

CURRICULUM VITAE

Dariush Elahi

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DEMOGRAPHIC INFORMATION

Current Appointments

Johns Hopkins Medical School
Department of Surgery
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Harvard Medical School
Department of Medicine
Massachusetts General Hospital
55 Fruit Street
Boston, MA 02114
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Educational Activities

1967	B.S.	American University, Washington, D.C.
1968	M.S.	American University, Washington, D.C. (Biology)
1974	Ph.D.	Dalhousie University, Halifax, Nova Scotia, Canada (Physiology)

Fellowships

1974-1975	Postdoctoral Fellow, Department of Physiology, Louisiana State University Medical Center, New Orleans, LA
1975-1978	Staff Fellow, Metabolism Section, Gerontology Research Center, National Institute on Aging, National Institutes of Health, Baltimore, MD
1978-1981	Senior Staff Fellow, Metabolism Section, Gerontology Research Center, National Institute on Aging, National Institutes of Health, Baltimore, MD

Professional Experience

1982-1983	Research Physiologist, Metabolism Section, Gerontology Research Center, National Institute on Aging, National Institutes of Health, Baltimore, MD
1983-1984	Assistant Professor of Medicine and Surgery, State University of New York, Downstate Medical Center, Brooklyn, NY
1983-1993	Assistant Professor of Medicine, Harvard Medical School, Boston, MA
1993-1996	Research Associate Professor of Medicine, Department of Medicine, Division of Gerontology, University of Maryland School of Medicine, Baltimore, MD
1993-1996	Research Chemist (Medical Investigator), Director, Geriatric Research Education Clinical Center (GRECC) Metabolic Laboratory, Baltimore Veterans Administration Medical Center, Baltimore, MD
1997-present	Associate Professor of Medicine, Harvard Medical School, Boston, MA Director, Geriatric Research Laboratory
2003-2005	Professor of Surgery and Medicine, University of Massachusetts Medical School, Worcester, MA Director, Endocrinology and Metabolism Laboratory
2005-Present	Professor of Surgery and Medicine, Johns Hopkins Medical School, Baltimore, MD.

Director, Surgical Endocrinology and Metabolism Laboratory

Hospital or Affiliated Institution Appointments

- 1984-1993 Associate in Medicine, Department of Medicine, Beth Israel Hospital, Boston, MA
- 1988-1993 Associate Physiologist, Department of Medicine, Brigham and Women's Hospital, Boston, MA
- 1996-2003 Associate Physiologist, Department of Medicine, Massachusetts General Hospital, Boston, MA
- 2003-present Physiologist, Department of Medicine, Massachusetts General Hospital, Boston, MA

Other Professional Positions and Major Visiting Appointments

- 1967-1968 Graduate Research Assistant, Biology Department, American University, Washington, D.C.
- 1969-1970 Research Assistant, Physiology Department, Tufts University, Boston, MA
- 1970-1974 Demonstrator, Department of Physiology and Biophysics, Dalhousie University, Halifax, Nova Scotia, Canada
- 1976, 1977 Visiting Scientist, Departments of Physiology and Surgery, University of British Columbia, Vancouver, British Columbia, Canada
- 1978, 1980 Visiting Scientist, NIAMDD, Clinical Research Unit, Phoenix, AZ
- 1984-1993 Visiting Scientist, Clinical Research Center, Massachusetts Institute of Technology, Cambridge, MA
- 1986-1993 Visiting Scientist, Clinical Research Center, USDA Agricultural Research Service, Human Nutrition Research Center on Aging at Tufts University, Boston, MA
- 1990-1993 Director, Radioimmunoassay Laboratory, Clinical Research Center, Beth Israel Hospital, Boston, MA
- 1990-1993 Director, Clinical Physiology Laboratory, Claude D. Pepper Geriatric Research and Training Center, Division on Aging, Harvard Medical School, Boston, MA
- 1993-1996 Guest Researcher, Laboratory of Clinical Physiology, Metabolism Section, Gerontology Research Center, National Institute on Aging, National Institutes of Health, Baltimore, MD
- 1994-1996 Co-Director, Clinical Physiology Laboratory, Claude D. Pepper Older Americans Independence Center, Division of Gerontology, University of Maryland School of Medicine, Baltimore, MD
- 1995-1998 Adjunct Associate Professor, Department of International Health, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, MD
- 1996-1996 Special Expert, Laboratory of Clinical Physiology, Metabolism Section and Diabetes Unit, Gerontology Research Center, National Institute on Aging, National Institutes of Health, Baltimore, MD

1996-2001 Guest Researcher, Laboratory of Clinical Physiology, Metabolism Section and Diabetes Unit, Gerontology Research Center, National Institute on Aging, National Institutes of Health, Baltimore, MD

Hospital and Health Care Organization Service Responsibilities

1998-present Member, Clinical Research Committee, Massachusetts General Hospital, Boston, MA

Major Administrative Responsibilities

1996-present Director of Geriatrics Research Laboratory, Department of Medicine, Massachusetts General Hospital, Boston, MA

Major Committee Assignments

Regional

1985-1993 Thesis Advisor and Examiner, Human Physiology Laboratory, Human Nutrition Research Center on Aging, Tufts University, Boston, MA

1990-1993 Member and Reviewer, General Clinical Research Center Committee, Beth Israel Hospital, Boston, MA

National

1977 Committee on Obesity, Public Health Conference, Fogarty Center, Bethesda, MD

1978 Consultant, NIH Workshop on Obesity and Diabetes, Clinical Research Unit, Phoenix, AZ

1982 Consultant, NIH Workshop on the Classification of Obesity and Risk Factor Analysis, Vassar College, Poughkeepsie, NY

1994 Member, NIDDK Special Study Section: Non-Insulin Dependent Diabetes Prevention Trial, Bethesda, MD

1994 Consultant, Pennsylvania State University, General Clinical Research Center, Hershey, PA

1994-1997 Member, Merit Review Subcommittee for Endocrinology, Department of Veterans Affairs, Washington, D.C.

1997 Consultant, Merck and Company, Inc., Department of Pharmacology, Research Laboratories, Rahway, NJ

2000 Member, CSB Special Emphasis Panel: Bioengineering and Physiology

2000-present Member, General Clinical Research Center Study Section: National Institute of Health

2002-present Member, Merit Review Subcommittee for Aging and Clinical Geriatrics, Department of Veterans Affairs, Washington, D.C.

Professional Societies

1974 Member, American Diabetes Association

1974-1984 Member, Canadian Physiological Society

1975 Member, American Physiological Society

1975-1998	Member, Gerontological Society of America
1978	Member, New York Academy of Science
1985-2001	Member, American Federation for Clinical Research
1999	Member, European Association for the Study of Diabetes
1999	Fellow, North American Association for the Study of Obesity
1999	Member, Endocrine Society

RESEARCH ACTIVITIES

Publications

1992	Associate Editor , The Journals of Gerontology: Medical Sciences
1993	Guest Editor , Experimental Gerontology
2002	Ad Hoc Member , Merit Review Subcommittee for Aging and Clinical Geriatrics
2006	Editorial Board , The Journal of Clinical Endocrinology & Metabolism

Reviewer for the following selected journals: American Journal of Physiology, Annals of Internal Medicine, BioDrugs, Diabetes, Diabetes Care, Endocrinology, European Journal of Endocrinology, Gastroenterology, International Journal of Obesity, Journal of the American Medical Association, Journal of Clinical Endocrinology and Metabolism, Journal of Clinical Investigation, Journal of Gerontology, Medicine and Science in Sports and Exercise, Metabolism, New England Journal of Medicine, BioMed Central Editorial, Hormone and Metabolic Research, and Pediatric Research

Original Articles, i.e., reports of original investigations in refereed journals.

1. Issekutz TB, Issekutz Jr B, **Elahi D**. Estimation of hepatic glucose output in non-steady state. The simultaneous use of 2-³H-glucose and ¹⁴C-glucose in the dog. *Can J Physiol* 1974;52:215-24.
2. Issekutz Jr B, Issekutz TB, **Elahi D**. Glucose kinetics during oral glucose tolerance test in normal, methylprednisolone (MP) treated and alloxan diabetic dogs. *Diabetes* 1974;23:645-50.
3. Issekutz Jr B, Issekutz TB, **Elahi D**, Borkow I. Effect of insulin infusions on the glucose kinetics in alloxan-streptozotocin diabetic dogs. *Diabetologia* 1974;10:323-8.
4. Issekutz Jr B, Issekutz TB, **Elahi D**. Effect of mannoheptulose on glucose kinetics in normal and glucocorticoid treated dogs. *Life Sciences* 1974;15:635-43.
5. Wolfe RR, Spitzer JJ, Miller HI, **Elahi D**. Effects of insulin infusion on glucose kinetics in normal and burned guinea pigs. *Life Sciences* 1976;19:147-56.
6. Wolfe RR, **Elahi D**, Spitzer JJ. Glucose and lactate kinetics after endotoxin administration in dogs. *Am J Phys* 1977;232:E180-5.
7. Wolfe RR, Miller HI, **Elahi D**, Spitzer JJ. Effect of burn injury on glucose turnover in guinea pigs. *Surg Gynecol Obstet* 1977;144:359-64.
8. Wolfe RR, **Elahi D**, Spitzer JJ. Glucose kinetics in dogs following a lethal dose of endotoxin. *Metabolism* 1977;26:847-50.
9. Andersen DK, **Elahi D**, Brown JC, Tobin JD, Andres R. Oral glucose augmentation of insulin secretion. Interactions of gastric inhibitory polypeptide with ambient glucose and insulin levels. *J Clin Invest* 1978;62:152-61.
10. **Elahi D**, Andersen DK, Brown JC, Debas HT, Hershcopf RJ, Raizes GS, Tobin JD, Andres R. Pancreatic alpha- and beta-cell responses to GIP infusion in normal man. *Am J Physiol* 1979;237:E185-91.
11. Roth GS, Tzankoff SP, **Elahi D**. Effects of age on control of lipolysis during fasting. *J Gerontol* 1981;36:391-7.

12. **Elahi D**, Andersen DK, Tobin JD, Andres R. Discrepant performance on oral and intravenous glucose tolerance tests: The role of gastric inhibitory polypeptide. *J Clin Endocrinol Metab* 1981;52:1199-1203
13. Hershcopf RJ, **Elahi D**, Andres R, Baldwin HL, Raizes GS, Schocken DD, Tobin JD. Longitudinal changes in serum cholesterol in man: An epidemiologic search for an etiology. *J Chron Dis* 1982;35:101-14.
14. **Elahi D**, Muller D, Tzankoff SP, Andres R, Tobin JD. Effect of age and obesity on fasting levels of glucose, insulin, glucagon, and growth hormone in man. *J Gerontol* 1982;37:385-91.
15. **Elahi D**, Raizes GS, Andres R, Hershcopf RJ, Muller DC, Tobin JD, Andersen DK. Interaction of arginine and gastric inhibitory polypeptide on insulin release in man. *Am J Phys* 1982;242:E343-51.
16. **Elahi D**, Nagulesparan M, Hershcopf RJ, Muller DC, Tobin JD, Blix PM, Rubenstein AH, Unger RH, Andres R. Feedback inhibition of insulin secretion by insulin: Relation to the hyperinsulinemia of obesity. *N Engl J Med* 1982;306:1196-1202.
17. Potter JF, **Elahi D**, Tobin JD, Andres R. Effect of aging on the cardiothoracic ratio of men. *JAGS* 1982;30:404-9.
18. Helderman JH, **Elahi D**, Andersen DK, Raizes GS, Tobin JD, Schocken D, Andres R. Prevention of the glucose intolerance of thiazide diuretics by maintenance of body potassium. *Diabetes* 1983;32:106-11.
19. Elahi VK, **Elahi D**, Andres R, Tobin JD, Butler MG, Norris AH. A longitudinal study of nutritional intake in men. *J Gerontol* 1983;38:162-80.
20. Hadji-Georgopoulos A, Schmidt MI, **Elahi D**, Hershcopf R, Kowarski AA. Increased gastric inhibitory polypeptide levels in patients with symptomatic postprandial hypoglycemia. *J Clin Endocrinol Metab* 1983;56:648-52.
21. **Elahi D**, Andersen DK, Muller DC, Tobin JD, Brown JC, Andres R. The enteric enhancement of glucose-stimulated insulin release. The role of GIP in aging, obesity and non-insulin dependent diabetes mellitus. *Diabetes* 1984;33:950-65.
22. **Elahi D**, Muller DC, Andersen DK, Tobin JD, Andres R. The effect of age and glucose concentration on insulin secretion by the isolated perfused rat pancreas. *Endocrinology* 1985;116:11-6.
23. Potter JF, Levin P, Anderson RA, Freiberg JM, Andres R, Elahi D. Glucose metabolism in glucose-intolerant older people during chromium supplementation. *Metabolism* 1985;34:199-201.
24. Andres R, **Elahi D**, Tobin JD, Muller DC, Brant L. Impact of age on weight goals. *Ann Intern Med* 1985;103:1030-3.
25. Sun YS, Brunnicardi FC, Druck P, Walfisch S, Berlin SA, Chance RE, Gingerich RL, **Elahi D**, Andersen DK. Reversal of abnormal glucose metabolism in chronic pancreatitis by administration of pancreatic polypeptide. *Am J Surg* 1986;151:130-40.
26. Meneilly GS, **Elahi D**, Minaker KL, Rowe JW. The dawn phenomenon does not occur in normal elderly subjects. *J Clin Endocrinol Metab* 1986;63:292-6.
27. Brunnicardi FC, Sun YS, Druck P, Goulet RJ, **Elahi D**, Andersen DK. Splanchnic neural regulation of insulin and glucagon secretion in the isolated perfused human pancreas. *Am J Surg* 1987;153:34-40.
28. Meneilly GS, Minaker KL, **Elahi D**, Rowe JW. Insulin action in aging man: Evidence for tissue-specific differences at low physiologic insulin levels. *J Gerontol* 1987;42:196-201.
29. Meneilly GS, **Elahi D**, Minaker KL, Rowe JW. Somatostatin does not alter insulin-mediated glucose disposal. *J Clin Endocrinol Metab* 1987;65:364-7.
30. Brunnicardi FC, Druck P, Sun YS, **Elahi D**, Gingerich RL, Andersen DK. Regulation of pancreatic polypeptide secretion in the isolated perfused human pancreas. *Am J Surg* 1988;155:63-9.
31. Meneilly GS, Minaker KL, **Elahi D**, Rowe JW. Somatostatin infusion enhances hepatic glucose production during hyperglucagonemia. *Metabolism* 1988;37:252-6.
32. Miyoshi H, Shulman GI, Peters EJ, Wolfe MH, **Elahi D**, Wolfe RR. Hormonal control of substrate cycling in humans. *J Clin Invest* 1988;81:1545-55.

33. Meneilly GS, **Elahi D**, Minaker KL, Rowe JW. Somatostatin enhances insulin-mediated glucose disposal in elderly subjects. *J Clin Endocrinol Metab* 1988;67:407-10.
34. Krusch DA, Brown KB, Calhoun PC, Freedlender AE, Kaiser DL, **Elahi D**, Hanks JB. Peripheral insulin release after pancreatic resection: The effect of decreased beta-cell mass with systemic or portal drainage. *Endocrinology* 1988;123:426-32.
35. Seymour NE, Brunicaudi FC, Chaiken RL, Lebovitz HE, Chance RE, Gingerich RL, **Elahi D**, Andersen DK. Reversal of abnormal glucose production after pancreatic resection by pancreatic polypeptide administration in man. *Surgery* 1988;104:119-29.
36. Shannon RP, Libby E, **Elahi D**, Weintraub RM, Thurer RL, Johnson R, Wei JY. Impact of acute reduction in chronically elevated left atrial pressure on sodium and water excretion. *Ann Thorac Surg* 1988;46:430-7.
37. Shimokata H, Tobin JD, Muller DC, **Elahi D**, Coon PJ, Andres R. Studies in the distribution of body fat: I. Effect of age, sex and obesity. *J Gerontol* 1989;44:M66-73.
38. Brunicaudi FC, Druck P, Seymour NE, Sun YS, Gingerich RL, **Elahi D**, Andersen DK. Splanchnic neural regulation of pancreatic polypeptide release in the isolated perfused human pancreas. *Am J Surg* 1989;157:50-7.
39. Meneilly GS, **Elahi D**, Minaker KL, Sclater AL, Rowe JW. Impairment of noninsulin-mediated glucose disposal in the elderly. *J Clin Endocrinol Metab* 1989;68:566-71.
40. Hartl WH, Miyoshi H, **Elahi D**, Wolfe RR. Glucagon and hepatic glucose production: modulation by low-dose bradykinin infusion. *Metabolism* 1989;38:878-82.
41. Shimokata H, Andres R, Coon PJ, **Elahi D**, Muller DC, Tobin JD. Studies in the distribution of body fat: II. Longitudinal effects of change in weight. *Int J Obesity* 1989;13:455-64.
42. **Elahi D**, Meneilly GS, Minaker KL, Andersen DK, Rowe JW. Escape of hepatic glucose production during hyperglycemic clamp. *Am J Physiol (Endocrinol Metab 20)* 1989;257:E704-11.
43. Clark BA, **Elahi D**, Epstein FH. The influence of gender, age, and the menstrual cycle on plasma atrial natriuretic peptide. *J Clin Endocrinol Metab* 1990;70:349-52.
44. Greenspan SL, Klibanski A, Rowe JW, **Elahi D**. Age alters pulsatile prolactin release: influence of dopaminergic inhibition. *Am J Physiol (Endocrinol Metab 21)* 1990;258: E799-804.
45. Brunicaudi FC, Druck P, Seymour NE, Sun YS, **Elahi D**, Andersen DK. Selective neurohormonal interactions in islet cell secretion in the isolated perfused human pancreas. *J Surg Res* 1990;48:273-8.
46. King DS, Staten MA, Kohrt WM, Dalsky GP, **Elahi D**, Holloszy JO. Insulin secretory capacity in endurance-trained and untrained young men. *Am J Physiol (Endocrinol Metab 22)* 1990;259:E155-61.
47. Hartl WH, Miyoshi H, Jahoor F, Klein S, **Elahi D**, Wolfe RR. Bradykinin attenuates glucagon-induced leucine oxidation in humans. *Am J Physiol (Endocrinol Metab 22)* 1990;259:E239-45.
48. Greenspan SL, Klibanski A, Rowe JW, **Elahi D**. Age-related alterations in pulsatile secretion of TSH: role of dopaminergic regulation. *Am J Physiol (Endocrinol Metab 23)* 1991;260:E486-91.
49. Clark BA, **Elahi D**, Shannon RP, Wei JY, Epstein FH. Influence of age and dose on the end organ responses to atrial natriuretic peptide in humans. *Am J Hypertension* 1991;4:500-7.
50. Clark BA, **Elahi D**, Fish L, McAloon-Dyke M, Davis K, Minaker KL, Epstein FH. Atrial natriuretic peptide suppresses osmostimulated vasopressin release in young and elderly humans. *Am J Physiol (Endocrinol Metab 24)* 1991;261:E252-6.
51. Arvan P, Kuliawat R, Prabakaran D, Zavacki AM, **Elahi D**, Wang S, Pilkey D. Protein discharge from immature secretory granules displays both regulated and constitutive characteristics. *J Biol Chem* 1991;266:14171-4.
52. **Elahi D**, Clark BA, McAloon-Dyke M, Wong G, Brown R, Shapiro M, Minaker KL, Flanagan TL, Pruett T, Gingerich R, Hanks J, Andersen DK. Islet cell responses to glucose in human transplanted pancreas. *Am J Physiol (Endocrinol Metab 24)* 1991;261:E800-8.
53. Davis KM, Fish LC, **Elahi D**, Clark BA, Minaker KL. Atrial natriuretic peptide levels in the prediction of congestive heart failure risk in frail elderly. *J Am Med Assoc* 1992;267:2625-9.
54. Prillaman HM, Cox SB, Freedlender AE, Cornett GE, Jones HA, Flanagan TL, Chance RE, Hoffman JA, Andersen DK, **Elahi D**, Hanks JB. The effect of pancreatic polypeptide on glucose disposal after surgical alterations of the pancreas. *Ann Surg* 1992;216:574-82.

55. **Elahi D**, McAloon-Dyke M, Clark BA, Kahn BB, Weinreb JE, Minaker KL, Wong GA, Morse LA, Brown RS, Shapiro ME, Gingerich RL, Rosenlof LK, Pruett TL, Andersen DK, Hanks JB. Sequential evaluation of islet cell responses to glucose in the human transplanted pancreas in humans. *Am J Surg* 1993;165:15-22.
56. Meneilly GS, Bryer-Ash M, **Elahi D**. The effect of glyburide on beta-cell sensitivity to glucose-dependent insulinotropic polypeptide. *Diabetes Care* 1993;16:110-4.
57. Clark BA, Sclater A, Epstein FH, **Elahi D**. Effect of glucose, insulin, and hypertonicity on atrial natriuretic peptide levels in man. *Metabolism* 1993;42:224-8.
58. Muller DC, **Elahi D**, Pratley RE, Tobin JD, Andres R. An epidemiological test of the hyperinsulinemia-hypertension hypothesis. *J Clin Endocrinol Metab* 1993;76:544-8.
59. Hughes VA, Fiatarone MA, Fielding RA, Kahn BB, Ferrara CM, Shepherd P, Fisher EC, Wolfe RR, **Elahi D**, Evans WJ. Exercise increases muscle GLUT4 levels and insulin action in subjects with impaired glucose tolerance. *Am J Physiol (Endocrinol Metab)* 1993;264:E855-62.
60. Greenspan SL, Rowe JW, Maitland LA, McAloon-Dyke M, **Elahi D**. The pituitary-adrenal glucocorticoid response is altered by gender and disease. *J Gerontol* 1993;48:M72-7.
61. Flier JS, Moller DE, Moses AC, O'Rahilly S, Chaiken RL, Grigorescu F, **Elahi D**, Kahn BB, Weinreb JE, Eastman R. Insulin-mediated pseudoacromegaly: Clinical and biochemical characterization of a syndrome of selective insulin resistance. *J Clin Endocrinol Metab* 1993;76:1533-41.
62. **Elahi D**, Muller DC, McAloon-Dyke M, Tobin JD, Andres R. The effect of age on insulin response and glucose utilization during four hyperglycemic plateaus. *Exp Gerontol* 1993;28:393-409.
63. Earnhardt RC, Kindler DD, Weaver AM, Cornett G, **Elahi D**, Veldhuis JD, Hanks JB. Hyperinsulinemia after pancreatic transplantation. Prediction by a novel computer model and In Vivo verification. *Ann Surg* 1993;218:428-43.
64. McAloon-Dyke M, Earnhardt R, Hanks JB, Pruett T, Minaker KL, Habener JF, Andersen DK, Gingerich RL, **Elahi D**. Insulinotropic effect of GLP-1 (7-37) in portally or systemically drained pancreas transplant patients. *Digestion* 1993;54:390-2.
65. **Elahi D**, McAloon-Dyke M, Fukagawa NK, Sclater AL, Wong GA, Shannon RP, Minaker KL, Miles JM, Rubenstein AH, VandePol CJ, Guler HP, Good WR, Seaman JJ, Wolfe RR. Effects of recombinant human IGF-I on glucose and leucine kinetics in men. *Am J Physiol* 1993;265:E831-8.
66. **Elahi D**, McAloon-Dyke M, Fukagawa NK, Meneilly GS, Sclater AL, Minaker KL, Habener JF, Andersen DK. The insulinotropic actions of glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1 (7-37) in normal and diabetic subjects. *Regulatory Peptides* 1994;51:63-74.
67. Brunicardi FC, **Elahi D**, Andersen DK. Splanchnic neural regulation of somatostatin secretion in the isolated perfused human pancreas. *Ann Surg* 1994;219:258-66.
68. Fish LC, Murphy DJ, **Elahi D**, Minaker KL. Renal sodium excretion in normal aging: decreased excretion rates lead to delayed handling of sodium loads. *Geriatric Nephrology and Urology* 1995; 4:145-51.
69. Hausdorff JM, Clark BA, Shannon RP, **Elahi D**, Wei JY. Hypotensive response to atrial natriuretic peptide administration is enhanced with age. *J Gerontol* 1995;50A:M169-72.
70. Ryan AS, Pratley RE, **Elahi D**, Goldberg AP. Resistive training increases fat free mass and maintains RMR despite weight loss in postmenopausal women. *J Appl Physiol* 1995;79:818-23.
71. Hughes VA, Fiatarone MA, Fielding RA, Ferrara CM, **Elahi D**, Evans WJ. Long-term effects of a high- carbohydrate diet and exercise on insulin action in older subjects with impaired glucose tolerance. *Am J Clin Nutr* 1995;62:426-33.
72. Kuhlik AB, Epstein FH, **Elahi D**, Clark BA. Urinary prostaglandin E2 and dopamine responses to water loading in young and elderly humans. *Geriatric Nephrology and Urology* 1995;5:79-83.
73. Muller DC, **Elahi D**, Tobin JD, Andres R. Insulin response during the oral glucose tolerance test: The role of age, sex, body fat and the pattern of fat distribution. *Aging Clin Exp Res* 1996;8:13-21.
74. **Elahi D**. In praise of the hyperglycemic clamp. A method of assessment of beta-cell sensitivity and insulin resistance. *Diabetes Care* 1996;19:278-86.

75. Davis KM, Fish LC, Minaker KL, **Elahi D**. Atrial natriuretic peptide levels in the elderly: Differentiating normal aging changes from disease. *J Gerontol: Medical Sciences* 1996; 51A:M95-101.
76. Muller DC, **Elahi D**, Tobin JD, Andres R. The effect of age on insulin resistance and secretion: A review. *Seminars in Nephrology* 1996;16:289-98.
77. Ryan AS, Pratley RE, Goldberg AP, **Elahi D**. Resistive training increases insulin action in postmenopausal women. *J Gerontol: Medical Sciences* 1996;51A:M199-M205.
78. Ryan AS, Nicklas BJ, **Elahi D**. A cross-sectional study on body composition and energy expenditure in women athletes during aging. *Am J Physiol (Endocrinol Metab)* 1996;271:E916-21.
79. Brunicardi FC, Chaiken RL, Ryan AS, Seymour NE, Hoffmann JA, Lebovitz HE, Chance RE, Gingerich RL, Andersen DK, **Elahi D**. Pancreatic polypeptide administration improves abnormal glucose metabolism in patients with chronic pancreatitis. *J Clin Endocrinol Metab* 1996;81:3566-72.
80. Ryan AS, **Elahi D**. The effects of acute hyperglycemia and hyperinsulinemia on plasma leptin levels: its relationships with body fat, visceral adiposity, and age in women. *J Clin Endocrinol Metab* 1996;81:4433-8.
81. Martin K, Lethbridge-Cejku M, Muller DC, **Elahi D**, Andres R, Tobin JD, Hochberg MC. Metabolic correlates of obesity and radiographic features of knee osteoarthritis: Data from the Baltimore Longitudinal Study of Aging. *J Rheumatol* 1997;24:702-7.
82. Wang Y, Perfetti R, Greig NH, Holloway H, DeOre KA, Montruse-Rafizadeh C, **Elahi D**, Egan JM. Glucagon-like peptide-1 can reverse the age-related decline in glucose tolerance in rats. *J Clin Invest* 1997;99:2883-9.
83. McAloon-Dyke M, Davis KM, Clark BA, Fish LC, **Elahi D**, Minaker KL. Effects of hypertonicity on water intake in the elderly: An age-related failure. *Geriatric Nephrology and Urology* 1997;7:11-6.
84. Silver K, Walston J, Chung WK, Yao F, Parikh VV, Andersen R, Cheskin LJ, **Elahi D**, Muller D, Leibel RL, Shuldiner AR. The Gln²²³ Arg and Lys⁶⁵⁶ Asn polymorphisms in the human leptin receptor do not associate with traits related to obesity. *Diabetes* 1997;46:1898-1900.
85. Meneilly GS, Ryan AS, Veldhuis JD, **Elahi D**. Increased disorderliness of basal insulin release, attenuated insulin secretory burst mass, and reduced ultradian rhythmicity of insulin secretion in older individuals. *J Clin Endo and Metabolism* 1997;82:4088-4093.
86. Ryan AS, Treuth MS, Hunter GR, **Elahi D**. Resistive training maintains bone mineral density in postmenopausal women. *Calcif Tissue Int* 1998;62:295-9.
87. Ryan AS, Egan JM, Habener JF, **Elahi D**. Insulinotropic hormone glucagon-like peptide-1-(7-37) appears not to augment insulin-mediated glucose uptake in young men during euglycemia. *J Clin Endocrinol Metab* 1998;83:2399-2404.
88. Meneilly GS, **Elahi D**. Physiological importance of first-phase insulin release in elderly patients with diabetes. *Diabetes Care* 1998;21:1326-29.
89. Meneilly GS, Ryan AS, Minaker KL, **Elahi D**. The effect of age and glycemic level on the response of the beta cell to glucose-dependent insulinotropic polypeptide and peripheral tissue sensitivity to endogenously released insulin. *J Clin Endocrinol Metab* 1998;83:2925-32.
90. Beamer BA, Yen CJ., Andersen RE, Muller D, **Elahi D**, Cheskin LJ, Andres R, Roth J, Shuldiner AR. Association of the Pro12Ala variant in the peroxisome proliferator-activated receptor- γ 2 gene with obesity in two caucasian populations. *Diabetes* 1998;47:1806-8.
91. Ryan AS, **Elahi D**. Loss of bone mineral density in women athletes during aging. *Calcif Tissue Int* 1998;63:287-92.
92. Meneilly GS, Veldhuis JD, **Elahi D**. Disruption of the pulsatile and entropic modes of insulin release during an unvarying glucose stimulus in elderly individuals. *J Clin Endo and Metab* 1999;84:1938-43.
93. Brunicardi FC, Wen D, Bradley JC, **Elahi D**, Miller C, Hanks J. The effect of intraislet somatostatin immunoneutralization on insulin secretion in the isolated perfused rat pancreas. *Int J Surg Investig.* 2002;1:381-8.
94. Ryan AS, Pratley RE, **Elahi D**, Goldberg AP. Changes in plasma leptin and insulin action with resistive training in postmenopausal women. *Int J Obesity* 2000;24:27-32.

95. **Elahi D**, Muller DC. Carbohydrate metabolism in the elderly. *Eur J Clin Nutr* 2000; 54; S112-20.
96. Iwao S, Iwao N, Muller DC, **Elahi D**, Shimokata H, Andres R. Effect of aging on the relationship between multiple risk factors and waist circumference. *J Am Geriatr Soc* 2000;48:788-94.
97. Meneilly GS, Ryan EA, Radziuk J, Lau DCW, Yale JF, Morais J, Chiasson JL, Rabasa-Lhoret R, Maheux P, Tessier D, Wolever T, Josse RG, **Elahi D**. Effect of acarbose on insulin sensitivity in elderly patients with diabetes. *Diabetes Care* 2000;23:1162-7.
98. Clocquet AR, Egan JM, Stoffers DA, Muller DC, Wideman L, Chin GA, Clarke WL, Hanks JB, Habener JF, **Elahi D**. Impaired insulin secretion and increased insulin sensitivity in familial Maturity-Onset Diabetes of the Young 4 (insulin promoter factor-1 gene). *Diabetes* 2000;49:1856-64.
99. Iwao N, Iwao S, Muller DC, **Elahi D**, Shimokata H, Andres R. A test of recently proposed BMI standards with respect to old age. *Aging Clin Experimental Research* 2000;12:461-9.
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132. Meneilly GS, **Elahi D**. Effect of glucagon-like peptide-1 on the beta cell response to glucose-dependent insulinotropic polypeptide in elderly patients with diabetes mellitus. *J Am Geriatr Soc*. 2006. 54(3):554-5.
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glucagon-like peptide-1 (7-37) on beta-cell function after islet transplantation in type 1 diabetes. *Diabetes Res Clin Pract.* 2006. 74(2):189-93.

EDUCATIONAL ACTIVITIES

A. Narrative report of Research, Teaching, and Clinical Contributions. Please focus primarily on the areas in which most of your time and effort is spent.

Major Research Interests:

Metabolic processes

Energy balance

Hormonal control of metabolism

Metabolic disease and aging

My research has focused primarily on the elucidation of the mechanisms of the control of insulin release in the intolerant states of aging, obesity and Type 2 diabetes mellitus. A particular interest has focused on the role of insulinotropic gastrointestinal hormones, i.e. the incretins, specifically glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1. I am also extensively involved with the physiological/metabolic parameters being collected in the Baltimore Longitudinal Study of Aging (BLSA) as part of the intramural research of NIA. With respect to studies of glucose homeostasis, I am a nationally recognized expert on the development and use of the glucose clamp technique. I learned the technique in the laboratory of Dr. Reubin Andres and have made several improvements on the use of the technique. I have developed a PC compatible computer program, which allows an "easy and friendly" use of this difficult procedure with electronic capture of all the data. I have further coupled the PC program to newly modified manufactured remote controlled pumps by my specifications (Harvard Apparatus Company, Holliston, MA) in a manner, which allows the necessary 5-minute periodic changes without the necessity of any pump adjustment by the operator. The method is also coupled to tracer technology. I have extensive experience both with radioactive and stable isotopes. In collaboration with Drs. Joel Habener, David Nathan, and Ronald Tompkins of MGH and Josephine Egan of NIA, I am currently examining the insulinotropic, insulinomimetic and growth promoting properties of GLP-1 in various states of glucose intolerance. I am also about to institute a study on the efficacy of rhGRF on restoration of GH levels in states of GH deficiency.

I am also collaborating with colleagues at the NIA. The BLSA, which began in 1958, is the oldest on-going study of aging. I have been a member and/or a guest scientist at the National Institutes on Aging since 1974. In the BLSA study, I am currently involved with a cross-sequential epidemiologic analysis of the role of the plasma insulin levels, body fat, body fat distribution and plasma leptin levels on basal and stimulated glucose homeostasis. The data base includes the longitudinal levels of plasma insulin and leptin, as well as measurements of body composition (both anthropometric and DXA). I have measured all the insulin samples from the BLSA study from 1977 to 1995 and am in the process of measuring the plasma leptin levels. DXA measurements are available for over 800 volunteers of the BLSA from the last 2 visits and anthropometric measurements from 1958 on. The goal is to predict the percentage of fat from the relationship of DXA to anthropometry and relate them along with percent fat in regions of interest to insulin and leptin levels and glucose homeostasis.

I have been responsible for the growth of a number of talented junior investigators both at NIH and in the medical schools where I have been a member. The majority of my former fellows has maintained an interest in research and continue to collaborate with me on a regular basis. I am often invited to consult on many studies and enjoy many productive collaborations with many colleagues throughout the United States and Canada.

Research Funding Information

<u>Years covered</u>	<u>Funding source</u>	<u>PI/Co-PI</u>	<u>Grant title</u>
07/01/06-06/30/11	NIH-NIDDK 1RO1 DK071168-01-A2	PI: F Hayes Co-Investigator: D Elahi	Modulation of Insulin Action by Testosterone in Men

<u>Years covered</u>	<u>Funding source</u>	<u>PI/Co-PI</u>	<u>Grant title</u>
07/01/77-08/31/07	NIH/NIA AG00599	PI: KL Minaker PI Project #3: D Elahi	Program Project in Biomedical Outcomes of Aging
07/01/77-06/30/92	NIH/NIA AG00599	PI: KL Minaker PI Project #6: WJ Evans Co-Investigator: D Elahi	Program Project in Biomedical Outcomes of Aging
01/01/84-12/31/85	Veterans Administration Research Service	PI: KL Minaker Co-Investigator: D Elahi	Research Advisory Group Award
08/01/85-07/31/90	NIH/NIA Physician Scientist Award	PI: E Braunwald Sponsor: D Elahi	Physician Scientist Award
04/01/88-09/30/89	VA Merit Review	PI: KL Minaker Co-Investigator: D Elahi	Physiology of ANF in Aging Man
04/01/89-03/30/90	CIBA-GEIGY Corp.	PI: D Elahi	Effect of human insulin-like growth factor I (rhIGF-I) on hemodynamic and metabolic responses
10/01/89-11/30/94	NIH/NIA 2 P01 AG04390	PI: KL Minaker PI Project #4: L Lipsitz Co-Investigator: D Elahi	Harvard Research Nursing Home
12/01/89-11/30/94	NIH M01 RR01032	PI: MT Rabkin RIA Core Lab Dir: D Elahi	General Clinical Research Center
02/15/90-07/13/93	CIBA-GEIGY Corp	PI: D Elahi	Effect of human insulin-like growth factor I (rhIGF-I) in Type II diabetic Patients
03/01/90-02/28/95	NIH/NIA AG08812	PI: JY Wei PI Physiology Core: D Elahi	Center of Excellence in Geriatric Research and Training
01/01/92-09/30/95	Department of Veterans Affairs	PI: AP Goldberg Discretionary Res Staff: D Elahi	Geriatric Research Education & Clinical Center
03/01/92-02/28/97	NIH/NIA AG00599	PI: KL Minaker Co-Investigator: D Elahi	Program Project in Biomedical Outcomes of Aging
12/01/94-11/30/98	NIH/NIA 5 P01 AG04390	PI: KL Minaker PI Project #3: LA Lipsitz Co-Investigator: D Elahi	Harvard Research Nursing Home
1994-1999	NIH/NIA Older Americans Independence Center	PI: AP Goldberg Co-PI Physiology Core: D Elahi	Claude D. Pepper Older Americans Independence Center
12/01/97-11/30/02	NIH/NIGMS 2P50 GM21700-22	PI: RG Tompkins Co-Investigator: D Elahi	Burn/Trauma Center MGH Sumner Red- stone Burn Center - Adult Burn Unit

<u>Years covered</u>	<u>Funding source</u>	<u>PI/Co-PI</u>	<u>Grant title</u>
12/01/97-06/30/99	Novo-Nordisk	PI: DM Nathan Co-Investigator: D Elahi	“Demonstration of principle” project for use of GLP 1 (7-36) amide in treatment of non-insulin Type 2 diabetes mellitus
05/01/98-11/30/01	BioNebraska	PI: KL Minaker Co-Investigator: D Elahi	Restoration of plasma GH levels with rhGHF in old adults
09/01/98-08/31/00	Juvenile Diabetes Foundation	PI: H Auchincloss Jr PI: Project #17 D Elahi	JDF Islet Transplant Center Effect of GLP-1/ Exendin-4 on β -cell neogenesis in Type 1 diabetes
11/01/98-10/31/01	BioNebraska	PI: D Elahi	Efficacy of GLP-1 in Burn Injury
03/01/00-03/31/02	BioNebraska Amylin Pharmaceuticals	PI: D Elahi	Effect of GLP-1/Ex-4 on control of glucose homeostasis in Type 2 and Type 1 diabetes
05/01/00-04/30/01	BioNebraska	PI: D Elahi	Efficacy of GLP-1 in older diabetes patients
05/01/01-12/31/01	BioNebraska	PI: D Elahi	Efficacy of GLP-1 in type 1 diabetic patients
01/01/02-12/31/02	Bristol-Myers Squibb	PI: D Elahi	Multicenter Study to explore the Mechanisms of Action of Glucovance® Metformin and Glyburide on Oral Glucose Tolerance as First Time Therapy in Patients with Type 2 Diabetes
10/01/02-09/30/07	NIH/NIA AG00599	PI: KL Minaker PI Project #1: KL Minaker Co-Investigator: D Elahi PI Project #2: L Katznelson Co-PI: D Elahi PI Project #3: D Elahi PI Core: D Elahi	Project in Biomedical Outcomes of Aging
4/01/03-3/31/08 (pending)	NIH/NIGMS 2P50 GM21700-22	PI: RG Tompkins Co-Investigator: D Elahi	Burn/Trauma Center MGH Sumner Red- stone Burn Center - Adult Burn Unit

B. Report of Current Research Activities (bench research, clinical trials, outcome studies, efficacy studies as applicable)

Project Role

Insulinotropic Effects of GLP-1 in the Elderly Principal Investigator

Insulinomimetic Effect of GLP-1 in Obesity Principal Investigator

The Efficacy of Exendin-4 in the Treatment of Type 2 Diabetes Principal Investigator

The Efficacy of rGHRH on Restoring IGF-I Levels and Sarcopenia in the Elderly Principal Investigator

C. Report of Teaching

1. Local contributions

- a. For each Medical School/School of Dental Medicine/Division of Medical Sciences course

1970-1974

Lectures and demonstrations in medical physiology
Lecturer at Dalhousie University, Halifax, Nova Scotia, Canada
40 medical, 20 dental and 40 nursing students
2 months/year of preparation and contact time involved for each topic

1974-1975

Lectures in medical physiology
Lecturer at Louisiana State University Medical Center, New Orleans, LA
Approximately 140 medical students
1 month/year of preparation and contact time involved for each topic

1991-1992

Metabolism course
Lecturer at Tufts University, Boston, MA
15-20 graduate school students per year
1 month/year of preparation and contact time involved for each topic

- b. For each graduate medical course

1992-1993

Graduate course entitled Metabolism. Lecture on (a) Glucose Homeostasis and (b) Tracer Methodology
Lecturer at Tufts Medical School
15-20 graduate school students per year
5 hours of preparation and contact time involved for each topic

- c. For local invited teaching presentations (e.g. seminars, grand rounds)

1975-1983

Tutorials in metabolic research
Tutor at Gerontology Research Center, National Institute on Aging, National Institutes of Health, Baltimore, MD
3-4 postdoctoral fellows per year
12 months of preparation and contact time involved

1983-1984

Tutorials in metabolic research
Tutor at State University of New York, Downstate Medical Center, Brooklyn, NY
3-4 postdoctoral fellows per year
12 months of preparation and contact time involved

1984-1993

Tutorials in metabolic research
Tutor at Beth Israel Hospital/Harvard Medical School, Boston, MA
2-4 postdoctoral fellows per year
12 months of preparation and contact time involved

1996-present

Tutorials for fellows in metabolic research, Massachusetts General Hospital, Boston, MA

5-10 fellows per year

4 hours of preparation and contact time involved for each

- d. Names of advisees or trainees: years in position under your supervision, and current position. List only those trainees on whose careers you have made a significant impact

2 years	Philip Levine	Associate Professor
2 years	Jane Potter	Professor Dept of Medicine
3 years	Graydon S. Meneilly	Chairman, Dept of Medicine
3 years	Naomie Fukagawa	Associate Professor, Dept of Medicine
1 year	Richard Shannon	Chairman, Dept of Medicine
2 years	Barbara Clark	Associate Professor, Dept of Medicine
2 years	Ken Davis	Vice President
3 years	Ann Sclater	Director of Geriatrics
3 years	Alice Ryan	Associate Professor
1 year	Eric Knight	Physician
1.5 years	Astrid Clocquet	Physician
1 year	Gudrun Aspelund	Resident in Surgery

2. Regional, national, or international contributions

- a. For each invited presentation (e.g., visiting professorship, invited lecture, plenary presentation, seminar)

1984-1984	Grand Rounds, Department of Surgery, Section of General Surgery, University of Virginia, Charlottesville, VA
1984-1993	Grand Rounds, Department of Medicine, Division of Gerontology, Beth Israel Hospital, Boston, MA
1990-1990	Grand Rounds, Department of Medicine, University of Washington, St. Louis, MO
1990-1990	Grand Rounds, Physiology Section, Tufts Nutrition Center, USDA, Boston, MA
1991-1991	Grand Rounds, Division of Endocrinology, University of Texas Southwestern Medical School, Dallas, TX
1992-1992	Invited Lecturer, International Insulin Conference, Dallas, TX
1992, 1995	Grand Rounds, Diabetes Unit, National Institute on Aging, National Institutes of Health, Baltimore, MD
1993-1996	Tutorials for fellows in metabolic research University of Maryland School of Medicine, Baltimore, MD
1994-1996	Grand Rounds, Department of Medicine, Division of Gerontology, University of Maryland School of Medicine, Baltimore, MD
1996-1996	Grand Rounds, Department of Medicine, Division of Geriatrics, Johns Hopkins University School of Medicine, Baltimore, MD
1997-1997	Grand Rounds, Department of Pharmacology, Merck and Company, Inc., Rahway, NJ

1998-1998	Grand Rounds, Department of Medicine, Section on Nutrition, University of Texas Southwestern Medical School, Dallas, TX
1998-1998	Grand Rounds, Department of Pediatrics, Pediatric Endocrine Unit, Massachusetts General Hospital, Boston, MA
1998-1998	Grand Rounds, Department of Medicine, Diabetes Unit, Massachusetts General Hospital, Boston, MA
1999-1999	Grand Rounds, Department of Medicine, Reproductive Endocrine Unit, Massachusetts General Hospital, Boston, MA
1999-1999	Grand Rounds, Department of Medicine, Reproductive Endocrine Unit, Massachusetts General Hospital, Boston, MA
1999-1999	Invited lecturer, International Dietary Energy Consultancy Group, Impact of human aging on energy and protein metabolism and requirements, Tufts University, Boston, MA
1999-1999	Grand Rounds, Department of Surgery, General Surgery Section, Yale School of Medicine, New Haven, CT
1999-1999	Grand Rounds, Department of Medicine, University Nijmegen, Faculty of Medicine, Nijmegen, The Netherlands
2000-2001	Grand Rounds, Department of Surgery, General Surgery Section, Yale School of Medicine, New Haven, CT
2001-2001	Lecture to multicenter study site investigators (15 sites) of a diabetes program project funded by Bristol-Myers Squibb.
2002-2002	Grand Rounds, Department of Medicine, Reproductive Endocrinology Unit, Harvard Medical School, Boston, MA
2003-2003	Research Seminar Series, Incretins as Insulinotropic, Insulinotrophic, and Insulinomimetic Agents, Division on Aging, Harvard Medical School, Boston, MA

3. Description of major curriculum offerings, teaching cases or innovative educational programs developed (as appropriate)

Have developed a “friendly” software program, which computes and executes the setting for the operation of the glucose clamp technique. All pumps are run through this program and all data is captured electronically.

RECOGNITION

Awards and Honors

1969-1970	Predoctoral Research Fellowship, Tufts University, Boston, MA
1970-1974	University Graduate Fellowship, Dalhousie University, Halifax, Nova Scotia, Canada
2005	The National Pancreas Foundation Award for Best Abstract in Pancreatitis

OTHER PROFESSIONAL ACCOMPLISHMENTS

Proceedings of Meetings, i.e. published full length articles of meeting presentations for which papers were selected and which contain new data.

Reviews, Chapters, and Editorials, i.e., Analytic clinical reviews, comprehensive review articles, editorials, and chapters (specific chapter/s within other books).

1. **Elahi D.** Glucose and insulin metabolism. In: Rothstein M, editor. Biological research in aging, vol 1. New York: Alan R. Liss, Inc.; 1983. p. 343-56.
2. Rowe J, Wang S, **Elahi D.** Design, conduct and analysis of human aging. In: Schneider EL, Rowe J, editors. Handbook of the biology of aging, 3rd ed. New York: Academic Press; 1990. p. 63-71.
3. **Elahi D,** Clark B, Andres R. Glucose tolerance, insulin sensitivity and age. In: Armbrecht HJ, Coe RM, Wongsurawat N, editors. Endocrine function and aging. New York: Springer-Verlag; 1990. p. 48-66.
4. **Elahi D,** McAloon-Dyke M, Fukagawa NK, Wong G, Minaker KL, Seaman JJ, Good WR, VandePol CG, Shannon RS, Miles JM, Wolfe RR. Hemodynamic and metabolic responses to human insulin-like growth factor I (IGF-I) in men. In: Spencer EM, editor. Modern concepts of insulin-like growth factors. New York: Elsevier; 1991. p. 219-24.
5. Blackman MR, **Elahi D,** Harman SM. Endocrinology in Aging. In: DeGroot LJ, Besser M, Burger HG, Jameson JL, Loriaux DL, Marshall JC, Odell WD, Potts JT, Rubenstein AH, editors. Endocrinology, 3rd ed., Philadelphia: WB Saunders; 1995. p. 2702-30.
6. **Elahi D,** McAloon-Dyke M, Andres R. Aging, fat metabolism and adiposity. In: Masoro E, editor. Handbook of physiology, Section 11: aging. American Physiological Society, New York: Oxford University Press; 1995. p. 147-70.
7. Muller DC, **Elahi D,** Sorkin JD, Andres R. Muscle mass: Its measurement and influence on aging. The Baltimore Longitudinal Study of Aging. In: Rosenberg IH, editor. Nutritional Assessment of Elderly Populations: Measure and Function, New York: Raven Press; 1995. p. 50-62.
8. Hanks JB, Earnhardt RC, **Elahi D.** Alterations in glucoregulation after pancreas transplantation. In: Singer, Ziegler, editors. Gastrointestinal Tract and Endocrine System. Lancaster, United Kingdom: Kluwer Academic Publishers; 1995. p. 1-10.
9. **Elahi D,** Muller DC, Rowe JW. Design, conduct, and analysis of human aging research. In: Shneider EL and Rowe JW, editors. Handbook of the biology of aging, 4th ed. New York: Academic Press; 1996. p. 24-38.
10. Ryan AS, **Elahi D.** Body: Composition, Weight, Height, and Build. In: Encyclopedia of Gerontology, Volume 1. New York: Academic Press; 1996. p. 193-201.
11. Habener JF, Stoffers DA, **Elahi D,** Hani EH, Froguel P. Role of homeodomain transcription factor IPF-1 in the pathogenesis of diabetes mellitus. In: Matschinsky FM, Magnuson MA (eds) Molecular Pathogenesis of MODYs. Frontier in Diabetes Vol 15. Basel: Karger; 2000. p. 197-208
12. Ryan AS, **Elahi D.** Lipids and weight loss/exercise. In: Maddox GL, editor. Encyclopedia of Aging: A Comprehensive Resource in Gerontology and Geriatrics, 3rd ed. New York: Springer Publishing Company; 2001.
13. **Elahi D,** Muller DC, Meneilly GS. Macrovascular complications in the elderly diabetic. In: Lunenfeld B, editor. Textbook of Male Health. London: the Parthenon Publishing Group; 2002;184-196.

14. **Elahi D**, Muller DC, Egan JM, Andres R, Veldhuis J, Meneilly GS. Glucose tolerance, glucose utilization and insulin secretion in ageing. In: Veldhuis J, editor. *Endocrine Facets of Ageing*. Novartis Foundation Symposium. New York: John Wiley & Sons; 2002; 242:222-42; discussion 242-6.

Thesis

1. **Elahi D**. The effects of high carbohydrate diet and blood glucose levels on the cellular constituents of the Islets of Langerhans [Masters' Thesis]. Washington, D.C.: American University; 1968.
2. **Elahi D**. Glucose kinetics in hormonal disorders: the role of insulin [Dissertation]. Halifax, Nova Scotia, Canada: Dalhousie University; 1974.

Abstracts (only those containing data not yet published in complete form.)

- A1. Spitzer JA, Bagby G, **Elahi D**. Lipoprotein lipase in endotoxic shock. *Fed Proc* 1976;35:418.
- A2. **Elahi D**, Andersen GS, Raizes JD, Tobin JD, Andres R. Comparison of glucose- and fat-induced insulin release: role of gastric inhibitory polypeptide (GIP). *Physiologist* 1976;19:179.
- A3. Banerji MA, Ross JM, Potter J, **Elahi D**, Andersen DK. Peripheral insulin action is altered by pancreatic resection in man. *Diabetes* 1982;31:31.
- A4. **Elahi D**, Muller D, Andersen D, Hershcopf R, Tobin J, Andres R. Modulation of GIP responses to fat ingestion. *Regul Pept* 1983(Suppl 2):S161.
- A5. **Elahi D**, Hershcopf R, Muller DC, Tobin JD, Andres R. Insulin sensitivity and age. *Diabetes* 1983;32:49A.
- A6. **Elahi D**, Potter J, Bauman M, Tobin JD, Andres R. Interplay of weight, smoking, age and mortality. Fourth International Congress on Obesity, 1983.
- A7. Andersen DK, Sun YS, Brunnicardi FC, Berlin SA, Lebovitz HE, **Elahi D**. Regulation of hepatic glucose production by gastric inhibitory polypeptide (GIP), insulin (INS) and glucagon (GLUC). *Diabetes* 1984;33:129A.
- A8. Andersen DK, Sun YS, Brunnicardi FC, Berlin SA, Lebovitz HE, Garsky V, **Elahi D**. Regulation of hepatic glucose production by gastric inhibitory polypeptide (GIP), insulin (INS), and glucagon (GLUC). *Dig Dis Sci* 1984;29:A5.
- A9. Coon P, Andres R, Baldwin H, **Elahi D**, Muller D, Tobin JD, Ziembra AW. The role of overweight and body fat distribution pattern in the level of serum lipids from early to late adult life. Thirteenth International Congress of Gerontology 1985;191.
- A10. Chaiken RL, Moses AC, Silver RD, **Elahi D**, Minaker KL, Rowe JW, Flier JS. The prolonged hypoglycemic effect of an insulin-adjuvant nasal spray in diabetes is secondary to prolonged suppression of hepatic glucose output. *Clin Res* 1985;33:426A.
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