Curriculum Vitae – *Status: 09.2023*

NAME **Katja Schenke-Layland**	POSITION **Professor of Medical Technologies and Regenerative Medicine**		
EDUCATION/ TRAINING			
INSTITUTION AND LOCATION	**DEGREE(s)**	**YEAR(s)**	**FIELD(s) OF STUDY**
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 21st 1977; Eisenach, Germany
Citizenship: Dual Nationality: German and U.S.A.
Website: **http://www.schenke-layland-lab.com**
Work Addresses: Eberhard Karls University Tübingen
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Silcherstrasse 7/1, 72076 Tübingen, Germany
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katja.schenke-layland@nmi.de
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Professional Experience:

since 04/2018 **Director**, Natural and Medical Sciences Institute at the University of Tübingen, Reutlingen, Germany (***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:

***Peer-Reviewed* Articles**	Original Articles:	167
	Review Articles, Editorials, Commentaries, etc.:	30
	Senior/First Authorships:	65/24
	Book Chapters:	6
Citations Web of Science **Citations** Scopus	Sum of the times cited:	7,837 8,683
Total Impact Factor Points		877
h-Index Web of Science **h-Index** Scopus		49 51

Patents:

- "Glycosylated protein of an extra-cellular matrix for use in a method of treating diabetis 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

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

Selected National and International Elected Fellowships, Committees and Boards:

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

2015-2017 **Fraunhofer Vintage Class**
2012-2015 **American Association of Anatomist** (AAA) **Postdoctoral Awards Committee**
2011-2015 **AAA Scientific Affairs Committee**

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 recherché (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)**:**

DFG (Co-PI) *Cluster of excellence iFIT (EXC 2180)*	390900677	since 2019	**~€325.000**
DFG (Co-PI, Project A3) *Intraoperative multi-sensor tissue identification in oncology*	GRK 2543	since 2020	**~€192.000**
EU Horizon 2021-MSCA-ITN-DN-01 *flIMAGIN3D* (EKUT)	101073507	2019-2022	**€260.539**

Completed Support as PI:

EU Horizon 2020-MSCA-ITN-EID *DELIVER* (EKUT)	812865	2019-2022	**€505.576**
Ministry of Economic Affairs Baden-Württemberg MDR/ IVDR Competency Center (NMI, PI/Coordinator)		2021-2022 *Project*	**€2.835.000** *€3.361.270*
Ministry of Economic Affairs Baden-Württemberg *SolidCAR-T* (NMI, Co-PI)		2021-2022	**€1.666.800**
Ministry of Economic Affairs Baden-Württemberg *Predictive diagnosis of immune-associated diseases for personalized medicine* (NMI, PI/Coordinator)		2020-2022	**€4.309.464**
Ministry of Economic Affairs Baden-Württemberg *Large Instrument Grant- Infrastructure for Corona-Research EFRE EVI-2014-2020* (NMI)		2020/2021	**€2.000.000**
DFG *Blood vessel tissue engineering* (EKUT)	SCHE701/14-1	2016-2020	**€217.150**
EU Horizon 2020 NMP-10-2014 *DRIVE* (EKUT)	645991	2015-2019	**€679.153**
Ministry of Economic Affairs Baden-Württemberg *Large Instrument Grant-Raman/CARS Microspectrometer* (NMI)	3-4332.62-NMI/65	2020	**€700.000**
University Hospital Teaching Program PROFIL		2020	**€30.000**
Ministry of Economic Affairs Baden-Württemberg *Large Instrument Grant*		2018	**€700.000**
Ministry of Economic Affairs Baden-Württemberg *Large Instrument Grant*		2018	**€200.000**
Fraunhofer MAVO *OptisCell* (Fh-IGB)	122610	2015-2018	**€306.876**
EU FP7 NMP3-SME-2013-604531 AMCARE (Fh-IGB)	604531	2014-2017	**€733.000**
DFG *Ice Free Heart Valve Cryopreservation* (EKUT)	SCHE701/10-1	2014-2017	**€125.250**
ZIM – AiF *Artificial Heart Development* (EKUT)	KF3349501CR4	2015-2017	**€174.756**
DFG Large Instrument Grant *Raman Microspectroscope*	INST 2388/64-1	01.2017	**€195.000**
Industry-on-campus Fonds,MWK Baden-Württemberg *Raman Spectroscopy for intraoperative tissue differentiation* (Fh-IGB/ IGVP)	83820131	2012-2016	**€133.173**
MWK Baden-Württemberg (EKUT)	33-729.55-3/214	2015-2016	**€200.000**
University Hospital Teaching Program PROFIL		2015	**€30.000**
BMBF-CIRM Collaborative Grant	0316059	2012-2015	**€1.072.042**
DFG *Optical Cellular Reprogramming*	SCHE701/7-1	2012-2015	**€304.425**
DFG Large Instrument Grant *Fluorescence Microscope*	INST 2388/34-1	05.2013	**€127.758**
DFG Large Instrument Grant *5D Multiphoton System*	INST 2388/30-1	02.2013	**€275.000**
DFG Large Instrument Grant *ImageStreamX*	INST 2388/33-1	01.2013	**€265.000**
MWK Baden-Württemberg	SI-BW 01222-91	08.2011	**€750.000**
MWK Baden-Württemberg	33-729.55-3/214	2012-2014	**€300.000**
Fraunhofer Attract Group Leader Grant	Attract 692263	2010-2014	**€2.704.413**
DFG Research Grant, Co-Investigator	STO 359/7-1	2007-2010	**€240.000**

NIH-Ruth L. Kirschstein Training Grant	5T32HL007895-10	2007-2009	**$165.000**
DFG - Postdoctoral Research Fellowship	SCHE 701/2-1	2005-2007	**€52.800**

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

2023

1. Translating genomic tools to Raman spectroscopy anaylsis enables high-dimensional tissue characterization on molecular resolution. Sigle M, Rohlfing AK, Kenny M, Scheuermann S, Sun N, Graeßner U, Haug V, Sudmann J, Seitz C, Heinzmann D, **Schenke-Layland K**, Maguire PB, Walch A, Marzi J, Gawaz MP. Nat Comm ***in press***
2. Breast cancer patient-derived microtumors resemble tumor heterogeneity and enable protein-based stratification and functional validation of individualized drug treatment. Anderle N, Schäfer-Ruoff F, Staebler A, Kersten N, Koch A, Önder C, Keller AL, Liebscher S, Hartkopf A, Hahn M, Templin M, Brucker SY, **Schenke-Layland K**, Schmees C. Journal of Experimental & Clinical Cancer Research ***in press***
3. Becker L, Montes-Mojarro IA, Layland SL, Nsair A, Fend F, Marzi J, **Schenke-Layland K**. Am J Physiol Cell Physiol 325(1): C332-C343 (2023)
4. Monitoring the macrophage response towards biomaterial implants using label-free imaging. Lu Chuan-en, Levey RE, Ghersi G, Schueller N, Liebscher S, Layland SL, **Schenke-Layland K**, Duffy GP, Marzi J. Materials Today Bio 21: 100696 (2023)
5. Raman Microspectroscopy Identifies Fibrotic Tissues in Collagen-related Disorders via Deconvoluted Collagen Type I Spectra. Becker L, Lu C, Montes-Mojarro IA, Layland SL, Khalil S, Nsair A, Duffy GP, Fend F, Marzi J, **Schenke-Layland K**. Acta Biomater 162: 278-291 (2023)
6. 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 11(10): 2207-2218 (2023)
7. The use of collagen-based materials in bone tissue engineering. Fan L, Ren Y, Emmert S, Vuckovic I, Stojanovic S, Najman S, Schnettler R, Barbeck M, **Schenke-Layland K**, Xiong X. Int J Mol Sci 24(4): 3744 (**Review**) (2023)
8. 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)
9. 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)
10. Decorin improves human pancreatic β-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)
11. 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)
12. 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

13. 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)
14. 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)
15. 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)
16. 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**, Schmess C. Cancers 14(12): 2895 (2022)
17. 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)
18. Autologous human immunocompetent white adipose tissue-on-chip. Rogal J, Roosz J, Teufel C, Cipriano M, Xu R, Eisler W, Weiss M, **Schenke-Layland K**, Loskill P. Adv Sci (Weinh) 9: 2104451 (2022)
19. Organ-specific endothelial cell heterogenicity 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)

20. 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)
21. 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**. 10(5): 989 Biomedicines (2022)
22. 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)
23. 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)
24. 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)
25. 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)
26. 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)
27. 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

28. 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)
29. 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)
30. Long-term repair of porcine articular cartilage using cryopreservable, clinically compatible human embryonic stem cell-derived chondrocytes. Petrigliano FA, Liu NQ, Lee S, Tassey 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)
31. 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)
32. 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)
33. 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***)
34. 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)
35. Distinct effects of heparin and interleukin-4 functionalization on macrophage polarization and in situ arterial tissue regeneration using resorbable supramolecular vascular grafts in rats. Bonito V, Koch SE, Krebber MM, Carvajal-Berrio DA, Marzi J, Duijvelshoff R, Lurier EB, Buscone S, Dekker S, de Jong SMJ, Mes T, Vaessen KRD, Brauchle EM, Bosman AW, **Schenke-Layland K**, Verhaar MC, Dankers PYW, Smits AIPM, Bouten CVC. Adv Healthc Mater 10(21): e21011103 (2021)
36. The foreign body response to an implantable therapeutic reservoir in a diabetic rodent model. Beatty R, Lu CE, Marzi J, Levey RE, Carvajal-Berrio D, Lattanzi G, Wylie R, O'Connor R, Wallace E, Ghersi G, Salamone M, Dolan E, Layland S, **Schenke-Layland K**, Duffy G. Tissue Eng Part C Methods 27(10): 515-528 (2021)
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