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POSITIONS

2005-present Associate Professor
Department of Molecular Genetics and Cell Biology
University of Chicago
1997-2005 Research Group Leader
Research Institute of Molecular Pathology
Vienna, AUSTRIA

EDUCATION AND TRAINING:

1993-1997 Postdoctoral Fellow
European Molecular Biology Laboratory
Advisor: Anthony A. Hyman Ph.D.
1987-1993 University of California, San Francisco, CA
Dept. of Biochemistry and Biophysics
Ph.D. in Cell Biology
Advisor: Marc W. Kirschner Ph.D.
Thesis Title: The Destruction of Mitotic Cyclins
1986-1987 Undergraduate research/Lab Technician
Lawrence Berkeley Laboratory, Berkeley, CA.
Advisors: Drs. R.I. Schwarz and M.J. Bissell
1984-1986 University of California, Berkeley
A.B. in Mathematics
1983-1983 College of the Atlantic, Bar Harbor, ME
1983 Academic year student, Jackson Laboratory
Bar Harbor, ME.
Advisor: Dr. L.P. Kozak
1981-1982 Connecticut College, New London, CT

HONORS AND AWARDS

2004-2007 Keith R. Porter Fellow
2003 Elected member of EMBO
2001-2003 EMBO Young Investigators Award
1993-1995 Human Frontiers Science Program Postdoctoral Fellowship
1992 Chancellor's Fellowship, UCSF
1989-1992 National Science Foundation Predoctoral Fellowship
1986 Associated Western Research Conference Fellowship

PROFESSIONAL ACTIVITIES

2005 co-Editor Current Opinion in Cell Biology
2005 Member, Board of Reviewing Editors, Molecular Biology of the Cell.
2003 Organizer of "The Boston Marc-a-thon". Symposium in honor of Marc Kirschner. Boston, MA July 26-27, 2003.
2001 Organizer of IMP Workshop on Cytokinesis. Vienna, Austria
May 4-5, 2001

- 1999 Co-organizer of the 10th annual IMP spring conference “The Cell Biology of Cell Division”. Vienna, Austria, May 27-29, 1999
- 1998-present Reviewer for Science, Cell, Nature, Developmental Cell, Current Biology, EMBO J., J. Cell Biology, J. Cell Science, Molecular Biology of the Cell, EMBO Reports
- 1999-present Member of editorial board, Current Biology

PUBLICATIONS (REVERSE CHRONOLOGICAL ORDER):**RESEARCH REPORTS:**

- Piekny A, Glotzer M. (2008). Anillin is a scaffold protein that links RhoA, actin, and myosin during cytokinesis. *Current Biology*, in press.
- Pavicic-Kaltenbrunner V, Mishima M, Glotzer M. (2007) Cooperative Assembly of CYK-4/MgcRacGAP and ZEN-4/MKLP1 to Form the Centralspindlin Complex. *Mol Biol Cell*. 2007, in press
- Werner M, Munro E, Glotzer M. (2007). Astral signals spatially bias cortical myosin recruitment to break symmetry and promote cytokinesis. *Curr Biol*. 17(15):1286-97.
- Petronczki M, Glotzer M, Kraut N, Peters JM (2007). Polo-like kinase 1 triggers the initiation of cytokinesis in human cells by promoting recruitment of the RhoGEF Ect2 to the central spindle. *Dev Cell*. **12**:713-25.
- Hizlan D, Mishima M, Tittmann P, Gross H, Glotzer M, Hoenger A (2006). Structural analysis of the ZEN-4/CeMKLP1 motor domain and its interaction with microtubules. *J Struct Biol*. **153**:73-84.
- Yuce O, Piekny A, Glotzer M. (2005). An ECT2-centralspindlin complex regulates the localization and function of RhoA. *J Cell Biol*. **170**:571-82.
- Guse, A. Mishima, M, , and Glotzer M. (2005). Phosphorylation of ZEN-4/MKLP1 by Aurora B Regulates Completion of Cytokinesis. *Current Biology*, **15**:778-86.
- Mishima, M, Pavicic, V, Grüneberg, U, Nigg, E., and Glotzer M. (2004). Cell cycle regulation of central spindle assembly, *Nature*, **430**: 909-913.
- Romano, A, Guse, A, Krascenicova, I, Schnabel, H, Schnabel R, and Glotzer, M (2003). CSC-1: A subunit of the Aurora B kinase complex that binds to the Survivin-like protein BIR-1 and the Incenp-like protein ICP-1. *J. Cell Biol*, **161**: 229-236.
- Dechant, R and Glotzer, M (2003). Centrosome separation and central spindle assembly act in redundant pathways that regulate microtubule density and trigger cleavage furrow formation. *Developmental Cell*, **4**, 333-344.
- Schleiffer, A, Kaitna, S, Maurer-Stroh, S, Glotzer, M, Nasmyth, K and Eisenhaber, F (2003) Kleisins: a superfamily of proteins associated with the heads of both bacterial and eukaryotic SMC proteins. *Molecular Cell*, **11**: 571-575.
- Mendoza, M, Hyman, AA, and Glotzer, M (2002). GTP Binding Induces Filament Assembly of a Recombinant Septin. *Current Biology* **12**, 1858-63.
- Macara, I.G., et. al. (2002). Mammalian Septin Nomenclature. *Mol. Biol. Cell* **13**: 4111-3.

- Kaitna S, Pasierbek P, Jantsch M, Loidl J, Glotzer M (2002). The aurora B kinase AIR-2 regulates kinetochores during mitosis and is required for separation of homologous chromosomes during meiosis. *Current Biology* **12**, 798-812.
- Grüneberg, U, Glotzer, M, Gartner, A, and Nigg, EA (2002). The CeCDC-14 phosphatase is required for cytokinesis in the *Caenorhabditis elegans* embryo. *J. Cell Biol.* **158**: 915-927
- Kaitna S, Schnabel H, Schnabel R, Hyman AA, Glotzer M (2002). A ubiquitin C-terminal hydrolase is required to maintain osmotic balance and execute actin-dependent processes in the early *C. elegans* embryo. *J Cell Sci.* **115**:2293-302.
- Mishima, M., Kaitna S. and Glotzer, M (2002). Central spindle assembly and cytokinesis require a kinesin-like protein/RhoGAP complex with microtubule bundling activity. *Developmental Cell* **2**:41-54.
- Siomos, M., Badrinath, A., Pasierbek, P., Livingstone, D., White, J., Glotzer, M., and Nasmyth, K (2001). Separase is required for chromosome segregation during meiosis I in *Caenorhabditis elegans*. *Current Biology*, **11**:1825-35.
- Kaitna S, Mendoza M, Jantsch-Plunger V, Glotzer M. (2000) Incenp and an aurora-like kinase form a complex essential for chromosome segregation and efficient completion of cytokinesis. *Current Biology* **10**:1172-81.
- Jantsch-Plunger V, Gonczy P, Romano A, Schnabel H, Hamill D, Schnabel R, Hyman AA, Glotzer M. (2000) CYK-4: A Rho family GTPase activating protein (GAP) required for central spindle formation and cytokinesis. *Journal of Cell Biology* **149**:1391-404.
- Jantsch-Plunger, V. and Glotzer, M. (1999). Depletion of syntaxins in the early *Caenorhabditis elegans* embryo reveals a role for membrane fusion events in cytokinesis. *Current Biology* **9**:738-745.
- Wheatley, S.P., Hinchcliffe, E.H., Glotzer, M., Hyman, A.A., Sluder, G., and Wang, Y.-I. (1997) CDK1 Inactivation Regulates Anaphase Spindle Dynamics and Cytokinesis In Vivo., *Journal of Cell Biology.* **138**: 385-393.
- Glotzer, J.B., Saffrich, R., Glotzer, M., and Ephrussi, A.E. (1997). Cytoplasmic flows localize injected oskar RNA in *Drosophila* oocytes. *Current Biology* **7**, 326-337.
- Drechsel, D.N., Hall, A., Hyman, A.A., and Glotzer, M (1996). A requirement for Rho and Cdc42 during cytokinesis in *Xenopus* embryos. *Current Biology* **7**, 12-23.
- King, R.W., Glotzer, M. and Kirschner, M.W. (1996) Mutational analysis of the cyclin destruction box and mapping of the ubiquitination sites. *Molecular Biology of the Cell* **7**, 1343-1357.
- Holloway, S.L., Glotzer, M., King, R.W., and Murray, A.W. (1993). Anaphase is initiated by proteolysis rather than by the inactivation of maturation-promoting factor. *Cell* **73**, 1393-1402.
- Glotzer, M., Murray, A.W., and Kirschner, M.W. (1991). Cyclin is degraded by the Ubiquitin Pathway. *Nature* **349**, 132-138.
- Solomon, M.J., Glotzer, M., Lee, T.H., Philippe, M., and Kirschner, M.W. (1990). Cyclin activation of p34^{Cdc2}. *Cell* **63**, 1013-1024.
- Gautier, J, Minshull, J., Lohka, M., Glotzer, M., Hunt, T., and Maller, J. (1990). Cyclin is a component of MPF from *Xenopus*. *Cell* **60**, 487-494.

Jacobsson, A., Stadler, U., Glotzer, M.A., and Kozak, L.P. (1985). Mitochondrial Uncoupling Protein from Mouse Brown Fat. *Journal of Biological Chemistry* **260**, 16250-4.

Reviews:

Small JV, Glotzer M. (2005) Cell structure and dynamics (editorial overview). *Curr Opin Cell Biol*.

Piekny, A, Werner, M., Glotzer M. (2005) Cytokinesis: welcome to the Rho zone. (*Trends Cell Biology*, Dec 15:651-8.

Glotzer, M. (2005) The Molecular Requirements for Cytokinesis. *Science*, **307**(5716): 1735-39.

Bi, E. Balasubramanian, M., and Glotzer, M. (2004) Comparative Analysis of Cytokinesis in Budding Yeast, Fission Yeast and Animal Cells. *Current Biology*, **4**(18):R806-18.

Mishima M, Glotzer M. (2004). Cell Cycle: Cytokinesis. *Encyclopedia of Biological Chemistry*.

Glotzer, M (2004). Cleavage Furrow Positioning. *J. Cell Biology*, 164(3):347-51.

Glotzer, M (2003). Cytokinesis: Progress on all fronts. *Current Opinion in Cell Biology*. 15, 684-690.

Mishima M, Glotzer M. (2003). Cytokinesis: a logical GAP. *Current Biol*. 13:R589-91.

Glotzer M and Dechant R. (2002) Cytokinesis: regulated by destruction. *Current Biology* **12**:R344-6.

Glotzer, M (2001) Animal Cell Cytokinesis. *Annual Review of Cell and Developmental Biology*, **17**:351-86.

Glotzer, M. (1999) Samurai separation of Siamese sisters. *Current Biology* **9**(14):R531-R534.

Glotzer, M. and Knoblich, J.A. (1998) Cell Multiplication – Editorial Overview. *Current Opinion in Cell Biology* **10**,739-741.

Glotzer, M. (1997). The Mechanism and Control of Cytokinesis. *Current Opinion in Cell Biology* **9**, 815-823.

Glotzer, M. (1997). Cytokinesis, a primer. *Current Biology* **7**, R274-R276.

Glotzer, M. (1996). Mitosis: Don't get mad, get even. *Current Biology* **6**, 1592-11594.

Glotzer, M. and Hyman, A.A. (1995). The importance of being polar. *Current Biology* **5**, 1102-1105.

Glotzer, M. (1995). The only way out of mitosis. *Current Biology* **5**, 970-972.