

Biographical Sketch

Witold K. Surewicz

Professional Preparation:

Undergraduate:	University of Lodz, Poland	Physics	M.Sc.	1976
Graduate:	University of Lodz, Poland	Biophysics	Ph.D.	1982
Postdoctoral:	McMaster University, Canada	Biochemistry		1983-85

Appointments:

2001-present	Professor of Physiology & Biophysics, Case Western Reserve University, Cleveland, OH
2001-present	Professor of Chemistry, Case Western Reserve University
1996-2000	Associate Professor of Pathology, Case Western Reserve University, Cleveland, OH
1994-1996	Assistant Professor, University of Missouri, Columbia, MO
1990-1994	Associate Research Officer, Ins. Biol. Sci., National Research Council of Canada, Ottawa
1986-1990	Assistant Research Officer, Division of Chemistry, National research Council of Canada

Selected Publications

1. Apetri, A.C., Surewicz, K.A., and Surewicz, W.K., Effect of disease-associated mutations on the folding pathway of human prion protein, *J. Biol. Chem.* 279, 18008-18014 (2004)
2. Vanik, D.L., Surewicz, K.A., & Surewicz, W.K., Molecular basis of barriers in interspecies transmissibility of mammalian prions, *Mol. Cell* 14, 139-145 (2004)
3. Jones, E.M., Surewicz, W.K. Fibril conformation as the basis of species- and strain-dependent seeding specificity of mammalian prion amyloids, *Cell* 121, 63-72 (2005)
4. Apetri, A.C., Vanik, D.L., Surewicz, W.K., Polymorphism at residue 129 modulates the conformational conversion propensity of the D178N variant of human prion protein, *Biochemistry*, 44, 15880-15888 (2005)
5. Jones, E.M., Surewicz, K., Surewicz, W.K., Role of N-terminal familial mutations in prion protein fibrillization and prion amyloid propagation in vitro, *J. Biol. Chem.* 281, 8190-8196 (JBC paper of the week) (2006)
6. Surewicz, W.K., Jones, E.M., Apetri, A.C., The emerging principles of mammalian prion propagation and transmissibility barriers: Insight from studies in vitro, *Acc. Chem. Res.*, in press (2006)
7. Apetri, A.C., Roder, H., Surewicz, W.K., Prion protein folding mechanism: accumulation of an intermediate as revealed by ultrarapid mixing experiments, *J. Am. Chem. Soc.* 128, 11673-11678 (2006)
8. Davoodi, J., Wakarchuk, W.W., Carey, P.R., Surewicz, W.K., Mechanism of stabilization of B. circulans xylanase upon the introduction of disulfide bonds, *Biophys. Chem.* 125, 453-461 (2007)
9. Lu, X., Wintrode, P.L., Surewicz, W.K., β -heet core of human prion protein amyloid fibrils as determined by hydrogen/deuterium exchange, *Proc. Natl. Acad. Sci. USA* 104, 1510-1515 (2007)
10. Surewicz, W.K., Discriminating taste of prions, *Nature* 447, 541-542 (2007) (News & Views article)
11. Cobb, N.H., Surewicz, W.K. Prion strains under the magnifying glass, *Nature Struct. Mol. Biol.* 14, 882-884 (2007)
12. Cobb, N., Sonnichsen, F.D., Mchaourab, H., Surewicz, W.K., Molecular architecture of human prion protein amyloid, *Proc. Natl. Acad. Sci USA* 104, 18946-18951(2007)
13. Yuan, J., Dong, Z., Guo, J.P., McGeehan, J., Xiao, X., Wang, J., Cali, I., MvGeer, P.I., Cashman, N.R., Bessen, R., Surewicz, W.K., Kneale, G., Petersen, R.B., Gambetti, P., Zou, W.Q., Accessibility of a critical prion protein region involved in strain recognition and its implications for the early detection of prions, *J. Cell. Mo.l Life Sci.*, in press (2007)

14. Helmus, J.J., Surewicz, K., Nadaud, P.S., Surewicz, W.K., Jaroniec, C.P. Molecular conformation and dynamics of the Y145Stop variant of human prion protein in amyloid fibrils, Proc. Natl. Acad. Sci. USA, in press

Synergistic Activities

Advisory Boards/Study Sections:

NIH Special Study Section 7, Member (1995)
NIH Special Emphasis Panel (review of Prion Disease Program Projects), Member (1998)
NIH Special Emphasis Panel (RFA Program "Protein Structure and Function in Aging"), Member (1999)
NIH Biophysical Chemistry Study Section, Member (2000, 2001)
NIH NCRR Study Section ZRR RI-I 03, Member (2002)
Alzheimer's Association Research Grant Program, Initial Review Board Member (1999, 2000, 2001)
Cerus Corporation Prion Diseases Advisory Board (2001-2003)
Advisory Expert Panel for the selection of a Canadian Network of Centers of Excellence on BSE/TSE (2005)
Board of Scientific Counselors, National Institute of Allergy and Infectious Diseases, Ad Hoc Member (2006)

Journals Editorial Boards:

AMYLOID: The Journal of Protein Folding Disorders (since 2001)
Archives of Biochemistry and Biophysics (since 2002)
Journal of Biological Chemistry (2003-2008)
Biochemistry (since 2006)
Current Chemical Biology (since 2006)
Advisor to SURP student Greg Palczewski (2006)

Collaborators and Other Affiliations

Collaborators:

Hassane Mchaourab, Vanderbilt University
Caludio Soto, University of Texas Medical Branch
Daniel Kirschner, Boston College
Heinrich Roder, Fox Chase Cancer Center
Frank Soennichsen, Case Western Reserve University
Patrick Wintrod, Case Western Reserve University
Pierluigi Gambetti, Case Western Reserve University

Co-Editors: None

Graduate and Postdoctoral Advisor:

Wanda Leyko, retired
Richard Epand, McMaster University, Hamilton, Ontario, Canada

Thesis Advisor and Post-Graduate Sponsor

Graduate Students: total number 7

Jamshit Davoodi, University of Ottawa
Yangbo Zhang, University of Michigan
David Vanik, George Washington University
Adrian Apetri, Yale University
Eric Jones,
Xianjung Lu, Case Western Reserve University
Ann He, Case Western Reserve University

Postdoctoral Fellows: total number 15

Nilesh Maiti, Cleveland Clinic

Bishwajit Kundu, Indian Institute of Technology
Adrian Apetri, Yale University
Joanna Nagy, Biotech Company
Salima Patel, Case Western Reserve University
Nathan Cobb, Case Western Reserve University
Dragomir Ganchev, Case Western Reserve University