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- Project:** *Advancing Marine Biotechnology: Use of OCS Oil Platforms as Sustainable Sources of Marine Natural Products*
- Education:** B.S. Pharmacy, Massachusetts College of Pharmacy & Allied Health Sciences, Boston, MA 1963  
Ph.D. Pharmacology, School of Medicine, Tufts University, Boston, MA 1967
- Positions:** 1995-present Professor of Biochemistry and Pharmacology, Department of Molecular, Cellular, and Developmental Biology, University of California, Santa Barbara, CA  
1978-1995 Professor of Biochemistry and Pharmacology, Division of Molecular, Cellular, and Developmental Biology, Department of Biological Sciences, University of Santa Barbara, CA  
1987-1991 Chair, Department of Biological Sciences, University of California, Santa Barbara, CA  
1976-1978 Associate Professor, Department of Biological Sciences, University of California, Santa Barbara, CA  
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### Selected Publications:

- Wilson, L. and M.A. Jordan. New microtubule / tubulin-targeted anticancer drugs and novel chemotherapeutic strategies. *J. Chemotherap (Suppl)* (in press).
- Feinstein, S.C. and L. Wilson. Inability of Tau to Properly Regulate Neuronal Microtubule Dynamics: A Loss-of-Function Mechanism by which Tau Might Mediate Neuronal Cell Death. *Biochimica et Biophysica Acta* (in Press).
- Jordan, M.A. and L. Wilson. 2004. Microtubules as a target for anticancer drugs. *Nature Cancer Reviews* **4**:253-265.
- Kelling, J., K. Sullivan, L. Wilson, and M.A. Jordan. 2003. Suppression of centromere dynamics by taxol in living osteosarcoma cells. *Cancer Research* **63**:2794-2801.
- Panda, D., S. Samuel, M. Massie, S. Feinstein, and L. Wilson. 2003. Differential regulation of microtubule dynamics by 3-repeat and 4-repeat tau: Implications for the onset of neurodegenerative disease. *Proceedings of the National Academy of Sciences of the United States of America* **100**:9548-9553.
- Honore, S., K. Kamath, D. Braguer, L. Wilson, C. Briand, and M.A. Jordan. 2003. Suppression of microtubule dynamics by discodermolide by a novel mechanism is associated with mitotic arrest and inhibition of tumor progression. *Molecular Cancer Therapeutics* **2**:1303-1311.
- Jordan, M.A., I. Ojima, F. Rosas, M. Distefano, L. Wilson, G. Scambia, and C. Ferlini. 2002. Effects of novel taxanes SB-T-1213 and IDN5109 on tubulin polymerization and mitosis *Chemical Biology* **9**(1):93-101.
- Newton, C.N., J.G. DeLuca, R.H. Himes, H.P. Miller, M.A. Jordan, and L. Wilson. 2002. Intrinsically slow dynamic instability of HeLa cell microtubules in vitro. *Journal of Biological Chemistry* **277**(45):42456-42462.
- Ojeda-Lopez, M.A., J. Jones, H. Miller, L. Wilson, Y.L. Li, and S. Cyrus. 2002. In vitro synchrotron x-ray studies of the structure of supramolecular assemblies of neuronal cytoskeletal protein fibers and associated proteins. *Biophysical Journal* **82**(1):2025 Part 2.

- Panda, D., H.P. Miller., and L. Wilson. 2002. Determination of the size and chemical nature of the stabilizing "cap" at microtubule ends using modulators of polymerization dynamics. *Biochemistry-US* **41**(5):1609-1617.
- DeLuca, J.G. and L. Wilson. 2001. Regulation of purified human kinesin. *Molecular Biology of the Cell***12**:1702, Suppl. S.
- DeLuca, J.G., C.N. Newton, R.H. Himes, M.A. Jordan, and L. Wilson. 2001. Purification and characterization of native conventional kinesin, HSET, and CENP-E from mitotic HeLa cells. *Journal of Biological Chemistry* **276**(30):28014-28021.
- Kamath, K., A. Goncalves, D. Braguer, L. Martello, G. Briand, S. Horwitz, L. Wilson, and M.A. Jordan. 2001. Studies in taxol-resistant cells indicate that microtubule dynamics must be regulated within a narrow range for successful mitosis. *Molecular Biology of the Cell***12**:1735 Suppl. S.
- Ngan, V.K., K. Bellman, B.T. Hill, L. Wilson, and M.A. Jordan. 2001. Mechanism of mitotic block and inhibition of cell proliferation by the semisynthetic vinca alkaloids vinorelbine and its newer derivative, vinflunine. *Molecular Pharmacology* **60**:1-8.
- Panda, D., S. Feinstein, and L. Wilson. 2001. Differential modulation of microtubule dynamics by 3-repeat and 4-repeat tau isoforms: Implications for neurodegenerative disease. *Molecular Biology of the Cell* **12**:938, Suppl. S.
- Pfohl, T., J.H. Kim, M. Yasa, H.P. Miller, G.C.L. Wong, F. Bringezu, Z. Wen, L. Wilson, M.W. Kim, Y. Li, and C.R. Safinya. 2001. Controlled modification of microstructured silicon surfaces for confinement of biological macromolecules and liquid crystals. *Langmuir* **17**(17):5343-5351.
- Skoufias, D.A., P.R. Andreassen, F.B. Lacroix, L. Wilson, and R.M. Margolis. 2001. Mammalian Mad2 and Bub1/BubR1 recognize distinct spindle attachment and kinetochore tension checkpoints. *Proceedings of the National Academy of Sciences of the United States of America* **98**:4492-4497.
- Ngan, V.K., K. Bellman, D. Panda, B.T. Hill, M.A. Jordan, and L. Wilson. 2000. Novel Actions of the antitumor drugs vinflunine and vinorelbine on microtubules. *Cancer Research* **60**:5045-5051.
- Panda, D., V. Ananthnarayan, G. Larson, C. Shih, M.A. Jordan, and L. Wilson. 2000. Interaction of the antitumor compound cryptophycin-52 with tubulin. *Biochemistry* **39**:14121-14127.
- Tsuchiya, E. and L. Wilson. 2000. Dynamics of microtubules composed of mutated yeast beta-tubulins in living cells. *Molecular Biology of the Cell* **11**:985, Suppl. S.
- Jordan, M. A. and L. Wilson. 1999. The use and action of drugs in analyzing mitosis. In "Mitosis and Meiosis," *Methods in Cell Biology* **61**:267-295.
- Margolis, R.L., and L. Wilson. 1998. Microtubule treadmilling: What goes around comes around. *BioEssays* **20**:830-836.
- Wilson, L. 1998. Use of drugs to study the role of microtubule assembly dynamics in living cells. *Methods in Enzymology* **298**:252-276.
- Panda, D., R.H. Himes, R.E. Moore, L. Wilson, and M.A. Jordan. 1997. Mechanism of action of the unusually potent mitotic inhibitor, cryptophycin 1. *Biochemistry* **36**:12948-12953.
- Panda, D., H.P. Miller, K. Islam, and L. Wilson. 1997. Stabilization of microtubule dynamics by estramustine by binding to a novel site in tubulin: A possible mechanistic basis for its antitumor action. *Proceedings of the National Academy of Sciences of the United States of America* **94**:10560-10564.
- Wilson, L. and M.A. Jordan. 1995. Microtubule dynamics: taking aim at a moving target. *Chemistry and Biology* **2**:569-573.