Curriculum Vitae

Juergen A. Knoblich

Personal Data: Date of Birth: October 24, 1963
Memmingen, Germany
Nationality: German

Present Address: Institute of Molecular Biotechnology
of the Austrian Academy of Sciences (IMBA)
Dr. Bohr Gasse 3
A-1030 Vienna
Austria
Tel. ++43-1-79044 4800
Fax: ++43-1-79044 4701
E-Mail: juergen.knoblich@imba.oeaw.ac.at
website: http://www.imba.oeaw.ac.at/research/juergen-knoblich/research/

Education and Professional Experience:

10/83-7/89	University Tübingen Program in Biochemistry
10/86-10/87	University College London Laboratory Courses in Molecular Biology and Biochemistry
7/89-9/90	Max Planck Institute for Developmental Biology, Tübingen Dept. of Prof. Dr. Alfred Gierer Diploma Thesis: Identification of a Novel Member of the Immunoglobulin Protein Superfamily Expressed in the CNS of *Drosophila melanogaster*
10/90-06/94	Friedrich Miescher Laboratorium der Max Planck Gesellschaft, Tübingen Laboratory of Dr. Christian Lehner Ph.D. Thesis: Genetic Analysis of Cyclin Proteins During *Drosophila* Embryonic Development
07/94-09/97	University of California, San Francisco Laboratory of Drs. Lily and Yuh Nung Jan Post-Doctoral Position
09/97-01/04	Institute of Molecular Pathology (I.M.P.) Group Leader
01/04-12/04	Institute of Molecular Biotechnology of the Austrian Academy of Sciences (IMBA) Senior Scientist
01/05–current	Institute of Molecular Biotechnology of the Austrian Academy of Sciences (IMBA) Deputy Director

Fellowships

European Molecular Biology Organisation (EMBO)

2 Year Postdoctoral Fellowship (07/94-07/96)

Howard Hughes Medical Institute

Postdoctoral Fellowship (07/96 – 09/97)

Awards

Federation of the European Biochemical Societies (FEBS)

Anniversary Award 2001

European Molecular Biology Organisation (EMBO)

Young Investigator Award 2001

European Life Scientist Organization (ELSO)

Early Career Award 2003

Austrian Science Fund (FWF)

Wittgenstein Prize (2009)

European Research Council (ERC)

Advanced Research Grant (2010)

Austrian Academy of Sciences

Erwin Schrödinger Award (2012)

Memberships

International Society for Stem Cell Research (ISSCR): member since 2002

European Molecular Biology Organisation (EMBO): member since 2002

Current Biology: Editorial Board since 2002

European Journal of Cell Biology: Editorial Board from 2004

EMBO fellowship committee: Member since 2005, Chair since 2010

Scientific Advisory Board: Cancer Stem Cell Network, Deutsche Krebshilfe e.V. (German Cancer Aid)

Current Opinion in Cell Biology: Editorial Board from 2009

Ten most relevant Publications

Kraut, R., Chia, W., Jan, L.Y., Jan, Y.N., and Knoblich, J.A. (1996). Role of *inscuteable* in orienting asymmetric cell divisions in *Drosophila*. **Nature** *383*, 50-55.

Schober, M., Schaefer, M., and Knoblich, J.A. (1999). Bazooka recruits Inscuteable to orient asymmetric cell divisions in *Drosophila* neuroblasts. **Nature** *402*, 548-551.

Schaefer, M., Petronczki, M., Dorner, D., Forte, M. and Knoblich, J.A. (2001). Heterotrimeric G-Proteins Direct Two Modes of Asymmetric Cell Division in the Drosophila Nervous System. **Cell**, *107*, 183-194.

Betschinger, J., Mechtler, K. and Knoblich, J.A. (2003). The Par complex directs asymmetric cell division by phosphorylating the cytoskeletal protein Lgl. **Nature**, *422*, 326-330.

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.

Schwamborn, J.C. Berezikov, E., and Knoblich, J.A. (2009). The Brat homolog TRIM32 Prevents Self-renewal in Neural Progenitors by Degrading c-Myc and Activating Micro-RNAs, **Cell**, *136*, 913-925.

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.

Publications (complete list)

Lehner, C.F., Ried, G., Stern, B. and Knoblich, J.A. (1992). Cyclins and cdc2 kinases in *Drosophila*: genetic analyses in a higher eukaryote. **Ciba Foundation Symposium** *170*, 97-109.

Knoblich, J.A. and Lehner, C.F. (1993). Synergistic action of *Drosophila* cyclins A and B during the G2-M transition. **EMBO Journal** *12,* 65-74.

Knoblich, J.A., Sauer, K., Jones, L., Richardson, H., Saint, R. and Lehner, C.F. (1994). Cyclin E controls S phase progression and its down-regulation during *Drosophila* embryogenesis is required for the arrest of cell proliferation. **Cell** *77*, 107-129.

Kreutzer, M.A., Richards, J.P., De Silva-Udawatta, M.N., Temenak, J.J., Knoblich, J.A., Lehner, C.F., and Bennett, K.L. (1995). *Caenorhabditis elegans* cyclin A- and B-type genes: A cyclin A multigene family, an ancestral cyclin B3 and differential germline expression. **Journal of Cell Science** *108,* 2415-2424.

Sauer, K., Knoblich, J.A., Richardson, H. and Lehner, C.F. (1995). Distinct modes of cyclin E/cdc2c kinase regulation and S-phase control in mitotic and endoreduplication cycles of *Drosophila* embryogenesis. **Genes and Development** *9*, 1327-1329.

Rhyu, M.S. and Knoblich, J.A. (1995). Spindle orientation and asymmetric cell fate. **Cell** *82*, 523-526.

Knoblich, J.A., Jan, L.Y. and Jan, Y.N. (1995). Asymmetric segregation of Numb and Prospero during cell division. **Nature** *377*, 624-627.

Kraut, R., Chia, W., Jan, L.Y., Jan, Y.N., and Knoblich, J.A. (1996). Role of *inscuteable* in orienting asymmetric cell divisions in *Drosophila*. **Nature** *383*, 50-55.

Frise, E., Knoblich, J.A., Younger-Shepherd, S., Jan, L.Y., and Jan, Y.N. (1996). The Drosophila Numb protein inhibits signaling of the Notch receptor during cell-cell interaction in sensory organ lineage. **PNAS** *93,* 11925-11932.

Knoblich, J. A. (1997). Mechanisms of asymmetric cell division during animal development. **Curr Opin Cell Biol** *9*, 833-41.

Knoblich, J. A., Jan, L. Y., and Jan, Y. N. (1997). Asymmetric segregation of the *Drosophila* Numb protein during mitosis: facts and speculations. **Cold Spring Harb Symp Quant Biol** *62*, 71-7.

Knoblich, J. A., Jan, L. Y., and Jan, Y. N. (1997). The N terminus of the *Drosophila* Numb protein directs membrane association and actin-dependent asymmetric localization. **Proc Natl Acad Sci U S A** *94*, 13005-10.

Shen, C. P., Knoblich, J. A., Chan, Y. M., Jiang, M. M., Jan, L. Y., and Jan, Y. N. (1998). Miranda as a multidomain adapter linking apically localized inscuteable and basally localized Staufen and Prospero during asymmetric cell division in *Drosophila*. **Genes and Development** *12*, 1837-46.

Jacobs, H., Knoblich, J.A., and Lehner, C.F. (1998). *Drosophila* Cyclin B3 is required for female fertility and is dispensable for mitosis like Cyclin B. **Genes and Development** *12*, 3741-3751.

Glotzer, M. and Knoblich, J.A. (1998). Cell multiplication (editorial overview). **Current Opinion in Cell Biology** *10*, 739-741.

Knoblich, J.A., Jan, L.Y., and Jan, Y.N. (1999). Deletion analysis of the Drosophila Inscuteable protein reveals domains for cortical localization and asymmetric localization. **Current Biology** *11*, 155-158.

Schober, M., Schaefer, M., and Knoblich, J.A. (1999). Bazooka recruits Inscuteable to orient asymmetric cell divisions in *Drosophila* neuroblasts. **Nature** *402*, 548-551.

Schaefer, M., Shevchenko, A., Shevchenko, A. and Knoblich, J. A. (2000). A protein complex containing Inscuteable and the G alpha binding protein Pins is implicated in orienting asymmetric cell divisions in *Drosophila*. **Current Biology**, *10*, 353-362.

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Petronczki, M. and Knoblich, J.A. (2001). DmPAR-6 directs epithelial polarity and asymmetric cell division of neuroblasts in *Drosophila*. **Nature Cell Biology**, *3*, 43-49.

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Blumer, J. B., Bernard, M. L., Peterson, Y. K., Nezu, J., Chung, P., Dunican, D. J., Knoblich, J. A., and Lanier, S. M. (2003). Interaction of activator of G-protein signaling 3 (AGS3) with LKB1, a serine/threonine kinase involved in cell polarity and cell cycle progression: phosphorylation of the G-protein regulatory (GPR) motif as a regulatory mechanism for the interaction of GPR motifs with Gi alpha. **J Biol Chem** *278*, 23217-23220.

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Hutterer, A., Berdnik, D., Wirtz-Peitz, F., Zigman, M., Schleiffer, A. and Knoblich, J. A. (2006). Mitotic activation of the kinase Aurora-A requires its binding partner Bora. **Dev Cell**, *11*, 147-157.

Emery, G. and Knoblich, J.A. (2006). Endosome dynamics during development. **Curr Opin Cell Biol**, *18*, 407-415.

Gallagher, C. and Knoblich, J.A. (2006) The conserved C2 domain protein Lethal (2) giant discs regulates protein trafficking in *Drosophila*. **Dev Cell**, *11*, 641-653.

Knoblich, J. A. (2006). Cell biology. Sara splits the signal. **Science** *314*, 1094-1096.

Knoblich, J.A. (2007) On the backroads to cellular asymmetry, **Development** *134*, 4311-4313.

Jüschke, C. and Knoblich, J.A. (2008) Purification of *Drosophila* Protein Complexes for Mass Spectrometry, **Methods Mol Biol.**, *420*, 347-58.

Knoblich, J.A. (2008) Mechanisms of Asymmetric Stem Cell Division, **Cell**, *132*, 583-597.

Schwamborn, J.C. amd Knoblich, J.A. (2008) Lis1 and spindle orientation in neuroepithelial cells. **Cell Stem Cell**, *2*, 193-194.

Bowman, S. K., Rolland, V., Betschinger, J., Kinsey, K. A., Emery, G., and Knoblich, J. A. (2008). The Tumor Suppressors Brat and Numb Regulate Transit-Amplifying Neuroblast Lineages in Drosophila. **Dev Cell**, *14*, 535-546.

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Transcriptome Analysis of Drosophila Neural Stem Cells Reveals a Role for Klumpfuss in Self-Renewal. **Cell Rep** 2, 407-418.

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