

BIOGRAPHICAL SKETCH

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NAME Amy H. Andreotti		POSITION TITLE Professor of Biochemistry	
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Bowdoin College, Brunswick, Maine	A.B.	1989	Chemistry
Princeton University, Princeton, NJ	M.S.	1991	Chemistry
Princeton University, Princeton, NJ	Ph.D.	1994	Chemistry
Harvard University, Cambridge, MA	Postdoctorate	1997	Chemistry

Professional Experience:

- 2008-present Professor, Department of Biochemistry, Biophysics & Molecular Biology Iowa State University
- 2003-2008 Associate Professor, Department of Biochemistry, Biophysics & Molecular Biology Iowa State University
- 1997-2003 Assistant Professor, Department of Biochemistry, Biophysics & Molecular Biology Iowa State University
- 1996-1997 Science Scholar-Bunting Institute of Radcliffe College,
Dept. of Chemistry and Chemical Biology, Harvard University, Laboratory of Stuart L. Schreiber
- 1994-1996 NIH Postdoctoral Fellow, Dept. of Chemistry and Chemical Biology,
Harvard University, Laboratory of Stuart L. Schreiber

Publications:

- R.E. Joseph, **A.H. Andreotti**, Bacterial expression and purification of interleukin-2 tyrosine kinase: single step separation of the chaperonin impurity. *Protein Expr Purif.*, 60, 194-7 (2008).
- A. Severin, D.B. Fulton, **A.H. Andreotti**, Murine Itk SH3 domain. *J Biomol NMR*.40, 285-90 (2008).
- R.E. Joseph, D.B. Fulton, **A.H. Andreotti**. Mechanism and functional significance of Itk autophosphorylation. *J Mol Biol.*, 373, 1281-92 (2007).
- R.E. Joseph, L. Min, **A.H. Andreotti**, The linker between SH2 and kinase domains positively regulates catalysis of the Tec family kinases, *Biochemistry*, 46, 5455-62 (2007).
- R.E. Joseph, L. Min, R. Xu, E. Musselman, **A.H. Andreotti**, A remote substrate-docking mechanism for the Tec family tyrosine kinases, *Biochemistry* 46, 5595-603 (2007).
- Huang, Y.H., Grasis, J.A., Miller, A.T., Xu, R., Soonthronvacharin, S., **Andreotti, A.H.**, Tsoukas, C.D., Cooke, M.P. & Sauer, K. Positive regulation of Itk PH domain function by soluble IP4, *Science*, 316, 886-9 (2007).

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- A.H. Andreotti** Opening the pore hinges on proline. *Nat Chem Biol.*, 2, 13-14 (2006).
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- L. Min, D. Bruce Fulton and **A.H. Andreotti**, A case study of proline isomerization in cell signaling. *Front. Biosci.*,10, 385-97 (2005).
- J. Colgan, M. Asmal, M. Neagu, B. Yu, J. Schneidkraut, Y. Lee, E. Sokolskaja, **A. Andreotti** & J. Luban, Cyclophilin A regulates TCR signal strength in CD4⁺ T cells via a proline-directed conformational switch in Itk. *Immunity* 21, 189-201 (2004).
- P. J. Breheny, A. Laederach, D. B. Fulton, and **A. H. Andreotti**, Ligand Specificity Modulated by Prolyl Imide Bond Cis/Trans Isomerization in the Itk SH2 Domain: A Quantitative NMR Study *Journal of the American Chemical Society*, 125, 15706 – 15707 (2003).
- A.H. Andreotti**, Native state proline isomerization: an intrinsic molecular switch. *Biochemistry*, 42, 9515-24 (2003).
- Alain Laederach, Kendall Cradic, D. Bruce Fulton, **Amy H. Andreotti** Determinants of intra versus intermolecular self-association within the regulatory domains of Rlk and Itk *J. Mol. Biol.*, **329**, 1011-1020 (2003).
- Robert J. Mallis, Kristine N. Brazin, D. Bruce Fulton, **Amy H. Andreotti** (2002) Structural characterization of a proline-driven conformation switch within the Itk SH2 domain *Nature Structural Biology*, **9**, 900-905.
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- Alain Laederach, Kendall Cradic, Kristine N. Brazin, Jamillah Zmoon, D. Bruce Fulton, Xin-Yun Huang and **Amy H. Andreotti** (2002) Competing modes of self-association in the regulatory domains of Bruton's tyrosine kinase: intramolecular contact vs. asymmetric homodimerization, *Protein Science*, **11**, 36-45.
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- Amy H. Andreotti**, Stephen C. Bunnell, Sibao Feng, Leslie J. Berg and Stuart L. Schreiber (1997) Regulatory Intramolecular Association in a Tyrosine Kinase of the Tec Family, *Nature*, **385**, 93.
- Rui Liang, **Amy H. Andreotti** and Daniel Kahne (1995) Sensitivity of Glycopeptide Conformation to Carbohydrate Chain Length, *J. Amer. Chem. Soc.*, **117**, 10395.
- Suzanne Walker, **Amy H. Andreotti** and Daniel Kahne (1994) NMR Characterization of Calicheamicin γ 1 Bound to DNA, *Tetrahedron*, **50**, 1351.
- Warren S. Warren, Wolfgang Richter, **Amy H. Andreotti** and Bennett T. Farmer II (1993) Generation of Impossible Cross-Peaks Between Bulk Water and Biomolecules in Solution NMR, *Science*, **262**, 2005.
- Amy H. Andreotti** and Daniel Kahne (1993) Effects of Glycosylation on Peptide Backbone Conformation, *J. Amer. Chem. Soc.*, **115**, 3352.

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