CURRICULUM VITAE

WARTELL, ROGER M.

Professor
School of Biology
Georgia Institute of Technology

Personal Data:
Born 2/24/45. New York, New York

Education Background:

B.S. in Physics, Stevens Institute of Technology, 1966
Ph.D. in Physics, University of Rochester, 1971

Employment History:
Postdoctoral Fellow (N.I.H.). Department of Biochemistry, University of Wisconsin, Madison, WI 1971-1973.
Visiting Fellow, Department of Biochemistry, University of Wisconsin, Madison, WI 1978-1979.
Visiting Fellow, National Institutes of Health, Bethesda MD 1986-1987.
Georgia Institute of Technology
Assistant Professor, Schools of Physics and Biology 1974-1978.
Associate Professor, Schools of Physics and Biology 1978-1983.
Professor, Schools of Physics and Biology 1984-1995.
Professor, School of Biology 1996-present.
Adjunct Professor, School of Physics 1996-present
Administrative positions
Assistant Director (Associate Chair), School of Physics 1987-88
Director, Biosciences Center 1991-1995.
Acting Chair, School of Biology 1990-1995
Chair, School of Biology 1996-2004

Current Fields of Interest:
RNA assembly and catalytic activities relating to RNA World hypothesis. Protein-RNA itneractions governing sRNA regulation of gene expression in bacteria.

Honors, Awards and Recognitions:
N.I.H. Research Career Development Award 1979-1984
N.I.H. study section member 1989-90
N.I H. study section ad-hoc member 1992,1993,1994,1996
Georgia Tech Sigma Xi Mentor Award 1984
Associate Editor: Enzyme & Microbial Technology 1995-2003
Scientific Advisory Board- Tm Biotechnologies Inc., Toronto, CAN 1996-2002

Refereed Publications (past 5 years)

" Secondary Structures of rRNAs from All Three Domains of Life." Petrov AS, Bernier CR, Gulen B, Waterbury CC, Hershkovits E, Hsiao C, Harvey SC, Hud NV, Fox GE, Wartell RM, Williams LD. *PLoS One* Feb 5;9(2):e88222, 2014

" Secondary structure and domain architecture of the 23S and 5S rRNAs." Petrov AS, Bernier CR, Hershkovits E, Xue Y, Waterbury CC, Hsiao C, Stepanov VG, Gaucher EA, Grover MA, Harvey SC, Hud NV, Wartell RM, Fox GE, Williams LD. *Nucleic Acids Research* 41,7522-35, 2013

" RNA with Iron: Electron Transfer Ribozymes" C. Hsiao[a,c], I-C. Chou, C. D. Okafor, E. B. O'Neill, S. S. Athavale, A. S. Petrov, N. V. Hud, R. M. Wartell, S. C. Harvey and L. Williams *Nature-Chemistry* **5**, 525-528, 2013

"Molecular Paleontology: A Biochemical Model of the Ancestral Ribosome" C. Hsiao, T. K. Lenz, J. K. Peters, P. Fang, D. M. Schneider, E. J. Anderson, T. Preeprem, J. C. Bowman, E. B. O'Neill, S.S. Athavale, J. J. Gossett, L. Lie, J. Murray, A. S. Petrov, R. M. Wartell, S. C. Harvey, N.V. Hud, and L.D. Williams *Nucleic Acids Research* 41, 3373-3385, 2013

" RNA Folding and Catalysis Mediated by Iron (II)" S.S. Athavale, A.S. Petrov, C. Hsiao, D. Watkins, J. Gossett, L. Lie, J. Bowman, E. O'Neil, C. Bernier, N. Hud, R. M. Wartell, S.C. Harvey, L.D. Williams *PLoS One* 7- e38024, 1-7, 2012

"Domain III of the *T. thermophilus* 23S rRNA folds independently to a near-native state" S. S. Athavale, J. J. Gossett, C. Hsiao, J. C. Bowman, E. O'Neill, E. Hershkovitz,T.Preeprem, N. V. Hud, R.M. Wartell, S.C.Harvey, L. D.Williams *RNA* 18, 752-758, 2012

"Thermodynamics of sRNA-mRNA interactions and the role of Hfq" K. Jain, T.B. Updegrove, R.M. Wartell *Frontiers in Nucleic Acids (ACS Symposium Series)*, R. Sheardy ed. Ch. 7, pp. 111-129, 2011

"The influence of *Escherichia coli* Hfq mutations on RNA binding and sRNA•mRNA duplex formation in *rpoS* riboregulation" T. B. Updegrove and R.M. Wartell, *Biochimica Biophysica Acta* 1809, 532-540, 2011

"The stoichiometry of the *Escherichia coli* Hfq protein bound to RNA" T. B. Updegrove, J.J. Correia, Y. Chen, C. Terry, R M. Wartell *RNA* 17, 489-499, 2011

" *E. coli* DNA associated with Hfq interacts with Hfq's distal surface and C-terminal domain." T. Updegrove, J.J. Correia, R. Galletto, W. Bujalowski, R. M. Wartell Biochim Biophys Acta. 1799, 588-96, 2010.

"RNA tetraloop folding reveals tension between backbone restraints and molecular interactions." S. Mohan, C. Hsiao, J.C. Bowman, R.M. Wartell, L.D. Williams, J Am Chem Soc. 132, 12679-89, 2010.

"DNA denaturation under freezing conditions in alkaline medium" E. Galyuk, R .M. Wartell, Y. M. Dosin, and D. Y. Lando J. Biomolecular Ster. Dynamics 26, 517-523, 2009

"Mechanism of RNA Double Helix-Propagation at Atomic Resolution" S. Mohan, C. Hsiao, H. VanDeusen, R. Gallagher, E. Krohn, B. Kalahar, R. M. Wartell, L. D. Williams J. Phys. Chemistry-B 113, 2614-2623, 2009 (65)