BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Bruce Ryan Bistrian, M.D., Ph.D.	POSITION TITLE Professor of Medicine		
eRA COMMONS USER NAME BRUCE_BISTRIAN			

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)	FIELD OF STUDY
New York University	B.A.	1961	Biology
Cornell University	M.D.	1965	Medicine
Johns Hopkins University	M.P.H.	1971	International
M.I.T.	Ph.D.	1976	Nutrition

Positions and Honors.

Position and Employment

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1966- 1967 Captain Medical Corps, Medical Officer, 7th Special Forces Group

1967- 1968 Assistant Group Surgeon, Special Forces Training Group, U.S. Army

1968- 1969 Fellow in Endocrinology & Metabolism, University of Vermont Medical Center, Burlington, VT

1969- 1970 Resident in Medicine, University of Vermont Medical Center, Burlington, VT

1970- 1972 John Hopkins University School of Hygiene, Master of Public Health

1972- 1975 Fellow in Nutritional Biochemistry & Metabolism, Massachusetts Institute of Technology (MIT), Cambridge, MA

1972- 1981 Research Associate, Dept. of Nutritional & Food Science, MIT, Cambridge, MA

1974- 1984 Assistant Physician, New England Deaconess Hospital, Boston, MA

1975- Associate Physician, New England Deaconess Hospital, Boston, MA

1976- 1978 Assistant Clinical Professor of Medicine, Harvard Medical School, Boston, MA

1976- 1977 Assistant Director, Hyperalimentation Service, New England Deaconess Hospital, Boston, MA

1978-1980 Assistant Professor of Medicine, Harvard Medical School, Boston, MA

1977- Co-Director, Hyperalimentation Service, Beth Israel Deaconess Medical Center, Boston, MA

1980-1998 Member, Cancer Research Institute, Beth Israel Deaconess Medical Center, Boston, MA

1981-1984 Lecturer, Department of Nutrition and Food Sciences, MIT, Cambridge, MA

1981-1990 Associate Professor of Medicine, Harvard Medical School, Boston, MA

1990- Professor of Medicine, Harvard Medical School, Boston, MA

Chief of Nutrition Division and Director of Nutrition/Infection Laboratory, Department of

Medicine, Beth Israel Deaconess Medical Center.

Honors

Phi Beta Kappa Army Commendation Medal

Sigma Xi Scientific Research Society of America

Selected peer-reviewed publications (in chronological order).

(Publications selected > 300 peer-reviewed publications)

1. Tayek J, Blackburn GL, Bistrian BR. Alterations in whole body, muscle, liver and tumor tissue protein synthesis and degradation in Novikoff hepatoma and Yoshida sarcoma tumor growth in vivo. Cancer Research 1988; 1554-1558.

- 2. Flores EA, Istfan N, Bistrian BR, Pomposelli JJ, Dinarello CA, Blackburn GL. Infusion of tumor necrosis factor/cachectin promotes muscle catabolism in the rat. J Clin Inv. 1989; 83:1614-1622.
- 3. Ling PR, Bistrian BR, Blackburn GL, Istfan NW. Effect of continuous feeding on maternal protein metabolism and fetal growth in the rat. Am J Physiol. 1989; E256:852-862.
- 4. Istfan N, Ling PR, Blackburn GL, Bistrian BR. Enhancement of protein breakdown by TNF-alpha in the rat: correlation of in vivo isotope estimates with growth characteristics. Am J Physiol. 1991; 261:106-116.
- 5. Wan JM, Fogt F, Bistrian BR, Istfan NW. Evaluation of antitumor effect of tumor necrosis factor in terms of protein metabolism and cell cycle kinetics. Am J Physiol. 1993; 265:C365-374.
- 6. Ling PR, Gollaher C, Colon E, Istfan NW, Bistrian BR. Recombinant human insulin-like growth factor (IGF-1) alters energy and protein metabolism during parenteral feeding in rats. Am J. Clin. Nutr. 61:116-120, 1995.
- 7. Ling PR, Istfan NW, Colon E, Bistrian BR. Differential effects of interleukin-1 receptor antagonist (IL-1ra) in cytokine- and endotoxin-treated rats. Am J. Physiol. 1995; 268:E255-261.
- 8. Ling PR, Schwartz JH, Jeevanandam M, Gauldie J, Bistrian BR. Metabolic changes in rats during a continuous infusion of recombinant IL-1. Am J. Physiol. 1996; 270:E305-312.
- 9. Chow JC, Ling PR, Qu Zh-sh, Labiola L, Ciccarone A, Bistrian BR, Smith RJ. Growth hormone stimulates tyrosine phosphorylation of JAK2 and STAT5, but not insulin receptor substrate-1 or SHC proteins in liver and skeletal muscle of normal rats in vivo. Endocrinology. 1996; 13:2880-2886.
- 10. Ling PR, Schwartz JH, Bistrian BR. Mechanisms of host wasting induced by administration of cytokines in rats. Am J Physiol. 1997: 272:E333-339.
- 11. Kwoun MO, Ling PR, Lydon E, Imrich A, Qu Zh-sh, Palombo J, Bistrian BR. Immunologic effects of acute hyperglycemia in non-diabetic rats. JPEN. 1997; 21:91-95.
- 12. Qu Zh-sh, Ling PR, Chow JC, Smith RJ, Bistrian BR. Effects of dietary protein and tumor necrosis factor on components of the insulin-like growth factor-I pathway in the colon and small intestine in protein-depleted rats. Metabolism. 1998; 47:345-350.
- 13. You Y-Q, Ling PR, Qu Zh-sh, Bistrian BR. Effect of continuous enteral medium-chain fatty acid infusion on lipid metabolism in rats. Lipids. 1998; 33:261-266.
- 14. Ling PR, Boyce P, Bistrian BR. Role of arachidonic acid (AA) in the regulation of the inflammatory response in TNF-treated rats. JPEN. 1998; 22: 268-275.
- 15. Burke PA, Ling PR, Forse RA, Bistrian BR. Very long chain polyunsaturated fatty acids may be conditionally essential fatty acids in end stage liver disease. JPEN 1999; 15:302-304.
- 16. Yilei Mao, Ling PR, Fitzgibbons TP, McCowen KC, Frick GP, Bistrian BR, Smith RJ. Endotoxin-induced inhibition of growth hormone receptor signaling in rat liver in vivo. Endocrinology. 1999; 140:5505-5515.
- 17. Ling PR, Sheikh M, Boyce P, Keane-Ellison M, Thibault A, Burke P, Freedman S, Bistrian B. Cholecystokinin (CCK) secretion in patients with severe short bowel syndrome (SBBS). Dig Dis Sci 2001;46:859-64.
- 18. McCowen K, Ling P-R, Ciccarone A, Mao Y, Chow J, Bistrian B, Smith R. Sustained endotoxemia leads to marked down-regulation of early steps in the insulin-signaling cascade. Crit Care Med 2001; 29:839-46.
- 19. Ling P-R, Khaodhiar L, Bistrian B, Keane-Ellison M, Thibault A, Tawa N. Inflammatory mediators in patients receiving long-term home parenteral nutrition. Dig Dis Sci. 2001;46:2484-9.
- 20. Palombo J, Ganguly A, Bistrian B, Menard M. The antiproliferative effects of biologically active isomers of conjugated linoleic acid on human colorectal and prostatic cancer cells. Cancer Lett 2002; 177:163-72.
- 21. McCowen K, Ling P-R, Friel C, Sternberg J, Forse R, Burke P, Bistrian B. Patterns of plasma leptin and insulin concentration in hospitalized patients after the initiation of total parenteral nutrition. Am J Clin Nutr 2002;75:931-5.

- 22. Ling PR, Ollero M, Khaodhiar L, McCowen KV, Kean-Ellison M, Thibault A, Tawa N, Bistrian BR. Disturbances in essential fatty acid metabolism in patients receiving long-term home parenteral nutrition. Dig Dis Sci. 47:1679 1685; 2002.
- 23. Bistrian BR. Clinical aspects of essential fatty acid metabolism: Jonathan Rhoads Lecture. JPEN J Parenter Enteral Nutr.; 27: 168-75;2003.
- 24. McCowen K, Ling P-R, Ollero M, Maykel, Bistrian B. Abnormal regulation of plasma lipid fatty acid profiles in short gut rodents fed parenteral nutrition with lipid. Metabolism;53:273-7.2004.
- 25. Ling PR, Smith RJ, Kie S, Boyce P, Bistrian BR. Effects of protein malnutrition on IL-6-mediated signaling in the liver and the systemic acute-phase response in rats. Am J Physiol Regul Integr Comp Physiol. ;287:R801-8;2004.
- 26. McCowen KC, Ling PR, Ollero M, Maykel JA, Blanco PG, Bistrian BR. Abnormal regulation of serum lipid fatty acid profiles in short gut rats fed parenteral nutrition with lipid. Metabolism.53:273-7;2004.
- 27. Bistrian BR. Practical recommendations for immune-enhancing diets. J Nutr.134 (Suppl):2868S-2872S; 2004.
- 28. Javid PJ, Greene AK, Garza J, Gura K, Alwayn IP, Voss S, Nose V, Satchi-Fainaro R, Zausche B, Mulkern RV, Jaksic T, Bistrian B, Folkman J, Puder M. The route of lipid administration affects parenteral nutrition-induced hepatic steatosis in a mouse model. J Pediatr Surg. 2005;40:1446-53
- 29. Ling PR, Smith RJ, Bistrian BR. Hyperglycemia enhances the cytokine production and oxidative responses to a low but not high dose of endotoxin in rats.Crit Care Med. 2005;33:1084-9.
- 30. Driscoll DF, Ling PR, Bistrian BR. Pathological consequences to reticuloendothelial system organs following infusion of unstable all-in-one mixtures in rats. Clin Nutr. 2006;25:842-50.
- 31. Alwayn IP, Andersson C, Lee S, Arsenault DA, Bistrian BR, Gura KM, Nose V, Zauscher B, Moses M, Puder M. Inhibition of matrix metalloproteinases increases PPAR-alpha and IL-6 and prevents dietary-induced hepatic steatosis and injury in a murine model. Am J Physiol Gastrointest Liver Physiol. 2006;291:G1011-9.
- 32.Ling PR, Smith RJ, Bistrian BR. Acute effects of hyperglycemia and hyperinsulinemia on hepatic oxidative stress and the systemic inflammatory response in rats.

 Crit Care Med. 2007

A. Research Support

Ongoing Research Support

Nutrition Medical Fund

Beth Israel Deaconess Medical Center

9/1/95-present

Investigations into signaling processes of inflammation, fatty acid metabolism during injury and infection, mechanisms of protein calorie malnutrition

Role:PI

Completed Research Support

RO1 D50411

NIH Robert Smith MD

9/1/95 - 3/31/05

Nutrition, cytokines and anabolic signaling mechanisms.

The major goal of this project is to define the effects of cytokines and nutrition on anabolic signaling pathway during catabolic conditions.

Role: Co-P.I.

025290029 USDA PI Name Eric Decker PhD 9/1/03-8/01/06

Development of Functional Food Products High in N-3 Fatty Acids

The major goal of this study is to develop foods for increasing omega 3 fatty acid intake.

Role: C0-PI