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Jason S. Harner, B.S.
Forensic Chemist

Karl V. Ebner, Ph.D., D.A.B.T.

Forensic Toxicologist

October 17, 2007

SUMMARY

- Certified Toxicologist, Diplomate American Board of Toxicology. Committed to resolving forensic issues through toxicology and pharmacology principles. Background: forensic & clinical toxicology, forensic consulting, methods research and development, *in vitro* diagnostic (IVD) design review, quality system regulations, vaccine R&D, and biochemical toxicology. Developed *in vivo* animal models with diagnostic tests for Reye's Syndrome, Alzheimer's Disease, and organophosphate delayed neurotoxicity.

PROFESSIONAL EXPERIENCE

- **KETox Forensic Toxicology Consulting, Okemos, MI** **2001-2007**
 - Consults: TASA, and Speckin Forensic Labs.
 - Expert reports, depositions, and opinions for both prosecution and defense concerning: 1) blood & breath alcohol concentrations, and instrument operation and performance by DataMaster, Alco-Sensor II & III, and GC; 2) drugs, drugs of abuse, and drug-alcohol interaction(s); 3) under the influence, culpability, maladaptive behavior, and nonconsensual sex; and 4) worker safety, wrongful deaths and disease etiology.
 - Facilitated FEMA forensic facility restoration in Orleans Parish after hurricane Katrina.
- **Forensic Toxicologist Toledo Metro Drug Unit** **1972-1974**
Metro Drug Unit for Monroe, MI, Toledo & Bowling Green, OH, and established drugs and drugs of abuse screen for U.S. Air Force.
- **Forensic & Clinical Toxicology, Ohio State University** **1974-1979**
Toxicology Lab
Forensics, toxology, pharmacology and clinical consultations to doctors for overdoses, therapeutic monitoring, & cause of death thru pharmacokinetics & pharmacodynamics.
- **Professional Team Member, Senior Scientist, Project & Team Leader** **2000-2006**

ABBOTT LABORATORIES, Abbott Park, Illinois

Upgraded quality control and assurance in Design Reviews of IVDs for HIV-1/2, HTLV-I/II, hepatitis B, uterine and breast cancers, toxoplasmosis, rubella, drug monitoring, controlled substances and reference selection plans.

- **Scientist & Unit Chief Michigan Public Health & BIOPORT Corp., 1989-2000
Lansing, Michigan**
 - Improved anthrax, pertussis and tetanus vaccines recovery, safety, efficacy and purity.
 - Implemented and trained chemical hygiene plan and blood borne pathogen standard.
 - Chaired Lab Safety and Chemical Hygiene Committee.
 - Scientific Advisory Committee for Michigan Agent Orange Commission.
- **Project leader and Postdoctoral Research Associate 1983-1989
Michigan State Univ. Pesticide Research Center & Toxicology & Pharmacology Dept.,
East Lansing, Michigan.**

Determined toxic mechanism for dioxin (e.g., Agent Orange) & dioxin like compounds (e.g., PCBs, PBBs) to induce wasting, cachexia, diabetes, and inflammation as the chemical model for Reye's Syndrome.
- **Neurotoxicology 1982**
University of Michigan, Environmental & Industrial Toxicology, Ann Arbor, Michigan
- **Enzymology 1979 - 1981**
Serveo Ochoa Instituto de Investigaciones Citologicas, Valencia, Spain

EDUCATION

- **OHIO STATE UNIVERSITY, Columbus, Ohio**
Ph.D. Pharmacology, 1979
B.Sc. Biochemistry, 1970

PROFESSIONAL ASSOCIATIONS AND DEVELOPMENTS

- Diplomat of American Board of Toxicology **1997 to present**
- Society of Toxicology, Full Member **1992 to present.**
- American Assoc. for the Advancement of Science **1978 to present**
- Toxicokinetics and Physiologically-Based Pharmacokinetic in Toxicology and Risk Assessment **2000**
- Antibodies as Reagents to Evaluate Toxicant-Mediated Signal Transduction Pathways **2000**
- Metabonomics – A New Approach to Drug Toxicity Screening Using NMR Spectroscopy, Pattern Recognition and Expert Systems **2000**
- Adrenal Gland: Mechanisms of Toxicity and Endocrine Disruption **2004**

EXPERT DEPOSITIONS and REPORTS

- Ebner, K. 2007. Deposition on failure of simulator control chart data delineated in MSP BrAC DataMaster Manual to substantiate accuracy and precision as required by federal regulations (scheduled Oct. 2007).
- Ebner, K. 2007. Expert deposition resolving drug interactions impacting diabetic lactic acidemia without ketogenesis vs culpability of DUI of alcohol (9/6/07).
- Ebner, K. 2007. Expert authority on DataMaster operation and performance. Deposition that dismissed DataMaster BAC results due to quality assurance failure of historical simulator control data (7/19/07).
- Ebner, K. 2007. Expert deposition on discrepancies between DataMaster BrAC determination vs. BAC with ethanol dose, metabolism and elimination (6/24/07).

- Ebner, K. 2007. Resolution of consensual sex under the influence of antidepressant, Wellbutrin (Bupropion), and alcohol. (5/1/07, consult)
- Ebner, K. 2007. Resolution of defendant's gas chromatographic BAC measurement (0.34) vs. defendant's sobriety evaluation and quality assurance. (4/25/07, consult)
- Ebner, K. 2007. Impact of coumadin therapy on bruising injuries with assault and battery. Deposition pending.
- Ebner, K. 2007. OUI of drug(s) and resolution of confounding influences between controlled substances vs. medical treatments with: 1) antiinflammatory prednisone for rheumatoid arthritis, inflammatory bowel disease, and nephrotic syndrome; 2) analgesics Fiorinal (Codeine-Aspirin-butalbital-caffeine) and propoxyphene napsylate; 3) muscle relaxant and sedative Soma + meprobamate; 4) anti-hypertensive lisinopril; 5) diuretics Spironolactone + furosemide and potassium supplements; and 6) gastric acid reflux treatments with Ranitidine and Sucralfate, respectively. (4/19/07)
- Ebner, K. 2007. Resolved culpability, behavioral influences, and interactions between BAC and therapeutic interventions for diabetes (Glucophage/metformin), hypertension (felodipine), allergies (Claritin), pain (opiate analgesics), depression (Wellbutrin & metabolite), and sedation (Xanax). (4/25/07).
- Ebner, K. 2007. Resolved impact on memory recall by interactions between BAC, opiate analgesics (Hydrocodone), and hypothyroidism. Deposition and report (5/1/07).
- Ebner, K. 2007. BrAC determinations by DataMaster vs. Alco-Sensor III and false positive BAC without deprivation period. (3/25/07).
- Ebner, K. 2007. DataMasterBlood alcohol elevation and prolonged duration in combination with Verapamil heart medication. Deposition. (4/5/07)
- Ebner, K. 2007. False positive cocaine/benzoylcegonine immunocompetitive assay interpretation (e.g., Rapid Drug Screen, Monitox) without confirmation testing by GC-MS. Deposition (5/11/07).
- Ebner, K. 2007. Operating under the influence and sleep driving in a bipolar individual on schedule IV Ativan and Xanax and sedative interactions during redistribution phase with valproic acid, bupropion, tramadol and their active metabolites. (3/9/07)
- Ebner, K. 2006. Nonconsensual sex and under the influence of marijuana, cocaine, Soma and Ambien. (2/27/06).
- Ebner, K. 2006. Cocaine sample uniformity differences between a large seized cache vs. smaller client's sample. Deposition (5/1/06)
- Ebner, K. 2006. Resolution of a coincidental Type 2 diabetes onset in an obese woman with familial and ethnic diabetic predisposition following an excessive dose of the rheumatoid arthritic drug, Enbrel (anti-tumor necrosis factor α). (5/6/06)
- Ebner, K. 2006. Under the influence of marijuana and detection of inactive metabolite, THCCOOH, in an electrocuted worker without ocular petechiae at autopsy. (3/9/06)
- Ebner, K. 2005. Unlawful death determination of a severely retarded patient by an overdose of antiseizure medicine, carbamazepine, based on pharmacokinetics, blood concentration, and the active (10,11-epoxide) metabolite at the time of death. (10/21/05)

PUBLICATIONS and PROFESSIONAL REVIEW

- Ebner, K. 2007. Neurotoxicology Chapter Review, American Industrial Hygiene Association.
- Ebner, K. 2007. Hepatic Toxicology Chapter Review, American Industrial Hygiene Association.
- Ebner, K. 2004. Aroclor 1254 Chemical Model for Reye's Syndrome. (Abstr. #1193). Society of Toxicology Annual Meeting. Baltimore, MD.
- Ebner, K. 2005. Aroclor 1254 Chemical Model for Reye's Syndrome, Mixture Toxicology (Abstr #20) Symposium. Atlanta, GA. And Linthicum, MD (2006).
- Ebner, K. 2006. Aroclor 1254 Chemical Model for Reye's Syndrome, 2nd International Conference on Bioindicators. Linthicum, MD (2006).
- Ebner, K., Matsumura, F., Enan, E. and Olsen, H. 1993. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) alters pancreatic membrane tyrosine phosphorylation following acute treatment. J Biochem Toxicology 8(2), 71-81.

- Ebner, K. and Couri, D. 1988. Aroclor 1254 treatment and fasting influences on rat liver mitochondrial citrulline synthesis with ADP and ATP. *Toxicol. Appl. Pharmacol.* 96, 75-84.
- Ebner, K., Brewster, D.W., AND Matsumura, F. 1988. Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on serum insulin and glucose levels in the rabbit. *J. Environ. Sci. Health B23*, 427-38.
- Madhukar, B.V., Ebner, K., Matsumura, F., Bombick, D.W., Brewster, D.W., and Kawamoto, T. 1988. 2,3,7,8-Tetrachlorodibenzo-p-dioxin causes an increase in protein kinase associated with EGF receptor in the hepatic plasma membrane. *J. Biochem. Toxicology* 3, 261-77.
- Ebner, K. and Braselton, W.E. 1987. Structural and chemical requirements for the hydroxylated polychlorinated biphenyls to uncouple rat liver mitochondria and the potentiation of uncoupling with Aroclor 1254. *Chemical-Biological Interactions* 63, 139-155.
- Ebner, K. and Braselton, W.E. 1987. Permeability changes in hepatic mitochondria and altered glucose and urea metabolism in Aroclor 1254 treated rats. *J. Toxicol. Environ. Hlth.* 22, 45-62.
- Ebner, K., Bergen, W.G., and Braselton, W.E. 1987. Nitrogen deficits in Aroclor 1254 treated rats. *Fund. Appl. Toxicol.* 8, 89-96.
- Hledin-Branatowska, M. Ebner, K. and Mayor, G. 1986. In vivo and in vitro effects of aluminum on rat liver mitochondrial functions. *Biological Trace Element Research* 10, 235-42.
- Ebner, K., 1983. Fluorescent probe study with 1-anilino-8-naphthalene sulfonate on acetylglutamate activation, ATP binding and conformation changes of rat liver carbamoylphosphate synthase. *Biochim. Biophys. Acta* 746, 87-96.
- Ebner, K., 1983. Stoichiometric trapping of the putative carboxyphosphate on rat liver carbamoylphosphate synthase (ammonia) and cofactor influences. Poster FASEB, St. Louis, MO.
- Couri, D., Ebner, K., and Liss, L., 1980. Determination of aluminum in biological samples. *Neurotoxicology* 1, 17-24.
- Liss, L., Ebner, K. and Couri, D. 1979. Neurofibrillary tangles induced by a sclerosing angioma. *Hum. Pathol.* 1, 104-108.