CV Florian Raible

Florian RAIBLE

Principal Investigator, Group "Origin and Diversification of Hormone Systems"
Max F. Perutz Laboratories and Research Platform "Marine Rhythms of Life"

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Main areas of research

Developmental Biology, Neurobiology, Evolutionary Biology, Regeneration, Longevity, Hormone Biology, Zoology, Marine Biology

Education and professional experience

2008 -	Group leader, Max F. Perutz Laboratories, University of Vienna (tenured since 1/2013)
2003-2008	Postdoctoral fellow, European Molecular Biology Laboratory, Heidelberg
1999-2003	PhD student, University of Heidelberg / MPI of Molecular Cell Biology and Genetics / University of Technology, Dresden
1997-1998	Visiting research fellow, Massachusetts General Hospital/Harvard Medical School, Boston (Dr. R.E.Kingston)

Obtained degrees

27.06.2003	Dr.rer.nat. (Biology), University of Technology, Dresden, Germany; thesis advisor: Dr. Michael Brand passed with distinction (*summa cum laude*)
27.01.1999	Diploma degree / Dipl. biol. (Molecular biology, Cell biology, Biochemistry), University of Heidelberg, Germany passed with best mark (1.0)

Selected awards

2011	Elected member, Young Academy of the Austrian Academy of Sciences
2000 – 2002	Predoctoral scholarship, German National Academic Foundation (Studienstiftung des deutschen Volkes)
1996 – 1999	Study scholarship, German National Academic Foundation (Studienstiftung des deutschen Volkes)

Selected peer-reviewing and managerial activities

- Reviewing activities for several journals, including Current Biology, PlosOne, Zoological Letters, Frontiers in Zoology, Genome Biology, Int. Journal of Developmental Biology, Gene, BMC Genomics, Genome Biology and Evolution
- Co-Organizer, Symposium "Endocrinology and Chronobiology", 28th Conference on European Comparative Endocrinologists, Leuven (Belgium); Co-Organizer, Symposium Organizer, Symposium "Time and Light", Vienna (2016)
  Co-Organizer, workshop "Transcriptomics approaches for the analysis of marine systems", EMBL, Heidelberg (2008)
- Organizer, Symposium "Origin and Diversification of Regeneration" (part of the Euro-Evo-Devo conference), Vienna (2014)
  Organizer, Evolvienna Symposium "Out of the Blue: Origins and evolution of cells and regulatory systems in marine species", Vienna (2011)
- Executive Board, European Society for Comparative Endocrinology (2016 –)
- Executive Board and Secretary, International Society for Invertebrate Reproduction and Development (2013 –)
- Editorial Board, Frontiers in Ecology and Evolution (2018 –); Review Editor
- Editorial Board, Journal Marine Genomics (2012 –); Guest Editor, special issue on Marine Rhythms (2013)
- Member, MFPL communications committee (2010–2017); involved e.g. in Web relaunch and rebranding of MFPL
- Member, Vienna BioCenter Branding Workshop (2017)
- Scientific Supervisor, MFPL Marine Facility (2008 –)

Selected collaborations

- Dr. Guillaume Balavoine and Dr. Michel Vervoort, Université Paris-Diderot / CNRS, Paris, France
- Dr. Liliane Schoofs, KLU, Leuven, Belgium
- Dr. Marek Jindra, Czech Academy of Sciences, Prague, Czech Republic
- Dr. Gregor Belusic, University of Ljubljana , Ljubljana, Slovenia
- Dr. Arndt von Haeseler, University of Vienna, Vienna, Austria
- Dr. Oleg Simakov, University of Vienna, Vienna, Austria
- Dr. Hans-Ulrich Dodt, Center for Brain Research, Medical University of Vienna, Vienna, Austria
- Dr. Kristin Tessmar-Raible, University of Vienna, Vienna, Austria
- Dr. Christoph Gerner, University of Vienna, Vienna, Austria
- Dr. Detlev Arendt, EMBL, Heidelberg, Germany

Hosting of sabbatical visitors

- Dr. Even Jørgensen, University of Tromsø, Tromsø, Norway (2013)
- Dr. Fardad Firooznia, City College New York (2017)

Publications

Legend: @ corresponding authorship; * equal contribution

Primary research papers

- R. Revilla-i-Domingo@, C. Schmidt, C. Zifko, **F. Raible@**. *Establishment of transgenesis in the demosponge* Suberites domuncula. **Genetics** 2018; 210(2):435-443; doi:10.1534/genetics.118.301121.
- S. Schenk@, C. Krauditsch, P. Frühauf, C. Gerner@, **F. Raible@**. *Discovery of methylfarnesoate as the annelid brain hormone reveals an ancient role of sesquiterpenoids in reproduction*. **eLife** 5, e17126. http://doi.org/10.7554/eLife.17126
- S. Bannister@, O. Antonova, A. Polo, C. Lohs, N. Hallay, A. Valinciute, **F. Raible@**, K. Tessmar-Raible@ (2014). *TALENs mediate efficient and heritable mutation of endogenous genes in the marine annelid* Platynereis dumerilii. **Genetics** May 1; 197(1):77-89
- B. Backfisch, V. Kozin, S. Kirchmaier, K. Tessmar-Raible, **F. Raible@** (2014). *Tools for gene-regulatory analyses in the marine annelid* Platynereis dumerilii**. PLoS One** 9(4):e93076
- A.-C. Zakrzewski, A. Weigert, C.Helm, M. Adamski, M. Adamska, C. Bleidorn, **F. Raible**, H. Hausen (2014). *Early divergence, broad distribution and high diversity of animal chitin synthases*, **Genome Biol Evol** Jan 16
- A. K. Lidke, S. Bannister, A. M. Löwer, M. Kollmann, C. F. Ackermann, J. García-Alonso, **F. Raible**, N. Rebscher (2014). *17β-Estradiol induces supernumerary primordial germ cells in embryos of the polychaete* Platynereis dumerilii. **Gen Comp Endocrinol** Jan 15;196:52-61
- V.B. Veedin-Rajan, R. Fischer, **F. Raible** and K. Tessmar-Raible (2013). *Conditional and specific cell ablation in the marine annelid* Platynereis dumerilii. **PLoS One** Sep 24; 8(9)
- B. Backfisch, V. B. Veedin-Rajan, R. Fischer, C. Lohs, E. Arboleda, K. Tessmar-Raible, **F. Raible@** (2013). *Stable transgenesis in the marine annelid Platynereis dumerilii sheds new light on photoreceptor evolution.* **Proceedings Natl. Acad. Sci. U.S.A.** Jan 2;110(1):193-198
- F. Christodoulou, **F. Raible**, R. Tomer, O. Simakov, K. Trachana, S. Klaus, H. Snyman, G.J. Hannon, P. Bork and D. Arendt (2010). *Ancient animal microRNAs and the evolution of tissue identity.* **Nature** 463(7284):1084-1088.
- J.H. Hui, **F. Raible**, N. Korchagina, N. Dray, S. Samain, G. Magdelenat, C. Jubin, B. Segurens, G. Balavoine, D. Arendt, D.E. Ferrier (2009). *Features of the ancestral bilaterian inferred from* Platynereis dumerilii *ParaHox genes.* **BMC Biol.** Jul 23;7:43.
- **Tribolium Genome Sequencing Consortium** (2008). *The genome of the model beetle and pest* Tribolium castaneum. **Nature** 452(7190):949-955
- K. Tessmar-Raible, **F. Raible**, K. Guy, M. Rembold, H. Hausen and D. Arendt (2007). *Evolution of the vertebrate hypothalamus: An ancient set of sensory–neurosecretory cell types in the polychaete and vertebrate medial forebrain.* **Cell** 129(7):1389-1400
- N. Rebscher, F. Zelada-González, T.U. Banisch, **F. Raible** and D. Arendt (2007). *Vasa unveils a common origin of germ cells and of somatic stem cells from the posterior growth zone in the polychaete* Platynereis dumerilii, **Dev. Biol.** 306(2):599-611
- A.S. Denes, G. Jekely, P. R. Steinmetz, **F. Raible**, H. Snyman, S. Klaus, B. Prud'homme, D. E. Ferrier, G. Balavoine and D. Arendt (2007). *Mediolateral arrangement of neurogenic columns and of neuron types in the polychaete trunk central nervous system*. **Cell** 129(2): 277-288.
- **F. Raible*@**, K. Tessmar-Raible*, E. Arboleda*, T. Kaller, P. Bork, D. Arendt and M.I. Arnone (2006), *Opsins and clusters of sensory G-protein coupled receptors in the sea urchin genome*. **Dev. Biol.** 300(1): 461-475
- **The Sea Urchin Sequencing Consortium** (2006). *The genome of the sea urchin* Strongylocentrotus purpuratus. **Science**, 314(5801): 941
- **F. Raible@,** K. Tessmar-Raible, K. Osoegawa, P. Wincker, C. Jubin, G. Balavoine, D. Ferrier, V. Benes, P. de Jong, J. Weissenbach, P. Bork, D. Arendt (2005), *Vertebrate-type intron-rich genes in the marine annelid* Platynereis dumerilii. **Science** 310(5752): 1325-1326.
- **F. Raible** and M. Brand (2001). *Tight transcriptional control of the ETS domain factors Erm and Pea3 by Fgf signaling during early zebrafish development*. **Mech. Dev.** 107(1-2): 105-117
- Z. Shao, **F. Raible***, R. Mollaaghababa*, J.R. Guyon, C.-T. Wu, W. Bender and R.E. Kingston (1999). *Stabilization of chromatin structure by PRC1, a Polycomb complex.* **Cell** 98(1): 37-46

Peer-reviewed reviews / book chapters

- **F. Raible@**, H. Takekata, K. Tessmar-Raible@. *An Overview of Monthly Rhythms and Clocks*. **Front Neurol.** 2017;8:165–14.
- J. Zantke, S. Bannister, V.B. Veedin Rajan, **F. Raible@**, K. Tessmar-Raible@ (2014). *Genetic and genomic tools for the marine annelid* Platynereis dumerilii. **Genetics** May 1; 197(1):19-31
- **F. Raible@** and K. Tessmar-Raible (2014). *Platynereis dumerilii*. **Curr Biol.** Aug 4;24(15):R676-677
- K. Tessmar-Raible@, **F. Raible@**, E. Arboleda (2011). *Another place, another timer: marine species and the rhythms of life*. **BioEssays** Mar;33(3):165-72.
- **F. Raible@**, P. Steinmetz (2010), *Metazoan complexity*, in: M. Cock, K. Tessmar, F. Viard, C. Boyen (ed.), *Introduction to Marine Genomics*, Springer (ISBN: 978-90-481-8616-7)
- **F. Raible** and M. Brand (2004). Divide et Impera *– the midbrain-hindbrain boundary and its organizer***. Trends Neurosci.** 27(12): 727-734.
- **F. Raible** and D. Arendt. (2004). Metazoan evolution: some animals are more equal than others. **Curr. Biol.** 14(3): R106-108

Editorials / Letters / Others

- E. Perry@, K. Tessmar-Raible@, **F. Raible@** (2018). *Parenting in Science.* **Genome Biology** 19:180.
- **F. Raible@**, A. Falciatore (2014). *It's about time: Rhythms as a new dimension of molecular marine research.* **Marine Genomics** 14; 1-2.
- K. Tessmar-Raible, G. Jékely, K. Guy, **F. Raible**, J. Wittbrodt and D. Arendt (2005). *Ancestry of photic and mechanic sensation? -- Response*. **Science** 308(5725): 1114.

Scientific Talks

Selected invited conference presentations

- 10/2018 18th Congress of the European NeurEndocrine Association, Wroclaw (Poland)
- 08/2018 29th Conference of European Comparative Endocrinologists, Glasgow (UK)
- 08/2017 International Conference on Invertebrate Reproduction and Development, Naples / Florence (Italy)
- 05/2017 NeuroFrance Meeting, Société des Neurosciences, Bordeaux (France)
- 05/2017 EFOR Meeting, Paris (France)
- 11/2016 22nd International Congress of Zoology, Okinawa (Japan)
- 10/2016 28th Conference of European Comparative Endocrinologists, Leuven (Belgium)
- 08/2015 ICCPB meeting, Krakow (Poland)
- 08/2014 27th Conference of European Comparative Endocrinologists, Rennes (France)
- 07/2013 International Conference on Invertebrate Reproduction and Development, Detroit (USA)
- 07/2012 Euro-Evo-Devo Conference, Lisbon (Portugal)
- 08/2010 International Conference on Invertebrate Reproduction and Development, Prague (Czech Republic)

Reaching out :: public communication and education

Besides the presentation at dedicated scientific meetings, I have also started to engage in the communication of science to the general public. This includes the following events.

- 07/2018 S3 :: Summer School of Science, Pozega (Croatia); target audience: high school students interested in scientific experimentation
- 05/2017 WissensDurst Festival, Vienna (Austria); target audience: interested public

Third-party funding

Selected funding as PI

2018–2020 ÖAW Innovation Funds Application "Bio3DPrint :: Exploration of a natural 3D printing system" (role: Co-PI)
2017–2021 FWF Grant P30035-B27 "Dissecting the enigmatic role of Opsins in non-cephalic receptors" (role: PI)
2016–2019 ANR-FWF Grant I-2972-B27 "Stem cell regulation in a marine annelid" (role: co-ordinator, PI)
2013–2019 UniVie Research Platform "Marine Rhythms of Life" (role: co-PI)
2012 Austrian Science Fund (FWF) Lise Meitner Fellowship M1478 fellowship (role: co-applicant, PI)
2010–2016 ERC-Starting Grant #260304 HOR.MOON (role: PI)
2010 ASSEMBLE Access Grant, "BRAINHORMONE" (role:: PI)