

APPENDIX B

References Reviewed but Not Included Critical Evaluation

Albright, J.F., and R.A. Goldstein. 1996. Airborne pollutants and the immune system. *Otolaryngol Head Neck Surg.* **114**(2): 232 – 238.

The article reviews how the immune system is influenced by a variety of airborne pollutants. The article discusses mercury as triggering autoimmune disease and that there is a genetic predisposition towards this self-reactivity. Susceptibility to mercury-induced pulmonary and glomerular autoimmune disease has been identified in the H-2 haplotype of mice and in the brown Norway strain of rat. The form of mercury is not specifically addressed in most of the discussion.

Aschner, M. and S.J. Walker. 2002. The neuropathogenesis of mercury toxicity. *Mol. Psychiatry.* **7**(Suppl 2): S40 – S41.

Review article primarily addressing ethylmercury and methmercury toxicity. Not of use for this project.

Authors unknown. 2001. *Handbook of Pesticide Toxicology.* **2**: 1370

The information in this article is brief and is not of use for this project.

Clarkson, T.W. 1997. The toxicology of mercury. *Crit. Rev. Clin. Lab. Sci.* **34**(4): 369 – 403.

The article provides a good overview of mercury exposure, biochemistry, ADME, and toxic effects.

Clarkson, T.W. 1998. Human toxicology of mercury. *J. Trace Elem. Exp. Med.* **11**(2-3): 303 – 317.

This article provides a summary of the main findings of the WHO Expert Committee review. Information is provided on the health effects observed from occupational exposures.

Daniels, J.L., Rowland, A.S., Longnecker, M.P., Cook, M., and J. Golding. 2001. Dental treatment, fish consumption, and mercury exposure during pregnancy in relation to child neurodevelopment. *Am. J. Epidemiol.* **153**(11): S184.

The information provided by this reference is a summary of the study. The study identified no association between dental work or fish intake with overall developmental test scores. Additional information about this study was not found on TOXLINE or on the National Institute of Environmental Health Sciences (NIEHS) website (which is identified on the summary).

Goering, P.L., Morgan, D.L. and S.F. Ali. 1998. Effect of mercury vapor inhalation on reactive oxygen species (ROS) and antioxidant enzymes in rat brain and kidney. *Toxicologist.* (Soc. of Toxicology Inc.). **42**: 193.

The information provided by this reference is a summary of the study. The study supports the hypothesis that oxidative stress and changes in the activities of antioxidant enzymes may contribute to mercury vapour toxicity. Additional information about this study was not found on NIEHS or National Centre for Toxicological Research websites (which are identified on the summary).

Goldman, L.R., and M.W. Shannon. 2001. Technical report: Mercury in the environment: Implications for pediatricians. *Pediatrics.* **108**(1): 197 – 205.

This is a review article of all mercuric forms.

Herr, D.W., Chanda, S.M., Graff, J.E., Karca, O., Beliles, R.P., and D.L. Morgan. 1999. Evaluation of sensory evoked potentials in Long Evans rats gestationally exposed to mercury (Hg⁰)vapor. *Toxicologist*. **48**(1-S): 242.

The information provided by this reference is a summary of the study.

Kazantzis, G. 2002. Mercury exposure and early effects: An overview. *Med. Lav.* **93**(3): 139 – 147.

The articles provides a good summary of the health effects observed in occupational settings and by the general population.

Langford, N., and R. Ferner. 1999. Toxicity of mercury. *J. Hum. Hypertens.* **13**(10): 651 – 656.

The articles provides a summary of the health effects of mercury.

Lodenius, M. and O. Malm. Mercury in the Amazon. *Rev. Environ. Contam. Toxicol.* **157**: 25 – 52.

This article addresses the movement of mercury in the Amazonian environment and the levels of mercury in human hair and fish samples in the area.

Magos, L. 1997. Physiology and toxicology of mercury. *Met. Ions Biol. Syst.* **34**: 321 – 370.

This article provides a good review of the absorption, biotransformation, distribution, excretion and toxicology of various forms of mercury. The information provided is similar to that found in an ATSDR profile and is useful in understanding the results of the studies reviewed.

Moszczyński, P. 1999. Immunological disorders in men exposed to metallic mercury vapour. A review. *Cent. Eur. J. Public Health.* **7**(1): 10 -14.

This article provides a review of the immunological effects of mercury vapour exposure.

Pendergrass, J.C., and B.E. Haley. 1997. Inhibition of brain tubulin-guanosine 5'-triphosphate interactions by mercury: Similarity to observations in Alzheimer's diseased brain. *Met. Ions Biol. Syst.* **34**: 461 – 478.

Review article.

Risher, J.F., De Rosa, C.T., Jones, D.E. and H.E. Murray. 1999. Summary report for the expert panel review of the toxicological profile for mercury. *Toxicol. Ind. Health.* **15**(5): 483 – 516.

This article summarizes the information discussed during a meeting held by a panel of experts to review the 1999 Toxicological Profile for Mercury. The information discussed during this meeting contributed to the final profile.

Risher, J.F., Nickle, R.A. and S.N. Amler. 2003. Elemental mercury poisoning in occupational and residential settings. *Int. J. Hyg. Environ. Health.* **206**(4-5): 371 – 379.

This article provides a general overview of elemental mercury sources and health effects. In addition, the articles presents two case studies, one occupational exposure and one residential exposure. In the occupational exposure a women was exposed to very high level of mercury vapour (300 micrograms per m³) over 18 months and exhibited numerous symptoms. In the residential exposure, 20 to 25 children were exposed to mercury through play, of which six manifested mercury toxicity. Urine mercury

concentrations ranged from 428 to 40 µg/L. Mercury concentrations measured in one home ranged from 53 to 1,764 µg/m³.

Satoh, H. 2000. Occupational and environmental toxicology of mercury and its compounds. *Ind. Health*. **38**(2): 153 – 164.

This article reviews the health effects of mercury and the use of exposure markers.

Stein, J., Schettler, T., Wallinga, D., and M. Valenti. 2002. In harm's way: Toxic threats to child development. *J. Dev. Behav. Pediatr.* **23**(1 Suppl): S13 – S22.

Review article summarizing toxicity of several compounds.

Sweet, L.I., and J.T. Zelikoff. 2001. Toxicology and immunotoxicology of mercury: A comparative review in fish and humans. *J. Toxicol. Environ. Health Part B. Crit. Rev.* **4**(2): 161 – 205.

This article provides a general review of mercury sources; absorption, distribution, metabolism and excretion (ADME), and immunotoxicology.

Tchounwou, P.B., Ayensu, W.K., Ninashvili, N., and D. Sutton. 2003. Environmental exposure to mercury and its toxicopathologic implications for public health. *Environ. Toxicol.* **18**(3): 149 – 175.

This article provides a review of mercury sources and health effects. A lengthy discussion is provided concerning immunotoxic effects.

Woods, J.S. 2002. Mercury and the central nervous system. *Environ. Health Perspect.* **110**(4): A177

This article is correspondence that addresses a previous article called Environmental Aftermath in *Environmental Health Perspectives*, 109:A530 (2001). The article entitled Environmental Aftermath is not of relevance for this project.

Yoshida, M. 1998. Elemental and inorganic mercury poisoning. *Jap. J. Toxicol. Environ. Health.* **44**(3): 168 – 181.

The article provides a review of elemental and inorganic mercury poisoning. The text, with the exception of the abstract, is not written in English and therefore cannot be reviewed.

Zalups, R.K. 2000. Molecular interactions with mercury in the kidney. *Pharmacol. Rev.* **52**(1): 113 – 143.

This article reviews the mechanisms involved in the renal cellular uptake, accumulation, elimination and toxicity of mercury. Although this article is relevant in understanding mercury toxicity in the kidney, the information provided cannot be used directly to establish a mercury RfC.