

Dr. rer. nat. Peter Walentek

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Born: 25.12.1980, Chorzow, Poland

Nationality: German

Education:

09/2012 - Dr. rer. nat., Developmental & Molecular Biology

University of Hohenheim, Stuttgart, Germany

Supervisor: Prof. Dr. Martin Blum

Degree: magna cum laude (very good) – PhD Thesis Award

11/2007 - Diplom Biologie, Zoology, Animal Ecology & Membrane Physiology,

University of Hohenheim, Stuttgart, Germany

Supervisor: Prof. Dr. Martin Blum

Degree: very good

Research Experience:

2016-2017 - K99 Principal Investigator, Translational & Developmental Biology,

University of California at Berkeley, Department of Cell and Molecular Biology,
and Center for Integrative Genomics, Berkeley, CA, USA

Mentors: Richard Harland, Walter Finkbeiner, Terry Machen, Daniel Rokhsar, Lin He, Horst Fischer

2012-2015 - Postdoctoral Fellow, Cell & Developmental Biology,

University of California at Berkeley, Department of Cell and Molecular Biology,
and Center for Integrative Genomics, Berkeley, CA, USA

Mentor: Prof. Dr. Richard M. Harland

2008-2012 - PhD Student, Developmental & Molecular Biology,

University of Hohenheim, Stuttgart, Germany

Mentor: Prof. Dr. Martin Blum

2006 - Undergraduate Researcher, Regenerative & Developmental Biology,

Forsyth Institute, Harvard University, Boston, and Marine Biology Laboratory, Woods Hole, MA, USA

Mentor: Prof. Dr. Michael Levin

Awards and Fellowships

- 2017: Emmy Noether Research Group:** Deutsche Forschungsgemeinschaft (DFG)
- 2016: Pathway to Independence Award (K99/R00):** NIH, National Heart, Lung, and Blood Institute (NIH)
- 2015: Outstanding Postdoctoral Fellow Award:** Molecular and Cell Biology Department, UC Berkeley
Hilde Mangold Postdoctoral Award: Society for Developmental Biology best postdoctoral presentation award at Hilde Mangold Symposium, 74th SDB Meeting, Snowbird, UT / USA
Best postdoctoral presentation award: West Coast Meeting of the Society for Developmental Biology, Tenaya Lodge at Yosemite, USA
- 2013: PhD thesis award:** Wissenschaftspreis des Universitätsbundes Hohenheim
Best presentation award: 32nd West Coast Salt and Water Club Meeting, Morrow Bay, USA
- 2012: Postdoctoral Fellowship:** Deutsche Forschungsgemeinschaft (DFG), 2012-2014
- 2009: PhD Fellowship:** Landesgraduiertenförderung Baden-Württemberg (LGFG), 2009-2011
- 2006: Undergraduate Fellowship:** Herzog-Carl-Stipendium, 2006

Leadership activities:

- **Discussion Leader**, Gordon Research Seminar “Mucus, Cilia and Mucociliary Interactions”, Galvestone, TX, USA. (2017; co-leader with Luke Bonser).
- **Session chair Hilde Mangold Symposium**, 75th Society for Developmental Biology Meeting, Boston, MA, USA. (2016; co-chair with Makiko Iwafuchi-Doi).
- **Organization of life sciences PhD student seminar series**, University of Hohenheim (2010-2012; shared position with Bärbel Ulmer).
- **Elected student representative in the faculty council**, Department of Natural Sciences (Fakultät Naturwissenschaften) representing students in biological sciences, University of Hohenheim (2005).

Workshops:

- **Bioinformatics workshop**, NXR, Woods Hole, MA, USA. (2016)
- **Advanced Fluorescent Microscopy workshop**, EMBL, Heidelberg. (2014)
- **Molecular and Developmental Biology of *Xenopus* workshop**, Cold Spring Harbor Laboratory, NY, USA. (2010)

Travel Funding and Workshop Support

- 2015: Travel award:** Developmental Dynamics Postdoctoral Travel Award (SDB Meeting, Snowbird, USA)
Travel award: The Company of Biologists & Aviesan (GfE Meeting, Nuremberg, Germany)
- 2011: Travel Stipend:** German Society for Developmental Biology (SDB Meeting, Chicago, USA)
- 2010: Travel Stipend:** Landesgraduiertenförderung Baden-Württemberg (*Xenopus* course, CSHL, USA)
Course Stipend: German Society for Developmental Biology (*Xenopus* course, CSHL, USA)

Ad hoc Reviewer:

- **Journals:** Developmental Biology, Development, The Journal of Cell Biology, Cilia, Scientific Reports, Cell Reports, AJP Lung Cellular and Molecular Physiology, Biology Open, Cells Tissues Organs, Journal of Pathology.
- **Funding Agencies:** Deutsche Forschungsgemeinschaft (DFG), Fondation Recherche Médicale.

Mentoring Experience:

- Undergraduate researchers Raymond Sun, Umeet Sajjan, Dingyuan Sun, URAP, UC Berkeley
- Undergraduate summer student Grober Baltazar, AMGEN scholar, UC Berkeley
- Undergraduate summer student Eleanor Pangilinan, UC Berkeley
- Bachelor thesis student Christina Müller, University of Hohenheim
- Diploma (M.Sc.) thesis student Simone Geyer, University of Hohenheim
- Diploma thesis student Janos Tözser, University of Hohenheim
- Bachelor thesis student Janina Müller, University of Hohenheim

Teaching Experience:

- Teaching assistant, Molecular developmental biology lab course, University of Hohenheim (4 years)
- Teaching assistant, Animal models for human disease lab course, University of Hohenheim (2 years)
- Teaching assistant, Embryology course for teachers, University of Hohenheim (4 years)
- Teaching assistant, Animal taxonomy course, University of Hohenheim (1 year)
- Teaching assistant, Animal anatomy course, University of Hohenheim (2 year)
- Voluntary tutorial class in support of basic zoology lectures, University of Hohenheim (2 years)

Languages:

- English, German, Polish, (French)

Presentations

2017: 2017 Xenopus Emerging Technologies and Resources Meeting, Woods Hole, USA

Zentrum für Biosystemanalyse Seminar, Freiburg, D

1st European Amphibian Club Meeting, Rennes, France

Joint Meeting of the German and Japanese Societies of Developmental Biologists, Kiel, D

Guest speaker at KIDGEM (SFB1140) Retreat 2017, Lenzkirch, D

Molecular Biology Kolloquium Martin Luther University, Halle-Wittenberg, D

Lung Biology Seminar Universitätsmedizin Göttingen, Göttingen, D

2016: 16th International Xenopus Conference, Chania, Greece

75th Annual Meeting of the Society for Developmental Biology, Boston, USA

SFB1140 KIDGEM Seminar, Freiburg, D

FAU - Department of Biology Seminar, Erlangen, D

13th Advanced Imaging Methods Workshop, Berkeley, USA (*invited speaker*)

1th Bay Area Cilia Meeting, San Francisco, USA

LMU - Gene Center Seminar, Munich, D

2015: 74th Annual Meeting of the Society for Developmental Biology, Snowbird, USA

West Coast SDB Meeting, Lodge at Yosemite, USA

German Society for Developmental Biology (GfE) Meeting, Nuremberg, D

Postdoc Award Lecture – UC Berkeley GGD Division Retreat, Asilomar, USA

Comprehensive Pneumology Center Seminar, Munich, D

Open MIC Imaging Workshop, Berkeley, USA (*invited speaker*)

2014: Hohenheim Life Science Center Seminar, Stuttgart-Hohenheim, D

2013: 32nd West Coast Salt and Water Club Meeting, Morrow Bay, USA

2012: German Society for Developmental Biology - GfE School Meeting, Guenzburg, D

Anatomie & Embryologie Seminar, Göttingen, D

2008: German Society for Developmental Biology - GfE School Meeting, Guenzburg, D

Walentek P*, Boutin C*, Kodjabachian L*, (2017) *Planar cell polarity in ciliated cells and epithelia*.
book chapter for **Cell Polarity in Development and Disease** (invited by editor Douglas W. Houston) – in press
(*co-corresponding and equal contribution)
- Contributed cover image depicting *Xenopus* multiciliated cells.

Walentek P*, Quigley IK (2017) *What we can learn from a tadpole about ciliopathies and airway diseases – Using systems biology in Xenopus to study cilia and mucociliary epithelia*.

Genesis - *The Journal of Genetics and Development*, Jan;55(1-2) (*corresponding author)

Citations: 1

Walentek P*, Quigley IK, Sun DI, Sajjan UK, Kintner C, Harland RM* (2016) *Ciliary transcription factors and miRNAs precisely regulate Cp110 levels required for ciliary adhesions and ciliogenesis*.

eLife, research article, eLife 2016;5:e17557 (* co-corresponding authors)

Citations: 5

Walentek P (2016) *Ciliary transcription factors in cancer – How understanding ciliogenesis can promote detection and prognosis of cancer types*.

The Journal of Pathology (invited by senior editor Philip Coates)

Citations: 3

Walentek P*, Beyer T, Hagenlocher C, Müller C, Feistel K, Schweickert A, Harland RM, Blum M (2015) *ATP4a is required for development and function of the Xenopus mucociliary epidermis – a potential model to study proton pump inhibitor-associated pneumonia*.

Developmental Biology special issue: *Xenopus Disease Models*, 408(2):292-304. (* corresponding author)

Citations: 7

Walentek P*, Hagenlocher C, Beyer T, Müller C, Feistel K, Schweickert A, Harland RM, Blum M (2015) *ATP4 and ciliation in the neuroectoderm and endoderm of Xenopus embryos and tadpoles*.

Data in Brief, 4:22-31. (* corresponding author)

Citations: 3

Dichmann DS, Walentek P, Harland RM (2015) *The alternative splicing regulator Tra2b is required for somitogenesis and regulates splicing of an inhibitory Wnt11b isoform*.

Cell Reports, article, 10(4):527-36.

Citations: 4

Walentek P, Song R, He L (2014) *microRNAs and cilia: An ancient connection*.

Cell Cycle, 13(15):23-6.

Citations: 7

Song R*, Walentek P*, Sponer N*, Klimke A, Lee JS, Dixon G, Harland R, Wan Y, Lishko P, Lize M, Kessel M, He L (2014) *miR-34/449 miRNAs are required for motile ciliogenesis by repressing cp110*.

Nature, article, 510(7503):115-20. (* co-first authors)

- “News & Views” feature in Nature 2014 Jun 5;510(7503):40-2.

Citations: 69

Walentek P, Bogusch S, Thumberger T, Vick P, Dubaissi E, Beyer T, Blum M, Schweickert A (2014) *A novel serotonin-secreting cell type regulates ciliary motility in the mucociliary epidermis of Xenopus tadpoles*.

Development, 141(7):1526-33.

- “In this issue” feature in Development Vol. 141, Issue 7

Citations: 21

Hagenlocher C, Walentek P, Müller C, Thumberger T, Feistel K (2013) *Ciliogenesis and cerebrospinal fluid flow in the developing Xenopus brain are regulated by foxj1*.

Cilia, 2(1):12.

Citations: 22

Walentek P, Schneider I, Schweickert A, Blum M (2013) *Wnt11b is involved in cilia-mediated symmetry breakage during Xenopus left-right development.*

Plos One, 8(9):e73646.

Citations: 14

Walentek P, Beyer T, Thumberger T, Schweickert A, Blum M (2012) *ATP4a is required for Wnt-dependent Foxj1 expression and leftward flow in Xenopus left-right development.*

Cell Reports, article, 1(5):516-27.

Citations: 36

Beyer T, Danilchik M, Thumberger T, Vick P, Tisler M, Schneider I, Bogusch S, Andre P, Ulmer B, Walentek P, Niesler B, Blum M, Schweickert A (2012) *Serotonin signaling is required for Wnt-dependent GRP specification and leftward flow in Xenopus.*

Current Biology, 22(1):33-9.

Citations: 36

Schweickert A, Walentek P, Thumberger T, Danilchik M (2012) *Linking early determinants and cilia-driven leftward flow in left-right axis specification of Xenopus laevis: a theoretical approach.*

Differentiation, 83(2):S67-77.

Citations: 17

Oviedo NJ, Morokuma J, Walentek P, Kema IP, Gu MB, Ahn JM, Hwang JS, Gojobori T, Levin M (2010) *Long-range neural and gap junction protein-mediated cues control polarity during planarian regeneration.*

Developmental Biology, 339(1):188-99.

- Cover feature Developmental Biology Volume 339, Issue 1.

- Research highlight in Nature 463, 1003 (25 February 2010).

Citations: 102

Full list of publications on PubMed: [Walentek PubMed List](#)

Full list of citations on Google Scholar: [Walentek Google Scholar](#)

Articles in preparation/under review:

Boecking C*, Walentek P*, Ishikawa H, Marshall WF, Wolters PJ, Zlock LT, Jin B-J, Verkman AS, Finkbeiner WE, (2017) *R-spondin 2 supports differentiation of epithelioids derived from human tracheal epithelial cells cultured in collagen matrices.* (* co-first authors) – *in preparation*