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Mathematics
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PROFESSIONAL PREPARATION

B.S.	Pace University	Mathematics	June 1981
M.S.	New York University	Mathematics	Feb 1984
Ph.D.	New York University	Mathematics	Oct 1986

APPOINTMENTS

July 1986 - present	Professor of Mathematics (since 1998) Tulane University, New Orleans, Louisiana
Jan 1990 - June 1991	Visiting Assistant Professor of Mathematics University of Utah, Salt Lake City, Utah
July 1995 - Dec 1995	Visiting Member Courant Institute, New York University

HONORS

- Alfred P. Sloan Research Fellow, 1992-1994.
- Tulane University, Liberal Arts and Sciences Faculty Research Award, 1999

RECENT PUBLICATIONS:

- L. Fauci and R. Dillon, 2006. Biofluidmechanics of reproduction. *Annual Review Fluid Mechanics*, Vol. 38, in press.
- R. Cortez, L. Fauci, A. Medovikov, 2005. The method of regularized stokeslets in three dimensions: analysis, validation, and application to helical swimming, *Physics of Fluids*, Vol. 17(031504).
- N. Cogan, R. Cortez, L. Fauci, 2005. Modeling physiological resistance in bacterial biofilms, *Bulletin of Math Biology*, Vol. 67, No. 4: 831-853.

- R. Cortez, N. Cowen, R. Dillon, L. Fauci, 2004. Simulation of swimming organisms: Coupling internal mechanics with external fluid dynamics, *Computing in Science and Engineering*, Vol. 6, No. 3: 38-45.
- K. Rejniak, H. Kliman, L. Fauci, 2004. A computational model of the mechanics of growth of the villous trophoblast bilayer, *Bulletin of Math Biology*, Vol. 66: 199-232.
- M. Hopkins and L. Fauci, 2002. A computational model of the collective fluid dynamics of motile microorganisms, *J. Fluid Mech.*, Vol. 455, 149-174.
- R. Dillon and L. Fauci, 2000. A microscale model of bacterial and biofilm dynamics in porous media, *Biotech. and Bioengr.*, Vol. 68, No. 5, 536-547.
- R. Dillon and L. Fauci, 2000. An integrative model of internal axoneme mechanics and external fluid dynamics in ciliary beating, *J. Theor. Biol.*, Vol. 207, 415-430 .

RECENT SYNERGISTIC ACTIVITIES

- Founding Director, Center for Computational Science at Tulane and Xavier Universities, 2001-2003. Associate Director, 2003 - present.
- Associate Editor, SIAM Journal of Scientific Computing, SIAM Journal of Applied Dynamical Systems.
- Member, Mathematical Reviews Editorial Committee, American Math Society.
- Member of SIAM Council (re-elected for second three year term).
- Co-chair, SIAM Annual Meeting, New Orleans, July 2005.
- Member, Board of Governors, Math Biosciences Institute, Ohio State University, 2005-2008.
- Member of the Scientific Program Committee of the Seventh US National Congress on Computational Mechanics, Albuquerque, NM, July 2003.

CURRENT RESEARCH SUPPORT

- PI: Fauci, National Science Foundation/National Institutes of Health, NSF DMS-0201063, *Integrative Models of Microorganism Motility*, 6/1/02 - 5/31/07, \$1,450,000, (co-PI's: Cortez, Dillon, Goldstein, Omoto).
- PI: Gaver, National Institutes of Health, NIH PAR-00-102, *Biocomputing: Integrating Molecular/Organ-Level Function*, 5/1/03 - 4/30/06, \$1,240,887, (co-PI: Fauci).