

Ernest D. Lykissa, Ph.D.	POSITION TITLE: Scientific Director, ExperTox, Inc. 1803 Center St. Suite A. Deer Park, Texas 77536 Ph. 281-476-4600, Fax. 281-930-8494		
EDUCATION	DEGREE	YEAR(s)	FIELD OF STUDY
INSTITUTION AND LOCATION			
California State University, Long Beach, CA	B.S.	1970	Microbiology
California State University, Long Beach, CA	M.S.	1971	Microbiology
University of Montreal, Canada	Ph.D.	1979	Medicine and Experimental Surgery

PROFESSIONAL EXPERIENCE:

- 1984-1987** Toxicologist, Department of Pathology. Memorial Hospital, Long Beach, CA
- 1987-1992:** Director of Toxicology, SmithKline Beecham NIDA Forensic Toxicology Laboratory, Van Nuys, California
- 1992-pres:** Inspector, Department of Health and Human Services, And National Laboratory Certification Program
- 1992-1997:** Director of Forensic Toxicology, Premier Analytical Laboratories, Houston, TX
- 1994-1995:** Toxicology Consultant, Baylor College of Medicine, and Houston, TX
- 1996-pres:** Inspector, College of American Pathology, Forensic Laboratory Accreditation Program.
- 1996-1998:** Assistant Professor, Department of Pathology, Baylor College of Medicine, Houston, TX.
- 1998-2000:** Associate Professor, Department of Pathology, Baylor College of Medicine, Houston, TX.
- 1996-2000** Scientific Director, Baylor Toxicology Services (Baytox Inc.) division of the Department of Pathology, Baylor College of Medicine, Houston, TX.

The laboratory was established as a Houston community outreach effort on behalf of the Department of Pathology. It involved the establishment, totally equip a laboratory, and train the personnel, with Inductively Coupled Argon Plasma-Mass Spectrometry for the detection of heavy metals to include lead, mercury, cadmium, arsenic, chromium, beryllium and platinum in human body fluids and tissue. In addition samples analyzed in the laboratory consisted of analyses for Drug Residues utilized in the clinical practice of the Texas Medical Center of Houston. The technologies utilized primarily in these functions were GC/MS and LC/MS, depending on the particular drug targeted in the analysis.

As a follow up to the positive detection of arsenic, chromium and platinum, speciation (establishment of the valence state) of the metal ions detected was performed. The establishment of the toxic risk assessment in these analyses was performed with ion chromatography coupled to the ICP-MS. In the other hand GC/MS detection was utilized with head - space analysis for the presence of organic solvent residue in human tissues and body fluids to establish the human toxic exposure in the industrial workplace. In addition, GC/MS was employed for the forensic confirmation of drugs of abuse, pesticides, and other industrial contaminants i.e., phthalates.

2000-pres: Scientific Director, ExperTox, Inc., Analytical and Forensic Laboratories, Deer Park, TX.

Numerous opportunities to practice in courts (Federal, State, Civil, Family), and at the FDA and NIDA divisions of the Federal Department of Health and Human Services, the science/art of Forensics (bringing the analytical toxicology data to court), to either prosecute or defend. Professional collaborations as an expert in Toxicology with Legal Practitioners in the Forensic arena, spanning a period in excess of 25 years involving intoxicants (drugs of abuse, alcohol, and environmental toxins (including Heavy Metals). Awarded College of American Pathologists Forensic Drug Testing Accreditation, Oklahoma State approved laboratory and Texas Department of Public Transportation approved laboratory.

HONORS AND AWARDS:

- 1976: Canadian Olympic Games Award for Meritorious Contribution, (Chief Mass Spectrometrists at the Doping Control Lab)**
- 1986: Visiting Professor, International Association of Toxicology, and University of Athens, Greece**
- 1989: Hewlett Packard award for Forensic Mass Spectrometry, American Association of Clinical Chemistry**
- 1994: Main Speaker Award of Excellence at Houston's Business, Drug Free Initiative Conference, and Houston, TX**
- 1995: Southwestern Association of Toxicologists, Annual Award for Merit**

PROFESSIONAL SOCIETIES:

**American Association of Clinical Chemistry
California Association of Toxicology
Society of Forensic Toxicology (SOFT)
Southwestern Association of Toxicology
American Chemical Society (ACS)
Society of Toxicology
American Society of Investigative Pathology**

PUBLICATIONS:

- Lykissa, E.D., Kourounakis, P., and Selye, Hans. (1978). Hepatic Intracellular Distribution of Pregnenolone-16alpha-carbonitrile and its Influence on Adenyl Cyclase Activity in Rat Liver Cells. Research Communications in Chemical Pathology & Pharmacology. 19:173-176.**
- Lykissa, E.D., Kala, S.V., Hurley, J.B., and Lebovitz, R.M. (1997) Release of low molecular weight silicones and from Silicone Breast Implants. Anal. Chem. 69:4912-4916.**
- Kala, S.V., Lykissa, E.D., and Lebovitz, R.M., (1997) Detection and Characterization of Poly (dimethylsiloxanes) in Biological Tissues by GC/AED and GC/MS. Anal. Chem. 69:1267-1272.**

- Kala, S.V., Lykissa, E.D., Neely, M.W., and Lieberman, M.W. (1998) Low molecular weight silicones are widely distributed after a single subcutaneous injection in mice. *Am. J. Pathol.* 152:645-649.
- Lieberman, M.W., Lykissa, E.D., Barrios, R., Ou, C.N., Kala, G., and Kala, S.V. (1999) Cyclosiloxanes Produce Fatal Liver and Lung Damage in Mice. *Envir. Health Perspectives* 107:161-165.
- Hanigan, M.H., Lykissa, E.D., Townsend, D.M., Ou, C.N., Barrios, R., and Lieberman, M.W. (2001) γ -Glutamyl Transpeptidase-Deficient Mice Are Resistant to the Nephrotoxic Effects of Cisplatin. *Am. J. Pathol.* 159:1889-1894.
- Buchman, A.S., Neely, M., Grossie, B., Jr., Truong, L., Lykissa, E.D., Ahn, C. (2001) Organ heavy-metal accumulation during parenteral nutrition is associated with pathologic abnormalities in rats. *Nutrition.* 17:7/8, 600-606.
- Markaverich, B.M., Alejandro, M., Faith, R., Montgomery, C., Kala, S.V., Lykissa, E.D., and Lieberman, M.W. Cyclic Siloxane Interactions with Human Breast Cancer Cells: Interaction with Type II [3H] Estradiol Binding Sites and Modulation of Cellular Proliferation. (Accepted in *Journal of Toxicology*, 2004).
- Smith, C.L., Lykissa, E.D., and Lieberman, M.W. Regulation of estrogen receptor transcriptional activity by siloxanes. (In preparation).
- E.D. Lykissa, James D. Smith, Bhadra, R., Darcey Weimand, Christopher I. Prater, Matthew W. Neely, Jacqueline V. Shanks, Joseph B. Hughes. Comparative Toxicity of Phytoremediated Trinitrotoluene (TNT) by *Catharanthus roseus* Axenic Cultured Roots and *Myriophyllum paludosa* plants, on *Pomacea paludosa* (Apple Snail), C57 Female Mice and Sprague Dawley Female Rats. *Environmental Health Perspectives* Accepted for publication.
- Lykissa, E.D. FDA testimony, October 14, 2003. Cyclosiloxane and Platinum Toxic Burden associated with aged silicone filled breast implants.
- Susan V.M. Maharaj & E.D. Lykissa. Platinum and Platinum Species in Explanted Silicone Gel Prosthetic Devices Using IC-ICP-MS. Presented at the 228th American Chemical Society Congress, Philadelphia, PA., August 26th 2004.
- Lykissa, E.D. and Maharaj, S.V.M. Total Platinum Concentration and Platinum Oxidation States in Body Fluids, Tissue, and Explants from Women Exposed to Silicone and Saline Breast Implants by IC-ICPMS. Published in *Analytical Chemistry* Volume 78, Number 9, Pages 2925-2933, May 1, 2006.
- Lykissa, E.D. User Profile: ExperTox Inc. Specialists in Toxicology Testing. Published in *Agilent ICP-MS Journal* January 2004; Issue 18, Page 4.
- Lykissa, E.D., Anderson, L.M., Gonzalez, C.A., Frink, B.M., Uretsky, B.F. With Arsenic, Things Are Not Always What They Seem. Presented at the Southwestern Association of Toxicologist, Albuquerque, NM, May 2-3 2003.

- **Lykissa, E.D., Anding, K., Cocaine, Phencyclidine, Opioids, Amphetamines in Hair by LC/MS. Presented at the Society of Forensic Toxicology Conference 2006.**
- **Anding, K, Moody, C., & Lykissa, E.D, Comparison of Propranolol Quantitation Using GC/MS-EI vs GC/MS-PCI and GC/MS-NCI and the Optimization of Liquid-Liquid Extraction. Presented at the 39th Annual Oak Ridge Conference, Harnessing New Technology for Clinical Diagnostics. April 19-20 2007.**

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