Curriculum Vitae

Personal Data

Title	Prof. Dr. Dr.
First name	Stefan
Name	Engelhardt
Current position	Professor (W3), Chair of Pharmacology and Toxicology, Director, Institute of Pharmacology and Toxicology
Current institution / site, country	School of Medicine and Health, Technische Universität München, Germany
Identifiers/ORCID	0000-0001-5378-8661

Qualifications and Career

Stages	Periods and Details	
Degree program	1989-1996	Study of Medicine, Universität Regensburg and Ludwig-Maximilians-Universität München, including study abroad, Harvard University, USA
Doctorates	1997	Dr. med., Max Planck Institute of Biochemistry, Martinsried, and Julius-Maximilians-Universität Würzburg, Germany
	2001	Dr. rer. nat., Julius-Maximilians-Universität Würzburg, Germany
Stages of academic / professional career	since 2008	Professor (W3) and Chair of Pharmacology and Toxicology, Director, Institute of Pharmacology and Toxicology, Technische Universität München, Germany
	2005-2008	Professor of Clinical Pharmacology (W2), Julius-Maximilians-Universität Würzburg, Germany
	2004-2008	Group Leader, Rudolf Virchow Center for Experimental Biomedicine, Julius-Maximilians-Universität Würzburg, Germany
	2003-2004	Appointment as Fellow in Cardiovascular Research, Massachusetts General Hospital, Harvard Medical School, Boston, USA
	1999-2003	Postdoctoral Research Fellow, Institute for Pharmacology and Toxicology, Julius-Maximilians-Universität Würzburg, Germany

Activities in the Research System

2024	Co-Organizer, ‘PharmTox Summit 2024’ (German Society for Pharmacology and Toxicology), Munich
Since 2023	Speaker, CNATM consortium (Co-Speaker T. Carell), Federal Ministry of Education and Research
Since 2019	Speaker, CRC TRR 267 ‘Non-coding RNA in the cardiovascular system’

2013-2019	Vice Dean for Research, TUM School of Medicine, Technische Universität München, Germany
Since 2011	Speaker (2011-2020) and Vice-Speaker (since 2021) of the Munich site, German Centre for Cardiovascular Research
2011-2013	Executive Board Member, German Cardiac Society
2010-2013	Vice Chair and Chair (2011), Commission for Experimental Cardiology, German Cardiac Society

Supervision of Researchers in Early Career Phases

2013-2019	Elected Head, Commission of Clinical Research (coordinates clinician scientist funding at TUM School of Medicine, Technische Universität München)
Since 2005	Supervision 34 master's students, 47 doctoral researchers and 13 postdoctoral researchers

Scientific Results

Category A [🔓] open access

[1] K. A. Ziegler, A. Ahles, A. Dueck, D. Esfandyari, P. Pichler, K. Weber, S. Kotschi, A. Bartelt, I. Sinicina, M. Graw, H. Leonhardt, L. T. Weckbach, S. Massberg, M. Schifferer, M. Simons, L. Hoeher, J. Luo, A. Erturk, G. G. Schiattarella, Y. Sassi, T. Misgeld, and S. Engelhardt. 2023. Immune-mediated denervation of the pineal gland underlies sleep disturbance in cardiac disease. ***Science*** 381: 285-290. 10.1126/science.abn6366

[2] C. Beck, D. Ramanujam, P. Vaccarello, F. Widenmeyer, M. Feuerherd, C. C. Cheng, A. Bomhard, T. Abikeeva, J. Schadler, J. P. Sperhake, M. Graw, S. Safi, H. Hoffmann, C. A. Staab-Weijnitz, R. Rad, U. Protzer, T. Frischmuth, and S. Engelhardt. 2023. Trimannose-coupled antimiR-21 for macrophage-targeted inhalation treatment of acute inflammatory lung damage. ***Nat Commun*** 14: 4564. 10.1038/s41467-023-40185-1🔓

[3] D. Esfandyari, B. M. G. Idrissou, K. Hennis, P. Avramopoulos, A. Dueck, I. El-Battrawy, L. Gruter, M. A. Meier, A. C. Nager, D. Ramanujam, T. Dorn, T. Meitinger, C. Hagl, H. Milting, M. Borggrefe, S. Fenske, M. Biel, A. Dendorfer, Y. Sassi, A. Moretti, and S. Engelhardt. 2022. MicroRNA-365 regulates human cardiac action potential duration. ***Nat Commun*** 13: 220. 10.1038/s41467-021-27856-7🔓

[4] D. Ramanujam, A. P. Schon, C. Beck, P. Vaccarello, G. Felician, A. Dueck, D. Esfandyari, G. Meister, T. Meitinger, C. Schulz, and S. Engelhardt. 2021. MicroRNA-21-Dependent Macrophage-to-Fibroblast Signaling Determines the Cardiac Response to Pressure Overload. ***Circulation*** 143: 1513-1525. 10.1161/CIRCULATIONAHA.120.050682🔓

[5] R. Hinkel, D. Ramanujam, V. Kaczmarek, A. Howe, K. Klett, C. Beck, A. Dueck, T. Thum, K. L. Laugwitz, L. Maegdefessel, C. Weber, C. Kupatt, and S. Engelhardt. 2020. AntimiR-21 Prevents Myocardial Dysfunction in a Pig Model of Ischemia/Reperfusion Injury. ***J Am Coll Cardiol*** 75: 1788-1800. 10.1016/j.jacc.2020.02.041🔓

[6] Y. Sassi, P. Avramopoulos, D. Ramanujam, L. Gruter, S. Werfel, S. Giosele, A. D. Brunner, D. Esfandyari, A. S. Papadopoulou, B. De Strooper, N. Hubner, R. Kumarswamy, T. Thum, X. Yin, M. Mayr, B. Laggerbauer, and S. Engelhardt. 2017.

Cardiac myocyte miR-29 promotes pathological remodeling of the heart by activating Wnt signaling. ***Nat Commun*** 8: 1614. 10.1038/s41467-017-01737-4

[7] S. Werfel, S. Leierseder, B. Ruprecht, B. Kuster, and S. Engelhardt. 2017. Preferential microRNA targeting revealed by in vivo competitive binding and differential Argonaute immunoprecipitation. ***Nucleic Acids Res*** 45: 10218-10228. 10.1093/nar/gkx640

[8] Y. Sassi, A. Ahles, D. J. Truong, Y. Baqi, S. Y. Lee, B. Husse, J. S. Hulot, A. Foinquinos, T. Thum, C. E. Muller, A. Dendorfer, B. Laggerbauer, and S. Engelhardt. 2014. Cardiac myocyte-secreted cAMP exerts paracrine action via adenosine receptor activation. ***J Clin Invest*** 124: 5385-5397. 10.1172/JCI74349

[9] T. Thum, C. Gross, J. Fiedler, T. Fischer, S. Kissler, M. Bussen, P. Galuppo, S. Just, W. Rottbauer, S. Frantz, M. Castoldi, J. Soutschek, V. Koteliansky, A. Rosenwald, M. A. Basson, J. D. Licht, J. T. Pena, S. H. Rouhanifard, M. U. Muckenthaler, T. Tuschl, G. R. Martin, J. Bauersachs°, and S. Engelhardt°. 2008. MicroRNA-21 contributes to myocardial disease by stimulating MAP kinase signalling in fibroblasts. ***Nature*** 456: 980–984. 10.1038/nature07511

[10] M. Buitrago, K. Lorenz, A. H. Maass, S. Oberdorf-Maass, U. Keller, E. M. Schmitteckert, Y. Ivashchenko, M. J. Lohse, and S. Engelhardt. 2005. The transcriptional repressor Nab1 is a specific regulator of pathological cardiac hypertrophy. ***Nat Med*** 11: 837-844. 10.1038/nm1272

° co-corresponding authors

Category B

[1] Preprint: A. Dueck, L. Althaus, K. Heise, D. Esfandyari, S. Baygün, R. P. Brandes, J. Gagneur, N. Jaé, P. Knolle, M. S. Leisegang, L. Maegdefessel, T. Meitinger, N. Petzold, D. Ramanujam, H. Sager, C. Schulz, E. Theodorakis, A. Uzonyi, T. Weinberger, M. Bader, M. Schmidt-Supprian, and S. Engelhardt. 2022. The lncRNA landscape of cardiac resident macrophages and identification of Schlafenlnc as a regulator of macrophage migratory function. ***bioRxiv*** 2022.11.30.518576

[2] Book chapter: Contribution to anthology volume: A. Ahles, and S. Engelhardt. 2023. Genetic Variants of Adrenoreceptors. In: ***Handbook of Experimental Pharmacology***. Springer. 10.1007/164_2023_676

[3] Outreach: Science communication: Interviews in Bavarian public radio and TV on topics of Science and Medicine (Pharmacology)

[4] Patent: MicroRNA (miRNA) and downstream targets for diagnostic and therapeutic purposes (US8592389B2)

[5] Patent: Targeted delivery of an inhibitor of miR-21 to macrophages for the treatment of pulmonary fibrosis (EP4133075A1)

[6] Patent: Cardiac disease triggers immune-mediated sympathetic denervation of the pineal gland (PCT/EP2023/065279)

[7] Transfer: Founder of RNATICS GmbH, Planegg-Martinsried, Germany

Academic Distinctions

2022	Fellow, International Society of Heart Research
2013	Badge of Honour, German Cardiac Society
2009	Outstanding Achievement Award, European Society of Cardiology
2006	Arthur-Weber-Award, German Cardiac Society

2005	European Young Investigator Award, European Society of Cardiology
2005	Oskar Lapp Award, German Cardiac Society
2004	Biology Award, Göttingen Academy of Sciences and Humanities in Lower Saxony, Germany
2004	Hengstberger Prize, German Cardiac Society
2002	Outstanding Research Award, American Heart Association
2000	Fritz-Külz-Award, German Society of Pharmacology
1999	Award for the best MD thesis, Faculty of Medicine, University of Würzburg

Other Information

Major Research Interests

- Non-coding RNA & RNA-based therapeutics
- Macrophages as targets in cardiac and pulmonary disease
- Cardiac and pulmonary autonomic innervation