

## BIOGRAPHICAL SKETCH

**NAME:** Linda S. Birnbaum

**POSITION TITLE:** Division Director

### EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
University of Rochester, Rochester, NY	B.S.	1967	Biology
University of Illinois, Urbana, IL	M.S.	1969	Microbiology
University of Illinois, Urbana, IL	Ph.D.	1972	Microbiology

### PROFESSIONAL EXPERIENCE:

1972 Visiting Assistant Professor (Microbiology), University of Illinois, Urbana, IL  
1973-1974 Postdoctoral work (Biochemistry), University of Massachusetts, Amherst, MA  
1974-1975 Assistant Professor of Science, Kirkland (Hamilton) College, Clinton, NY  
1975-1979 Research Associate/Fellow/Scientist, Masonic Medical Research Laboratory, Utica, NY  
1979-1980 Senior Staff Fellow, National Toxicology Program, National Cancer Institute, RTP, NC  
1980-1989 Research Microbiologist/Supervisory Research Microbiologist, National Toxicology Program, NIEHS, RTP, NC  
1989-Present Director, Experimental Toxicology Division, RTP, NC  
1998-1999 Acting Associate Director of Health, NHEERL, RTP, NC  
2001-2002 Acting Director, Human Studies Division, Chapel Hill, NC

### PROFESSIONAL SOCIETIES:

Society of Toxicology  
American Society for Pharmacology and Experimental Therapeutics, International Union of Pharmacology  
NC Chapter of Society of Toxicology  
American Aging Association  
Gerontological Society  
American Association for the Advancement of Science  
Phi Beta Kappa  
Phi Kappa Phi  
Sigma Xi

### SELECTED AWARDS AND HONORS (1998 to present):

EPA Honor Award for Science Achievement in Health Sciences (2003)  
EPA Diversity Leadership Award (2001)  
Scientific and Technological Achievement Award (STAA), Honorable Mention (2x) (2000)  
STAA, Level II; Best Risk Assessment Paper, SOT (1999)  
STAA, Level III (1998)

**INVITED LECTURES/SYMPOSIA** (Sampling, 2000 to present): SAIC Characterization of the Dioxin Threat Symposium (2003); Brominated Flame Retardants Roundtable, San Francisco, CA (2003); RTP Women's History Month; University of Texas/Houston (2003); Loma Linda University, CA (2003); NC State University (2003); Dow Chemical Dioxin Briefing, Lansing, MI (2002); APHA Annual Meeting, Philadelphia, PA (2002); Brominated Flame Retardants Roundtable, San Francisco, CA (2002); Yale Vietnam/Agent Orange Conference, New Haven, CT (2002); Gordon Conference on Endocrine Disruptors, Mt. Holyoke College, MA (2002); Non-dioxin-like PCBs Workshop, Brussels, Belgium (2002); FSTRAC Meeting, Washington, DC (2002); Human Health Risk Assessment of Agent Orange/Dioxin Conference, Vietnam (2002); University of Illinois, Chicago, IL (2001); Conference on Endocrine Disruptors and Human Health, Lisbon, Portugal (2001); Brominated Flame Retardants Workshop, Stockholm, Sweden (2001); WHO Expert Meeting on Rapid Assays, Brussels, Belgium (2001); WHO Integrated Risk Assessment Workshop, Ispra, Italy (2001), LocalMotion, Detroit, MI (2001); Karolinska Institute, Sweden (2001); University of Zurich, Switzerland (2001); Cornell University, NY (2001); University of New Mexico (2000); APHA Annual Meeting (2000); CMA Workshop on Biomarkers, RTP, NC (2000); ASPET, Boston, MA (2000); AMAP Workshop, Rovaniemi, Finland (2000); Sinai School of Medicine, NY (2000); Environmental Mutagen

Society (2000); Bowman Gray School of Medicine; Endometriosis 2000, London, UK; University of Wisconsin, Madison, WI (2000); Dioxin 2000, CA.

**ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY** (1998 to present): GLNPO PBDE Grant Review (2003); State of Michigan Oral Bioavailability Scientific Review Committee (2001-2003); Serve on Board of SOT Vice President Succession (2002-2006); Chair, Division of Toxicology, ASPET (1998-2000); Executive Committee, RTP Drug Metabolism Discussion Group (2000); Dioxin Organizing Committee Member (1998-2000); International Society for the Study of Xenobiotics Executive Committee (1996-2000); External Advisory Committee for NIEHS Planning Grant for an EHS Center (1993-2003)

**ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY** (1998 to present): Agency-wide PBT Initiative (Present); NHEERL Drinking Water Implementation Plan Steering Committee (Present); Agency-wide BFR Group (Present); EPA CORE Operations Group (Present); EPA Human Health Risk Assessment Steering Committee (Present); ORD CCL Committee (Present); BFR Conference, RTP, NC (Present); Cross-Agency Workgroup on BFRs, Regions V and IX (Present); Review grants for Program Offices (Present); Dioxin Research Discussions, EPA HQ, Washington, DC (Present); Member of "Red Team" Emergency Response Team (Present); Working w/Regions to Develop PCB Superfund Guidance (2003); FSTRAC Speaker (2002); Speaker at Regional Risk Assessors on Endocrine Disruptors (2001)

**PUBLICATIONS (A sampling of recent publications, out of a total of over 260 peer-reviewed manuscripts):**

1. DeVito, Michael J.; Blackwell, Lavonda; Birnbaum, Linda S. The Effects of 2,3,7,8- Tetrachlorodibenzo-P-Dioxin in a Murine Model of Type II Diabetes. Submitted to Environmental Health Perspective (2003)
2. Birnbaum, Linda S., Staskal, Dniele F., and Diliberto, Janet J. Health Effects of Polybrominated Dibenzop-dioxins (PBDDs) and Dibenzofurans (PBDFs). *Environment International*. *In Press*. (2003)
3. Hamm, J.T.; Chen, C.-Y.; and Birnbaum, L.S. A Mixture of Dioxins, Furans and Non-Ortho PCBs Based Upon Consensus Toxic Equivalency Factors Produces Dioxin-like Reproductive Effects. *Toxicological Sciences*. *In Press* (2003)
4. Ross, Peter S. and Birnbaum, Linda S. Integrating human and ecological risk assessment: A case study of Persistent Organic Pollutants(POPs) in humans and wildlife. *Journal of Human and Ecological Risk Assessment*, Vol. 9, No.1, pp.303-324 (2003)
5. Birnbaum, Linda S.; and Fenton, S.E. Cancer and Developmental Exposure to Endocrine Disruptors. *Environmental Health Perspectives*, Vol 111 (4), 389-394 (2003)
6. Fenton, Suzanne E., Hamm, Jonathan, Birnbaum, Linda S. and Youngblood, Geri L., Persistent abnormalities in the rat mammary gland following gestational and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). *Toxicological Sciences*, 67: 63-74 (2002)
7. Slezak, B.P., Hamm, J.T., Reyna, J.,Hurst, C.H., , Birnbaum, L.S., 2,3,7,8- Tetrachlorodibenzo-p-dioxin (TCDD) mediated oxidative stress in male rat pups following perinatal exposure. *Journal of Biochemical and Molecular Toxicology*, Vol. 16, Page 49-52 (2002)
8. Birnbaum, L.S., Cummings, A.M., Dioxins and endometriosis: a plausible hypothesis. *Environmental Health Perspectives*, Vol. 110, number 1, Page 15-21 (2002)
9. Hurst, C., ,Abbott, B.D., Schmid, J.E., Birnbaum, L.S. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) disrupts early morphogenetic events that form the lower reproductive tract in female rat fetuses. *Toxicological Sciences* 65, 87-98 (2002)
10. Chen, C-Y, Hamm, J.T., Hass, J.R., Albro, P.W., and Birnbaum, L.S. A mixture of polychlorinated bidenzo-p-dioxins (PCDDs), dibenzofurans (PCDFS), and non-ortho polychlorinated biphenyls (PCBS) changed the lipid content of pregnant Long Evans rats. *Chemosphere* 46, 1501-1504 (2002).
11. Diliberto, J.J., Devito, M.J., Ross, D.G., and Birnbaum,L.S. Subchronic Exposure of 3H-2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) in Female B6C3F1 Mice: Relationship of Steady-State Levels to Disposition and Metabolism. *Toxiological Sciences*, 61:241-255 (2001)
12. Burgin, D.E., Diliberto, J.J., Derr-Yellin,E.C., Kannan, N., Kodavanti, P.R.S., Birnbaum, L.S., Differential Effects of Two Lots of Aroclor 1254: Enzyme Induction, Thyroid Hormones and Oxidative Stress. *Environmental Health Perspectives*, 109:1163-1168 (2001)
13. Chen, C-Y, Hamm, J.T., Hass, J.R., and Birnbaum, L.S. Disposition of polychlorinated dibenzo-p-dioxins (PCDDs), dibenzofurans (PCDFs), and non-ortho polychlorinated bibhenylsn(PCBs) in pregnant Long Evans rats and transfer to offspring. *Toxicology and Applied Pharmacology*. *Toxicology and Applied Pharmacology* 173, 65-88 (2001)