

Curriculum Vitae

Paul Thomas Matsudaira

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American

CURRENT ADDRESS

Department of Biological Sciences
National University of Singapore
14 Science Drive 4, Bldg S1A Level 2
Singapore 117543

EDUCATION

1971-1975 U. of Washington, BA Chemistry, BS Biology
1976-1981 Dartmouth College, PhD Biological Sciences.

PROFESSIONAL EXPERIENCE

1975-1976 Research Technician, Dept. of Zoology, Friday Harbor Labs, at the University of Washington, laboratory of Dr. Thomas Schroeder.
1976-1981 Graduate Student, Dept. of Biological Sciences, Dartmouth College, Hanover, NH, laboratory of Dr. David R. Burgess.
1981 Postdoctoral Fellow, Abteilung Biochemistry, Max Planck Institute for Biophysical Chemistry, Goettingen, FRG, laboratory of Dr. Klaus Weber.
1981-1984 Postdoctoral Fellow, Division of Structural Studies, Medical Research Council Laboratory of Molecular Biology, Cambridge, UK, supervisor: Dr. Alan Weeds.
1985-1989 Associate Member, Whitehead Institute for Biomedical Research and Assistant Professor of Biology, Dept. of Biology, MIT.
1989-1992 Associate Professor of Biology, Dept. of Biology, MIT.
1992-2008 Member, Whitehead Institute for Biomedical Research
1995-2000 Director, Program in Molecular Engineering at the MIT Center for Biomedical Engineering
1998-2008 Professor of Biology, Dept. of Biology, MIT.
1998-2008 Professor of Bioengineering, Department of Biological Engineering, MIT.
1999-2001 Associate Chair of the Faculty, MIT
2001-2008 Director, Whitehead Institute/MIT Center for BioImaging
2005-2013 Member, Singapore-MIT Alliance 2 (SMA2) CSB Program
2005-2008 Co-Director, Singapore-MIT Alliance 2 (SMA2) CSB Program
2005-2007 Director, Computational and Systems Biology Initiative (CSBi)
2009-2014 Professor of Bioengineering, Division of Bioengineering, NUS
2009-2017 Head, Department of Biological Sciences, NUS
2009-2017 co-Director, MechanoBiology Institute
2009-present Professor of Biological Sciences, Department of Biological Sciences, NUS
2009-present Director, NUS Centre for BioImaging Sciences
2009-present Faculty Member, NGS
2009-present Distinguished Professor of the University
2012-present co-Investigator, SMART

PUBLICATIONS (177)

1. Matsudaira P, Burgess DR. 1978. SDS microslab linear gradient polyacrylamide gel electrophoresis. *Anal. Biochem.* 87(2):386-396.
2. Matsudaira P, Burgess DR. 1979. Identification and organization of the components in the isolated microvillus cytoskeleton. *J. Cell. Biol.* 83(3):667-673.
3. Matsudaira P, Burgess DR. 1981. Structure and function of the brush-border cytoskeleton. *CSH Symposia on Quantitative Biology* 46:845-854.
4. Glenney JR, Kaulfus P, Matsudaira P, Weber K. 1981. F-actin binding and bundling properties of fimbrin, a major cytoskeletal protein of microvillus core filaments. *J. Biol. Chem.* 256(17):9283-9288.
5. Matsudaira P, Burgess DR. 1982. Partial reconstruction of the microvillus core bundle: characterization of villin as a Ca^{++} -dependent, actin-bundling/depolymerizing protein. *J. Cell. Biol.* 92(3):648-656.
6. Matsudaira P, Burgess DR. 1982. Organization of the cross-filaments in intestinal microvilli. *J. Cell. Biol.* 92(3):657-664.
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8. Matsudaira P, Mandelkow E, Renner W, Hesterberg LK, Weber K. 1983. Role of fimbrin and villin in determining the interfilament distances of actin bundles. *Nature* 301(5897):209-214.
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11. Matsudaira P, Bordas J, Koch MHJ. 1987. Synchrotron x-ray diffraction studies of actin structure during polymerization. *PNAS* 84(10):3151-3155.
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13. Bazari WL, Matsudaira P, Wallek M, Smeal T, Jakes R, Ahmed Y. 1988. Villin sequence and peptide map identify six homologous domains. *PNAS* 85(14):4986-4990.
14. Matsudaira P, Janmey PA. 1988. Pieces in the actin-severing protein puzzle. *Cell* 54(2):139-140.
15. Janmey PA, Matsudaira P. 1998. Functional comparison of villin and gelsolin. Effects of Ca^{2+} , KCl, and polyphosphoinositides. *J. Biol. Chem.* 263(32):16738-16743.
16. Legendre N, Matsudaira P. 1988. Direct protein microsequencing from Immobilon-P Transfer Membrane. *Biotechniques* 6(2):154-159.
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18. Ezzell RM, Chafel MM, Matsudaira P. 1989. Differential localization of villin and fimbrin during development of the mouse visceral endoderm and intestinal epithelium. *Development* 106(2):407-419.
19. Matsudaira P. 1989. A practical guide to protein and peptide purification for microsequencing-introduction. *Practical Guide To Protein and Peptide Purification For Microsequencing* 1-+.

20. Kodama T, Freeman M, Rohrer L, Zabrecky J, Matsudaira P, Krieger M. 1990. Type I macrophage scavenger receptor contains alpha-helical and collagen-like coiled coils. *Nature* 343(6258):531-535.
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