

BIOGRAPHICAL SKETCH

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NAME William B. Weglicki, M.D.		POSITION TITLE Professor	
eRA COMMONS USER NAME \$21ALEXANDER			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION		DEGREE (if applicable)	YEAR(s)
Loyola College, Baltimore, MD University of Maryland, Baltimore, MD		B.S. M.D.	1958 1962
			Pre-Medicine Medicine

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

A. PROFESSIONAL POSITIONS AND HONORS:

1962-1964 Intern & Resident in Medicine, Georgetown University Hospital
1964-1966 Instructor in Medicine, (Fellow in Cardiology), Duke Univ. Medical Center
1966-1968 Research Associate, Johns Hopkins University and NICHHD
1968-1972 Instructor in Medicine, Harvard Medical School
1968-1972 Junior Associate in Medicine, Peter Bent Brigham Hospital
1972-1975 Assistant Professor of Medicine, Harvard Medical School
1972-1975 Associate in Medicine, Peter Bent Brigham Hospital
1973-1975 Director, Cardiovascular Lipid Clinic and Laboratory, Peter B. Brigham Hosp.
1975 Associate Professor of Medicine, Harvard Medical School
1975-1981 Professor of Biophysics and Medicine (Cardiology); Chairman of Department of Biophysics, Medical College of Virginia, V.C.U.
1981-1985 Professor of Medicine (Cardiology), Univ. of Oklahoma, School of Medicine
1981-1985 Member and Head, Cardiovascular Research Program, Oklahoma Medical Research Foundation
1985-2004 Professor of Medicine and Physiology, GWUMC; Director, Division of Experimental Medicine
1991-2004 Interim Chairman, Dept. Physiology & Experimental Medicine, GWUMC
2004-present Professor of Medicine, and Biochemistry & Molecular Biology, Director, Division of Experimental Medicine, GWUMC

Recent Honors

2000-2006 President-elect/President, International Society for Heart Research, N. American Section.
2002-2007 Co-chair/Chair, Gordon Conference, Magnesium in Biochemical Process and Medicine.
2003 Seelig Research Prize, American College of Nutrition
2004-2005 NHLBI and NCCAM Study Sections.

Editorial Boards: J. Mol. Cell. Cardiol.; Mol. Cell. Biochem; Magnesium Research

B. SELECTED PUBLICATIONS:

Mak IT, Chmielinska J, Nedelec L, Torres A, **Weglicki WB**. D-propranolol attenuates lysosomal iron accumulation and oxidative injury in endothelial cells. *J. Pharmacol. Exp. Ther.* 317:522-528, 2006.
Komarov AM, Hall JM, Chmielinska JJ, **Weglicki WB**. Iron uptake and release by macrophages is sensitive to propranolol. *Mol Cell Biochem* 2006.
Kramer JH, Murthi SB, Wise RM, Mak IT, **Weglicki WB**. Antioxidant and lysosomotropic properties of acute *d*-propranolol underlies its cardioprotection of postischemic hearts from moderate iron-overloaded rats. *Exp. Biol. Med.* 231:473-484, 2006.

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- Weglicki WB**, Quamme G, Tucker K, Haigney M, Resnick L. Potassium, magnesium, and electrolyte imbalance and complications in disease management. *Clin. Expt Hypertension*; 1: 95-112; 2005
- Chmielinska, JJ, Tejero-Taldo MI, Mak IT, **Weglicki WB**. Intestinal and cardiac inflammatory response shows enhanced endotoxin receptor (CD14) expression in magnesium deficiency. *Mol. Cell. Biochem.* 278: 53-57, 2005.
- Mak IT, **Weglicki WB**: Potent antioxidant properties of 4-OH-propranolol. *J. Pharmacol. Exp. Ther.* 308: 85-90; 2004.
- Mak IT, Nedelec LF, **Weglicki WB**. Pro-oxidant properties and cytotoxicity of AZT-monophosphate and AZT. *Cardiovascular Toxicol.* 4: 109-115; 2004.
- Mak IT, Goldfarb MG, **Weglicki WB**, Haudenschild CC. Cardiac pathologic effects of AZT in Mg-deficient mice. *Cardiovascular Toxicol.* 4: 169-178; 2004
- Tejero-Taldo MI, Chmielinska JJ, Gonzalez G, Mak IT, **Weglicki WB**. N-Methyl-D-aspartate receptor blockade inhibits cardiac inflammation in the Mg-deficient rat. *J. Pharmacol.. Exp. Ther.* 311: 8-13; 2004.
- Mak IT, Kramer JH, **Weglicki WB**: Suppression of neutrophil and endothelial activation by substance P receptor blockade in the Mg-deficient rat. *Magnesium Res.* 16(2):91-97, 2003.
- Murthi, S.B., Wise, R.M., **Weglicki, W.B.**, Komarov, A.M. ,Kramer, J.H. Mg-Gluconate provides superior protection against postischemic dysfunction and oxidative injury compared to Mg-sulfate. *Mol Cel. Biochem.* 245:141-148, 2003
- Kramer, J.H. , Mak, I. T., Phillips, T.M. and **Weglicki, W.B.** Dietary Mg-intake influence circulating pro-inflammatory neuropeptide levels and loss of myocardial tolerance to postischemic stress *Exp. Biol. Med.* 228:665-673, 2003.
- Mak IT, Zhang J, **Weglicki WB**: Protective effects of dihydropyridine Ca-blockers against endothelial cell oxidative injury due to NO and superoxide. *Pharmacol Res.* 45:27-33, 2002.
- Dickens BF, **Weglicki WB**, Boehme P, Mak IT: Antioxidant and lysosomotropic properties of acridine-propranolol: Protection against oxidative endothelial injury. *J Mol Cell Cardiol* 34: 129-137, 2002.
- Weglicki, W.B.**, Kramer, J.H., Mak, I.T., Dickens, B.F., Komarov, A.M. Pro-oxidant and proinflammatory neuropeptides in magnesium deficiency. *In: Advances in Magnesium Research: Nutrition and Health*, eds. Rayssiguier, Y., Mazur, A., Durlach, J., John Libbey & Co., Ltd., Paris, pp. 285-289, 2001.
- Mak IT, Komarov AM, Kramer JH, **Weglicki WB**: Protective mechanisms of Mg-gluconate against oxidative endothelial cytotoxicity. *Cellular and Molecular Biology* 46: 1337-1344, 2000.
- Mak IT, Zhang J, **Weglicki WB**: Cytoprotective properties of nisoldipine and amlodipine against oxidative endothelial cell injury. *Ann. New York Acad. Sci.* 899: 399-402, 2000.
- Weglicki, W.B.**, Kramer, J.H., Mak, I.T., Dickens, B.F., Komarov, A.M., and Phillips, T.M. Proinflammatory Neuropeptides in Magnesium Deficiency. In: *Metal Ions In Biology And Medicine.Symposium on Magnesium*. eds. Centeno, J.A., Vernet, G., Finkelman, R.B., Gibb, H., Etienne, J-C., John Libbey Eurotext, Paris, pp. 472-474, 2000.
- Kramer, J. H., Lightfoot, F. and **Weglicki, W. B.** Cardiac tissue iron: effects on postischemic function and free radical production, and its possible role during preconditioning. *Cell. Molec. Biol.* 46:1313-1327,2000.
- Mak, I.T., Komarov, A.M., *Kramer, J.H.*, **Weglicki, W.B.** Cytoprotective properties of Mg-gluconate. *Cell. Molec. Biol.* 46:1337-1344, 2000.
- Weglicki, W. B.**, Kramer, J. H. and Mak, I. T. The role of antioxidant drugs in oxidative injury of cardiovascular tissue. In: *Oxidative Stress and Antioxidants in Heart Failure. Heart Failure Reviews.* 4:183-192, 1999.
- Komarov AM, Mattson DL, Mak IT, **Weglicki WB** Iron attenuates nitric oxide level and iNOS expression in endotoxin-treated mice. *FEBS Lett.* 424:253-256, 1998.
- Mak IT, Dickens BF, Komarov AM, Phillips TM, **Weglicki WB**: Activation of the neutrophil and loss of plasma glutathione during Mg-deficiency---modulation effect by NOS inhibition. *Mol.Cell.Biochem.* 1997; 176:35-39
- Weglicki WB**, Mak IT, Dickens BF, Stafford RE, Komarov AM, Gibson B, Cassidy MM, Phillips TM, Kramer JH: Neuropeptides, free radical stress and antioxidants in models of Mg-deficient cardiomyopathy, in Theophanides T, Anastassopoulou J (eds): *Magnesium: Current Status and New*

- Developments. Theoretical, Biological and Medical Aspects.** Dordrecht, The Netherlands, Kluwer Acad. Publishers, 1997, pp 169-178
- Komarov AM, Mak IT, **Weglicki WB** Iron potentiates nitric oxide scavenging by dithiocarbamates in tissue of septic shock mice. *Bioch. Biophys. Acta* 1361:229-234, 1997.
- Weglicki WB**, Mak IT: Commentary on magnesium deficiency, SP receptor up-regulation and NO overproduction. *Magnesium Res.* 1997;9:331-332
- Kramer JH, Phillips TM, **Weglicki WB**: Magnesium-deficiency enhanced postischemic myocardial injury is reduced by SP receptor blockade. *J.Mol.Cell.Cardiol.* 1997;29:97-110
- Kuranstin-Mills J, Cassidy MM, Stafford RE, **Weglicki WB**: Marked alterations in circulating inflammatory cells during cardiomyopathy development in a magnesium deficient rat model. *British Journal of Nutrition* 1997;78:845-855
- Komarov AM, Kramer JH, Mak IT, **Weglicki WB**: EPR detection of endogenous nitric oxide in post-ischemic heart using lipid and aqueous-soluble dithiocarbamate-iron complexes. *Mol.Cell Biochem.* 1997;175; 91-97
- Wiles ME, Wagner TL, **Weglicki WB**: Effect of acute Mg-deficiency (MgD) on aortic endothelial cell (EC) oxidant production. *Life Sciences* 1997;60:221-236
- Weglicki WB**, Dickens BF, Wagner TL, Chmielinska JJ, Phillips TM: Immunoregulation by neuropeptides in magnesium deficiency: Ex vivo effect of enhanced SP production on circulating T lymphocytes from Mg-deficient mice. *Magnesium Res.* 1996;9:3-11
- Mak IT, Komarov AM, Wagner TL, Stafford RE, Dickens BF, **Weglicki WB**: Enhanced nitric oxide production during Mg-deficiency and its role in mediating red cell glutathione loss. *Am.J.Physiol.* 1996;271:C385-C390
- Walsh RJ, **Weglicki WB**, Correa-de-Araujo R: Distribution of specific SP binding sites in the heart and adjacent great vessels of the wistar white rat. *Cell Tissue Res.* 1996;284:495-500
- Weglicki WB**, Mak IT, Kramer JH, Dickens BF, Cassidy MM, Stafford RE, Phillips TM: Role of free radicals and SP in magnesium deficiency. *Cardiovasc.Res.* 1996;31:677-682
- Kramer JH, Dickens BF, Misík V, **Weglicki WB**: Phospholipid hydroperoxides are precursors of lipid alkoxyl radicals produced from anoxia/reoxygenated endothelial cells. *J.Mol.Cell.Cardiol.* 1995;27:371-381
- Mak IT, **Weglicki WB**: Beta blockers with antioxidant properties: from propranolol to carvedilol, in Bellomo G, Finardi G, Maggi E, Rice-Evans C (eds): *Free Radicals. Lipoprotein Oxidation and Atherosclerosis: Biological and Clinical Aspects.* London, The Richelieu Press, 1995, pp 457-472
- Weglicki WB**, Dickens BF, Mak IT, Kramer JH, Stafford RE, Cassidy MM, Phillips TM: Role of tissue and circulating SP in cardiovascular injury associated with Mg-deficiency, in Dhalla NS, Singal PK, Takeda N, Beamish RE (eds): *Pathophysiology of Heart Failure.* Boston, Kluwer Academic Publishers, 1995, pp 9-19
- Weglicki WB**, Phillips TM, Cassidy MM, Mak IT, Dickens BF, Stafford RE, Kramer JH: Pro-oxidant stress in Mg-deficiency: Role of neuropeptides and cytokines, in Davis KJA (ed): *Paul Hochstein Festschrift Conference.* Padova, Italy, University of Padova Press, 1995, pp 773-782
- Herzog WR, Altar D, Mak IT, Alyono D, MacCord C, **Weglicki WB**: Magnesium deficiency prolongs myocardial stunning in an open-chest swine model. *Int J. Cardiol.* 1994; 47:105-115.
- Weglicki WB**, Phillips TM, Mak IT, Cassidy MM, Dickens BF, Stafford RE, Kramer JH: Cytokines, neuropeptides, and reperfusion injury during magnesium deficiency. *Ann N Y Acad Sci* 1994;723:246-257
- Kramer JH, Misík V, **Weglicki WB**: Magnesium-deficiency potentiates free radical production associated with postischemic injury to rat hearts: vitamin E affords protection. *Free Radical Biol Med* 1994;16:713-723
- Weglicki WB**, Mak IT, Phillips TM: Blockade of cardiac inflammation in Mg-deficiency by SP receptor inhibition. *Circ Res* 1994;24:1009-1013
- Weglicki WB**, Stafford RE, Freedman AM, Cassidy MM, Phillips TM: Modulation of cytokines and myocardial lesions by vitamin E and chloroquine in a Mg-deficient rat model. *Am J Physiol.* 264: C723-C726, 1993.

C. RESEARCH SUPPORT:

Active:

NIH RO1-HL-62282-05: "Substance P-Mediated Cardiovascular Inflammation"

P.I.: Weglicki, W.B.

Agency: NIH-NHLBI

Entire Period: 02/01/04 – 01/31/08

Objectives: This proposal studies neuropeptide-induced inflammation in heart and gut from rats with dietary Mg-deficiency.

Project Responsibilities: Dr. Weglicki is responsible for the overall direction, progress and coordination of the project, including management of experiments, grant-related administrative and budgetary concerns. He conducts regular meetings with co-investigators to discuss progress, animal allocations, and experimental design.

NIH-R01-HL65178-05: "Cardiomyopathy: pro-oxidant Role of Zidovudine (AZT)"

P.I.: Weglicki, W.B.

Agency: NIH-NHLBI

Entire Period: 8/15/04-5/31/08

Objectives: This grant studies the pro-oxidant potential of AZT in animal and cellular models, and interventions to diminish injury.

Project Responsibilities: Dr. Weglicki is responsible for the overall direction, progress and coordination of the project, including management of experiments, grant-related administrative and budgetary concerns. He conducts regular meetings with co-investigators to discuss progress, animal allocations, and experimental design.

Pending:

NIH 1R01 HL66226: "Oxidative Stress and Antioxidants in Iron Overload"

P.I.: Weglicki, W.B.

Agency: NIH-NHLBI

Objectives: This study uses the iron-treated rat model to study the effects of antioxidants on iron-mediated free radical injury to the ischemic/reperfused heart and oxidatively-stressed cultured endothelial cell model.

Project Responsibilities: Dr. Weglicki is responsible for the overall direction, progress and coordination of the project, including management of experiments, grant-related administrative and budgetary concerns. He conducts regular meetings with co-investigators to discuss progress, animal allocations, and experimental design.