

## PERSONAL DATA

Name Jürgen A. Knoblich

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Date and Place of Birth: October 24, 1963 in Memmingen, Germany

Nationality: German

Present Address: Institute of Molecular Biotechnology  
of the Austrian Academy of Sciences (IMBA)  
Dr. Bohr Gasse 3  
1030 Vienna, Austria

Tel. +43-1-79044 4800  
email: [juergen.knoblich@imba.oeaw.ac.at](mailto:juergen.knoblich@imba.oeaw.ac.at)  
website: [www.imba.oeaw.ac.at/research/juergen-knoblich/](http://www.imba.oeaw.ac.at/research/juergen-knoblich/)

ORCID: <https://orcid.org/0000-0002-6751-3404>  
ResearcherID: <https://publons.com/researcher/2433266/juergen-a-knoblich/>

## PROFESSIONAL EXPERIENCE

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04/2021–current **Full Professor for Synthetic Biology**  
Medical University of Vienna

07/2018–current **Scientific Director**  
Institute of Molecular Biotechnology  
of the Austrian Academy of Sciences (IMBA), Vienna

06/2016–06/2019 **Adjunct Professor**  
Medical University of Vienna

01/2005–06/2018 **Deputy Director**  
Institute of Molecular Biotechnology  
of the Austrian Academy of Sciences (IMBA), Vienna

01/2004-06/2018 **Senior Scientist**  
Institute of Molecular Biotechnology  
of the Austrian Academy of Sciences (IMBA), Vienna

09/1997-01/2004 **Group Leader**  
Institute of Molecular Pathology (I.M.P.), Vienna

07/1994-09/1997 **Post-Doctoral Position**  
University of California, San Francisco  
Laboratory of Drs. Lily and Yuh Nung Jan

## EDUCATION

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10/90-06/94 **Ph.D. Thesis:**  
Friedrich Miescher Laboratorium  
der Max Planck Gesellschaft, Tübingen  
Laboratory of Dr. Christian Lehner  
Genetic Analysis of Cyclin Proteins During Drosophila  
Embryonic Development

7/89-9/90 **Diploma Thesis:**  
Max Planck Institute for Developmental Biology, Tübingen  
Dept. of Prof. Dr. Alfred Gierer  
Identification of a Novel Member of the Immunoglobulin Protein  
Superfamily Expressed in the CNS of Drosophila melanogaster

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10/83-7/89

**Program in Biochemistry**  
University of Tübingen

10/86-10/87

**University College London**  
Laboratory Courses in Molecular Biology and Biochemistry

## RESEARCH AWARDS

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2016 **Advanced Research Grant**

European Research Council (ERC)

2015 **Ernst Klenk Lecture**

University of Cologne

2015 **Sir Hans Krebs Medal**

Federation of European Biochemical Societies (FEBS)

2012 **Erwin Schroedinger Prize**

Austrian Academy of Sciences (ÖAW)

2010 **Advanced Research Grant**

European Research Council (ERC)

2010 **Karl Friedrich Bonhoeffer Lecture**

Max Planck Institute for Bio-physical Chemistry, Goettingen

2009 **Wittgenstein Prize**

Austrian Science Fund (FWF)

2003 **Early Career Award**

European Life Scientist Organization (ELSO)

2001 **Young Investigator Award**

European Molecular Biology Organisation (EMBO)

2001 **Anniversary Award**

Federation of the European Biochemical Societies (FEBS)

## FELLOWSHIPS

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1994 **Postdoctoral Fellowship** (07/94-07/96)

European Molecular Biology Organisation (EMBO)

1996 **Postdoctoral Fellowship** (07/96 – 09/97)

Howard Hughes Medical Institute

## MEMBERSHIPS

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2020	<b>Pontifical Academy of Sciences</b> , elected member
2020	<b>Board of Directors, ISSCR</b> (International Society for Stem Cell Research)
2014	<b>EMBO council</b> , elected member
2013	<b>Austrian Academy of Sciences</b> , elected member
2012	<b>Academia Europaea</b> , elected member
2002	<b>EMBO (European Molecular Biology Organisation)</b> , elected member
2002	<b>ISSCR (International Society for Stem Cell Research)</b> , Member

## EDITORIAL AND REVIEW BOARDS

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2019 - 2021	ISSCR (International Society for Stem Cell Research) Steering Committee, Guidelines task force, member
2018 - current	Neurodevelopments, editorial board member
2016 - current	Journal of Cell Biology, editorial board member
2014 - 2017	European Research Council (ERC), Advanced Grant Panel LS3, Panel Chair
2013 - current	Howard Hughes Medical Institute (HHMI), Neuroscience review panel member
2010 - 2013	EMBO fellowship committee, Panel Chair
2009 - current	Current Opinion in Cell Biology, editorial board member
2008 - 2013	European Research Council (ERC), Advanced Grant Panel LS3, Panel member
2008 - 2011	Cancer Stem Cell Network, Deutsche Krebshilfe e.V. (German Cancer Aid), Scientific Advisory Board member
2005 - 2010	EMBO fellowship committee, elected member
2004 - current	European Journal of Cell Biology, editorial board member
2002 - current	Current Biology, editorial board member

## TEN MOST RELEVANT PUBLICATIONS

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Emery, G., Hutterer, A., Berdnik, D., Mayer, B., Wirtz-Peitz, F., Gonzalez Gaitan, M., and Knoblich, J. A. (2005). Asymmetric rab11 endosomes regulate Delta recycling and specify cell fate in the Drosophila nervous system. **Cell** 122, 763-773.

Betschinger, J., Mechtler, K., and Knoblich, J. A. (2006). Asymmetric segregation of the tumor suppressor brat regulates self-renewal in Drosophila neural stem cells. **Cell** 124, 1241-1253.

Neumüller, R.A., Betschinger, J., Fischer, A., Bushati, N., Poernbacher, I., Mechtler, K., Stephen M. Cohen, S.M. and Knoblich, J.A. (2008). Mei-P26 regulates micro RNAs and cell growth in the Drosophila ovarian stem cell lineage, **Nature**, 454, 241-245.

Wirtz-Peitz, F., Nishimura, T., and Knoblich, J.A. (2008). Linking cell cycle to asymmetric division: Aurora-A phosphorylates the Par complex to regulate Numb localization, **Cell**, 135, 161-173.

Mummery-Widmer, J.L., Yamazaki, M., Stoeger, T., Novatchkova, M., Chen, D., Dietzl, G., Dickson, B.J., and Knoblich, J.A. (2009) Genome-wide analysis of Drosophila external sensory organ development by transgenic RNAi, **Nature**, 458, 987-992.

Lancaster, M. A., Renner, M., Martin, C. A., Wenzel, D., Bicknell, L. S., Hurles, M. E., Homfray, T., Penninger, J. M., Jackson, A. P., and Knoblich, J. A. (2013). Cerebral organoids model human brain development and microcephaly. **Nature** 501, 373-379.

Eroglu, E., Burkard, T. R., Jiang, Y., Saini, N., Homem, C. C., Reichert, H., and Knoblich, J. A. (2014). SWI/SNF Complex Prevents Lineage Reversion and Induces Temporal Patterning in Neural Stem Cells. **Cell** 156, 1259-1273.

Homem, C. C., Steinmann, V., Burkard, T. R., Jais, A., Esterbauer, H., and Knoblich, J. A. (2014). Ecdysone and mediator change energy metabolism to terminate proliferation in Drosophila neural stem cells. **Cell** 158, 874-888.

Bonnay F, Veloso A, Steinmann V, Köcher T, Abdusselamoglu MD, Bajaj S, Rivelles E, Landskron L, Esterbauer H, Zinzen RP and Knoblich JA (2020). Oxidative metabolism drives immortalization of neural stem cells during tumorigenesis. **Cell** 182(6), 1490-1507.

Esk C.\*, Lindenhofer D.\*, Haendeler S., Wester R.A., Pflug F., Schroeder B., Bagley J. A., Elling U., Zuber J., von Haeseler A., Knoblich J.A. (2020). A human tissue screen identifies a regulator of ER secretion as a brain size determinant. **Science** 370(6519): 935-941.

\*equal contribution

## LIST OF ACTIVE GRANTS

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### **SFARI Pilot Award**

Duration: 02/2021 – 01/2023  
Role: Principal Investigator  
Funding Organization: SFARI Foundation  
Grant Number / Acronym: 724430  
Amount: **300.000 USD**  
Research Topic: Developmental and cell type-specific origin of ASD pathology at single-cell resolution

### **Special Research Program**

Duration: 03/2020 – 02/2024  
Role: Coordinator  
Funding Organization: FWF (Austrian Science Fund)  
Grant Number / Acronym: SFB Project F078  
Amount: **780.000 (total: 4.175 Mio €)**  
Research Topic: Stem Cell Modulation in Neural Development and Regeneration

### **Doc.Funds Program**

Duration: 10/2019 – 09/2023  
Role: co-PI  
Funding Organization: FWF (Austrian Science Fund)  
Grant Number / Acronym: DOC 72-B27  
Amount: **163.000 €**  
Research Topic: Stem Cells, Tissues, Organoids (SCORPION)

### **HCA Organoid**

Duration: 01/2020 – 03/2022  
Role: co-PI  
Funding Organization: European Research Council (ERC)  
Grant Number / Acronym: 874769  
Amount: **610.000€**  
Research Topic: Human tissue organoid platform within the Human Cell Atlas initiative

### **ERC Advanced Grant**

Duration: 01/2017 – 12/2021  
Funding Organization: European Research Council (ERC)  
Grant number/acronym: MiniBrain  
Amount: **2.8 Mio €**  
Research Topic: Cerebral Organoids: Using stem cell derived 3D cultures to understand human brain development and neurological disorders

## LIST OF RECENT GRANTS (SINCE 2009)

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### **Wittgenstein Prize**

Duration: 01/2010-12/2016  
Funding Organization: Austrian Science Fund (FWF)  
Grant number/acronym: Z153-B09  
Amount: **1.5 Mio €**

### **ERC Proof of Concept Grant**

Duration: 01/2017 – 06/2018  
Funding Organization: European Research Council (ERC) Grant  
number/acronym: MiniBrains  
Amount: **150.000 €**  
Research Topic: Cerebral organoids: human mini brains in a dish open up new possibilities for drug development in neurodegenerative and developmental diseases

### **New Frontiers Research Grant, Austrian Academy of Sciences**

Duration: Planned: 06/2016 -06/2017  
Funding Organization: Austrian Academy of Sciences (OeAW) Grant  
number/acronym: NFRI 2015/13  
Amount: **350.000 €**  
Research Topic: Infrastructure for human pluripotent stem cell research

### **ERC Advanced Grant**

Duration: 04/2010 – 03/2015  
Funding Organization: European Research Council (ERC)  
Grant number/acronym: NeuroSyStem  
Amount: **2.5 Mio €**  
Research Topic: A Systems Level Approach to Proliferation and Differentiation Control in Neural Stem Cell Lineages

### **Joint Project FWF / Swiss National Fund**

Duration: 04/2013 – 03/2015  
Funding Organizations: Austrian Science Fund (FWF) and Swiss National Fund (SNF)  
Grant number/acronym: I1281-B19  
Amount: **163.1 k€**  
Research Topic: From stem cell to brain tumor: a genetic analysis

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### **International Cooperation Grant FWF / Swiss National Fund**

Duration: 05/2010 – 04/2013  
Funding Organizations: Austrian Science Fund (FWF) and Swiss National Fund (SNF)  
Grant number/acronym: I552-B19  
Amount: **270 k€**  
Research Topic: From stem cell to brain tumor: a genetic analysis

### **Collaborative Research Grant FWF**

Duration: 08/2008 – 06/2011  
Funding Organization: Austrian Science Fund (FWF)  
Grant number/acronym: P20547-B09  
Amount: **384.5 k€**  
Research Topic: Drosophila Tumor Suppressors and Mass Spectrometry

### **EU Large Scale Integrating Project**

Duration: 03/2008 – 02/2012  
Funding Organization: European Research Council (ERC)  
Grant number/acronym: EuroSyStem  
Amount: **400 k€**  
Research Topic: European Federation for Systematic Stem Cell Biology

## PUBLICATIONS (COMPLETE LIST)

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Krenn, V., Bosone, C., Burkard, T. R., Spanier, J., Kalinke, U., Calistri, A., Salata, C., Rilo Christoff, R., Pestana Garcez, P., Mirazimi, A., and [Knoblich, J. A.](#) (2021). Organoid modeling of Zika and herpes simplex virus 1 infections reveals virus-specific responses leading to microcephaly. **Cell Stem Cell** 28, S1934-5909(21)00110.

Bock C., Boutros M., Camp J.G., Clarke L., Clevers H., [Knoblich J.A.](#), Liberali P., Regev A., Rios A.C., Stegle O., Stunnenberg H.G., Teichmann S.A., Treutlein B., Vries R.G.J.; Human Cell Atlas 'Biological Network' Organoids (2021). The Organoid Cell Atlas. **Nat Biotechnol** 39(1):13-17.

Sidhaye J, [Knoblich JA](#) (2021). Brain organoids: an ensemble of bioassays to investigate human neurodevelopment and disease. **Cell Death Differ** 28(1):52-67.

Mummery C, Little M, Lin H, Clark A, Zaret K; ISSCR Board 2020–2021, Srivastava D, Fuchs E, Watt F, Temple S. (2021). Mentorship in Science: Response to AlShebli et al., Nature Communications 2020. **Stem Cell Reports** 16(1):1-2.

Esk C.\*, Lindenhofer D.\*, Haendeler S., Wester R.A., Pflug F., Schroeder B., Bagley J. A., Elling U., Zuber J., von Haeseler A., [Knoblich J.A.](#) (2020). A human tissue screen identifies a regulator of ER secretion as a brain size determinant. **Science** 370(6519): 935-941. \*equal contribution

Bonnay F, Veloso A, Steinmann V, Köcher T, Abdusselamoglu MD, Bajaj S, Rivelles E, Landskron L, Esterbauer H, Zinzen RP and [Knoblich JA](#) (2020). Oxidative metabolism drives immortalization of neural stem cells during tumorigenesis. **Cell** 182(6), 1490-1507.e19.

Rajewsky N., Almouzni G., Gorski S, Aerts S., Amit, I., Bertero M. G., Bock C., Bredenoord A. L., Cavalli G., Chiocca S., Clevers H., De Strooper B., Eggert A., Ellenberg J., Fernández X. M., Figlerowicz M., Gasser S. M., Hubner N., Kjems J., [Knoblich J. A.](#), Krabbe G., Lichter P., Linnarsson S., Marine J. C., Marioni J., Marti-Renom M. A., Netea, M. G., Nickel D., Nollmann M., Novak H. R., Parkinson, H., Piccolo S., Pinheiro I., Pombo A., Popp C., Reik W., Roman-Roman S., Rosenstiel P., Schultze J. L., Stegle O., Tanay A., Testa G., Thanos D., Theis F. J., Torres-Padilla M. E., Valencia A., Vallot C., van Oudenaarden A., Vidal M., Voet T., and LifeTime Community Working Groups (2020). LifeTime and improving European healthcare through cell-based interceptive medicine. **Nature** 587(7834):377-386

Kim J, Koo BK, and [Knoblich JA.](#) (2020). Human Organoids: model systems for human biology and medicine. **Nature Reviews Molecular Cell Biology** doi: 10.1038/s41580-020-0259-3.

Bonnay F, [Knoblich JA](#) (2020). Prospero Phase-Separating the Way to Neuronal Differentiation. **Dev Cell** 52(3):251-252. doi: 10.1016/j.devcel.2020.01.022.

Abdusselamoglu MD, Landskron L, Bowman SK, Eroglu E, Burkard T, Kingston RE, [Knoblich JA.](#) (2019) Dynamics of activating and repressive histone modifications in Drosophila neural stem cell lineages and brain tumors. **Development** 146(23).

Bassett, D. S., Cullen, K. E., Eickhoff, S. B., Farah, M. J., Goda, Y., Haggard, P., Hu, H., Hurd, Y. L., Josselyn, S. A., Khakh, B. S., [Knoblich, J. A.](#), Poirazi, P., Poldrack, R. A., Prinz, M., Roelfsema, P. R., Spires-Jones, T. L., Sur, M., and Ueda, H. R. (2020). Reflections on the past two decades of neuroscience. **Nat Rev Neurosci** 21, 524-534.



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Abdusselamoglu MD, Eroglu E, Burkard TR, Knoblich JA. (2019) The transcription factor odd-paired regulates temporal identity in transit-amplifying neural progenitors via an incoherent feed-forward loop. **Elife** 22;8.

Lehmann R, Lee CM, Shugart EC, Benedetti M, Charo RA, Gartner Z, Hogan B, Knoblich JA, Nelson CM, Wilson KM. (2019) Human organoids: a new dimension in cell biology. **Mol Biol Cell** 30(10):1129-1137.

Masselink W, Reumann D, Murawala P, Pasierbek P, Taniguchi Y, Bonnay F, Meixner K, Knoblich JA, Tanaka EM (2019). Broad applicability of a streamlined ethyl cinnamate-based clearing procedure. **Development** 146(3).

Wimmer RA, Leopoldi A, Aichinger M, Wick N, Hantusch B, Novatchkova M, Taubenschmid J, Hämmerle M, Esk C, Bagley JA, Lindenhofer D, Chen G, Boehm M, Agu CA, Yang F, Fu B, Zuber J, Knoblich JA, Kerjaschki D, Penninger JM (2019). Human blood vessel organoids as a model of diabetic vasculopathy. **Nature** 565(7740):505-510.

Bian S., Repic M., Guo Z., Kavirayani A., Burkard T., Bagley J. A., Krauditsch C., and Knoblich J. A. (2018). Genetically engineered cerebral organoids model brain tumor formation. **Nat Methods** 15, 631-639.

Wissel S., Harzer H., Bonnay F., Burkard T. R., Neumüller R. A., and Knoblich J. A. (2018). Time-resolved transcriptomics in neural stem cells identifies a v-ATPase/Notch regulatory loop. **J Cell Biol.** 217, 3285-3300.

Corsini N. S., Peer A. M., Moeseneder P., Roiuk M., Burkard T. R., Theussl H. C., Moll I., and Knoblich J. A. (2018). Coordinated Control of mRNA and rRNA Processing Controls Embryonic Stem Cell Pluripotency and Differentiation. **Cell Stem Cell** 22, 543-558.

Landskron L., Steinmann V., Bonnay F., Burkard T. R., Steinmann J., Reichardt I., Harzer H., Laurenson A. S., Reichert H., and Knoblich J. A. (2018). The asymmetrically segregating lncRNA cherub is required for transforming stem cells into malignant cells. **Elife** 7, e31347.

Corsini N. S., and Knoblich J. A. (2018). Tracing Stem Cell Division in Adult Neurogenesis. **Cell Stem Cell** 22, 143-145.

Reichardt I., Bonnay F., Steinmann V., Loedige I., Burkard T. R., Meister G., and Knoblich J. A. (2018). The tumor suppressor Brat controls neuronal stem cell lineages by inhibiting Deadpan and Zelda. **EMBO Rep.** 19, 102-117.

Abramczuk M. K., Burkard T. R., Rolland V., Steinmann V., Duchek P., Jiang Y., Wissel S., Reichert H., and Knoblich J. A. (2017). The splicing co-factor Barricade/Tat-SF1 is required for cell cycle and lineage progression in Drosophila neural stem cells. **Development** 144, 3932-3945.

Lancaster M. A., Corsini N. S., Wolfinger S., Gustafson E. H., Phillips A. W., Burkard T. R., Otani T., Livesey F. J., and Knoblich J. A. (2017). Guided self-organization and cortical plate formation in human brain organoids. **Nat Biotechnol.** 35, 659-666.

Bagley, J. A., Reumann, D., Bian, S., Lévi-Strauss, J., and Knoblich, J. A. (2017). Fused cerebral organoids model interactions between brain regions. **Nat Meth**, 14, 743-751

Falk, S., Bugeon, S., Ninkovic, J., Pilz, G. A., Postiglione, M. P., Cremer, H., Knoblich, J. A., and Götz, M. (2017). Time-Specific Effects of Spindle Positioning on Embryonic Progenitor Pool Composition and Adult Neural Stem Cell Seeding. **Neuron** 93, 777-791.e3.

Juergen A. Knoblich

Huch, M.\* , Knoblich, J. A.\*, Lutolf, M. P.\* , and Martinez-Arias, A.\* (2017). The hope and the hype of organoid research. **Development** 144, 938-941.

Renner, M., Lancaster, M. A., Bian, S., Choi, H., Ku, T., Peer, A., Chung, K., and Knoblich, J. A. (2017). Self-organized developmental patterning and differentiation in cerebral organoids. **EMBO Journal** 36, 1316-1329

Li, Y., Muffat, J., Omer, A., Bosch, I., Lancaster, M. A., Sur, M., Gehrke, L., Knoblich, J. A., and Jaenisch, R. (2017). Induction of Expansion and Folding in Human Cerebral Organoids. **Cell Stem Cell** 20, 385-396.e3.

Bredenoord, A. L., Clevers, H., and Knoblich, J. A. (2017). Human tissues in a dish: The research and ethical implications of organoid technology. **Science** 355(6322).

Landskron, L., and Knoblich, J. A. (2016). You Are What You Eat: Linking Metabolic Asymmetry and Cell Fate Choice. **Dev Cell** 37, 206-208.

Fededa, J. P., Esk, C., Mierzwa, B., Stanyte, R., Yuan, S., Zheng, H., Ebnet, K., Yan, W., Knoblich, J. A., and Gerlich, D. W. (2016). MicroRNA-34/449 controls mitotic spindle orientation during mammalian cortex development. **EMBO Journal** 35, 2386-2398.

Knoblich, J. A. (2016). Lab-Built Brains. **Scientific American** 316, 26-31.

Luo, C., Lancaster, M. A., Castanon, R., Nery, J. R., Knoblich, J. A.\*, and Ecker, J. R.\* (2016). Cerebral Organoids Recapitulate Epigenomic Signatures of the Human Fetal Brain. **Cell Rep** 17, 3369-3384.

Wissel, S., Kieser, A., Yasugi, T., Duchek, P., Roitinger, E., Gokcezade, J., Steinmann, V., Gaul, U., Mechtler, K., Förstemann, K., Knoblich, J. A.\*, and Neumüller, R. A.\* (2016). A Combination of CRISPR/Cas9 and Standardized RNAi as a Versatile Platform for the Characterization of Gene Function. **G3 (Bethesda)** 6, 2467-2478.

\* corresponding authors

Camp, J. G., Badsha, F., Florio, M., Kanton, S., Gerber, T., Wilsch-Bräuninger, M., Lewitus, E., Sykes, A., Hevers, W., Lancaster, M., Knoblich, J. A., Lachmann, R., Pääbo, S., Huttner, W. B., and Treutlein, B. (2015). Human cerebral organoids recapitulate gene expression programs of fetal neocortex development. **Proc Natl Acad Sci U S A** 112, 15672-15677.

Ballard, M. S., Zhu, A., Iwai, N., Stensrud, M., Mapps, A., Postiglione, M. P., Knoblich, J. A., and Hinck, L. (2015). Mammary Stem Cell Self-Renewal Is Regulated by Slit2/Robo1 Signaling through SNAI1 and mINSC. **Cell Rep** 13, 290-301.

Homem, C. C., Repic, M., and Knoblich, J. A. (2015). Proliferation control in neural stem and progenitor cells. **Nat Rev Neurosci** 16, 647-659.

Akbari, O. S., Bellen, H. J., Bier, E., Bullock, S. L., Burt, A., Church, G. M., Cook, K. R., Duchek, P., Edwards, O. R., Esvelt, K. M., Gantz, V. M., Golic, K. G., Gratz, S. J., Harrison, M. M., Hayes, K. R., James, A. A., Kaufman, T. C., Knoblich, J., Malik, H. S., Matthews, K. A., O'Connor-Giles, K. M., Parks, A. L., Perrimon, N., Port, F., Russell, S., Ueda, R., and Wildonger, J. (2015). Safeguarding gene drive experiments in the laboratory. **Science** 349, 927-929.

Lancaster, M. A., and Knoblich, J. A. (2014). Generation of cerebral organoids from human pluripotent stem cells. **Nat Protoc** 9, 2329-2340.

Juergen A. Knoblich

Marchetti, G., Reichardt, I., Knoblich, J. A., and Besse, F. (2014). The TRIM-NHL Protein Brat Promotes Axon Maintenance by Repressing src64B Expression.

**J Neurosci** 34, 13855-13864.

Homem, C. C., Steinmann, V., Burkard, T. R., Jais, A., Esterbauer, H., and Knoblich, J. A. (2014). Ecdysone and mediator change energy metabolism to terminate proliferation in *Drosophila* neural stem cells. **Cell** 158, 874-888.

Mauri, F., Reichardt, I., Mummery-Widmer, J. L., Yamazaki, M., and Knoblich, J. A. (2014). The Conserved Discs-large Binding Partner Banderuola Regulates Asymmetric Cell Division in *Drosophila*. **Curr Biol** 24, 1811-1825.

Yasugi, T., Fischer, A., Jiang, Y., Reichert, H., and Knoblich, J. A. (2014). A regulatory transcriptional loop controls proliferation and differentiation in *Drosophila* neural stem cells. **PLoS One** 9, e97034.

Williams, SE., Ratliff, LA., Postiglione, MP., Knoblich, JA., Fuchs, E. (2014). Par3-mInsc and Gai3 cooperate to promote oriented epidermal cell divisions through LGN. **Nat Cell Biol.** 16, 758-769.

Ayukawa, T., Akiyama, M., Mummery-Widmer, JL., Stoeger, T., Sasaki, J., Knoblich, JA., Senoo, H., Sasaki, T., Yamazaki, M. (2014). Dachous-Dependent Asymmetric Localization of Spiny-Legs Determines Planar Cell Polarity Orientation in *Drosophila*. **Cell Rep.** 8, 610-621.

Lancaster, M. A., and Knoblich, J. A. (2014). Organogenesis in a dish: modeling development and disease using organoid technologies. **Science** 345, 1247125.

Eroglu, E., Burkard, T. R., Jiang, Y., Saini, N., Homem, C. C., Reichert, H., and Knoblich, J. A. (2014). SWI/SNF Complex Prevents Lineage Reversion and Induces Temporal Patterning in Neural Stem Cells. **Cell** 156, 1259-1273.

Hagelkruys, A., Lagger, S., Krahmer, J., Leopoldi, A., Artaker, M., Pusch, O., Zezula, J., Weissmann, S., Xie, Y., Schofer, C., Schleder, M., Brosch, G., Matthias, P., Selfridge, J., Lassmann, H., Knoblich, J. A., and Seiser, C. (2014). A single allele of Hdac2 but not Hdac1 is sufficient for normal mouse brain development in the absence of its paralog. **Development** 141, 604-616.

Juschke, C., Dohnal, I., Pichler, P., Harzer, H., Swart, R., Ammerer, G., Mechtler, K., Knoblich, JA. (2013). Transcriptome and proteome quantification of a tumor model provides novel insights into post-transcriptional gene regulation. **Genome Biol.** 14(11):R133.

Bardet, A. F., Steinmann, J., Bafna, S., Knoblich, J. A., Zeitlinger, J., and Stark, A. (2013). Identification of transcription factor binding sites from CHIP-seq data at high resolution. **Bioinformatics** 29, 2705-2713.

Homem, CC., Reichardt, I., Berger, C., Lendl, T., Knoblich, JA. (2013). Long-Term Live Cell Imaging and Automated 4D Analysis of *Drosophila* Neuroblast Lineages. **PLoS One.** 8(11):e79588

Juschke, C., Xie, Y., Postiglione, M. P., and Knoblich, J. A. (2013). Analysis and modeling of mitotic spindle orientations in three dimensions. **Proc Natl Acad Sci U S A** 111(3): 1014

Lancaster, M. A., Renner, M., Martin, C. A., Wenzel, D., Bicknell, L. S., Hurles, M. E., Homfray, T., Penninger, J. M., Jackson, A. P., and Knoblich, J. A. (2013). Cerebral organoids model human brain development and microcephaly. **Nature** 501, 373-379.

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