



### Scientific Career and Research Area

Heiko Lickert is a Full Professor and Chair of beta-cell biology in the Medical Faculty of the Technical University Munich (TUM) and is the Director of the Institute of Diabetes and Regeneration Research (IDR) and Adjunct Professor in the Institute of Stem Cell Research (ISF) at the Helmholtz Zentrum München. He is in the Executive Committee of the Helmholtz Diabetes Zentrum (HDC) and the newly elected incoming President of the German Stem Cell Network e.V (GSCN), as well as in the Research Coordination Board of the German Center for Diabetes Research (DZD).

He obtained his PhD from the Albert-Ludwig University and Max-Planck Institute in Freiburg and his Postdoctoral studies were carried out at the Mount Sinai Hospital, Toronto, Canada. He is an expert on organ development and tissue homeostasis with emphasis on endocrine lineage formation in the gut and pancreas, insulin-producing  $\beta$ -cell development, regeneration and replacement, as well as metabolic signaling and stem cell-based drug screening. His research has been funded by the European Research Council (ERC), a prestigious Emmy-Noether fellowship of the German Research Foundation (DFG), the Ministry of Education and Research (BMBF), the Alexander-von-Humboldt Foundation, the Helmholtz Association and the European Union.

### Honors, Awards and Grants

- Designated incoming President of the German Stem Cell Network e.V (2022)
- Honorary Fellow and Member of the TUM-IAS (2022)
- ERC Advanced Grant, European Research Council (ERC) (2022)
- One of the winners of the Falling Walls in the Life Sciences category (2021)
- German Stem Cell Network (GSCN) 2021 Publication of the Year Award (2021)
- m4 Award, Bayerisches Staatsministerium für Wirtschaft, Landesentwicklung und Energie (2021)
- PRO-SCIENTIA-Förderpreis der Eckhart-Buddecke-Stiftung (2020)
- Among the winners of Innovation Competition “Organ replacement from the lab” of the German Federal Ministry of Education and Research (BMBF) with the consortium “eISLET” Engineered Pancreatic Islets for Cell Replacement Therapies (2020)
- Werner-Creutzfeld-Preis, Deutsche Diabetes Gesellschaft (DDG) (2020)
- Among the winners of the BMBF Innovation Competition “ Organ replacement from the lab” (2020)
- Hans-Spemann Prize, Albert-Ludwig-Universität Freiburg (2002)
- Otto-Hahn-Medal, Max-Planck-Gesellschaft (2003)
- Emmy-Noether Fellow (2005) and ERC Grant Awardee (2009)
- Paula und Richard von Hertwig Prize for Interdisciplinary Cooperation (2011)
- Award for Interdisciplinary Cooperation 2016/17 (VdFF)

Publications: <http://www.helmholtzmuenchen.de/en/idr/publications/index.html>

Ten most important publications

154 Publications in peer-review Journals

10543 Citations

H-Index of 54 (Google Scholar February 2023)

i10-index of 112 (Google Scholar February 2023)

1. Aliluev, A; Tritschler, S; Sterr, M; Oppenländer, L; Hinterdobler, J; Greisle, T; Irmeler, M; Beckers, J; Sun, N; Walch, A; Stemmer, K; Kindt, A; Krumsiek, J; Tschöp, MH; Luecken, M; Theis, F; Lickert, H and Böttcher, A (2021) *Diet-induced alteration of intestinal stem cell identity and lineage allocation underlies obesity and pre-diabetes in mice*. **Nature Metabolism** 3, 1202–1216. <https://doi.org/10.1038/s42255-021-00458-9>
2. Siehler, J; Blöching, A; Meier M and Lickert, H (2021) *Engineering islets from stem cells for advanced therapies of diabetes*. **Nature Reviews Drug Discovery** <https://doi.org/10.1038/s41573-021-00262-w>
3. Scheibner, K; Schirge, S; Burtscher, I; Büttner, M; Sterr, M; Yang, D; Böttcher, A; Ansarullah; Irmeler, M; Beckers, J.; Cernilogar, FM; Schotta, G; Theis, FJ and Lickert H (2021) *Epithelial cell plasticity drives endoderm formation during gastrulation*. **Nat Cell Biol.** 23, 692–703
4. Ansarullah; Jain, C; Far, FF; Wißmiller, K; Homberg, S; Gräfin von Hahn, F; Raducanu, A; Schirge, S; Sterr, M; Bilekova, S; Siehler, J; Wiener, J; Oppenländer, L; Morshedi, A; Bastidas-Ponce, A; Colden, G; Irmeler, M; Beckers, J; Feuchtinger, A; Grzybek, m; Ahlbrecht, C; Feederle, R; Plettenburg, O; Müller, T; Meier, M; Tschöp, M; Coskun, Ü and Lickert, H (2021) *Inceptor counteracts insulin signalling in  $\beta$ -cells to control glycaemia*. **Nature** 590, 326–331
5. Böttcher, A; Büttner, M; Tritschler, S; Sterr, M; Aliluev, A; Oppenländer, L; Burtscher, I; Sass, S; Irmeler, M; Beckers, J; Ziegenhain, C; Enard, W; Schamberger, AC; Verhamme, FN; Eickelberg, O; Theis, FJ; Lickert, H (2021) *Non-canonical Wnt/PCP signalling regulates intestinal stem cell lineage priming towards enteroendocrine and Paneth cell fates*. **Nat Cell Biol.** 23(1):23-31
6. Mahaddalkar, PU; Scheibner, K; Pfluger, S; Ansarullah; Sterr, M; Beckenbauer, J; Irmeler, M; Beckers, J; Knöbel, S; Lickert, H (2020) *Generation of pancreatic  $\beta$  cells from CD177+ anterior definitive endoderm*. **Nat. Biotechnol.** doi: 10.1038/s41587-020-0492-5
7. Sachs, S; Bastidas Ponce, A; Tritschler, S; Bakhti, M; Böttcher, A; SánchezvGarrido, MA; Tarquis Medina, M; Kleinert, M; Fischer, K; Jall, S; Harger, A; Bader, E; Roscioni, S; Ussar, S; Feuchtinger, A; Yesildag, B; Neelakandhan, A; Jensen, CB; Cornu, M; Yang, B; Finan, B; DiMarchi, RD; Tschöp, MH; Theis, FJ; Hofmann, SM; Müller, TD; Lickert, H (2020) *Targeted pharmacological therapy restores  $\beta$ -cell function for diabetes remission*. **Nature Metabolism** 2, 192–209
8. Bastidas-Ponce, A; Tritschler, S; Dony, L; Scheibner, K; Tarquis Medina, M; Salinno, C; Schirge, S; Burtscher, I; Böttcher, A; Theis, FJ; Lickert, H; Bakhti, M (2019) *Comprehensive single cell mRNA profiling reveals a detailed roadmap for pancreatic endocrinogenesis*. **Development** 146: dev173849
9. Cernilogar, FM; Hasenöder, S; Wang, Z; Scheibner, K; Burtscher, I; Sterr, M; Smialowski, P; Groh, S; Evenroed, IM; Gilfillan, GD; Lickert, H\*; Schotta, G\* (2019) *Pre-marked chromatin and transcription factor co-binding shape the pioneering activity of Foxa2*. **Nucleic Acids Res.** 47, 9069-9086
10. Bader, E; Migliorini, A; Gegg, M; Moruzzi, N; Gerdes, JM; Roscioni, S; Bakhti, M; Brandl, E; Irmeler, M; Beckers, J; Aichler, M; Feuchtinger, A; Leitzinger, C; Zischka, H; Wang-Sattler, R; Jastroch, M; Tschöp, MH; Machicao, F; Staiger, H; Häring, H-U; Chmelova, H; Chouinard, JA; Oskolkov, N;

Korsgren, O; Speier, S; Lickert, H.(2016) *Identification of proliferative and mature beta-cells in the islet of Langerhans.* **Nature** 535(7612):430-4