

Curriculum Vitae - James Cleland, PhD

james.cleland@dkfz-heidelberg.de

<https://jpcleland.github.io/>

Academic appointments:

- 2022- Postdoctoral research fellow
German Cancer Research Center (DKFZ) & European Molecular Biology Laboratory (EMBL), DE
Advisors: Prof. Duncan Odom and Prof. Edith Heard
- 2020- Bridging postdoctoral research fellow
- 2021 Max Planck Institute for Multidisciplinary Sciences, DE
Advisor: Dr. Jochen Rink

Education:

- 2020 PhD in Developmental Biology
Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG) & Technical University of Dresden
Advisor: Dr. Jochen Rink
Date of defence: 24.11.2020
- 2017 Embryology: Concepts and Techniques in Modern Developmental Biology
Marine Biological Laboratory, USA
- 2014 BSc in Biomedical Science
The University of Queensland (UQ), AU
- 2013 Education Abroad Program in Molecular and Cell Biology
University of California, Berkeley, USA

Peer-reviewed publications and preprints:

1. Cleland JP, Vu HTK, Dickmann JEM, Rozanski A, Werner S, Schuhmann A, Shevchenko A and Rink JC. A comparative analysis of planarian regeneration specificity reveals tissue polarity contributions of the axial cWnt signalling gradient. *eLife*. 2025.
2. Panten J*, del Prete S*, Cleland JP*, Saunders L, van Riet J, Schneider A, Ginno P, Schneider N, Koch M-L, Gerstung M, Stegle O, Turner J, Heard E and Odom DT. Four-Core Genotypes mice harbour a 3.2MB X-Y translocation that perturbs Tlr7 dosage. *Nature Communications*. 2024.
3. Vila-Farre M, Rozanski A*, Ivankovic M*, Cleland JP*, et al. Evolutionary dynamics of whole-body regeneration across planarian flatworms. *Nature Ecology & Evolution*. 2023.
4. Stückemann T*, Cleland JP*, Werner S*, et al. Antagonistic Self-Organizing Patterning Systems Control Maintenance and Regeneration of the Anteroposterior Axis in Planarians. *Developmental Cell*. 2017.
5. Cleland JP*, Willis EF*, Bartlett PF, Vukovic J. Somatic Arc protein expression in hippocampal granule cells is increased in response to environmental change but independent of task-specific learning. *Scientific Reports*. 2017.
6. Maya-Ramos L, Cleland JP, Bressan M, Mikawa T. Induction of the Proepicardium. *Journal of Developmental Biology*. 2013.
*equal contribution.

Manuscripts in preparation:

1. Cleland JP*, Dugourd A*, Saunders L*... Saez-Rodriguez J, Heard E and Odom DT. Gonadal hormones coordinate sex-specific zonation of the mouse liver.
2. van Riet J, Cleland JP, Odom DT, Gerstung M and Saunders L. Sci-rocket: reproducible pipeline for handling single-cell combinatorial indexing experiments.
*equal contribution.

Selected presentations:

1. Cleland JP et al., Mechanisms of sexual dimorphism in liver physiology and cancer. 10/2025 (upcoming). Swiss Gender Medicine Symposium. Bern, CH.
2. Cleland JP et al., Mechanisms of sexual dimorphism in liver physiology and cancer. 6/2025 (upcoming). Collège de France symposium on X chromosome inactivation. Paris, FR.
3. Cleland JP et al., 2025. “Heads or tails: how do tiny bits of planarian decide what to regenerate?”. German Society for Cell Biology Focus Workshop on Cell Polarity and Cell Migration. Virtual.
4. Cleland JP et al., 2024. “Cell type-specific mechanisms of hepatic sexual dimorphism”. Bridging Disciplines: Advancing Sex and Gender-Related Research in Biomedicine. Heidelberg, DE.
5. Cleland JP et al., 2023. “Sex matters: does the inactive X protect the female liver from cancer?”. EMBO Workshop on X-chromosome inactivation. Berlin, DE.

Selected honours and awards:

1. Poster prize, 11th German-Israeli Cancer Research School, 2023
2. DKFZ Postdoctoral Fellowship, 2021
3. Awarded PhD *summa cum laude*, 2020.
4. Nominated by the Max Planck Society to attend the 70th Lindau Nobel Laureate Meeting, 2019
5. Boehringer Ingelheim Fonds PhD Fellowship, 2016

Teaching:

- Lecturer; Heidelberg University MD program; 5/2024 & 5/2025 (upcoming)
- Instructor; Heidelberg University MSc Molecular Biosciences; 5/2024
- Lecturer; University of Göttingen MSc Developmental, Neural, and Behavioral Biology; 1/2021
- Instructor; Marine Biological Laboratory Neurobiology course; 7/2018
- Instructor; MPI-CBG predoctoral course; 11/2016 to 12/2016
- Teaching assistant; various undergraduate biomedical courses at UQ; 2/2012 to 9/2014

Mentorship:

Current mentees:

- Johann Blakytyn, MSc student, 10/2024 to present

Past mentees:

- Rebecca Schuch, MSc student, 2/2024 to 3/2025, next position MSc student at Karolinska Institute
- Maria Vlachonikolou, MSc student, 7/2023 to 10/2023, next position MSc student at EMBL
- Korbinian Schelzig, MSc student, 2/2023 to 9/2023, next position PhD student at Univ. of Copenhagen
- Hong-Yu Lee, MSc student, 8/2020 to 2/2021, next position PhD student at Heidelberg University
- David Taborsky, MSc student, 4/2019 to 9/2019, next position PhD student at University of Zurich
- Irene Mota, MSc student, 10/2016 to 10/2017, next position PhD student at Max Delbrück Center

Popular science publications:

- Loda A*, Cleland JP* and Heard EH*. Chromosomes X et Y: des acteurs clés des inégalités de sexe face aux maladies. *Pour la Science*. Jan 2025 cover article. *equal contribution.

Service:

- Co-organiser of Collège de France symposium on The Genetic and Epigenetic Basis of Sex Bias in Disease, 2023.
- Co-reviewer for Cell, Nature Communications, Nature Immunology and eLife, 2021-present.
- Member of the Network Gendermedicine Heidelberg, 2022-present.
- PhD student representative of the IMPRS for Cell, Developmental and Systems Biology, 2016-2018.
- Member of the “Science goes to school” outreach initiative, 2015-2017.