Citations</b> <small>ISI Web of Science</small>	Sum of the times cited:	7331
<b>Citations</b> <small>Scopus</small>		7995
<b>Total Impact Factor Points</b>		851
<b>h-Index</b> <small>ISI Web of Science</small>		47
<b>h-Index</b> <small>Scopus</small>		50

**Patents:**

- "Glycosylated protein of an extra-cellular matrix for use in a method of treating diabetes in a human or animal subject", EP3027201B1
- "A method and apparatus for providing a desired target protein expression cell line", DE102017207262A1
- "Markers for human cardiac stem cells for regenerative therapies", USA, *US Prov App Serial No. 61/828,502*
- "Glycosylated protein of an extra-cellular matrix for use in a method of treating an ischemic heart of a human or animal subject in need thereof", PCT/EP2014/066497

**Selected Awards:**

- **Rosalind Franklin Society Awards in Science** (2022)
- **Hilde Mangold Award**, German Stem Cell Network (GSCN) (2021)
- **CyberOne Business Plan Competition Finalist** (2016)
- **RPB Harold F. Spalter International Scholar Award** (2016)
- **Tissue Engineering and Regenerative Medicine International Society (TERMIS)-EU Young Investigator Award** (2014)
- **Young Investigator Morphological Sciences Award**, American Association of Anatomists (2010)
- **Best Young Researcher Award/ Family Klee Prize**, German Society for Biomedical Engineering (2004)
- **Teaching Award Best Module - Vital Implants**, Eberhard Karls University Tübingen (2016)
- **Teaching Award Best Module - Vital Implants**, Eberhard Karls University Tübingen (2014)
- **Teaching Award Best Module - Vital Implants**, Eberhard Karls University Tübingen (2013)

**Academic Institutional Responsibilities**

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|--------------|--|
| 2019-present | <b>University Senate</b> , EKUT, Germany   |
| 2018-present | <b>Study Dean - Medical Technology</b> , Medical Faculty, EKUT, Germany              |
| 2016-2018    | <b>Deputy Study Dean - Medical Technology</b> , Medical Faculty, EKUT, Germany       |
| 2016-present | <b>Science Strategy Committee</b> , EKUT, Germany                                    |
| 2016-2018    | <b>Klinikumsrat</b> (Hospital Senate), Medical Faculty, EKUT, Germany                |
| 2014-present | <b>Deputy Chair - Technology Transfer Committee</b> , Medical Faculty, EKUT, Germany |
| 2014-present | <b>Science Committee</b> , Medical Faculty, EKUT, Germany                            |
| 2014-2018    | <b>Habilitation Committee</b> , Medical Faculty, EKUT, Germany                       |
| 2013-2022    | <b>Member Medical Faculty</b> , UCLA, USA  |
| 2012-present | <b>Member Faculty of Science</b> , EKUT, Germany                                     |
| 2011-present | <b>Member Medical Faculty</b> , EKUT, Germany  |

**Selected National and International Elected Fellowships, Committees and Boards:**

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|--------------|---|
| 2022-present | <b>Executive Board, National Academy of Science and Engineering</b> (acatech)                                     |
| 2021-present | <b>Elected International Fellow of TERMIS</b> (FTERM)   |
| 2020-present | <b>National Academy of Science and Engineering</b> (acatech)  |
| 2020-present | <b>International Society for Matrix Biology Council Member</b>  |
| 2020-present | <b>Deputy Chair, Innovationsallianz Baden-Württemberg e.V.</b> (InnBW)  |
| 2019-present | <b>Speaker Forum Gesundheitsstandort Baden-Württemberg</b> for the Ministry of Economic Affairs Baden-Württemberg |
| 2019-present | <b>TERMIS-European Chapter Continental Council Member</b>   |
| 2018-present | <b>German Central Ethics Committee for Stem Cell Research</b> (ZES)   |
| 2018-present | <b>Editorial Board, Matrix Biology</b> (Elsevier)   |
| 2018-present | <b>Editorial Board, Current Opinion in Biomedical Engineering</b> (Elsevier)                                      |
| 2017-present | <b>German-Israeli Foundation (GIF) Advisory Board</b> – Cancer and Biomedical Research Committee                  |
| 2017-present | <b>Board Member, Health-i Initiative</b>  |
| 2017-present | <b>TERMIS-European Chapter, Strategic Alliance Committee</b>  |
| 2016-present | <b>Board Member, German Society for Matrix Biology e.V.</b> (DGMB)  |
| 2016-present | <b>Editorial Board, Journal of 3D Printing in Medicine</b> (Future Medicine)                                      |
| 2015-present | <b>Editorial Board, Tissue Engineering, Parts A, B and C</b> (Mary Ann Liebert)                                   |
| 2015-present | <b>Fellow, European Alliance for Medical and Biological Engineering and Science</b> (EAMBES)                      |
| 2014-present | <b>Advisory Board, Journal of Materials Chemistry B</b> (Wiley)   |
| 2005-present | <b>International Society for Stem Cell Research</b> (ISSCR)   |
| 2015-2017    | <b>Fraunhofer Vintage Class</b>   |
| 2012-2015    | <b>American Association of Anatomist (AAA) Postdoctoral Awards Committee</b>                                      |
| 2011-2015    | <b>AAA Scientific Affairs Committee</b>   |

**Conference Leadership:**

- **Conference Host** (2018) Annual Meeting of the German Society of Matrix Biology (DGMB), Stuttgart, Germany
- **Conference Host** (2016) 9th European Elastin Meeting 2016, Stuttgart, Germany
- **Conference Host** (2015) bone-tec, Stuttgart, Germany
- **Conference Co-Host** (2013) Annual Meeting DGMB, Tübingen, Germany

**Special Issue Editorships (selection):**

- “Future Directions” **Advanced Drug Delivery Reviews** (2022)
- “Biomechanics” **Matrix Biology** 85-86 (2020)
- “The Future of Tissue Engineering” **Current Opinion in Biomedical Engineering** 6 (2018)
- “Extracellular Matrix Proteins and Mimics in Regenerative Medicine and Tissue Engineering” **Acta Biomaterialia** 52 (2017)
- “Strategies in Tissue Engineering” **Biotechnology Journal** 8(3) (2013)
- “From Tissue Engineering to Regenerative Medicine – The Potentials and the Pitfalls” **Advanced Drug Delivery Reviews** 63(4-5) (2011)

**Invited Mentoring Programs:**

- **Leibniz-Mentoring Program** (2017-2018)
- **TERMIS America SYIS** (2013), Atlanta, USA
- **TERMIS Europe SYIS** (2010), Galway, Ireland
- **MINT and WISP Program**, Germany

**International Journal Reviewer (selection, alphabetically listed):**

Acta Biomaterialia • Advanced Biomaterials • Advanced Drug Delivery Reviews • Advanced Functional Materials • American Journal of Transplantation • Biofabrication • Biomaterials • Biomedical Materials • Cardiovascular Pathology • Circulation • Circulation Research • eLife • EMBO Journal • International Journal of Pharmaceutics • Journal of Anatomy • Journal of Biophotonics • Journal of Investigative Dermatology • Journal of the Royal Society Interface • Journal of Structural Research • Macromolecular Bioscience • Matrix Biology • Molecular Therapy • PLoSOne • PNAS • Scientific Reports • Tissue Engineering Part A, B and C

**International Grant Reviewer (selection):**

- **Australia** – Australian Research Council (ARC)
- **Austria** – Austrian Science Fund (FWF)
- **Belgium** – Research Council: Katholieke Universiteit Leuven
- **Canada** – ALS Society of Canada  
– Québec Consortium for Drug discovery (CQDM)
- **EU** – ERC Starting Grant and Consolidator Grant
- **Finland** – Academy of Finland
- **France** – L’Agence national de la recherche (ANR)
- **Germany** – Deutsche Forschungsgemeinschaft/ German Research Foundation (DFG)  
– Bundesministerium für Bildung und Forschung/ Fed. Min. of Education and Research (BMBF)  
– Alexander von Humboldt Foundation  
– Helmholtz Association (Young Investigator Groups)  
– VolkswagenStiftung  
– Deutsche Krebshilfe
- **Iceland** – Icelandic Research Fund
- **Ireland** – Science Foundation Ireland (SFI)
- **Israel** – Israeli Ministry of Science, Technology and Space  
– Advisor, German-Israeli Foundation (GIF)
- **Netherlands** – Dutch Technology Foundation STW  
– Dutch Burns Foundation
- **UK** – Arthritis Research  
– UK Regenerative Medicine Platform

**Certifications:**

- FELASA B and C (EU certified animal safety instructor/supervisor)
- Laser Safety Officer (VBG 93/BGV B2)
- Certificate, Training for project leaders in biological safety (§ 15 Abs. 2 GenTSV)

**Other Notable Accomplishments:**

- Handelsblatt magazine’s Top 100 Innovators in Germany (2017)
- Academia.net top 100 female scientists in Germany (2010)
- Nominee UCLA Chancellor’s Award for Postdoctoral Research (2007)

**Ongoing Support as PI** (only own contribution is listed):

<b>Ministry of Economic Affairs Baden-Württemberg</b> MDR/ IVDR Competency Center (NMI, PI/Coordinator)		2021-2022	<b>€2.835.000</b>
		<i>Project</i>	€3.361.270
<b>Ministry of Economic Affairs Baden-Württemberg</b> <i>SolidCAR-T</i> (NMI, Co-PI)		2021-2022	<b>€1.666.800</b>
<b>Ministry of Economic Affairs Baden-Württemberg</b> <i>Predictive diagnosis of immune-associated diseases for personalized medicine</i> (NMI, PI/Coordinator)		2020-2022	<b>€4.309.464</b>
<b>DFG</b> (Co-PI) <i>Cluster of excellence iFIT (EXC 2180)</i>	390900677	since 2019	<b>~€180.000</b>
<b>DFG</b> (Co-PI, Project A3) <i>Intraoperative multi-sensor tissue identification in oncology</i>	GRK 2543	since 2020	<b>~€180.000</b>
<b>EU Horizon 2020-MSCA-ITN-EID</b> <i>DELIVER</i> (EKUT)	812865	2019-2022	<b>€505.576</b>

**Completed Support as PI:**

<b>Ministry of Economic Affairs Baden-Württemberg</b> <i>Large Instrument Grant- Infrastructure for Corona-Research EFRE EVI-2014-2020</i> (NMI)		2020/2021	<b>€2.000.000</b>
<b>DFG</b> <i>Blood vessel tissue engineering</i> (EKUT)	SCHE701/14-1	2016-2020	<b>€217.150</b>
<b>EU Horizon 2020 NMP-10-2014</b> <i>DRIVE</i> (EKUT)	645991	2015-2019	<b>€679.153</b>
<b>Ministry of Economic Affairs Baden-Württemberg</b> <i>Large Instrument Grant- Raman/CARS Microspectrometer</i> (NMI)	3-4332.62-NMI/65	2020	<b>€700.000</b>
<b>University Hospital Teaching Program PROFIL</b>		2020	<b>€30.000</b>
<b>Ministry of Economic Affairs Baden-Württemberg</b> <i>Large Instrument Grant</i>		2018	<b>€700.000</b>
<b>Ministry of Economic Affairs Baden-Württemberg</b> <i>Large Instrument Grant</i>		2018	<b>€200.000</b>
<b>Fraunhofer MAVO</b> <i>OptisCell</i> (Fh-IGB)	122610	2015-2018	<b>€306.876</b>
<b>EU FP7 NMP3-SME-2013-604531</b> <i>AMCARE</i> (Fh-IGB)	604531	2014-2017	<b>€733.000</b>
<b>DFG</b> <i>Ice Free Heart Valve Cryopreservation</i> (EKUT)	SCHE701/10-1	2014-2017	<b>€125.250</b>
<b>ZIM – AiF</b> <i>Artificial Heart Development</i> (EKUT)	KF3349501CR4	2015-2017	<b>€174.756</b>
<b>DFG Large Instrument Grant</b> <i>Raman Microspectroscope</i>	INST 2388/64-1	01.2017	<b>€195.000</b>
<b>Industry-on-campus Fonds, MWK Baden-Württemberg</b> <i>Raman Spectroscopy for intraoperative tissue differentiation</i> (Fh-IGB/ IGVP)	83820131	2012-2016	<b>€133.173</b>
<b>MWK Baden-Württemberg</b> (EKUT)	33-729.55-3/214	2015-2016	<b>€200.000</b>
<b>University Hospital Teaching Program PROFIL</b>		2015	<b>€30.000</b>
<b>BMBF-CIRM Collaborative Grant</b>	0316059	2012-2015	<b>€1.072.042</b>
<b>DFG Optical Cellular Reprogramming</b>	SCHE701/7-1	2012-2015	<b>€304.425</b>
<b>DFG Large Instrument Grant Fluorescence Microscope</b>	INST 2388/34-1	05.2013	<b>€127.758</b>
<b>DFG Large Instrument Grant 5D Multiphoton System</b>	INST 2388/30-1	02.2013	<b>€275.000</b>
<b>DFG Large Instrument Grant ImageStreamX</b>	INST 2388/33-1	01.2013	<b>€265.000</b>
<b>MWK Baden-Württemberg</b>	SI-BW 01222-91	08.2011	<b>€750.000</b>
<b>MWK Baden-Württemberg</b>	33-729.55-3/214	2012-2014	<b>€300.000</b>
<b>Fraunhofer Attract Group Leader Grant</b>	Attract 692263	2010-2014	<b>€2.704.413</b>
<b>DFG Research Grant, Co-Investigator</b>	STO 359/7-1	2007-2010	<b>€240.000</b>
<b>NIH-Ruth L. Kirschstein Training Grant</b>	5T32HL007895-10	2007-2009	<b>\$165.000</b>
<b>DFG - Postdoctoral Research Fellowship</b>	SCHE 701/2-1	2005-2007	<b>€52.800</b>

**Complete List of Peer-Reviewed Publications** (without book chapters; \*authors contributed equally):

**2023**

1. Electrospinning of collagen: Enzymatic and spectroscopical analyses reveal solvent-independent disruption of the triple-helical structure. Visser D, Rogg K, Fuhrmann E, Marzi J, **Schenke-Layland K**, Hartmann H. *J Mater Chem B* **in press**
2. Bright and photostable TADF-emitting zirconium(IV) pyridinedipyrrolide complexes: efficient dyes for decay time-based temperature sensing and imaging. Russegger A, Debruyne AC, Carvajal Berrio D, Fuchs S, Marzi J, **Schenke-Layland K**, Dmitriev RI, Borisov SM. *Adv Optical Mat* 2202720 (2023)
3. Antibody binding and ACE2 binding inhibition is significantly reduced for both the BA1 and BA2 omicron variants. Junker D, Becker M, Wagner TR, Kaiser PD, Maier S, Grimm TM, Griesbaum J, Marsall P, Gruber J, Traenkle B, Heinzel C, Pinilla YT, Held J, Fendel R, Kreidenweiss A, Nelde A, Maringer Y, Schroeder S, Walz JS, Althaus K, Uzun G, Mikus M, Bakchoul T, **Schenke-Layland K**, Bunk S, Haeberle H, Göpel S, Bitzer M, Renk H, Remppis J, Engel C, Franz AR, Harries M, Kessel B, Lange B, Strengert M, Krause G, Zeck A, Rothbauer U, Dulovic A, Schneiderhan-Marra N. *Clin Infect Dis* 76(3): e240-e249 (2023)
4. Decorin improves human pancreatic  $\beta$ -cell function and regulates ECM expression in vitro. Urbanczyk M\*, Jeyagaran A\*, Zbinden A, Lu C, Marzi J, Kuhlburger L, Nahnsen S, Layland SL, Duffy G, **Schenke-Layland K**. *Matrix Biology* 115: 160-183 (2023)
5. Generation and characterization of three induced pluripotent stem cell lines from an 86-year old female individual diagnosed with an invasive lobular mammary carcinoma. Keller AL, Greis D, Eybe J, Plöger S, Weiss M, Koch A, Brucker SY, **Schenke-Layland K**, Schmees C. *Stem Cell Res* 66:102988 (2023)
6. Vaccine side effects in health workers after vaccination against SARS-CoV-2: Data from TüSeRe:exact study. Bareiß A, Uzun G, Mikus M, Becker M, Althaus K, Schneiderhan-Marra N, Fürstberger A, Schwab JD, Kestler HA, Holderried M, **Schenke-Layland K**, Bakchoul T. *Viruses* 15(1): 65 (2023)

**2022**

7. Green chemistry for biomimetic materials: Synthesis and electrospinning of high-molecular-weight polycarbonate-based nonisocyanate polyurethans. Visser D\*, Bakhshi H\*, Rogg K, Fuhrmann E, Wieland F, **Schenke-Layland K**, Meyer W, Hartmann H. *ACS Omega* 7(44): 39772-39781 (2022)
8. Protein profiling of breast carcinomas reveals expression of immune-suppressive factors and signatures relevant for patient outcome. Ruoff F, Kersten N, Anderle N, Jerbi S, Stahl A, Koch A, Staebler A, Hartkopf A, Brucker SY, Hahn M, **Schenke-Layland K**, Schmees C, Templin MF. *Cancers* 14(18): 4542 (2022)
9. Establishment of Four Induced Pluripotent Stem Cell Lines from CD34+ Hematopoietic Stem and Progenitor Cells from a Patient Diagnosed with an Invasive Lobular Mammary Carcinoma. Keller AL, Binner A, **Schenke-Layland K**, Schmees C. *Stem Cell Res* 64: 102902 (2022)
10. A platform of patient-derived microtumors identifies individual treatment responses and therapeutic vulnerabilities in ovarian cancer. Anderle N, Koch A, Gierke B, Keller AL, Staebler A, Hartkopf A, Brucker SY, Pawlak M, **Schenke-Layland K**, Schmees C. *Cancers* 14(12): 2895 (2022)
11. Data-driven identification of biomarkers for in situ monitoring of drug treatment in bladder cancer organoids. Becker L, Fischer F, Fleck JL, Harland N, Herkommer A, Stenzl A, Aicher WK, **Schenke-Layland K**, Marzi J. *Int J Mol Sci* 23(13): 69956 (2022)
12. Autologous human immunocompetent white adipose tissue-on-chip. Rogal J, Roos J, Teufel C, Cipriano M, Xu R, Eisler W, Weiss M, **Schenke-Layland K**, Loskill P. *Adv Sci (Weinh)* 9: 2104451 (2022)
13. Organ-specific endothelial cell heterogeneity and its impact on regenerative medicine and biomedical engineering applications. Urbanczyk M, Zbinden A, **Schenke-Layland K**. *Adv Drug Deliv Rev* 186:114323 (Review) (2022)
14. Marker-independent monitoring of in vitro and in vivo degradation of supramolecular polymers applied in cardiovascular in situ tissue engineering. Marzi J, Munnig Schmidt EC, Brauchle EM, Wissing TB, Bauer H, Serrero A, Söntjens SHM, Bosman AW, Cox MAJ, Smits AIPM, **Schenke-Layland K**. *Front Cardiovasc Med* 9: 885873 (2022)
15. Raman microspectroscopy identifies biochemical activation fingerprints in THP-1- and PBMC-derived macrophages. Feuerer N, Carvajal Berrio DA, Billing F, Segan S, Weiss M, Rothbauer U, Marzi J, **Schenke-Layland K**. *Biomedicines* 10(5): 989 (2022)
16. Mapping human haematopoietic stem cells from haemogenic endothelium to birth. Calvanese V, Capellera-Garcia S, Ma F, Fares I, Liebscher S, Ng ES, Ekstrand S, Aguadé-Gorgorió J, Vavilina A, Lefaudeux D, Nadel B, Li JY, Wang Y, Lee LK, Ardehali R, Iruela-Arispe ML, Pellegrini M, Stanley EG, Elefanty AG, **Schenke-Layland K**, Mikkola HKA. *Nature* 604: 534-540 (2022)
17. Cell type-specific anti-adhesion properties of peritoneal cell treatment with plasma-activated media (PAM). Holl M, Rasch ML, Becker L, Keller AL, Schulze-Rhonhoff L, Ruoff F, Templin M, Keller S, Neis F, Keßler F, Andress J, Bachmann C, Krämer B, **Schenke-Layland K**, Brucker SY, Marzi J, Weiss M. *Biomedicines* 10(4): 927 (2022)
18. Noninvasive physical plasma as innovative and tissue-preserving therapy for women positive for cervical intraepithelial neoplasia. Marzi J, Stope MB, Henes M, Koch A, Wenzel T, Holl M, Layland SL, Neis F, Bösmüller H, Ruoff F, Templin M, Krämer B, Staebler A, Barz J, Carvajal Berrio DA, Enderle M, Loskill PM, Brucker SY, **Schenke-Layland K**, Weiss M. *Cancers* 14(8): 1933 (2022)
19. Development of a bi-layered cryogenic electrospun polylactic acid scaffold to study calcific aortic valve disease in a 3D co-culture model. Stadelmann K, Weghofer A, Urbanczyk M, Maulana TI, Loskill P, Jones PD, **Schenke-Layland K**. *Acta Biomaterialia* 140: 364-378 (2022)

20. Arachnoid membrane as a source of sphingosine-1-phosphate that regulates mouse middle cerebral artery tone. Jiménez-Altayó F, Marzi J, Galán M, Dantas AP, Ortega ML, Rojas S, Egea G, **Schenke-Layland K**, Jiménez-Xarrié E, Planas A. *J Cereb Blood Flow Metab* 42(1): 162-174 (2022)
21. Basement membrane proteins improve human islet survival in hypoxia: implications for islet inflammation. Bandhorst D, Brandhorst H, Layland S, Acreman S, **Schenke-Layland K**, Johnson PRV. *Acta Biomater* 137: 92-102 (2022)

## 2021

22. Lipidome profiling with Raman microspectroscopy identifies macrophage response to surface topographies of implant materials. Feuerer N, Marzi J, Brauchle EM, Carvajal Berrio DA, Billing F, Weiss M, Jakobi M, Schneiderhan-Marra N, Shipp C, **Schenke-Layland K**. *Proc Natl Acad Sci USA* 118(52): e2113694118 (2021)
23. Three water restriction schedules used in rodent behavioral tasks transiently impair growth and differentially evoke a stress hormone response without causing dehydration. Vasilev D, Havel D, Liebscher S, Slesiona-Kuenzel S, Logothetis N, **Schenke-Layland K**, Totah N. *eNeuro* 10.1523/ENEURO.0424-21.2021 (2021)
24. Long-term repair of porcine articular cartilage using cryopreservable, clinically compatible human embryonic stem cell-derived chondrocytes. Petrigliano FA, Liu NQ, Lee S, Tassej J, Sarkar A, Lin Y, Li L, Yu Y, Geng D, Zhang J, Shkhyan R, Bogdanov J, Van Handel B, Ferguson GB, Lee Y, Hinderer S, Tseng KC, Kavanaugh A, Crump JG, Pyle AD, **Schenke-Layland K**, Billi F, Wang L, Lieberman J, Hurtig M, Evseenko D. *NPJ Regen Med* 6(1): 77 (2021)
25. Hyaluronic acid-functionalized hybrid gelatin-poly-L-lactide scaffolds with tunable hydrophilicity. Piccirillo G, Feuerer N, Carvajal-Berrio D, Layland SL, Hinderer S, Bochicchio B, **Schenke-Layland K**. *Tissue Eng Part C Methods* 27(11): 589-604 (2021)
26. Targeted protein profiling of in vivo NIPP-treated tissues using DigiWest Technology. Ruoff F, Henes M, Templin M, Enderle M, Bösmüller H, Wallwiener D, Brucker SY, **Schenke-Layland K**, Weiss M. *Appl. Sci.* 11(23): 11238 (2021)
27. Raman imaging and fluorescence lifetime imaging microscopy for diagnosis of cancer state and metabolic monitoring. Becker L, Janssen N, Layland SL, Mürdter TE, Nies AT, **Schenke-Layland K**, Marzi J. *Cancers* 13: 5682 (2021) (**Review**)
28. Inflammatory and regenerative processes in bioresorbable synthetic pulmonary valves up to two years in sheep: Spatiotemporal insights augmented by Raman microspectroscopy. De Kort BJ, Marzi J, Brauchle E, Lichauco AM, Bauer HS, Serrero A, Dekker S, Cox MAJ, Schoen FJ, **Schenke-Layland K**, Bouten CVC, Smits AIPM. *Acta Biomater* 135: 243-259 (2021)
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