

REFERENCES

- Bearn, A.G. and Kunkel, H.G. 1952. Biochemical Abnormalities in Wilson's disease. Journal of Clinical Investigation 31 : 616.
- Berman, E. 1966. The biochemistry of lead : Review of the body distribution and methods of lead determination. Clinical Pediatrics 5 : 287-291.
- Chisolm, J.J. 1971. Lead poisoning. Chemistry in the environment (Haminton, C.L. ed.) U.S.A. : Freeman and company. 335-343.
- Chisolm, J.J. and Thomas, D.J. 1985. Use of 2,3-Dimercaptopropane-1-sulfonate in Treatment of Lead Poisoning in Children. Journal of Pharmacology and Experimental Therapeutics 235 (3) : 665-669.
- Cousins, R.J. 1985. Absorption, transport, and hepatic metabolism of copper and zinc : Special reference to metallothionein and ceruloplasmin. Physiological Reviews 65 (2) : 238-309.
- Dwyer, F.P. and Mellor, D.P. 1964. Chelating agents and metal chelates. Academic Press New York and London : 387-439.
- Fox, P.L., Mukhopadhyay, C. and Ehrenwald, E. 1995. Structure, oxidant activity, and cardiovascular

- mechanisms of human ceruloplasmin. Life Sciences 56 (21) : 1749-1758.
- Goodman, L.S. and Gilman, A. 1975. Heavy Metals and Heavy-Metal Antagonists. The Pharmacological Basis of Therapeutics (5th ed.) U.S.A.: Macmillan Publishing Company. 912-923.
- Goyer, R.A. 1991. Toxic effects of metals. In : Casarett and Doull's Toxicology : The basic science of poisons (Amdur, M.O., Doull, J. and Klaassen, C.D. eds.) 4th ed. U.S.A. : Pergamon Press. 639-656.
- Gutteridge, J.M.C. and Stock, J. 1981. Caeruloplasmin : Physiological and pathological perspectives. Critical Reviews in Clinical Laboratory Sciences (July) : 257-329.
- Holmberg, C.G. and Laurell, C.B. 1948. Investigations in serum copper II. Isolation of the copper containing protein, and a description of some of its properties. Acta Chemica Scandinavica 2 : 550-556.
- _____. 1951. Investigations in serum copper III. Caeruloplasmin as an enzyme. Acta Chemica Scandinavica 5 : 476-480.
- Humoller, F.L., Majka, F.A., Barak, A.J., Stevens, J.D. and Holthaus, J.M. 1958. Determination of plasma amine oxidase activity. Clinical Chemistry 4 : 1-13.
- Kaldor, G. 1983. Ceruloplasmin ; General properties. Methods in Laboratory Medicine 3 : 146-148.

- Kaushansky, A., Frydman, M., Kaufman, H. and Homburg, R. 1987. Endocrine studies of the ovulatory disturbances in Wilson's disease (hepatolenticular degeneration). Fertility and Sterility. 47 (2) : 270-273.
- Kehoe, R.A. 1961. The metabolism of lead in health and disease. Archieve of Environmental Health 2 : 418-422.
- Killander, J. 1964. Biochimica et Biophysica Acta 93 : 1-14.
- Laurie, S.H. and Mohammed, E.S. 1980. Caeruloplasmin : The enigmatic copper protein. Coordination Chemistry Reviews 33 : 279-312.
- Lowry, O.H., Rosebrough, N.J., Farr, A.L. and Randall, R.J. 1951. Protein measurement with the Folin Phenol Reagent. Journal of Biological Chemistry 193 : 265-275.
- Messerschmidt, A. and Huber, R. 1990. The blue oxidases, ascorbate oxidase, laccase and ceruloplasmin. Journal of Biochemistry 187 : 341-352.
- Michaelis, L., Granick, S. and Akerfeldt, S. 1957. Oxidation of N,N-dimethyl-p-phenylenediamine by serum from patients with mental disease. Science 125 : 117-119.
- Naovarat Suwanabun. 1993. Lead pollution. Medical Times Jan : 26-29.
- Ohchi, H., Gunshin, H., Katayama, T. and Kato, N. 1985. Effect of dietary PCB on the metabolism of eight

trace elements (iron, zinc, copper, manganese, molybdenum, chromium, nickel and cobalt) in rats. Nutrition Reports International 32 : 535-538.

Oosthuizen, M.M.J., Nel, L., Myburgh, J.A. and Crookes, R.L. 1985. Purification of undegraded ceruloplasmin from outdated human plasma. Analytical Biochemistry 146 : 1-6.

Orapan Metadilogkul. 1992. Lead poisoning. Thai Journal of Occupational and Environmental Medicine 2(2) : 7-19.

Orten, J.M. and Neuhaus, O.W. 1982. Nutrition : normal and clinical. Human Biochemistry (10th ed.) U.S.A. : The C.V. Mosby Company. 717-725.

Osaki, S., Johnson, D.A. and Frieden, E. 1966. The possible significance of the ferrous oxidase activity of ceruloplasmin in normal human serum. The Journal of Biological Chemistry 241 (12, June 25) : 2746-2751.

Starosta-Rubinstein, S. *et al.* 1987. Clinical assessment of 31 patients with Wilson's disease : Correlations with structural changes on magnetic resonance imaging. Archives of Neurology. 44 : 365-370.

Sunderman, F.W., and Roszel, N.O. 1967. Measurement of copper in biologic materials by atomic absorption spectrometry. The American Journal of Clinical Pathology. 48 (3) : 286-294.

Sunderman, F.W. and Nomoto, S. 1970. Measurement of human serum ceruloplasmin by its p-phenylenediamine

- oxidase activity. Clinical Chemistry 16 : 903-910.
- Suphitcha Mangkalee. 1994. Characterization of lead-binding protein in human serum. Master's Thesis, Chulalongkorn University.
- Whitehouse, A.C., Prasad, A.S., Rabbani, P.I. and Cossack, Z.T. 1982. Zinc in plasma, neutrophils, lymphocytes and erythrocytes as determined by Flameless Atomic Absorption Spectrophotometry. Clinical Chemistry 28 (3) : 475-480.
- Winship, K.A. 1989. Toxicity of lead : A review. Adverse Drug Reactions and Acute Poisoning Review 8(3) : 117-152.
- Wolf, P. *et al.* 1973. Serum ceruloplasmin determination. Practical Clinical Enzymology and Biochemical Profiling : Techniques and Interpretations U.S.A. : A Wiley-Interscience Publication by John Wiley & sons. Inc. 26-29.



BIOGRAPHY

Miss Rosawan Srivoravit was born on January 20, 1971 in Bangkok, Thailand. She graduated with the Bachelor degree of Science in Biochemistry from Chulalongkorn University in 1992.