

László Géza Boros, MD

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Education

<u>School & Location</u>	<u>Degrees</u>	<u>Attendance</u>	<u>Field of Study</u>
Bercsényi High School Törökszentmiklós, Hungary	High School Diploma	1976 – 1980	Biology, Physics
Szeged School of Medicine Szeged, Hungary	Doctor of Medicine (M.D.)	1981 – 1987	Medicine

Appointments

<u>Title</u>	<u>Affiliation</u>	<u>Dates of Appointment</u>
Chief Scientific Advisor	SIDMAP, LLC, Los Angeles, CA, USA	August 2004 - present
Associate Professor	Departments of Endocrinology & Pediatrics, UCLA School of Medicine, Los Angeles, CA, USA	April 2004 - present
Co-Director	BioMedical Mass Spectroscopy Research Laboratory, Los Angeles Biomedical Research Institute at the Harbor-UCLA, Torrance, CA, USA	December 1998 – Apr 2004
Assistant Professor	Departments of Endocrinology & Pediatrics, UCLA School of Medicine, Los Angeles, CA, USA	September 1998 – June 2003
Research Scientist	Division of General Surgery, The Ohio State University College of Medicine, Columbus, OH, USA	May 1996 – Aug 1998
Medical Student Research Advisor	The Ohio State University College of Medicine, Columbus, OH, USA	January 1995 – Aug 1998
Research Associate 2- B/H, Postdoctoral Researcher	Division of General Surgery, The Ohio State University College of Medicine, Columbus, OH, USA	June 1990 - May 1996
Visiting Scholar	Essen University Medical School Department of Internal Medicine, Essen, Germany	January 1989 – May 1990
Postgraduate Research Fellow	Hungarian Academy of Sciences, Budapest, Hungary	September 1987 – Dec 1989

Certifications

Unrestricted License to Practice Medicine in Hungary and the European Union, Hungarian Board of Medical Examiners, 17/1987 O.E. Szeged, Hungary

United States Medical Licensing Examination (USMLE) - Basic Medical Sciences (1995)

Professional Memberships & Awards

Three-year domestic research fellowship award of the Hungarian Academy of Sciences (1987)

C. Williams Hall Outstanding Publication Award - Academy of Surgical Research of the USA (1997)

American Society for Leukocyte Biology (ASLB; 1992-1995)

American Association for Cancer Research (AACR; 1998-present; Membership No: 70054)

American Pancreatic Association (APA; 1998-present)

The American Physiological Society (APS; 1998-present; Membership No: 31927)

Richard E. Weitzman Memorial Research Award – University of California, Los Angeles, CA, USA, June 2001

American Gastroenterological Association (AGA; 2002-present; Membership No: 902797)

Excellence in Clinical Research Award – GCRC at Harbor-UCLA Medical Center, September 2004

Metabolomics Society (2004-present)

Géza Hetényi Memorial Membership Award of the Hungarian Gastroenterological Society (June 2007)

Patents

METHOD OF ENHANCING THE EFFICACY OF A PHARMACEUTICAL BUSINESS. United States Patent Application 20030180710; Kind Code A1; Lee, Wai-Nang Paul, *et al.*; September 25, 2003

STABLE ISOTOPE BASED DYNAMIC METABOLIC PROFILING OF LIVING ORGANISMS FOR CHARACTERIZATION OF METABOLIC DISEASES, DRUG TESTING AND DRUG DEVELOPMENT. United States Patent Application 20030180800; Kind Code A1; Lee, Wai-Nang Paul, *et al.*; September 25, 2003

ROTTLERIN IN THE TREATMENT OF PANCREATIC CANCER. United States of America Patent and Trademark Office, Washington, DC, USSN 10/824,597 (2002-428-2) (034044.0211)

METHODS AND COMPOSITION FOR DETERMINING TARGETED DRUG SENSITIVITY AND RESISTANCE IN A CANCER SUBJECT. United States of America Patent and Trademark Office, Washington, DC, Application pending, June 2005.

Peer Reviewed Publications

1. Pap, A., **Boros, L.G.** Alcohol-induced chronic pancreatitis in rats after temporary occlusion of the biliopancreatic ducts with Ethibloc. *Pancreas* 4: 249-255, 1989.
2. Pap, A., **Boros, L.G.**, Hajnal, F. Essential role of cholecystokinin in pancreatic regeneration after 60% distal resection in rats. *Pancreas* 6: 412-418, 1991.
3. **Boros, L.G.**, Lepow, C., Ruland, F., Flancbaum, L.J., Townsend, M.C. CD-ROM source data uploaded to the operating and storage devices of an IBM 3090 mainframe through a PC terminal. *Computer Methods & Programs Biomedicine* 38: 77-89, 1992.
4. **Boros, L.G.**, Damico, J., Flancbaum, L.J., Townsend, M.C., Beckley, P.D., Jones, S.D. An automated computer method utilizing Procomm Plus and DataEase (4.2) PC - and SAS (6.06) mainframe software for isolated, perfused guinea pig heart studies. *Computer Methods & Programs Biomedicine* 39: 271-284, 1993.

5. Oberyshyn, T.M., Sabourin, C.L., Bijur, G.N., Oberyshyn, A.S., **Boros, L.G.**, Robertson, F.M. Interleukin-1 α gene expression and localization of interleukin-1 α protein during tumor promotion. *Molecular Carcinogenesis* 7: 238-248, 1993.
6. Robertson, F.M., Bijur, G.N., Oberyshyn, A.S., Pellegrini, A., **Boros, L.G.**, Sabourin, C.L., Oberyshyn, T.M. Granulocyte-macrophage colony stimulating factor gene expression and function during tumor promotion. *Carcinogenesis* 15: 1017-1029, 1994.
7. Choban, P.S., McKnight, T., Flancbaum, L.J., Sabourin, C.L., Bijur, G.N., **Boros, L.G.**, Marley, J., Burge, J.C., Robertson, F.M. Characterization of a murine model of acute lung injury (ALI): a prominent role for interleukin-1. *Journal of Investigative Surgery* 9: 95-109, 1994.
8. Robertson, F.M., Pellegrini, A.E., Ross, M.S., Oberyshyn, A.S., **Boros, L.G.**, Bijur, G.N., Sabourin, C.L., Oberyshyn, T.M. Interleukin-1 α gene expression during wound healing. *Wound Repair & Regeneration* 3: 473-84, 1995.
9. Fisher, W.E., **Boros, L.G.**, O'Dorisio, T., O'Dorisio, S., Schirmer, W.J. The influence of diabetes on the growth of pancreatic cancer. *Surgical Forum* 45: 151-152, 1994.
10. Fisher, W.E., **Boros, L.G.**, Tamaddon, K.A., O'Dorisio, S.M., O'Dorisio, T.M., Schirmer, W.J. Somatostatin-receptor status of pancreatic adenocarcinoma predicts response to somatostatin therapy in vitro and in vivo. *Surgical Forum* 16: 138-140, 1995.
11. Fisher, W.E., **Boros, L.G.**, Schirmer, W.J. Reversal of enhanced pancreatic cancer growth in diabetes by insulin. *Surgery* 118: 453-457, 1995.
12. Fisher, W.E., **Boros, L.G.**, Tamaddon, K.A., O'Dorisio, T.M., O'Dorisio, S.M., Schirmer, W.J. GI hormonal changes in diabetes influence pancreatic cancer growth. *Journal of Surgical Research* 58: 754-758, 1995.
13. Fisher, W.E., **Boros, L.G.**, Schirmer, W.J. Insulin promotes pancreatic cancer: evidence for endocrine influence on exocrine pancreatic tumors. *Journal of Surgical Research* 63: 310-313, 1996.
14. Fisher, W.E., Muscarella, P., **Boros, L.G.**, Schirmer, W.J. Variable effect of streptozotocin-diabetes on the growth of hamster pancreatic cancer (H2T) in the Syrian hamster and nude mouse. *Surgery* 123: 315-320, 1998.
15. Melvin, W.S., **Boros, L.G.**, Muscarella, P., Brandes, J.L., Johnson, J.A., Fisher, W.E., Schirmer, W.J., Ellison, E.C. Dehydroepiandrosterone-sulfate inhibits pancreatic cancer cell proliferation in vitro and in vivo. *Surgery* 121: 392-397, 1996.
16. **Boros, L.G.**, Puigjaner, J., Cascante, M., Lee, P., Brandes, J.L., Bassilian, S., Yusuf, F.I., Williams, R.D., Muscarella, P., Melvin, W.S., Schirmer, W.J. Oxythiamine and dehydroepiandrosterone inhibit the nonoxidative synthesis of ribose and cancer cell proliferation. *Cancer Research* 57: 4242-4248, 1997.
17. Fisher, W.E., Doran, T.A., Muscarella, P., **Boros, L.G.**, Ellison, E.C., Schirmer, W.J. Somatostatin receptor subtype 1-5 gene expression in human pancreatic cancer. *Journal of the National Cancer Institute* 90: 322-324, 1998.
18. **Boros, L.G.**, Lee, P., Brandes, J.L., Cascante, M., Muscarella, P., Schirmer, W.J., Melvin, W.S. Nonoxidative pentose phosphate pathways and their direct role in ribose synthesis in tumors: is cancer a disease of cellular glucose metabolism? *Medical Hypotheses* 50: 55-59, 1998.
19. **Boros, L.G.**, Brandes, J.L., Yusuf, F.I., Cascante, M., Williams, R.D., Schirmer, W.J. Inhibition of the oxidative and nonoxidative pentose phosphate pathways by somatostatin. A possible mechanism of antitumor action. *Medical Hypotheses* 50: 501-506, 1998.
20. **Boros, L.G.**, Brandes, J.L., Lee, P., Cascante, M., Puigjaner, J., Revesz, E., Bray, T.M., Schirmer, W.J., Melvin, W.S. Thiamin supplementation to cancer patients: A double edged sword. *Anticancer Research* 18: 595-602, 1998.

21. **Boros, L.G.**, Williams, R.D. Chronic isofenphos poisoning: case report of agnogenic myeloid metaplasia with a rapid progression into acute myeloid leukemia. *Leukemia Research* 22: 849-851, 1998.
22. Lee P., **Boros, L.G.**, Puigjaner, J., Bassilian, S., Lim, S., Cascante, M. Mass isotopomer study of the nonoxidative pathways of the pentose cycle with [1,2-¹³C₂]glucose. *American Journal of Physiology [Endocrinology & Metabolism]* 274: E843-E851, 1998.
23. Muscarella, P., **Boros, L.G.**, Fisher, W.E., Rink, C., Melvin, W.S. Oral dehydroepiandrosterone inhibits the growth of human pancreatic cancer in nude mice. *Journal of Surgical Research* 79: 154-157, 1998.
24. Fisher, W.E., Muscarella, P., **Boros, L.G.**, Schirmer, W.J. Gastrointestinal hormones as potential adjuvant treatment of exocrine pancreatic adenocarcinoma. *International Journal of Pancreatology* 24: 169-80, 1998.
25. Rais, B., Comin, B., Puigjaner, J., Brandes, J.L., Creppy, E., Saboureau, D., Ennamany, R., Lee, W-N.P., **Boros, L.G.**, Cascante, M. Oxythimaine and dehydroepiandrosterone induce a G1 phase cycle arrest in Ehrlich's tumor cells through inhibition of the pentose cycle. *FEBS Letters* 456: 113-19, 1999.
26. Cascante, M., Centelles, J.J., Veech, R.L., Lee, W-N.P., **Boros, L.G.**, The role of thiamine (vitamin-B₁) and transketolase in tumor cell proliferation. *Nutrition & Cancer* 36: 150-154, 2000.
27. **Boros, L.G.**, Torday, J.S., Lim, S., Bassilian, S., Cascante, M., Lee, W-N.P. TGF- β_2 promotes glucose carbon incorporation into nucleic acid ribose through the non-oxidative pentose cycle in lung epithelial carcinoma cells. *Cancer Research* 60: 1183-1195, 2000.
28. **Boros, L.G.**, Lim, S., Bassilian, S., Lee, W-N.P. Genistein inhibits non-oxidative ribose synthesis in MIA pancreatic adenocarcinoma cells: a new mechanism of controlling tumor growth. *Pancreas* 22: 1-7, 2000.
29. Lee, W-N.P., Bassilian, S., Lim, S., **Boros, L.G.** Loss of regulation of lipogenesis in the Zucker diabetic (ZDF) rat. *American Journal of Physiology [Endocrinology & Metabolism]* 279: E425-E432, 2000.
30. **Boros, L.G.** Population thiamine status and varying cancer rates between Western, Asian and African countries. *Anticancer Research* 20: 2245-8, 2000.
31. **Boros, L.G.**, Lapis, K., Szende, B., Tomoskozi-Farkas, R., Balogh, A., Boren, J., Marin, S., Cascante, M., Hidvegi, M. Wheat germ extract decreases glucose uptake and RNA ribose formation but increases fatty acid synthesis in MIA pancreatic adenocarcinoma cells. *Pancreas* 23: 141-147, 2001.
32. **Boros, L.G.**, Williams, R.D. Isofenphos induced metabolic changes in K562 myeloid blast cells. *Leukemia Research* 25: 883-890, 2001.
33. Comín-Anduix, B., Boren, J., Martinez, S., Moro, C., Centelles, J.J., Trebukhina, R., Petushok, N., Lee, W-N.P., **Boros, L.G.**, Cascante, M. The effect of thiamine supplementation on tumor proliferation: A metabolic control analysis study. *European Journal of Biochemistry* 268: 4177-82, 2001.
34. Boren, J., Cascante, M., Marin, S., Comín-Anduix, B., Centelles, J.J., Lim, S., Bassilian, S., Ahmed, S., Lee W-N.P., **Boros, L.G.** Gleevec (STI571) influences metabolic enzyme activities and glucose carbon flow towards nucleic acid and fatty acid synthesis in myeloid tumor cells. *Journal of Biological Chemistry* 276: 37747-37753, 2001.
35. **Boros, L.G.**, Lee, W-N.P., Go, V.L.W. A metabolic hypothesis of cell growth and death in pancreatic cancer. *Pancreas* 24: 26-33, 2002.
36. Bassilian, S., Ahmed, S., Lim, S.K., **Boros, L.G.**, Mao, C.S., Lee, W-N.P. Loss of regulation of lipogenesis in the Zucker diabetic rat. II. Changes in stearate and oleate synthesis. *American Journal of Physiology Endocrinology & Metabolism* 282: E507-13, 2002.

37. **Boros, L.G.**, Cascante, M., Lee, W-N.P. Metabolic Profiling of Cell Growth and Death in Cancer: applications in drug discovery. *Drug Discovery Today* 7: 364-372, 2002.
38. Cascante, M., **Boros, L.G.**, Comin, B., Atauri, P., Centelles, J.J., Lee, W-N.P. Metabolic control analysis in drug discovery and disease. *Nature Biotechnology* 20: 246-249, 2002.
39. **Boros, L.G.**, Lee, W-N.P., Cascante, M. Imatinib and chronic-phase leukemias. *New England Journal of Medicine* 347: 67-68, 2002.
40. **Boros, L.G.**, Torday, J.S., Lee W-N.P., Rehan, V.H. Oxygen-induced metabolic changes and transdifferentiation in immature fetal rat lung fibroblasts. *Molecular Genetics & Metabolism* 77: 230-236, 2002.
41. Comín-Anduix, B., **Boros, L.G.**, Marin, S., Boren, J.A., Callol-Massot, C., Centelles, J.J., Torres, L., Agell, N., Bassilian, S., Cascante, M.S. Fermented wheat germ extract inhibits enzymes of glucose metabolism and induces apoptosis through the activation of poly(ADP-ribose) polymerase in Jurkat T-cell leukemia tumor cultures. *Journal of Biological Chemistry* 277: 46408-464014, 2002.
42. Bulotta, A., Hui, H., Anastasi, E., Bertolotto, C., **Boros, L.G.**, Di Mario, U., Perfetti, R. Cultured pancreatic ductal cells undergo cell cycle re-distribution and beta-cell-like differentiation in response to glucagon-like peptide-1. *Journal of Molecular Endocrinology* 29: 347-60, 2002.
43. Guo, T.B., **Boros, L.G.**, Chan, K.C., Hikim, A.P., Hudson, A.P., Swerdloff, R.S., Mitchell, A.P., Salameh, W.A. Spermatogenic expression of RNA-binding motif protein 7, a protein that interacts with splicing factors. *Journal of Andrology* 24: 204-214, 2003.
44. Bulotta, A., Perfetti, R., Hui, H., **Boros, L. G.** Glucagon-like peptide-1 stimulates glucose derived *de novo* fatty acid synthesis and chain elongation during cell differentiation. *Journal of Lipid Research* 44: 1559-1564, 2003.
45. Boren, J., Lee, W.N., Bassilian, S., Centelles, J.J., Lim, S., Ahmed, S., **Boros, L.G.**, Cascante, M. The stable isotope-based dynamic metabolic profile of butyrate induced HT29 cell differentiation. *Journal of Biological Chemistry* 278: 28395-28402, 2003.
46. **Boros, L.G.**, Steinkamp, M.P., Fleming, J.C., Lee, W-N.P., Cascante, M., Neufeld, E.J. Defective RNA ribose synthesis in fibroblasts from patients with thiamine-responsive megaloblastic anemia (TRMA): mechanism for the syndrome. *Blood* 102: 3556-3562, 2003.
47. **Boros, L.G.**, Brackett, D.J., Harrigan, G.G. Metabolic biomarker and kinase drug target discovery in cancer using stable isotope-based dynamic metabolic profiling (SIDMAP). *Current Cancer Drug Targets* 3: 445-453, 2003.
48. Marin, S., Chiang, K., Bassilian, S., Lee, W-N.P., **Boros, L.G.**, Fernández-Novell, J.M., Centelles, J.J., Medrano, A., Rodriguez-Gil, J.E., Cascante, M. Metabolic strategy of boar spermatozoa revealed by a metabolomic characterization. *FEBS Letters* 554: 342-346, 2003.
49. Marin, S., Lee, W.N., Bassilian, S., Lim, S., **Boros, L.G.**, Centelles, J.J., Fernandez-Novell, J.M., Guinovart, J.J., Cascante, M. Dynamic profiling of the glucose metabolic network in fasted rat hepatocytes using [1,2-¹³C₂]-glucose. *Biochemical Journal* 381: 287-294, 2004.
50. Williams, R.D., **Boros, L.G.**, Kolanko, C.J., Jackman, S.M., Eggers, T.R. Chromosomal aberrations in human lymphocytes exposed to the anticholinesterase pesticide isofenphos with mechanisms of leukemogenesis. *Leukemia Research* 28: 947-958, 2004.
51. Lee, W.N., Guo, P., Lim, S., Bassilian, S., Lee, S.T., Boren, J., Cascante, M., Go, V.L., **Boros, L.G.** Metabolic sensitivity of pancreatic tumour cell apoptosis to glycogen phosphorylase inhibitor treatment. *British Journal of Cancer* 91: 2094-2100, 2004.

52. **Boros, L.G.**, Serkova, N.J., Cascante, M., Lee, W.N. Use of metabolic pathway flux information in targeted cancer drug design. *Drug Discovery Today Therapeutic Strategies* 1: 435-443, 2004.
53. Harrigan, G.G., Brackett, D.J., **Boros, L.G.** Medicinal chemistry, metabolic profiling and drug target discovery: a role for metabolic profiling in reverse pharmacology and chemical genetics. *Mini Reviews in Medicinal Chemistry* 5: 13-20, 2005.
54. Eibl, G., Takata, Y., **Boros, L.G.**, Liu, J., Okada, Y., Reber, H.A., Hines, O.J. Growth Stimulation of COX-2-Negative Pancreatic Cancer by a Selective COX-2 Inhibitor. *Cancer Research* 65: 982-990, 2005.
55. Balog, A., Gyulai, Z., **Boros, L.G.**, Farkas, G., Takacs, T., Lonovics, J., Mandi, Y. Polymorphism of the TNF-alpha, HSP70-2, and CD14 genes increases susceptibility to severe acute pancreatitis. *Pancreas* 30:e46-e50, 2005.
56. Vizan, P., **Boros, L.G.**, Figueras, A., Capella, G., Manges, R., Bassilian, S., Lim, S., Lee, W-N.P., Cascante, M. K-ras codon-specific mutations produce distinctive metabolic phenotypes in human fibroblasts. *Cancer Res.* 65: 5512-5, 2005.
57. **Boros, L.G.**, Nichelatti, M., Shoenfeld, Y. Fermented Wheat Germ Extract (Avemar) in the Treatment of Cancer and Autoimmune Diseases. *Ann N Y Acad Sci.* 1051: 529-542, 2005.
58. Serkova, N., **Boros, L.G.** Detection of resistance to imatinib by metabolic profiling: clinical and drug development implications. *Am J Pharmacogenomics* 5: 293-302, 2005.
59. **Boros, L.G.**, Lerner, M.R., Morgan, D.L., Taylor, S.L., Smith, B.J., Postier, R.G., Brackett, D.J. [1,2-¹³C₂]-D-glucose profiles of the serum, liver, pancreas and DMBA-induced pancreatic tumors of rats. *Pancreas* 31: 337-43, 2005.
60. Maguire, G., Lee, W-N.P., Manheim, D., **Boros, L.G.** SIDMAP: a metabolomics approach to assess the effects of drug candidates on the dynamic properties of biochemical pathways. *Expert Opin Drug Discov* 1: 351-359, 2006
61. Rehan, V.K., Wang, Y., Sugano, S., Santos, J., Patel, S., Sakurai, R., **Boros, L.G.**, Lee, W.P., Torday, J.S. In utero nicotine exposure alters fetal rat lung alveolar type II cell proliferation, differentiation, and metabolism. *Am J Physiol Lung Cell Mol Physiol.* 292: 323-333, 2007.
62. Centelles, J.J., Ramos-Montoya, A., Lim, S., Bassilian, S., **Boros, L.G.**, Marín, S., Cascante, M., Lee, W-N.P. Metabolic profile and quantification of deoxyribose synthesis pathways in HepG2 cells. *Metabolomics* 3: 105-111, 2007.
63. Huang, J., Gabrielsen, J.S., Cooksey, R.C., Luo, B., **Boros, L.G.**, Jones, D.L., Jouihan, H.A., Soesanto, Y., Knecht, L., Hazel, M.W., Kushner, J.P., McClain, D.A. Increased glucose disposal and AMP-dependent kinase signaling in a mouse model of hemochromatosis. *J Biol Chem.* 282: 37501-37507, 2007.
64. Vazquez, A., Beg, Q.K., de Menezes, M.A., Ernst, J., Bar-Joseph, Z., Barabasi, A.L., **Boros, L.G.**, Oltvai, Z.N. Impact of the solvent capacity constraint on E. coli metabolism. *BMC Syst Biol.* 2: 7, 2008.

Book Contributions

1. **Boros, L.G.**, Singer, M.V. Animal models of chronic pancreatitis. A critical review of experimental studies. *In: Pancreatitis. New data and geographical distribution,* Eds. H. Sarles, CD Johnson, JF Saunier. Chapter 7, pages: 67-82. *Arnette Blackwell, Paris, France* 1991.
2. Robertson, F.M., Bijur, G.N., Oberyshyn, A.S., Nill, M.R., **Boros, L.G.**, Spencer, W.J., Sabourin, C.L., Oberyshyn, T.M. Interleukin-1 α in murine multistage carcinogenesis. *In: Skin Cancer: Mechanisms and Human Relevance.* Eds. Hasan Mukhtar. Chapter 20, pages: 255-272. *CRC Press, Boca Raton, Ann Arbor, London, Tokyo* 1995.

3. Singer, M.V., **Boros, L.G.**, Mayr, C. Experimentelle Modelle der chronischen Pankreatitis. In: *Erkrankungen des exokrinen Pankreas*. Eds. Mössner, J., Adler, G., Fölsch, U.R., Singer, M.V., eds.. Jena, Stuttgart: Gustav Fischer, 1995: 303-312.
4. Cascante, M., Comin, B., Raïs, B., Boren, J., Centelles, J.J., Puigjaner, J., Lee, W-N.P., **Boros, L.G.** Application of metabolic control analysis to the design of a new strategy for cancer therapy. In: *Technological and Medical Implications of Metabolic Control Analysis*. Eds. Cornish-Bowden, A. and Cardenas, M.L. Kluwer Academic Publishers, The Netherlands, 1999: 173-180.
5. **Boros, L.G.**, Cascante, M., Lee, W-N.P. Stable Isotope-Based Dynamic Metabolic Profiling in Disease and Health. In: *Metabolite Profiling: Its Role in Biomarker Discovery and Gene Function Analysis*. Eds. Harrigan, G.G. and Goodacre, R.; Kluwer Academic Publishers, United States of America, 2003 pp. 141-169.
6. **Boros, L.G.**, Lee, W-N.P. Metabolic Network Characteristics in Cell Growth and Death in Cancer. In: *Nutritional Oncology, Second Edition*, Eds. Heber, Blackburn, Go, & Milner; Elsevier, United States of America, 2006 pp. 57-68.
7. **Boros, L.G.**, Lee, W-N.P. Targeted Drug Design and Metabolic Pathway Flux. In: *Metabolome Analyses: Strategies for Systems Biology*. Eds. Vaidyanathan, S., Harrigan, G.G. and Goodacre, R.; Springer, Boston, United States of America, 2005 pp. 323-337.
8. Cascante, M., **Boros, L.G.**, Boren J.A. Modeling of Regulation of Glycolysis and Overall Energy Metabolism Under a Systems Biology Approach. In: *Handbook of Neurochemistry & Molecular Neurobiology 3rd, Brain Energetics, Integration of Molecular and Cellular Processes*; Eds. Gibson & Diemel; Part 8, 2006 pp. 861-875.

Abstracts

1. Boros, L.G., Pap, A, Berger, Z. Chronic pancreatitis-like lesions provoked by duct occlusion with Ethibloc in rats can be maintained by alcohol administration. Presented at the European Pancreatic Club, Manchester, England, September, 1985.
2. Boros, L.G., Pap, A. Recovery of the pancreatic enzyme content in Ethibloc induced obstructive pancreatitis can be inhibited by alcohol administration. Presented at the European Pancreatic Club, Nijmegen, The Netherlands, September, 1986.
3. Boros, L.G., Hajnal, F., Pap, A., Takats, T., Nagy, I. Pancreatic insufficiency and atrophy provoked by intraductal oleic acid can be progressed by alcohol and regenerated by cholecystokinin octapeptide (CCK 8). Presented at the European Pancreatic Club, Marseille, France, September, 1987.
4. Boros, L.G., Berger, Z., Pap, A., Takats, T., Nagy, I. CCK-8 accelerates, the CCK antagonist CR-1409 inhibits pancreatic regeneration after resection in rat. Presented at the European Pancreatic Club, Budapest, Hungary, August, 1988.
5. Boros, L.G., Pap, A., Takats, T., Nagy, I. Alcohol inhibits the regeneration after pancreatic resection in rats. Presented at the European Pancreatic Club, Budapest, Hungary, August, 1988.
6. Boros, L.G., Oberyszyn, T.M., Sabourin, C.L., Bijur, G.N., Oberyszyn, A.E., Robertson, F.M. Cytokines regulating neutrophil migration during cutaneous inflammation. Presented at the Association of Leukocyte Biology, Charlestown, NC, USA, December, 1992.
7. Boros, L.G., Muscarella P., Brandes, J.L., Johnson J.A., Schirmer, W.J., Ellison, E.C., Melvin, W.S. The effect of BZA-5B, a farnesyl protein transferase inhibitor, on the growth of human pancreatic cancer. Presented at the American Gastroenterological Society, Washington, DC, USA, May, 1996.

8. Muscarella P., Boros, L.G., Brandes, J.L., Johnson J.A., Melvin, W.S., Schirmer, W.J., Ellison, E.C. Dehydroepiandrosterone-sulfate inhibits pancreatic cancer cell proliferation in vitro and in vivo. Presented at the American Gastroenterological Society, Washington, DC, USA, May, 1996.
9. Boros, L.G., Muscarella P., Brandes, J.L., Johnson J.A., Melvin, W.S., Schirmer, W.J., Ellison, E.C. Orally administered dehydroepiandrosterone inhibits the growth of subcutaneously injected pancreatic cancer cells in nude mice. Presented at the American Gastroenterological Society, San Francisco, CA, USA, May, 1997.
10. Boros, L.G., Puigjaner, J., Rais, B., Comin, B., Lee, P., Melvin, W.S., Schirmer, W.J., Cascante, M. Oxythiamine and dehydroepiandrosterone inhibit the non-oxidative synthesis of ribose and cancer cell proliferation. Presented at the American Gastroenterological Society, San Francisco, CA, USA, May, 1997.
11. Rais, B., Comin, B., Boros, L.G., Lee, P., Melvin, W.S., Schirmer, W.J., Cascante, M. Inhibition of Ehrlich's ascites tumor cell proliferation by pentose cycle inhibitors is associated with an arrest in the G0-G1 cell cycle phases. Presented at the The First Annual Meeting on Experimental Therapeutics of Human Cancer, Frederick, Maryland, USA, June, 1998.
12. Guenther, D.A., Huang, E., Ikramuddin S., Boros, L.G., Melvin, W.S. Natural killer cell activity is not different following laparoscopy compared to open surgery. Presented at the Society of American Gastrointestinal and Endoscopic Surgeons, San Antonio, Texas, USA, March, 1999.
13. Cascante, M., Comin, B., Boren, J., Moro, C., Martinez, S., Centelles, J.J., Lee W-N.P., and Boros, L.G. Plenary lecture: Inhibition of tumor ribose-phosphate synthesis: A new strategy to control tumor proliferation. Presented at the ComBio99. Australian Society for Biochemistry and Molecular Biology, Sidney, Australia, September, 1999.
14. Cascante, M., Comin, B., Rais, B., Centelles, J.J., Puigjaner, J., Lee, W-N.P., Boros, L.G. Application of metabolic control analysis to the design of a new strategy for cancer therapy. Presented at the MCA 99 NATO Advanced Research Workshop on Technological and Medical Implications of Metabolic Control Analysis, Visegrad, Hungary, July, 1999.
15. Boros, L.G., Comin, B., Boren, J., Martinez, S., Moro, C., Centelles, J.J., Lee, W.N.P., and M. Cascante. Over-expression of transketolase: a mechanism by which thiamine supplementation promotes cancer growth. Presented at the American Association for Cancer Research, San Francisco, CA, USA, April, 2000.
16. Boros, L.G., Torday, J.S., Lim, S., Bassilian, S., Cascante, M., and Lee, W.N.P. TGF- β 2 increases nucleic acid ribose synthesis through the non-oxidative pentose cycle in lung carcinoma cells. Presented at the American Association for Cancer Research, San Francisco, CA, USA, April, 2000.
17. Lee, W-N.P., Bassilian, S., Lim, S., Boros, L.G. 2-Deoxyglucose inhibits both the oxidative and non-oxidative branches of the pentose cycle. Presented at the Federation of American Societies for Experimental Biology, San Diego, CA, USA, April, 2000.
18. Steinkamp, M.P., Fleming, J.C., Boros, L.G., Neufeld, E.J. Thiamine depletion in thiamine-responsive megaloblastic anemia (TRMA) mutant fibroblasts leads to a reduction in non-oxidative ribose synthesis. Presented at the American Society for Biochemistry and Molecular Biology and The American Society for Pharmacology and Experimental Therapeutics (ASBMB/ASPE), 2000.
19. Comin, B., Boren, J., Moro, S., Martinez, S., Lee, W-N.P., Boros, L.G., Centelles, J.J., Cascante, M. New antitumoral drugs based on ribose-phosphate synthesis tested by metabolic control analysis. Presented at the 18th International Congress of Biochemistry and Molecular Biology, Birmingham, UK, July, 2000.
20. Boren, J., Comin, B., Centelles, J.J., Moro, S., Martinez, S., Le, W-N.P., Boros, L.G., Cascante, M. Modeling metabolic networks for the search of new targets in cancer therapy. Presented at the Biochemical Systems Theory (SYMBIOSYS), Puerto de la Cruz, Tenerife, Canary Islands, Spain, September, 2000.

21. Boros, L.G., Lee, W-N.P., Hidvegi, M., Go, V.L.W. Metabolic effects of fermented wheat germ extract with anti-tumor properties in cultured MIA pancreatic adenocarcinoma cells. Presented at the Combined Meeting of the International Association of Pancreatology and the American Pancreatic Association, Chicago, Illinois, USA, November, 2000.
22. Boros, L.G., Lee, W-N.P., Go, V.L.W. Metabolic targets of tumor growth inhibitory signals in MIA pancreatic adenocarcinoma cells: a metabolic hypothesis of cellular signaling pathways. Presented at the Combined Meeting of the International Association of Pancreatology and the American Pancreatic Association, Chicago, Illinois, November, 2000.
23. Lee, W-N.P., Mao, C.S, Bassilian, S., Boros, L.G. Plasma fatty acid production and the role of de novo lipogenesis in energy transport. Presented at the American Federation for Medical Research Western Regional Meeting Metabolism III Session, Carmel, CA, February, 2001.
24. Boros, L.G., Lee, W-N.P., Williams, R.D. Isofenphos organophosphate pesticide induces metabolic changes of the invasive phenotype in K562 myeloid blast cells. Presented at the American Federation for Medical Research Western Regional Meeting Metabolism III Session, Carmel, CA, February, 2001.
25. Boros, L.G., Boren, A.J., Marin, S., Cascante, M., Lim, S., Bassilian, S., Ahmed, S., Lee, W-N.P. STI571 decreases glucose derived nucleic acid synthesis but increases direct glucose oxidation in K562 myeloid blast cells. Presented at the American Association for Cancer Research, New Orleans, LA, USA, March, 2001.
26. Lee, W-N.P., Lim, S., Bassilian, S., Ahmed S., Mao, C.S., Boros, L.G. Glucose metabolic changes in HepG2 cells induced by the phosphorylase inhibitor CP-329,626. Presented at the Federation of American Societies for Experimental Biology, Orlando, Florida, USA, March 31-April 4, 2001.
27. Lee, W-N.P., Martinez, S., Lim, S., Bassilian, S., Ahmed, S., Boren, J., Mao, C., Boros, L.G., Cascante, M. Diverse metabolic changes of glucosamine induced insulin resistance in HepG2 cells. Presented at the International Conference of Pediatric Endocrinology Montreal 2001, Montreal, Canada, Sept, 2001.
28. Rehan, V., Feng, S., Rehan, Y.H., Lee, W-N.P., Torday, J.S., Boros, L.G. Evidence for metabolic phenotype changes during trans-differentiation of pulmonary lipofibroblasts to myofibroblasts in response to hyperoxia. Presented at the Pediatric Academic Societies Annual Meeting, Baltimore, MD, April-May, 2001.
29. Lee, W-N.P., Martinez, S., Lim, S., Bassilian, S., Ahmed, S., Boren, J., Mao, C., Boros, L.G., Cascante, M. Diverse Metabolic Changes of Glucosamine Induced Insulin Resistance in HEPG2 Cells. Presented at the Lawson Wilkins Pediatric Endocrine Society and the European Society for Pediatric Endocrinology (LWPES/ESPE) 6th Joint Meeting, Montreal, Canada, July, 2001.
30. Boros, L.G., Syed, A.S., Bassilian S., Lim, S., Lee, W-N.P. Lack of proliferative and metabolic response in MIA pancreatic adenocarcinoma cell cultures to STI571 (Gleevec). Presented at the American Pancreatic Association, Chicago, Illinois, November, 2001.
31. Bulotta, A., Perfetti, R., Hui, H., Boros, L.G. Differentiation of cultured ARIP carcinoma cells is mediated via glucose intermediary metabolic changes in response to Glucagon-like peptide 1 (GLP-1) treatment. Presented at the American Pancreatic Association, Chicago, Illinois, November, 2001.
32. Boros, L.G., Go, V.L., Lee, W-N.P. Metabolic Profiling of Cell Growth and Death in Cancer. Presented at the Cambridge Healthtech Institute's Premier Conference on Metabolic Profiling: Pathways to Discovery (keynote address), Sheraton Chapel Hill Hotel, Chapel Hill, North Carolina, December 4, 2001.
33. Boros, L.G., Bassilian S., Lim, S., Lee, W-N.P. STI571 (Gleevec) inhibits de novo palmitate but does not affect nucleic acid synthesis in MIA pancreatic adenocarcinoma cells. Presented at the American Federation for Medical Research Western Regional Meeting Metabolism III Session, Carmel, CA, February, 2001.

34. Tucker, C., Boros, L.G., Patel, S.M., Santos, J., Reddy, S.G., Lee, W-N.P., Torday, J.S., Rehan, V.K.. Dihydroxycholecalciferol (Vitamin D₃) affects lipid metabolism differentially in pulmonary alveolar type II cells and fibroblasts. Presented to the Pediatric Academic Societies' Annual Meeting, Baltimore, MD, May, 2002.
35. Cascante, M., Comin, B., Raïs, B., Centelles, J.J., Puigjaner, J., Lee, W-N.P., Boros, L.G. Metabolic control theory and stable isotope based metabolic profiling. Presented at the EMBIO Meeting, Barcelona, Spain, June, 2002.
36. Cascante, M., Comin, B., Atauri, P., Ramos, A., Vizan, P., Boros, L.G., Centelles, J.J., Mazurek, S., Eigenbrodt, E., Frederiks, W.M., Lee, W-N.P., Boren, J. Modeling metabolic networks in drug discovery and disease. Presented at the European Science Foundation (ESF) Meeting, Granada, June, 2002.
37. Boros, L.G., Go, V.L.W., Lee, W-N.P. Stable isotope-based metabolic profiling in pancreatic cancer: applications in biomarker discovery and gene function analysis. Presented at the American Pancreatic Association, Chicago, Illinois, November, 2002.
38. Boros, L.G., Deng, Q., Pandol, S.J., Tsukamoto, H., Go, V.L.W., Lee, W-N.P. Ethanol induced tissue specific lipotoxicity in the liver and pancreas. Presented at the American Pancreatic Association, Chicago, Illinois, November, 2002.
39. Boros, L.G., Harrigan, G.G. Stable isotope-based metabolic profiling: applications in biomarker discovery & gene function testing. Presented at the Cambridge Healthtech Institute's Second Conference on Metabolic Profiling, Sheraton Chapel Hill Hotel, Chapel Hill, North Carolina, December 4, 2002.
40. Tucker, C., Boros, L.G., Santos, J., Bassilian, S., Torday, J.S., Lee, W-N. P., Rehan, V. Differential proliferative and metabolic effects of vitamin D₃ on near-term fetal rat lung fibroblasts and type II cells. Presented at the American Federation for Medical Research Western Regional Meeting Neonatology Session, Carmel, CA, February, 2003.
41. Ramos-Montoya, A. Boros, L.G., Bassilian, S., Lim, S., Lee, W-N.P., Cascante, M. Pentose and purine synthetic pathway inhibitors do not have synergistic effect on colon carcinoma cell growth. Presented at the American Federation for Medical Research Western Regional Meeting Metabolism III Session, Carmel, CA, February, 2003.
42. Bulotta, A., Perfetti, R., Hui, H., Boros, L.G. Glucagon-like peptide-1 regulates insulin release via glucose derived de novo fatty acid synthesis and chain elongation in pancreatic carcinoma cells. Presented at the American Diabetes Association Meeting Metabolism III Session, Chicago, IL, March, 2003.
43. Tucker, C., Boros, L.G., Santos, J., Torday, J.S., Rehan, V. Differential proliferative and metabolic effects of vitamin-D₃ on near-term fetal rat lung fibroblasts and type II cells. Presented at the Pediatric Academic Societies' Annual Meeting in Seattle, Cardiopulmonary Development Session, Washington, May 3-6, 2003.
44. Lee, W-N.P., Boros, L.G., Mao, C.S. Tracer approaches to determining glyconeogenesis. Presented at the American Society for Parenteral and Enteral Nutrition Meeting, Nutrition Week, San Antonio, TX, January, 2003.
45. Boros, L.G. Metabolic profiling using stable isotope tracer technology GC/MS. Presented at the 20th Annual Conference on Metabolic Profiling: Biomarker Discovery, Drug Efficacy and Fundamental Biochemistry, Asilomar, CA, October 15-18, 2004.
46. Boros, L.G., Lerner, M., Morgan, D., Taylor, S., Postier, R., Brackett, D. Different positional accumulation of [1,2-¹³C₂]glucose into RNA ribose of DMBA-induced pancreatic tumors, pancreas and liver. Presented at the American Pancreatic Association, Chicago, Illinois, November 4-5, 2004.
47. Guo, P., Bassilian, S., Lim, S., Lee, W.-N.P., Boros, L.G. Doxorubicin induces Mia PaCa-2 cell apoptosis by increasing GSK-3 β expression, β -catenin degradation and by limiting DNA/RNA ribose synthesis in the pentose cycle. Presented at the American Pancreatic Association, Chicago, Illinois, November 4-5, 2004.

48. Miljus, J., Melo, J.V., Boros, L.G., Anderson, N., Talpaz, M., Leibfritz, D., Eckhardt, S.G., Serkova, N. Metabolic profile of imatinib resistance in chronic myeloid leukemia cells. Presented at the 46th American Society of Hematology Meeting in San Diego, CA, December 4-7, 2004.
49. Boros, L.G. CASE STUDY: Single metabolic mechanism of Gleevec resistance regardless of the genetic makeup of leukemia cells. Presented at the 5th Annual Metabolic Profiling: Pathways in Discovery Meeting, Lake Buena Vista, FL, December 13-14, 2004.
50. Boros, L.G., Lee, W-N.P. Predicting clinical resistance to Gleevec treatment by in vitro applied stable isotope-based dynamic metabolic profiling (SIDMAP). Presented at the 2005 FDA Science Forum, Washington, DC, April 27-28, 2005.
51. Sahai, I., M. Montefusco, C.M., Fleming, J.C., Boros, L.G., Tartaglini, E., Chick, G., Neufeld, E.J. Role of Defective High-Affinity Thiamine Transporter slc19a2 in Marrow from a Mouse Model of Thiamine-Responsive Anemia Syndrome: Evidence for Defective Deoxyribose and Heme Synthesis. Presented at the 47th American Society of Hematology, San Diego, CA, December 3-6, 2005.
52. Sugano, S., Boros, L.G., Wang, Y., Santos, J., Lee, W-P., Torday, J.S., Rehan, V.K. Maternal nicotine exposure: lung alveolar type II cell proliferation, differentiation and metabolic profile. Presented at the Western Society for Pediatric Research (WSPR), Carmel, CA, February 3, 2006. (WINNER OF THE WSPR LOWELL GLASGOW STUDENT RESEARCH AWARD).
53. Erkkila, K., Liu, P.Y., Lee, P.W-N., Boros, L.G., Ferrini, M., Sinha Hikim, A.P., Wang, C., Lue, Y.H., Swerdloff, R.S.. XXY mice exhibit altered palmitate and stearate metabolism in the brain. Presented at the Annual Meeting of the Endocrine Society (ENDO), Boston, MA, June 24-27, 2006.
54. Boros, L.G., Kochegarov, A., Szigeti, I., Lee, S.T., Jancso, G., Jákl, G., Somlyai, G. Deuterium depleted water alters glucose-derived fatty acid and cholesterol synthesis of tumor cells. Presented at the Annual International Meeting of the Metabolomics Society, Boston, MA, June 25-29, 2006.
55. Beger, R.D., Hansen, D.K., Schnackenberg, L.K., Fatollahi, J.J., Boros, L.G. Decreased glycogen and RNA ribose synthesis and turnover from [U-¹³C₆]-D-glucose is an early metabolic marker of valproic acid toxicity on the liver in mice. Presented at the Annual International Meeting of the Metabolomics Society, Manchester, UK, June 11-14, 2007.
56. Boros, L.G. Szigeti, I. Szabo, G. Sarnyai, Z. Delayed uptake of [U-¹³C₆]-D-glucose and abnormal ¹³C isotopomer production after acute and chronic antipsychotic treatment in mice. Presented at the Annual International Meeting of the Metabolomics Society, Manchester, UK, June 11-14, 2007.
57. Vizán, P., Boros, L.G., Peiris, M., Figueras, A., Capella, G., Mangués, R., Lee, W-N.P., Selivanov., Cascante, M. K-ras codon-specific mutations produce distinctive metabolic phenotypes in mice fibroblasts. Presented at the Annual International Meeting of the Metabolomics Society, Manchester, UK, June 11-14, 2007.
58. Harris, D.M., Li, L., Fatollahi, J.J., Lagunero, F.T., Cross, B.M., Go, V.L.W., Boros, L.G. Luteolin inhibits proliferation and de novo fatty acid synthesis in pancreatic cancer cells. Presented at the American Association for Cancer Research, San Diego, CA, USA, April, 2008.

Invited Presentation, Keynotes & Teaching

1. Distribution of stable ¹³C labels in structural macromolecules of pancreatic adenocarcinoma cells from [1,2-¹³C₂]glucose: The application of mass spectrometry to cancer cell metabolism. Central Research Institute of Experimental Medicine of the Hungarian Academy of Sciences and the Hungarian Gastroenterological Society Research Section Seminars, Invited Speaker, Budapest, Hungary, June, 1997.

2. Ribose synthesis in tumor cells: A new target for anti-tumor therapy. Faculty and Student Research Conference, Department of Human Nutrition, The Ohio State University, Columbus, OH, USA, October, 1997.
3. Thiamine and the tumor proliferation process; ribose synthesis through transketolase. Abbott-Ross Laboratories Research Seminar, Invited Speaker, Columbus, OH, USA, May 1997.
4. Inhibition of tumor proliferation through the synthesis of RNA ribose. Pathology 850(b): Seminars in Pathology - Continuing Medical Education Program, The Ohio State University, Columbus, OH, USA, April, 1997.
5. Inhibition of tumor cell proliferation through the synthesis of nucleic acid ribose: a new approach to tumor therapy. University of Barcelona department of Biochemistry Research Seminar, Barcelona, Catalonia, Spain, November, 1998.
6. Gas Chromatography/Mass Spectrometry Chemical Analysis, Summer Student Advisor. Harbor-UCLA Research and Education Institute, Torrance, CA, USA, June-July, 1999.
7. Carbon ¹³C mass isotope studies in cancer cell glucose metabolism: a practical application in tumor cell metabolic response to transforming growth factor-beta (TGF-β₂) treatment. Schebo-Tech presentation, Giessen, Germany, August, 1999.
8. The role of thiamine (vitamin B₁) in the proliferation of tumor cells: clinical consequences. Endocrine Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, January 6, 1999.
9. Transforming growth factor-beta (TGF-beta 2) induces non-oxidative glucose metabolic changes in tumor cells: an explanation for hypoxia resistance in tumors. Endocrine Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, September 22, 1999.
10. Thiamine-responsive megaloblastic anemia and the role of vitamin B₁ in nucleic acid synthesis. Nutrition Research Seminars UCLA School of Medicine, Department of Nutrition, Los Angeles, CA, USA, January 31, 2000.
11. Impaired non-oxidative nucleic acid ribose synthesis in thiamine responsive megaloblastic anemia. Endocrine Clinical Conference, UCLA School of Medicine, Department of Endocrinology. Torrance, CA, USA, March 15, 2000.
12. Characterization of tumor cell metabolism with stable glucose isotopes and GC/MS in response to growth modifying agents. Sala de Graus, Facultat de Biologia. University of Barcelona, Barcelona, Spain, May 19, 2000.
13. Metabolic phenotypic changes in pancreatic adenocarcinoma cells after fermented wheat germ extract (Avenar) treatment. UCLA School of Medicine, Center for Human Nutrition research seminars, Los Angeles, CA, USA, July 21, 2000.
14. Methods of determining the metabolic phenotype of mammalian cells. UCLA School of Medicine, Harbor-UCLA Medical Center Basic Science Seminar, Torrance, CA, USA, December 12, 2000.
15. Metabolic adaptation to promoters and inhibitors of human cell transformation. University of California Irvine, Division of Endocrinology, Diabetes and Metabolism, Faculty Science Seminar, Irvine, CA, USA, January 24, 2001.
16. Metabolic markers of the lipofibroblast-myofibroblast trans-differentiation process in premature rat lung. UCLA School of Medicine, Center for Human Nutrition seminar presentation, Los Angeles, CA, USA, January 26, 2001.
17. Metabolic characteristics of lipofibroblast-myofibroblast trans-differentiation in premature rat lung. UCLA School of Medicine, Department of Pediatrics research seminar, Los Angeles, CA, USA, February 15, 2001.
18. Metabolic pathology of lipofibroblast-myofibroblast trans-differentiation. Harbor-UCLA Medical Center, Department of Pathology Grand Rounds, Torrance, CA, USA, February 16, 2001.

19. Treatment of chronic myeloid leukemia with Bcr-Abl tyrosine kinase inhibitor Gleevec: the metabolic consequences. Endocrine Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, July 11, 2001.
20. Basics of mass spectrometry and proteomics analyses. Introduction to Biomedical Research and Experimental Techniques. Fellow/Faculty Continued Education Program, University of California Research and Education Institute, Torrance, CA, USA, August 29, 2001.
21. Metabolic Adaptation of Mammalian Cells to Growth Modifying Signals. Weitzman memorial research award acceptance lecture 2001, Faculty Society of Harbor-UCLA, Torrance, CA, USA, September 13, 2001.
22. Stable isotope labeling of proliferation-related macromolecules using [1,2-¹³C₂]glucose: the effect of growth modifying signals. Cedar Sinai Medical Center Research Conference, Los Angeles, CA, September 14, 2001.
23. STI571 (Gleevec) and leukemia cell proliferation. Leukemia Research Group and Task Force Meeting, UCLA School of Medicine, Department of Internal Medicine Division of Hematology, Los Angeles, CA, October 1, 2001
24. Metabolic adaptive changes in chronic myeloid leukemia cells in response to STI571 (Gleevec) treatment. Endocrine/Metabolism Research Seminar Series, Cedar Sinai Medical Center, Los Angeles, CA, USA, October 5, 2001.
25. Pancreatic and leukemia tumor growth-control through metabolic pathway-linked signal transduction pathways: the lesson learned with STI571. UCLA School of Medicine, Center for Human Nutrition Research Seminar, Los Angeles, CA, USA, October 19, 2001.
26. ThermoQest Finnegan LCO Classic, Duo, Deca and triple quadrupole (TSQ) basic instrument operations. Atmospheric pressure ionization (API) and ion trap theory. Harbor-UCLA Research and Education Institute, laboratory course, Torrance, CA, USA, December 11-12, 2002.
27. Opposite metabolic adaptive changes in tumor genesis and tumor growth control in leukemia tumor cells. Sala de Graus, Facultat de Biologia. University of Barcelona, Barcelona, Spain, USA, December 18, 2001.
28. Metabolic effects of ethanol injury in the liver and pancreas: tissue specific differences in fatty acid synthesis. Endocrine Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, January 9, 2002.
29. Tissue specific lipotoxicity in the liver and pancreas after ethanol administration in rats. UCLA School of Medicine, Center for Human Nutrition Research Seminar, Los Angeles, CA, USA, January 25, 2002
30. Tumor cell metabolism and novel treatment modalities: Bcr-Abl tyrosine kinase inhibitor Gleevec. Endocrine and Metabolism Clinical Research Conference, City of Hope National Medical Center, Duarte, CA, USA, February 6, 2002.
31. Molecules with memory: the stable isotope labeled metabolome in biomedical research. GC/MS research presentation, Visiting Professor Grand Rounds Part II, Torrance, CA, USA, March 5, 2002.
32. Tracing pathways in dynamic metabolic profiling and their utilization in the drug discovery process. GC/MS research presentation, Visiting Professor Grand Rounds Part IV, Torrance, CA, USA, March 5, 2002.
33. Metabolic profiles of tumor cells in response to novel anti-proliferative treatment modalities. Waters Metabolomics Technology Forum, Waters Corporation, Milford, MA, USA, March 26 & 27, 2002.
34. Metabolic profiling of metabolic diseases with unknown mechanisms: how to make silent genes to talk. Harvard School of Medicine, Department of Hematology Research Seminar, Boston, MA, USA, March 27, 2002.

35. Glucagon like peptide-1 (GLP-1) induced metabolic adaptation of pancreatic epithelial cells to differentiation and insulin release. Endocrine/Metabolism Research Seminar Series, Cedar Sinai Medical Center, Los Angeles, CA, USA, May 17, 2002.
36. Glucagon like peptide-1 (GLP-1) induces differentiation and insulin release of pancreatic epithelial cells: Potential use for the treatment of type 2 diabetes mellitus. Endocrine Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, June 12, 2002.
37. Ethanol-induced tissue specific lipotoxicity in the liver and pancreas: a new application of the stable isotope-based metabolic profiling technology. Research Seminar, University of Southern California (USC), Los Angeles, CA, USA, July 8, 2002.
38. Stable isotope-based dynamic metabolic profiling for industrial drug target screening, drug efficacy testing and new drug development. Research Seminar, Pharmacia, Saint Louis, MO, USA, August 12, 2002.
39. Utilization of ¹³C labeled stable glucose isotopomers in the industrial drug testing process. Research Seminar, Sigma-Aldrich-Isotech, Miamisburg, OH, USA, August 13, 2002.
40. Use of asparagine as a substitute for glutamine in cell cultures: effects on glucose metabolism. University of California School of Medicine Harbor-UCLA Research and Education Institute Summer Fellow Education Program Presentation, Torrance, CA, USA, August 14, 2002.
41. Introduction to mass spectrometry for biomedical research and experimental techniques. Fellow/Faculty Continued Education Program, University of California School of Medicine Harbor-UCLA Research and Education Institute, Torrance, CA, USA, September 5, 2002.
42. Metabolic profiling with stable isotopes and GC/MS. The Harbor-UCLA Symposium and Workshop On Metabolic Profiling and Metabolic Control Analysis, University of California School of Medicine Harbor-UCLA Research and Education Institute, Torrance, CA, USA, September 21, 2002.
43. Differential effects of vitamin D₃ on premature lung cells. The Harbor-UCLA Symposium and Workshop On Metabolic Profiling and Metabolic Control Analysis, University of California School of Medicine Harbor-UCLA Research and Education Institute, Torrance, CA, USA, September 22, 2002.
44. Application of metabolic profiling in cancer drug discovery: Gleevec. The Harbor-UCLA Symposium and Workshop On Metabolic Profiling and Metabolic Control Analysis, University of California School of Medicine Harbor-UCLA Research and Education Institute, Torrance, CA, September 23, 2002.
45. Diagnostic applications of stable isotope tracers and their prognostic value in drug sensitivity testing of human tumor cells. Oncotech, Tustin, CA, USA, December 10, 2002.
46. Adrenal cortical carcinoma: mass spectral analysis of plasma steroid profile (case presentation). Harbor-UCLA Medical Center, Department of Endocrinology Grand Rounds, Torrance, CA, USA, January 03, 2003.
47. Stable isotopes in metabolic profiling of pancreatic tumor cell physiology: tracer designs, applications and data analysis/presentation methods. Pancreatic SPORE grant meeting research seminar, UCLA School of Medicine, Department of Surgery, Los Angeles, CA, January 9, 2003.
48. Drug target discovery and drug testing through metabolic profiling. 5th Annual Biomedical Investment & Strategic Partnering Opportunities Conference by the Southern California Biomedical Council (SCBC) Poster Presentation Session, Los Angeles, CA, USA, March 11, 2003.
49. Drug target discovery and drug testing through metabolic profiling. 5th Annual Biomedical Investment & Strategic Partnering Opportunities Conference by the Southern California Biomedical Council (SCBC) Poster Presentation Session, Los Angeles, CA, USA, March 11, 2003.

50. Improving Drug Target Discovery And Drug Effectiveness For The Industry Through Metabolic Profiling. 5th Annual Biomedical Investment & Strategic Partnering Opportunities Conference by the Southern California Biomedical Council (SCBC), Los Angeles, CA, USA, March 13, 2003.
51. Vitamin-D₃ for the treatment of lung fibrosis. Endocrine Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, April 23, 2003.
52. Early diagnosis of pancreatic cancer using serum metabolome GC/MS analysis and [1,2-¹³C₂]glucose as the tracer. Cambridge Isotope Laboratories, Andover, MA, July 2, 2003.
53. Stable Isotope-Based Metabolic Profiling (SIDMAP) of human cancer. Utah Venture Associate presentation, Harbor-UCLA Medical Center, Torrance, CA, August 15, 2003.
54. Glucagon-like peptide-1 stimulates glucose derived *de novo* fatty acid synthesis and insulin production during beta cell differentiation. Endocrine Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, September 17, 2003.
55. Metabolic pathways regulating cell cycle and apoptosis. UCLA School of Medicine, Harbor-UCLA Medical Center Basic Science Seminar, Torrance, CA, USA, October 7, 2003.
56. Biomarkers of tumor cell proliferation and apoptosis revealed by metabolomics. International Society for Analytical and Molecular Morphology, Santa Fe, NM, October 14, 2003.
57. Glucagon-like peptide-1 regulates *de novo* fatty acid synthesis and insulin release of beta cells. Endocrine & Metabolism Clinical Research Conference, City of Hope National Medical Center, Duarte, CA, USA, October 29, 2003.
58. Rottlerin in the treatment of pancreatic cancer. Department of Veterans Affairs - Greater Los Angeles Hospital, Los Angeles, CA, January 14, 2004.
59. Unique metabolic characteristics of IBC cells aiding diagnosis and treatment. Inflammatory Breast Cancer Research Foundation - Activist Meeting, Washington DC, MD, April 30, 2004.
60. Metabolic Profiles Associated with Aggressive Inflammatory Breast Cancer Cell Growth: exploring new avenues of diagnosis and treatment. Inflammatory Breast Cancer Research Foundation - Board Meeting, Washington DC, MD, April 30, 2004.
61. Organ Specific Metabolic Abnormalities in Thiamine Responsive Megaloblastic Anemia and Diabetes in Children. Harbor-UCLA Medical Center, Department of Pediatrics Grand Rounds, Torrance, CA, USA, July 29, 2004.
62. Unlocking Thiamine Responsive Megaloblastic Anemia: an unknown disease entity of the past. General Clinical Research Center Excellence in Clinical Research Award for 2003; award acceptance lecture, Torrance, CA, USA, September 21, 2004.
63. Time of Flight Mass Spectrometry: from science to clinic. UCLA School of Medicine, Harbor-UCLA Medical Center Basic Science Seminar, Torrance, CA, USA, October 5, 2004.
64. Clinical Trials in a Test Tube: Understanding the Powers of Stable Isotope-based Dynamic Metabolic Profiling (SIDMAP) in Drug Discovery. Eight Annual Functional Genomics Meeting, Cambridge Healthtech Institute, Boston, MA, November 9, 2004.
65. Understanding Glivec-induced metabolic network changes as markers of response in cancer. Oncology Research Management Board, Novartis Pharmaceuticals, Basel, Switzerland, March 22, 2005.

66. Targeted drugs and the tracer labeled metabolome of tumor cells: how to predict resistance and develop intervention strategies. University of Utah, Department of Biochemistry Research Seminar, Salt Lake City, UT, April 18, 2005.
67. Understanding drug resistance and failure using stable isotope-based dynamic metabolic profiling (SIDMAP). 62nd Annual Meeting of the Korean Society for Biochemistry & Molecular Biology, Cellular Metabolism and Metabolomics Seminar Lecture, Seoul, Korea, May 19, 2005.
68. Predicting clinical resistance to targeted therapies using stable isotope-based dynamic metabolic profiling (SIDMAP). Korean Institute of Science and Technology Research Seminar, Seoul, Korea, May 19, 2005.
69. Applications of stable isotope-based dynamic metabolic profiling (SIDMAP) in drug resistance. Pohang University of Sciences and Technology Department of Chemistry Research Seminar, Pohang, Korea, May 20, 2005.
70. Classic laws of physics and mass spectrometry: time of flight, quadrupole, ion trap instruments and their principles of operation. AP Physics student class, Carson High School, Carson, California, June 10, 2005.
71. Stable Isotope Based Metabolic Profiling (SIDMAP) and its Applications. First Scientific Meeting of the Metabolomics Society, Tsuruoka City, Japan, June 23, 2005.
72. Tracer substrate-based metabolomics: data handling, biomarkers and patient stratification. Metabolomics Standards Workshop, National Institute of Diabetes & Digestive & Kidney Diseases, National Institutes of Health, Bethesda, Maryland, August 1-2, 2005.
73. Why targeted drug therapies are doomed to fail: uncovering the mechanism of action using stable isotope-based dynamic metabolic profiling. Connective Tissue Research Institute, University City Science Center, Department of Medicine, University of Pennsylvania, School of Medicine, Philadelphia, PA, October 18, 2005.
74. Evolving metabolic tracer technologies and targeted drug resistance in cancer. Third International Conference on Tumor Cell Metabolism, Plenary Lecture, Louisville, KY, October 20, 2005.
75. Predicting Clinical Resistance to Gleevec Treatment by *in vitro* Applied Stable Isotope-based Dynamic Metabolic Profiling. Advances in Metabolic Profiling, Pharmaceutical and Disease State Applications, London, UK, November 1, 2005.
76. Metabolic effects of anti-psychotic treatments and the development of type 2 diabetes. Department of Pharmacology, University of Cambridge, United Kingdom, November 3, 2005.
77. Ethanol-induced organ-specific lipotoxicity in the plasma, liver and pancreas: an *in vivo* tracer substrate-based metabolomics study. Center for Regulatory and Environmental Analytical Metabolomics (CREAM) at the University of Louisville, 1st CREAM Symposium, Louisville, KY, November 5 & 6, 2005.
78. Identifying Patients Who are at Risk for Developing Resistance to Targeted Therapies. IBC Life Sciences Metabolic Profiling Using Metabolomics and Metabonomics Technology to Accelerate Drug Discovery and Development, Research Triangle Park, NC, November 14-15, 2005.
79. Developing Metabolic Biomarkers by Measuring Isotopomer Ratios of Specific Metabolites: Metabolic Profiling and Analytical Methods, Orlando, Florida, December 7-8, 2005.
80. Tumor cell metabolism. Basic Science Seminar, UCLA School of Medicine Department of Surgery, General Surgery Basic Science Seminar, Los Angeles, CA, December 21, 2005.
81. Flexibility of the metabolic network and targeted drug failures. UCLA School of Medicine, Los Angeles Biomedical Research Institute at the Harbor-UCLA Medical Center Basic Science Seminar, Torrance, CA, USA, April 18, 2006.

82. Fermented Wheat Germ (Avemar) Effect and Mechanism of Action as Determined by Stable Isotope-based Dynamic Metabolic Phenotyping. International Society for the Study of Xenobiotics (ISSX), Cheju Island, Korea, May 27, 2006.
83. Tracer substrate-based metabolomics to unlock metabolic phenotypes. Buck Institute for Age Research, Novato, CA, July 21, 2006.
84. Metabolic targeted therapies during and after failed small molecule kinase inhibitors in cancer. Conference on Small Molecule Science, San Diego, CA, July 25, 2006.
85. Tracer Substrate-based Metabolomics and the 2005 Nobel Prize award in Physiology & Medicine. Innovation in Life Science, Healthcare Research & Product Development, Bryn Mawr College, Philadelphia, USA, October 16-19, 2006.
86. Clinical Genomics in Gastroenterology. Asian Pacific Digestive Disease Week, Lahug Cebu City, Philippines, November 20, 2006.
87. Mass Isotopomer Markers of Drug Efficacy and Toxicity in Plasma and Urine. Global Technology Community's (GTCbio) 2nd Modern Drug Discovery and Development Summit, Philadelphia, PA, December 4-6, 2006.
88. Clinical metabolic biomarkers of drug safety and efficacy using ¹³C-labeled substrates. Division of Endocrinology & Metabolism Clinical Research Conference, Harbor-UCLA Medical Center, Torrance, CA, USA, September 6, 2006. *AMA PRA Category 1 Credits™* INSTITUTE FOR MEDICAL QUALITY AND THE CALIFORNIA MEDICAL ASSOCIATION'S CME ACCREDITATION STANDARDS (IMQ/CMA)
89. [1,2-¹³C₂]-D-glucose tolerance test in obesity. Keynote Lecture & Honorary Membership Recipient Presentation at the 49th International Meeting of the Hungarian Gastroenterological Association, Pancreatology Plenary Section, Tihany, Hungary, June 3, 2007
90. Stable ¹³C isotope tracer substrate studies in drug target development, efficacy and safety testing. Research Seminar, Department of Pathophysiology and the Hungarian Academy of Sciences Szeged Regional Arm, Szeged, Hungary, June 9, 2007
91. Abnormal ¹³C isotopomer production after acute and chronic antipsychotic treatment in mice. The Eight International Conference on Systems on Systems Biology; Systems Biology in Medicine, Long Beach, California, USA, October 5, 2007
92. Determination of New Biomarkers for Liver Toxicity in the form of Stable Isotope Labeled Metabolites. InnovationWell InterAction Meeting Session, Systems-based Biology & Toxicology, Bryn Mawr College, Philadelphia, PA, USA October 17, 2007
93. Use of metabolic pathway flux information in cancer drug design. Oncogenes meet metabolism – from deregulated genes to a broader understanding of tumor physiology, Berlin, Germany, November 14-16, 2007
94. Functional analysis of pancreatic cancer genes, signaling pathways and drugs using metabolomics. Fourth Hirshberg Symposium for Pancreatic Cancer Research, Los Angeles, California, USA, February 4, 2008
95. Metabolic pathway flux information and systems biology approaches in CNS disorders. 10th International Neuroscience Winter Conference, Sölden, Austria, April 5-10, 2008
96. Discovering markers of metabolic side effects from responses to drugs by altered synthesis and turnover of fatty acids and cholesterol. IBC's 13th Annual World Congress on Drug Discovery & Development of Innovative Therapeutics (DDT), World Trade Center, Boston, MA, August 4-7, 2008

97. Individual variations of metabolism, diabetes and obesity markers, ^{13}C substrate based dynamic metabolic profiling (SiDMAP) and SiD-ELISA. United States Food and Drug Administration (FDA) National Center for Toxicological Research Science and Collaboration Seminar, Jefferson, Arkansas, August 27, 2008
98. Non-invasive methods of studying cancer cell metabolism, drug action and drug response. American College for the Advancement in Medicine (ACAM) – Integrative approaches in Oncology, Las Vegas, Nevada, October 19, 2008

Funding History & Current Support

ACTIVE

1. **1 P01 AT003960-01A1**

US NIH/NCI (P.I. – Go); Metabolomics Core (Co-P.I. – Boros) 10/01/2007 - 09/30/2012
 UCLA Center for Excellence in Pancreatic Diseases \$25,000 14%

Stable isotope tracer substrate technology is used to reveal natural phytochemical and nutritional products and their preventive/therapeutic applications in pancreatic diseases, including inflammation and cancer.

PENDING

1. **P-50** (P.I.-Lee/Go) 07/01/2003-06/30/2008
 US DHHS/NIH/NCI (Co P.I.-Boros) \$142,354 10%
 Metabolic Sensitivity to Differentiation Signals in Pancreatic Cancer

4. Stable Isotope-Based Dynamic Metabolic Profile of Pancreatic Cancer. 05/01/2004-30/04/2008
 US NIH/NCI (P.I. – Boros) \$225,000 10%

COMPLETED

1. **MRDF 53656** (P.I. - Boros) 01/01/1995-12/31/1995
 The Ohio State University Department of Surgery \$4,996
 Tumor ribose synthesis pathways.

This project allowed preliminary/feasibility investigations in the field of tumor specific nucleic acid ribose synthesis pathways from glucose as the precursor and source for nucleic acid backbone sugar synthesis.

2. **PO1 CA42710-12** (P.I. - Heber) 01/01/1998-12/31/1998
 US NIH Clinical Nutrition Research Unit/UCLA (CNRU) \$15,000
 Lipid and RNA ribose synthesis in tumor cells and the mechanism of soy protein action on pentose cycle activity using ^{13}C labeled glucose or acetoacetate.

This project provided preliminary/feasibility funding for studying specific inhibitors of pentose cycle enzymes in order to inhibit *in vitro* pancreatic tumor cell growth and transformation.

3. **Fulbright** (P.I. - Cascante) 01/07/1999-31/06/2000
 Commission for Cultural, Educational and Scientific Exchange of Spain \$12,780
 Travel grant for scientific exchange and visits between the US and Spain.

4. **Harbor-UCLA Inaugural Collegium** (P.I. - Boros) 2001
 Harbor-UCLA Research and Education Institute \$12,000 N/A
 Equipment purchase award for an atmospheric pressure chemical ionization (APCI) probe for the LCQ Deca ion trap mass spectroscopy instrument.

5. **MO1 RR00425-34** (P.I. - Anderson) 12/01/1977 - 09/30/2003

US DHHS/NIH/NCRR (Mass Spectroscopist - Boros)
General Clinical Research Center

This project provided continued support for an inpatient General Clinic Research Center (GCRC) unit, outpatient GCRC facilities, a Perinatal Clinical Research Center (PCRC) at Martin Luther King Drew Medical Center, and a Satellite GCRC at Cedars-Sinai Medical Center.

6. **MA 1760/2-1 & 1760/2-2; German Research Communications (Deutsche Forschungsgemeinschaft (DFG))** (P.I. – Mazurek) 02/01/2001 - 01/31/2003
Habilitation and scientific exchange studies for Dr. Sybille Mazurek \$20,000.00 N/A

7. **Henry L. Guenther Core Metabolic Profiling Laboratory (P.I. – Lee)** 08/01/2003
Harbor-UCLA Research & Education Institute (Co-P.I. – Boros) \$380,000.00

This project provides funds for a one-time purchase of a time of flight (TOF) mass spectrometer (Applied Biosystems - Voyager), a Liquid Chromatograph Finnegan Deca Ion Trap mass spectrometer (LCQ-Deca) and their support peripherals.

8. **Inflammatory Breast Cancer Research Foundation** (P.I. - Boros) 03/01/2003 - 02/28/2004
Metabolic profile of inflammatory breast cancer cells. \$20,000 N/A

This project provides funding to clarify inflammatory breast cancer metabolic characteristics and to develop new treatment strategies based on metabolic pathway inhibitors in this rapidly growing undifferentiated cancer on a renewable seed grant basis.

9. **RO1 HL66182-01A1 SUBK** (P.I. - Neufeld) 10/01/2001 - 09/30/2006
US DHHS/NIH/NCI (P.I.-Boros; Operating Institution Project Director) \$20,050 14%
Pathophysiology of Thiamine-Responsive Anemia Syndrome

This project describes the biochemical defect involved in the thiamine responsive megaloblastic anemia syndrome using stable isotope based metabolic profiling *in vitro* and *in vivo*.

10. **PO1 CA42710-16 SUBK** (P.I. Heber) 05/01/1992 - 04/30/2007
UCLA Subcontract (Mass Spectroscopist - Boros) \$19,637 5%
Clinical Nutrition Research Unit: Stable Isotope Core.

The major goal of this project is to develop chemo preventative approach to cancer through nutrition modification. To operate and co-direct the GC/MS core for CNRU approved projects.

11. **6-FY2002-181** (P.I.-Torday) 06/01/2003 - 5/31/2007
March of Dimes (Boros-Co. I.) \$68,182 10%
The Role of Myofibroblasts in the Pathophysiology of Bronchopulmonary Dysplasia.

The aim of this project is to determine the mechanism of lipo-fibroblast transdifferentiation in newborns using combined genetic and metabolic profiling approaches.

2. **RO1 HL66182-01A1 SUBK** (P.I. – Eibl) 03/01/2004 - 31/12/2008
US NIH/NCI (Co-P.I. – Boros) \$225,000 10%
The Role of COX-2 and PPAR- γ in Pancreatic Cancer

The proposed studies explicate the effect of COX-2 and PPAR gamma inhibitors in pancreatic cancer anti-proliferative treatment and metabolic phenotype.

3. **REI Project #: 200279-00-00** (Los Angeles Biomedical Research Institute) 07/01/2004 - 06/30/2008
Hirshberg Foundation for Pancreatic Cancer Research (P.I. - Boros) \$25,000 14%

Biochemistry of Pancreatic Cancer using Stable Isotope-based Metabolic Profiling

This project describes the biochemical defect involved in the development and progression of pancreatic cancer using stable isotope based metabolic profiling *in vitro* and *in vivo*.

Editorial & Peer Review Boards

Pancreas (Associate Editor; Reviewer, 1999 - present)
Metabolomics (Editorial Advisor; Reviewer, 2005 - present)
Hormone & Metabolic Research (Reviewer, 2000 - present)
Natural Sciences & Engineering Research Council of Canada (Reviewer, 2000 - present)
Harbor-UCLA Research and Education Institute Office of Grants & Contracts (Reviewer, 2001- 2004)
Molecular & Cellular Biochemistry (Reviewer, 2002 - present)
Analytical Biochemistry (Reviewer, 2003 - present)
Dutch Cancer Society (Nederlandse Kankerbestrijding), Reviewer, 2003)
Digestive Diseases & Sciences (Reviewer, 2003 - present)
Oncogene (Reviewer, 2004 - present)
University of Alabama at Birmingham Clinical Nutrition Research Center (Reviewer, 2004 - present)
Nutrition & Cancer (Reviewer, 2004 - present)
Hirshberg Foundation for Pancreatic Cancer Research (Reviewer, 2004 – present)
Federation of European Biochemical Societies (FEBS) Letters (Reviewer, 2005 – present)
Biochemical Pharmacology (Reviewer, 2005 – present)
The Journal of Pediatrics (Reviewer, 2006 – present)
European Journal of Pharmacology (Reviewer, 2006 – present)
Cancer Letters (Reviewer, 2007 – present)
Cell Biology & Toxicology (Reviewer, 2007 – present)
International Journal of Cancer (Reviewer, 2007 – present)
Nature Protocols (Reviewer, 2007 – present)
Biomarkers in Medicine (Reviewer, 2007 – present)

Scientific Advisory and Review Boards

Hirshberg Foundation for Pancreatic Cancer Research (2003 – present)

Session Chair Assignments

Pharmaceutical & Disease State Applications in Drug Development. Advances in Metabolic Profiling, London, United Kingdom, Nov 1-2, 2005.

Committees

MASS SPECTROMETRY ANALYSIS PLANNING COMMITTEE – Research and Education Institute, Harbor-UCLA Medical Center, Torrance, CA (2000-present)

UCLA SPECIAL PROGRAM OF RESEARCH EXCELLENCE (SPORE) IN PANCREATIC CANCER - Developmental Research Program Committee (2002-2003)

UCLA – UCSD CENTER GRANT FOR PANCREATIC CANCER PRELIMINARY/FEASIBILITY GRANTS COMMITTEE - Developmental Research Program Committee (2002-2003)

WEITZMAN RESEARCH AWARD SELECTION COMMITTEE – HARBOR-UCLA RESEARCH AND EDUCATION INSTITUTE FACULTY SOCIETY (2003-present)

Languages & Communications Skills

Fluent and literate in English and Hungarian, basic language skills in German, advanced computer skills (Microsoft-office, Word Perfect, Corel graphics, primer analysis using Oligo, mass spectral analyses using Excel macros)

Special Courses and Certifications

Advanced Tools for Proteomics and Pharmaceutical Analysis – Dionex Corporation 2001 Spring Seminar Series for Laboratory Professionals, *Woodland Hills, CA, May 17th, 2001*

Data and Safety Monitoring Policy and Procedures for the General Clinical Research Centers (GCRCs) of the United States – Harbor-UCLA Medical Center, *Torrance, CA, March 28th, 2001*

LCQ Operations – ThermoQest Finnegan LCQ Classic, Duo, Deca and triple quadrupole (TSQ) basic instrument operations, including atmospheric pressure ionization (API) and ion trap theory, tuning, calibration, data collection, maintenance, qualitative and quantitative data analysis/processing using Xcalibur - *Riviera Beach, Florida, February 26- March 2, 2001*

Responsible Conduct of Research Curriculum – Harbor-UCLA Research and Education Institute General Clinical Research Center, *Torrance, CA, February 28th, 2001*

Protecting Study Volunteers in Research – Educational/Training Course Certification – Harbor-UCLA Research and Education Institute – *Torrance, CA, Sep 29th, 2000*

Laboratory Animal Care and Handling Course, guided by the Institutional Laboratory Animal Care and Use Committee (ILACUC) of the University of California at Los Angeles, *Torrance, CA, October, 1998*

Basic Life Support cognitive and skills evaluation certificate for healthcare providers, curriculum of the American Heart Association – Ohio Valley, Columbus State C.C. Training Center, *Columbus, OH, June 12th, 1998*

Laboratory Animal Care and Handling Course, guided by the Institutional Laboratory Animal Care and Use Committee (ILACUC) of the Ohio State University, *Columbus, Ohio, July, 1990*

The Impact of Colorful Fruits and Vegetables on Health, UCLA Center for Human Nutrition, *Los Angeles, CA, September 5, 2001*

Matrix assisted laser desorption time of flight mass spectrometry (MALDI-TOF) sample preparations, operations, data analysis. UCLA Department of Chemistry, *Los Angeles, CA, March 18, 2001*

Human Proteome Organization (HUPA) & Amersham Proteomics Tour 2002. University of California Faculty Center, *Los Angeles, CA, September 19, 2002*

Finnigan Technology Forum: Gel analysis by mass spectrometry, Protein quantitation and analysis of phosphoproteins. Thermo Finnigan Western Region, *La Jolla, CA, November 21, 2002*

Linear ion trap technology, high throughput quantitative analysis by liquid chromatography/mass spectrometry (LC/MS/MS), advanced structural characterization, and metabolite and impurity identification. Applied Biosystems Applications seminar, *Buena Park, CA, November 22, 2002*

Southern California Biomedical Council Presentation Preparation Course for Venture and Investment Opportunities. KPMG International, *Los Angeles, CA, February 6, 2003*

Preparative Screening Course for Academic Institutions, the Southern California Biomedical Council and Kaiser Permanente Management Ground (KPMG) International, *Los Angeles, CA, February 13, 2003*

Protected Health Information (PHI) Health Insurance Portability & Accountability Act Certificate of the Harbor-UCLA Research and Education Institute, *Torrance, CA, May30, 2003*

Voyager-DE™ STR BioSpectrometry™ Workstation (Applied Biosystems MALDI-TOF) Training Course, *Foster City, California, July 13-16, 2004*

Research Services Training: Current Laboratory Animal Handling and Use. Los Angeles Biomedical Research Institute, *Torrance, CA, June 06, 2005*

Title 8, Section 5193 California Code of Regulations Bloodborne Pathogen and Disease Training Course. Los Angeles Biomedical Research Institute, *Torrance, CA, June 13, 2005*

Infectious Agents and Diagnostics Specimens Transportation Saf-T-Pack Training (Tested As Per 49CFR 172.700 / IATA 1.5). Los Angeles Biomedical Research Institute, *Torrance, California, July 14, 2005*

Integrated Medical Research Information System - iMedRIS Data Corporation on-site Training Course at the Los Angeles Biomedical Research Institute, *Torrance, California, July 15, 2005*

Sexual Harassment Prevention Training Course – State of California Code Training Course at the Los Angeles Biomedical Research Institute, *Torrance, California, December 16, 2005*

Mandated Section Test Los Angeles County Department of Health Services Harbor-UCLA Medical Center Re-orientation: Infection Control, Environment of Care, Family Violence, Cultural Diversity, HIPAA & Age Appropriate Care Considerations. Result: Pass; *Torrance, California, July 10, 2006*

Department of Health & Human Services – USA; Los Angeles County DHS Compliance Training Program, *June 22, 2007*

Mandatory Online Sexual Harassment Prevention Course for University of California (UC) Faculty. Sexual Harassment Prevention Training - required by California law (AB1825), *October 11, 2007*

C o n s u l t i n g & M e d i c a l E x p e r t W o r k

Central Research Institute of Experimental Medicine, Hungarian Academy of Sciences, Budapest, VIII. Szigony street 43, Hungary - Consultant and Collaborator, Carcinogenesis and Metabolic Profiling 1996 - 2003.

Hermanies, Major, Castelli & Goodman (Cincinnati, OH). Medical Expert Consultant; Parsley vs. Terminix - Pesticide (Isofenphos) Poisoning and Chronic Myeloid Leukemia (case evaluation), 1997 – 2002.

Goodson & Mullins, LTD (Cincinnati, OH). Medical Expert Consultant and Witness; Parsley vs. Terminix (legal arbitration, public) 2002 – 2003. Parsley v. Terminix International Co., No. C-3-97-394, 1998 U.S. Dist. LEXIS 22891 (S.D. Ohio Sept. 15, 1998).

Biomedicina Research & Development, Inc. (Budapest, Hungary) – Consultant, Tumor Growth Inhibitory Metabolic Effects of Fermented Wheat Germ, 1999 – present.

GenPath Pharmaceuticals, Inc. (Cambridge, Massachusetts, USA) – Scientific Advisor and Consultant, 2004 - 2005.

Aveopharmaceuticals, Inc. (Cambridge, Massachusetts, USA) – Scientific Advisor and Consultant, 2005 - present.

Pfizer, Inc. (New York, NY, USA) – Consultant, June 2004 – July 2006.

Patrick Swayze's diagnosis with pancreatic cancer medical condition and prognosis coverage (Los Angeles, CA, USA) – National Medical Respondent - Access-Hollywood, Entertainment Tonight, E-news! March 6 – 2008
<http://www.accesshollywood.com/article/8686/friends-celebrities-offer-support-for-patrick-swayze/>

Personal

Date of Birth: June 12, 1962; Sex: Male; Marital status: Single (divorced); Child: 1 Daughter (20 years old)
Immigration Status: Lawfully admitted permanent resident of the United States of America “Scientist of Extraordinary Ability” [Act#203 (b) a(A) of the Immigration and Nationality Act] – Citizen of Hungary and the European Union.