Jürgen A. Knoblich

Born:	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
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PROFESSIONAL EXPERIENCE

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

EDUCATION

10/1990-06/1994	**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
07/1989-09/1990	**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

10/1983-07/1989 **Program in Biochemistry**
University of Tübingen

10/1986-10/1987 **University College London**
Laboratory Courses in Molecular Biology and Biochemistry

RESEARCH AWARDS

2023 **Angiola Gili e Cataldo Agostinelli International Prize for Biological or Medical Sciences**
Academy of Sciences of Turin

2023 **Alfred Hauptmann Prize** (category: basic research)
German and Austrian Societies for Epileptology (DGfE & ÖGfE) and the Swiss League Against Epilepsy

2021 **Prize of the City of Vienna**
for Achievements in Science and Technology

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

1996	**Postdoctoral Fellowship** (07/96 – 09/97) Howard Hughes Medical Institute
1994	**Postdoctoral Fellowship** (07/94-07/96) European Molecular Biology Organisation (EMBO)

MEMBERSHIPS

2020	**Pontifical Academy of Sciences**, elected member
2020	**Board of Directors, ISSCR**
2014-2021	**EMBO council**, elected member
2013	**Austrian Academy of Sciences,** elected member
2012	**Academia Europaea,** elected member
2002	**EMBO,** elected member (European Molecular Biology Organisation)
2002	**ISSCR,** elected Member (International Society for Stem Cell Research)

EDITORIAL AND REVIEW BOARDS

2023 - current	**German National Academy of Sciences Leopoldina** Standing Committee for Life Sciences
2022 - current	**Howard Hughes Medical Institute (HHMI)**, Scientific Review Board (SRB)
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
2005 - 2010	**EMBO** fellowship committee, elected member
2004 - current	**European Journal of Cell Biology**, editorial board member
2002 - 2021	**Current Biology**, editorial board member

TEN MOST RELEVANT PUBLICATIONS

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 M. D., Bajaj S., Rivelles E., Landskron L., Esterbauer H., Zinzen R. P. and Knoblich J. A. (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

Eichmüllller O.L., Corsini N.S., Véretesy A., Morassut I., Scholl T., Gruber V.-E., Peer. A.M., Chu J., Novatchkova M., Hainfellner J.A., Paredes M.F., Feucht M., Knoblich J.A. (2022). Amplification of human interneuron progenitors promotes brain tumors and neurological defects. **Science** 375(6579):eabf5546

LIST OF ACTIVE GRANTS

FWF Stand Alone Program

Duration:	01/2022 – 12/2025
Role:	Principal Investigator
Funding Organization:	FWF (Austrian Science Fund)
Grant Number / Acronym:	P 35369
Amount:	**393.555 €**
Research Topic:	In vitro modelling of dopamine pathways in fused organoids

FWF Stand Alone Program

Duration:	04/2022 – 03/2025
Role:	Principal Investigator
Funding Organization:	FWF (Austrian Science Fund)
Grant Number / Acronym:	P 35680
Amount:	**399.416 €**
Research Topic:	Molecular Mechanisms of copy-neutral loss of heterozygosity

FWF Stand Alone Publication Grant

Duration:	2021 –2024
Role:	Principal Investigator
Funding Organization:	FWF (Austrian Science Fund)
Grant Number / Acronym:	**PUD 25**
Amount:	**15 000.00€**
Research Topic:	Video Documentation of organoid methodologies

SFARI Pilot Award

Duration:	02/2021 – 07/2023
Role:	Principal Investigator
Funding Organization:	SFARI Foundation
Grant Number / Acronym:	724430
Amount:	**480.000 USD**
Research Topic:	Developmental and cell type-specific origin of ASD pathology at single-cell resolution

FWF Special Research Program (SFB)

Duration:	03/2020 – 02/2024
Role:	Coordinator and Principal Investigator
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

FWF Doc.Funds Program

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

EU Horizon 2020 Research and Innovation action (RIA)
Duration: 01/2020 – 09/2022
Role: Consortium Partner
Funding Organization: European Commission (EC)
Grant Number / Acronym: 874769/HCA Organoid
Amount: **610.000€**
Research Topic: Pilot action to establish a multi-tissue human organoid platform within the Human Cell Atlas as a booster of future disease-centric, mechanistic, and translational research

ERC Advanced Grant
Duration: 01/2017 – 12/2021
Funding Organization: European Research Council (ERC)
Grant number/acronym: 695642/MiniBrain
Amount: **2.8 Mio €**
Research Topic: Cerebral Organoids: Using stem cell derived 3D cultures to understand human brain development and neurological disorders

ERC Proof of Concept Grant
Duration: 01/2017 – 06/2018
Funding Organization: European Research Council (ERC)
Grant number/acronym: 693184/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: 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

Joint Project FWF / Swiss National Fund
Duration: 09/2013 – 08/2015
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

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

ERC Advanced Grant

Duration:	04/2010 – 03/2015
Funding Organization:	European Research Council (ERC) Grant
number/acronym:	250342/NeuroSyStem
Amount:	**2.5 Mio €**
Research Topic:	A Systems Level Approach to Proliferation and Differentiation Control in Neural Stem Cell Lineages

International Cooperation Grant FWF / Swiss National Fund

Duration:	05/2010 – 09/2013
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:	07/2008 – 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 FP7 Large Scale Integrating Project

Duration:	03/2008 – 08/2012
Funding Organization:	European Commission (EC)
number/acronym:	200720/EuroSyStem
Amount:	**400 k€**
Research Topic:	European Federation for Systematic Stem Cell Biology

PUBLICATIONS (COMPLETE LIST)

Li C. *#, Fleck J. S.*, Martins-Costa C., Burkard T. R., Stuempflen M., Vertesy Á., Peer A. M., Esk C., Elling U., Kasprian G., Corsini N. S., Treutlein B and Knoblich J. A. (2023) Single-cell brain organoid screening identifies developmental defects in autism **Nature**, (in press) (*equal contribution, **#** co-corresponding)

Taubenschmid-Stowers J., Orthofer M., Laemmerer A., Krauditsch C., Rózsová M., Studer C., Lötsch D., Gojo J., Gabler L., Dyczynski M., Efferth T., Hagelkruys A., Widhalm G., Peyrl A., Spiegl-Kreinecker S., Hoepfner D., Bian S., Berger W., Knoblich J.A., Elling U., Horn M., Penninger J.M. (2023). A whole-genome scan for Artemisinin cytotoxicity reveals a novel therapy for human brain tumors. **EMBO Mol Med** 15(3):e16959.

Sidhaye J., Trepte P., Sepke N., Novatchkova M., Schutzbier M., Dürnberger G., Mechtler K., Knoblich J.A. (2023). Integrated transcriptome and proteome analysis reveals posttranscriptional regulation of ribosomal genes in human brain organoids. **Elife** 12:e85135.

Chong L., Fleck J.S., Martins-Costa C., Burkard T.R., Stuempflen M,. Vertesy A., Peer A.M., Esk C., Elling U., Kasprian G., Corsini N.S., Treutlein, B., Knoblich J.A. (2022). Single-cell brain organoid screening identifies developmental defects in autism. **bioRxiv**.

Vértesy Á., Eichmüller O.L, Naas J., Novatchkova M., Esk C., Balmaña M., Ladstaetter S., Bock C., von Haeseler A., Knoblich J.A. (2022). Gruffi: an algorithm for computational removal of stressed cells from brain organoid transcriptomic datasets. **EMBO Journal** 1;41(17):e111118.

Corsini N. S., Knoblich J.A. (2022). Human organoids: New strategies and methods for analyzing human development and disease. **Cell**. 21;185(15):2756-2769.

Eichmülller O.L., Corsini N.S., Véretesy A., Morassut I., Scholl T., Gruber V.-E., Peer. A.M., Chu J., Novatchkova M., Hainfellner J.A., Paredes M.F., Feucht M., Knoblich J.A. (2022). Amplification of human interneuron progenitors promotes brain tumors and neurological defects. **Science** 375(6579):eabf5546.

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. **Nature Biotechnology** 39(1):13-17.

Sidhaye J., Knoblich J. A. (2021). Brain organoids: an ensemble of bioassays to investigate human neurodevelopment and disease**. Cell Death & Differentation** 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 M.D., Bajaj S., Rivelles E., Landskron L., Esterbauer H., Zinzen R.P. and Knoblich J.A. (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 B.K., and Knoblich J.A. (2020). Human Organoids: model systems for human biology and medicine. **Nature Reviews Molecular Cell Biology** 21, 571-584

Bonnay F., Knoblich J.A. (2020).Prospero Phase-Separating the Way to Neuronal Differentiation. **Developmental Cell** 52(3):251-252. doi: 10.1016/j.devcel.2020.01.022.

Abdusselamoglu M.D., Landskron L., Bowman S.K., Eroglu E., Burkard T., Kingston R.E., Knoblich J.A. (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. **Nature Reviews Neuroscience** 21, 524-534.

Abdusselamoglu M.D., Eroglu E., Burkard T.R., Knoblich J.A. (2019) The transcription factor odd-paired regulates temporal identity in transit-amplifying neural progenitors via an incoherent feed-forward loop. **eLife** 2019;8:e46566

Lehmann R., Lee C.M., Shugart E.C., Benedetti M., Charo R.A., Gartner Z., Hogan B., Knoblich J.A., Nelson C.M., Wilson K.M. (2019) Human organoids: a new dimension in cell biology. **Molecular Biolology of the Cell** 30(10):1129-1137.

Masselink W., Reumann D., Murawala P., Pasierbek P., Taniguchi Y., Bonnay F., Meixner K., Knoblich J.A., Tanaka E.M. (2019). Broad applicability of a streamlined ethyl cinnamate-based clearing procedure. **Developmen**t 146(3).

Wimmer R.A., Leopoldi A., Aichinger M., Wick N., Hantusch B., Novatchkova M., Taubenschmid. J, Hämmerle M., Esk C., Bagley J.A., Lindenhofer D., Chen G., Boehm M., Agu C.A., Yang F., Fu B., Zuber J., Knoblich J.A., Kerjaschki D., Penninger J.M. (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. **Nature 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. **Journal of Cell Biology** 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 Reports** 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**. Nature Biotechnology** 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. **Nature Methods**, 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.

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.
* corresponding authors

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), eaaf9414

Landskron, L., and Knoblich, J. A. (2016). You Are What You Eat: Linking Metabolic Asymmetry and Cell Fate Choice. **Developmental 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 Reports** 17, 3369-3384.
* corresponding authors

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. **PNAS USA** 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 Reports** 13, 290-301.

Homem, C. C., Repic, M., and Knoblich, J. A. (2015). Proliferation control in neural stem and progenitor cells. **Nature Reviews Neurosciene** 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. A., 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. **Nature Protocols** 9, 2329-2340.

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

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