

# CURRICULUM VITAE

## FÜRTHAUER, Maximilian

2010 - present: Research group leader, iBV

Team “Membrane trafficking, polarity & cell signalling in animal development”

2015 ‘Habilitation à Diriger les Recherches’ (HDR). Université Nice Sophia Antipolis

2010 ATIP/Avenir research group leader, iBV Nice

2004-2010 Postdoctoral research fellow, lab of Prof. Marcos Gonzalez-Gaitan

University of Geneva Sciences II (Geneva/SUI, 2007-2010)

Max Planck Institute of Cell Biology and Genetics (Dresden/GER, 2004-2010)

Research: Endocytic trafficking and Delta/Notch signaling in asymmetric cell division

2001-2004 CNRS Research fellow, lab of Bernard & Christine Thisse, IGBMC (Illkirch/FRA)

Research: Identification of novel feed-back regulators of zebrafish FGF signaling

1996-2000 PhD, lab of Bernard & Christine Thisse, IGBMC (Illkirch/FRA)

Research: Dorso-ventral patterning of the zebrafish embryo

-1996 Undergraduate studies University of Vienna (AUT), University Louis Pasteur Strasbourg (FRA)

### Distinctions :

2012 LABEX SIGNALIFE

2011 HFSP Career Development Award

2010 CNRS ATIP/Avenir

2005-2008 HFSP long term postdoctoral fellowship

2004-2005 EBMO Postdoctoral fellowship

2000 ADRERUS PhD award

## PUBLICATIONS

Juan T, Géminard C, Coutelis JB, Cerezo D, Polès S, Noselli S & Fürthauer M. (2018). ‘Myosin1D is an evolutionarily conserved regulator of animal left-right asymmetry’ **Nature Communications**, *in press*.

Fürthauer M. (2018). ‘The ESCRT machinery: When function follows form.’, **Semin Cell Dev Biol** 74:1-3.

Juan T & Fürthauer M. (2018). ‘Biogenesis and function of ESCRT-dependent extracellular vesicles.’, **Semin Cell Dev Biol** 74:66-77.

Mamińska A, Bartosik A, Banach-Orłowska M, Pilecka I, Jastrzębski K, Zdżalik-Bielecka D, Castanon I, Poulain M, Neyen C, Wolińska-Nizioł L, Toruń A, Szymańska E, Kowalczyk A, Piwocka K, Simonsen A, Stenmark H, Fürthauer M, González-Gaitán M & Miaczynska M. (2016). ‘ESCRT proteins restrict constitutive NF-κB signaling by trafficking cytokine receptors.’ **Science Signaling** 9(411):ra8.

Kressmann S, Campos C, Castanon I, Fürthauer M & González-Gaitán M. (2015). ‘Directional Notch trafficking in Sara endosomes during asymmetric cell division in the spinal cord.’ **Nature Cell Biology** 17(3):333-9.

- Juan T & Fürthauer M. (2015). 'The ESCRT complex: from endosomal transport to the development of multicellular organisms.' **Biologie Aujourd'hui**, 209(1): 111-24.
- Matussek T., Wendler F., Polès S., Pizette S., D'Angelo G., Fürthauer M. & Théron P. (2014). 'The ESCRT machinery regulates the secretion and long-range activity of Hedgehog', **Nature**, 516,99-103.
- Loubéry S., Seum C., Moraleda A., Daeden A., Fürthauer M. & Gonzalez-Gaitan, M. (2014). 'Uninflatable and Notch control the targeting of SARA endosomes during asymmetric division', **Current Biology**, 24(18): 2142-8.
- Fürthauer, M.# and Smythe, E.# (2014) 'Systems dynamics in endocytosis', **Traffic** 15(3): 338-46. # authors for correspondence
- Cavodeassi F.\*, Del Bene F.\*, Fürthauer M.\*, Grabher C.\*, Herzog W.\*, Lehtonen S.\*, Linker C.\*, Mercader N.\*, Mikut R.\*, Norton W.\* et al. (2013) 'Report of the Second European Zebrafish Principal Investigator Meeting in Karlsruhe, Germany, March 21-24, 2012', **Zebrafish** 10(1): 119-23. \* equal contribution.
- Coumilleau F\*, Fürthauer M\*#, Knoblich JA & González-Gaitán M# (2009). Directional Delta and Notch trafficking in Sara endosomes during asymmetric cell division. **Nature**, 458: p.1051-55. \* first authors; # corresponding authors.
- Fürthauer M# & González-Gaitán M# (2009a) Endocytic regulation of Notch signalling during development. **Traffic**, Vol.10: p.792-802 . # corresponding authors.
- Fürthauer M# & González-Gaitán M# (2009). Endocytosis, Asymmetric cell division, Stem cells and Cancer **Molecular Oncology**, Vol.3: p.339-53. # corresponding authors.
- Fürthauer M# & González-Gaitán M# (2009). Endocytosis and mitosis: a two-way relationship. **Cell Cycle**, Vol.8: p.3311-18. # corresponding authors.
- Fürthauer, M. & Gonzalez-Gaitan M. Tales of 1001 functions: the multiple roles of Membrane Trafficking in Development. **Traffic**, Vol.10: p.781-782. Editorial overview on a series of reviews on membrane trafficking in development.
- Poulain M., Fürthauer M., Thisse B., Thisse C. & Lepage T. (2006) Zebrafish endoderm formation is regulated by combinatorial Nodal, FGF and BMP signalling. **Development** 133, 2189-2200.
- Winkler S., Schwabedissen A., Backasch D., Bökel C., Seidel C., Bonisch S., Fürthauer M., Kuhrs A., Cobreros L., Brand M. & González-Gaitán M. (2005) Target-selected mutant screen by TILLING in drosophila. **Genome Research** 15, 718-723.
- Dal-Pra S.\*, Fürthauer M.\*, Van Celst J., Thisse B. & Thisse C. (2006) Noggin1 and Follistatin-like2 function redundantly to Chordin to antagonize BMP activity. **Dev.Biol.** 298, 514-526. \* first authors
- Fürthauer M., Van Celst J., Thisse C. & Thisse B. (2004) FGF signalling controls the dorsoventral patterning of the zebrafish embryo. **Development** 131, 2853-2864.
- Lin W., Fürthauer M., Thisse B., Thisse C., Jing N. & Ang S.L. (2002) Cloning of the mouse Sef gene and comparative analysis of its expression with FGF8 and Spry2 during embryogenesis. **Mechanism of Development** 113, 163-168.
- Fürthauer M., Lin W., Ang S.L., Thisse B. & Thisse C. (2002) SEF is a novel feedback-induced antagonist of Ras/MAPK-mediated FGF signalling. **Nature Cell Biology** 2, 170-174.
- Fürthauer M., Reifers F., Brand M., Thisse B. & Thisse C. (2001) Sprouty4 acts in vivo as a feedback-induced antagonist of FGF signaling in zebrafish. **Development** 128, 2175-86.
- Schmid B. \*, Fürthauer M. \*, Connors S. A., Trout J., Thisse B., Thisse C. & Mullins M. C. (2000). Equivalent genetic roles for bmp7/snailhouse and bmp2b/swirl in dorsoventral pattern formation. **Development** 127, 957-67. \* first authors
- Miller-Bertoglio V.\*, Carmany-Rampey A.\*, Fürthauer M.\*, Gonzalez E. M., Thisse C., Thisse B., Halpern M. E. & Solnica-Krezel L. (1999). Maternal and zygotic activity of the zebrafish ogon locus antagonizes BMP signaling. **Dev. Biol.** 214, 72-86.
- Fürthauer M., Thisse B. & Thisse C. (1999). Three different noggin genes antagonize the activity of bone morphogenetic proteins in the zebrafish embryo. **Dev. Biol.** 214, 181-96.
- Fürthauer M., Thisse C. & Thisse B. (1997). A role for FGF-8 in the dorsoventral patterning of the zebrafish gastrula. **Development** 124, 4253-64.