

Name

Carl-Philipp Heisenberg

Research Keywords

Embryo morphogenesis, cell mechanics, cell migration

Education and Training

1997-2000 Postdoctoral training, University College London

1997 PhD, Max-Planck-Institute of Developmental Biology Tübingen/
Eberhard-Karls-Universität Tübingen

1995 MPhil, University of Cambridge

1992 Diploma Biology, Ludwig-Maximilians-Universität München

Professional Appointments

2010 Professor, IST Austria, Klosterneuburg, Austria

2001-2010 Group Leader and Emmy-Noether Junior Professor, Max-Planck-
Institute of Molecular Cell Biology and Genetics Dresden, Germany

Selected Awards and Distinctions

2017 ERC Advanced Grant

2016 Member EMBO

2015 Member German Academy of Sciences (Leopoldina)

2000 Emmy Noether Junior Professorship (DFG)

1997 Postdoctoral Fellowship Marie-Curie (EC)

1997 Postdoctoral Fellowship (EMBO)

1992 Exchange Student Fellowship (DAAD)

Major Professional Service Activities

2016 Member of the DFG Senate committee for Collaborative Research
Centers

2015 Member of the Scientific Advisory Board, Ingrid zu Solms Stiftung
Frankfurt

2014 Editorial Board Member Current Biology

2013 Editorial Board Member Development

2011 Editorial Board Member Developmental Biology, EMBO Journal

2010 Editorial Board Member Current Opinion in Cell Biology

2009 Editorial Board Member Developmental Dynamics

2009 Member of Faculty 1000, Section Head

2008-2012 Member of the DFG review panel Cell and Developmental Biology

2008-2014 Editor of PLoS ONE

Publication List

Book Chapters and Reviews

Petridou N, Spiro Z, Heisenberg CP.
Multiscale force sensing in development.
Nat Cell Biol. (in press).

Heisenberg CP.
D'Arcy Thompson's 'on Growth and form': From soap bubbles to tissue self-organization.
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Heisenberg CP.
Cell biology: Stretched divisions.
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Heisenberg CP, Bellaïche Y.
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Dev Cell. 2013 Mar 25;24(6):567-9.
- Compagnon J, Heisenberg CP.
Neurulation: coordinating cell polarisation and lumen formation.
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- Tada M, Heisenberg CP.
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Cell-cell adhesion and extracellular matrix: diversity counts.
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Dev Cell. 2012 Jan 17;22(1):3-4.
- Barone V, Heisenberg CP.
Cell adhesion in embryo morphogenesis.
Curr Opin Cell Biol. 2011 Dec 13.
- Maître JL, Heisenberg CP.
The role of adhesion energy in controlling cell-cell contacts.
Curr Opin Cell Biol. 2011 Oct;23(5):508-14.
- Krens G, Heisenberg CP.
Cell sorting in development.
Curr Top Dev Biol. 2011;95:189-213.
- Papusheva E, Heisenberg CP.
Spatial organization of adhesion: force-dependent regulation and function in tissue morphogenesis.
EMBO J. 2010 Aug 18;29(16):2753-68.
- Carvalho L, Heisenberg CP.
The yolk syncytial layer in early zebrafish development.
Trends Cell Biol. 2010 Oct;20(10):586-92.
- Paluch E, Heisenberg CP.
Biology and physics of cell shape changes in development.
Curr Biol. 2009 Sep 15;19(17):R790-9.

Heisenberg CP.
Dorsal closure in *Drosophila*: cells cannot get out of the tight spot.
Bioessays. 2009 Dec;31(12):1284-7.

Oates AC, Gorfinkiel N, González-Gaitán M, Heisenberg CP.
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Nat Rev Genet. 2009 Aug;10(8):517-30.

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Chaos begets Order: Asynchronous cell contractions drive epithelial morphogenesis
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Imaging zebrafish embryos by two-photon excitation time-lapse microscopy.
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Journal Publications

Smutny M, Ákos Z, Grigolon S, Shamipour S, Ruprecht V, Čapek D, Behrndt M,
Papusheva E, Tada M, Hof B, Vicsek T, Salbreux G, Heisenberg CP.
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Morita H, Grigolon S, Bock M, Krens SF, Salbreux G, Heisenberg CP.
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Diz-Muñoz A, Romanczuk P, Yu W, Bergert M, Ivanovitch K, Salbreux G, Heisenberg CP, Paluch EK.

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BMC Biol. 2016 Sep 2;14:74.

Sako K, Pradhan SJ, Barone V, Inglés-Prieto Á, Müller P, Ruprecht V, Čapek D, Galande S, Janovjak H, Heisenberg CP.

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Saha A, Nishikawa M, Behrndt M, Heisenberg CP, Jülicher F, Grill SW.

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the directed migration of prechordal plate progenitor cells during zebrafish
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