Curriculum Vitae - James Cleland, PhD

james.cleland@dkfz-heidelberg.de

Academic appointments:

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

Education:

2020	PhD in Developmental Biology International Max Planck Research School (IMPRS) for Cell, Developmental, and Systems Biology 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), Australia
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. Oct 2025. Swiss Gender Medicine Symposium. Bern, CH. (Upcoming)
2. Cleland JP et al., Mechanisms of sexual dimorphism in liver physiology and cancer. Jun 2025. Collège de France symposium on X chromosome inactivation. Paris, FR. (Upcoming)
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 medical faculty course on gender medicine; May 2024 and May 2025
- Instructor; Heidelberg University MSc Molecular Biosciences; May 2024
- Lecturer; University of Göttingen MSc Developmental, Neural, and Behavioral Biology; Jan 2021
- Instructor; Marine Biological Laboratory Neurobiology course; Jul 2018
- Instructor; MPI-CBG predoctoral course module; Nov-Dec 2016
- Teaching assistant; various undergraduate biomedical courses at UQ; Feb 2012 to Sep 2014

Mentorship:

Current mentees:

- Johann Blakytny, MSc student, Oct 2024 to present

Past mentees:

- Rebecca Schuch, MSc student, Feb 2024 to Mar 2025
- Maria Vlachonikolou, MSc student, Jul 2023 to Oct 2023
- Korbinian Schelzig, MSc student, Feb 2023 to Sep 2023
- Hong-Yu Lee, MSc student, Aug 2020 to Feb 2021
- David Taborsky, MSc student, Apr 2019 to Sep 2019
- Irene Mota, MSc student, Oct 2016 to Oct 2017

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 "The Genetic and Epigenetic Basis of Sex Bias in Disease" College de France symposium, 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.