

## **Biographical Sketch**

### **JO HANDELSMAN**

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#### **EDUCATION**

1979-1984 Ph.D. University of Wisconsin-Madison, Molecular Biology  
1976-1979 B.S. Cornell University, Agronomy

#### **POSITIONS HELD**

2005- Editor, Applied and Environmental Microbiology  
2005- Editor, Cell Biology Education  
2003- Series Editor, "Controversies in Science and Technology"  
2002- Howard Hughes Medical Institute Professor  
2002- Director, Wisconsin Program for Scientific Teaching  
2001- co-Director (with Molly Carnes), Women in Science and Engineering Leadership Institute (WISELI)  
2004- co-Chair (with Bill Wood, University of Colorado), National Academies Summer Institutes on Undergraduate Education in Biology  
1995- Professor, Department of Plant Pathology, University of Wisconsin  
1997-1999 Director, Institute for Pest and Pathogen Management, University of Wisconsin  
1991-1995 Associate Professor, Department of Plant Pathology, University of Wisconsin  
1985-1991 Assistant Professor, Department of Plant Pathology, University of Wisconsin  
1984-1985 Postdoctoral Fellow, Department of Plant Pathology, University of Wisconsin

#### **AWARDS AND HONORS (FOUR MOST RECENT)**

2006 – YWCA Woman of Distinction Award  
2004 – National Academies Education Mentor in the Life Sciences  
2003 – Fellow, American Academy of Microbiology  
2002 – Howard Hughes Medical Institute Professor

**RECENT SERVICE ON EDUCATIONAL AND SCIENTIFIC COMMITTEES (RECENT 5 OF 28)**  
Rosalind Franklin Society, Acting President (2006- )  
The National Academies Committee on Women in Academic Science and Engineering (2005-2006)  
National Research Council Metagenomics Report Committee: Challenges and Functional Applications, Co-Chair (2005- )  
National Academy of Sciences Board on Life Sciences (2005- )  
Institute of Medicine of the National Academies, Forum on Microbial Threats (2005- )

#### **PUBLICATIONS – MICROBIOLOGY (of 108)**

Guan, C., Ju, J., Borlee, B.R., Williamson, L.L., Shen, B., Raffa, K.F., and Handelsman, J. Signal mimics derived from a metagenomic analysis of gypsy moth gut microbiota. *Appl. Environ. Microbiol.* (in review).

Schloss, P.D. and Handelsman, J. 2006. Toward a census of bacteria in soil. *PLoS Computational Biology* 2:e92.

Handelsman, J. 2006. Metagenomics or megagenomics? *Nature Rev. Microbiol.* 3:457-458.

- Gillespie, D., Rondon, M.R., and Handelsman, J. 2005. Metagenomics libraries from uncultured microorganisms. In: *Molecular Microbial Ecology*. A.M. Osborn and C. J. Smith, eds. Bios Sci. Pub. pp. 261-279.
- Williamson, L.L., Borlee, B.R., Schloss, P.D., Guan, C., Allen, H.K., and Handelsman, J. 2005. Intracellular screen to identify metagenomic clones that induce or inhibit a quorum-sensing biosensor. *Appl. Environ. Microbiol.* 71:6335-6344.
- Handelsman, J., Robinson, C.J., and Raffa, K. 2005. Microbial communities in lepidopteran guts: from models to metagenomics. In: *The Influence of Cooperative Bacteria on Animal Host Biology*. M.J. McFall-Ngai, B. Henderson, and E.G. Ruby, eds. Cambridge University Press, New York. pp. 143-168.
- Handelsman, J. 2005. Sorting out metagenomes. *Nature Biotechnology*. 23(1):38-39.
- Handelsman, J. 2004. Metagenomics: Application of genomics to uncultured microorganisms. 2004. *Microbiol. Molec. Biol. Rev.* 68(4):669-685.
- Riesenfeld, C.R., Schloss, P.D., and Handelsman, J. 2004. Metagenomics: genomic analysis of microbial communities. *Annu. Rev. Genetics*. 38: 525-52.
- Handelsman, J. 2004. Soils – the metagenomics approach. In: *Microbial Diversity Bioprospecting*. Alan T. Bull, ed. American Society for Microbiology Press. pp. 109-119.
- Schloss, P.D., and Handelsman, J. 2003. Biotechnological prospects from metagenomics. *Current Op. Biotech.* 14:303-310.
- Liles, M.R., Manske, B.F., Bintrim, S.B., Handelsman, J., and Goodman, R.M. 2003. A census of RNA genes and linked genomic sequences within a soil metagenomic library. *Appl. Environ. Microbiol.* 69: 2684-2691
- Gillespie, D.E., Brady, S.F., Bettermann, A.D., Cianciotto, N.P., Liles, M.R., Rondon, M.R., Clardy, J., Goodman, R.M., and Handelsman, J. 2002. Isolation of antibiotics turbomycin A and B from a metagenomic library of soil microbial DNA. *Appl. Environ. Microbiol.* 68:4301-4306.
- Handelsman, J., Liles, M., Mann, D., Riesenfeld, C., and Goodman, R.M. 2002. Cloning the metagenome: culture-independent access to the diversity and functions of the uncultivated microbial world. In: *Methods in Microbiology – Functional Microbial Genomics*. Academic Press. pp. 241-255.
- Rondon, M.R., August, P.R., Bettermann, A.D., Brady, S.F., Grossman, T.H., Liles, M.R., Loiacono, K.A., Lynch, B.A., MacNeil, I.A., Minor, C., Tiong, C.L., Gilman, M., Osburne, M.S., Clardy, J., Handelsman, J., and Goodman, R.M. 2000. Cloning the soil metagenome: a strategy for accessing the genetic and functional diversity of uncultured microorganisms. *Appl. Environ. Microbiol.* 66:2541-2547.