

Joseph Levy, M.D.

OFFICE ADDRESS

Wayne State University
School of Medicine
4201 St. Antoine - UHC-4H
Detroit, MI 48201
Telephone: 745-3051

EDUCATION

1961 Graduated, Tichon Hadash High School, Tel-Aviv
1963-1969 Hebrew University Medical School, Jerusalem
1970 M.D. Degree, Hebrew University Medical School, Jerusalem

MILITARY

1970-1971 Major, IDF Medical Corps.

TRAINING

1972-1973 Resident, Department of Internal Medicine
Shaare Zedek Hospital, Jerusalem
Residency included:
1. Four months training in chronic hemodialysis unit
2. Four months as Physician in Charge of Intensive Care Unit.
1973-1974 Administrator, Specialist Medical Clinics, IDF
1974-1975 Chief Medical Officer, Judea and Samaria

TRAINING

1975-1978 Residency in Internal Medicine resumed and completed Training included:
Basic sciences research, Department of Anatomy, Hebrew University Medical
School
1979 Certified Specialist in Internal Medicine
1978-1980 Senior Physician, Department of Internal Medicine, Bikur Cholim Hospital,
Jerusalem and Director District Diabetes Clinic, Jerusalem
1980-1981 Training in Endocrinology, Hadassah University Hospital, under direction of
Professor E. Cerasi

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- 1981-1982 Senior Physician, Department of Internal Medicine, Bikur Cholim Hospital, Jerusalem and Director District Diabetes Clinic, Jerusalem
- 1982-1985 Fellow, Division of Endocrinology and Bone Mineral Metabolism, Jewish Hospital and Washington University, St. Louis, MO. Under direction of Professor Louis V. Avioli

FACULTY APPOINTMENTS

- 1985-1986 Full-time Instructor of Medicine, Washington University School of Medicine, Division of Endocrinology and Bone and Mineral Metabolism
- 1987-1990 Assistant Professor, Departments of Internal Medicine and Physiology, Wayne State University School of Medicine, Detroit, MI
- 1990-1995 Associate Professor, Departments of Internal Medicine and Physiology, Wayne State University School of Medicine, Detroit, MI
- 1996-present Professor, Departments of Internal Medicine and Physiology, Wayne State University School of Medicine, Detroit, MI

HOSPITAL AND OTHER PROFESSIONAL POSITIONS

- 1978-1982 Senior Physician, Department of Internal Medicine, Bikur Cholim Hospital, Jerusalem
- 1986-present Associate Director, Diabetes Section Wayne State University School of Medicine Detroit, MI
- 1986-present Medical Staff, Harper Hospital, Detroit, MI
- 1986-present Medical Staff, Detroit Receiving Hospital, Detroit, MI
- 1986-present Medical Staff, Hutzel Hospital, Detroit, MI
- 1995-present Medical Director, Endocrinology Diabetes Clinics at The University Health Center, Detroit, MI.
- 1995-present Staff physician, Veterans Administration Hospital, Detroit, MI.

SOCIETY MEMBERSHIPS

- 1982-present ASBMR, American Society of Bone and Mineral Research
- 1985-present ADA, American Diabetes Association

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- 1987-present Endocrine Society
- 1987-present AFCR, American Federation of Clinical Research, Senior Member

LICENSURE

Licensure - States of Michigan, Missouri, and Illinois

HONORS AND AWARDS

- 1985-1989 American Diabetes Association Research and Development Award
- 1989 - Session Chair (Insulin Action), National Annual Meeting, American Diabetes Association, Detroit, Michigan
- 1990 - Invited keynote speaker 3rd International workshop "Lessons from Animal Diabetes" Session Chair (Neonatal-induced diabetes) 3rd International workshop, "Lessons from Animal Diabetes", Jerusalem, Israel
- 1993-1994 American Diabetes Association Research Award
- 1994- National American Diabetes Association Consensus Panel; Consensus Conference on The Diagnosis and Treatment of Diabetic Nephropathy", San Francisco, CA
- 1994- Invited lecture; The Joslin Diabetes Center, Harvard University, "The Role of Cellular Calcium in the Pathogenesis of Diabetes Mellitus", Boston, MA
- 1998- Editorial Board International Journal of Experimental Diabetes Research

INVITED LECTURES

- 1993 Cell calcium and diabetic hypertension; VA Medical Center, Ann Arbor, MI
- 1994 Treatment of patients with NIDDM, St. Joseph Hospital, Pontiac, MI
- 1994 Diabetes and cell calcium; Grand rounds, Sinai Hospital Medical Center, Detroit, MI
- 1994 Insulin treatment in type II diabetes, South Bend, IN
- 1995 The role of cell calcium in the diabetes syndrome. Grand rounds. VA Medical Center, Saginaw, MI
- 1995 Grand Rounds Diabetic nephropathy update on diagnosis and treatment. Lapeer Regional Hospital, Lapeer, MI
- 1995 Endocrine Conference Department of Gynecology Division of Reproductive Endocrinology "The role of calcium in the etiology of diabetes mellitus" Hutzel Hospital, Detroit, MI
- 1995 Hypertension in diabetes. Grand rounds. St John Hospital, Grosse Pointe, MI
- 1995 Diabetes Nephropathy Grand rounds Crittendon Hospital, Rochester, MI.
- 1995 Invited lecture "The Role of Cellular Calcium in the Pathogenesis of Diabetes Mellitus", City of Hope National Medical Center, Duarte, CA.
- 1996 Grand Rounds Medicine, VA Hospital, Long Beach, CA. "Treatment of type II diabetes update".
- 1996 Grand Rounds Endocrinology. The role of abnormalities in cell Ca^{2+} in the diabetes syndrome. VA Hospital, Long Beach, CA.

1996 Grand Rounds, Saginaw Cooperative Hospitals, Inc. "Insulin treatment in type II diabetes update".

SERVICE

- 1972-1973
1975-1978
1978-1982
 - 1986-present
1. Consultation
 - Internal Medicine consultant, Department of Plastic Surgery Shaare Zedek Hospital, Jerusalem
 - Internal Medicine Consultant Department of E.N.T., Bikur Cholim Hospital, Jerusalem
 2. Patient Care
 - a. Outpatients - two clinic sessions a week (diabetes). (DMC)
 - b. Attending - three months a year for consult service in Endocrinology for the Detroit Medical Center.
 - c. Inpatient service for patients admitted during the months of attending, and of private patients from clinic.
 - d. Outpatients- one clinic session a week at the VA Hospital (diabetes).
 3. Review, major national journals, current
 - Acta Diabetologica
 - American Journal of Physiology
 - American Journal of Hypertension
 - American Journal of Medicine
 - Bone and Mineral
 - Calcified Tissue International
 - Cancer Research
 - Cell Regulation
 - Diabetes
 - Diabetologia
 - Diabetes Research and Clinical Practice
 - Diabetes Nutrition and Metabolism
 - Endocrine Practice
 - Hypertension
 - Journal of Clinical Investigation
 - Journal of Clinical Endocrinology and Metabolism
 - Journal Bone and Mineral Research
 - Kidney International
 - Metabolism
 - Pediatric Research
 4. Public presentations as an expert in discipline
 - a. Cellular calcium metabolism, role in abnormalities in glucose metabolism and diabetic hypertension - In satellite meeting on hypertension and diabetes, Annual meeting of American Diabetes Association 1989
 - b. National American Diabetes Association Consensus Panel Diagnosis and

treatment of diabetic nephropathy 1995

4. Reviewer, VA merit review grants 1991 -
5. Reviewer, N.S.F. grants 1992 -
6. Peer Review consultant NIH 1993 -
7. Peer Review consultant American heart Association of Michigan 1993-
8. Committees

1985-present	American Diabetes Association National Council on Nutrition and Food Service
1988-1991	Board of Directors, American Diabetes Association - Michigan Affiliate
1988-present	Scientific Review Committee, American Diabetes Association - Michigan Affiliate
1989-1990	Mortality and Morbidity Review Committee, Department of Medicine, Harper Hospital
1993-	Committee for Referrals and Consultations, Detroit Medical Center and Wayne State University Diabetes Program
1993-	Detroit Medical Center and Wayne State University Diabetes Planning Committee
1994-1998	Department of Medicine, Clinical Operation Committee
1995- 1996- 1997-	Department of Medicine subcommittee for evaluation of clinical excellence VA Hospital Diabetes Research Center Planning Department of Medicine Committee on clinical faculty requirement-implementation team

TEACHING

1. Wayne State University School of Medicine, Detroit, Michigan - 11 years
2. 1972-1973 Hebrew University Medical School, Jerusalem - 9 years
1975-1982
 - a. Training of medical students in physical diagnosis
 - b. Training medical students and interns in Internal Medicine
 - c. Teaching and guidance of Kupat Cholim Physicians, Institute for In-Service Training (Continuing Medical Education Program), Hebrew University

Jerusalem

d. Training of medical residents in Internal Medicine

1982-1986 Washington University Medical School, St. Louis, Missouri - 4 years
Training medical students, interns and residents in endocrinology and bone diseases.

3. Wayne State University School of Medicine (1987-Present)

Teaching, School of Medicine - undergraduate

- Pathophysiology of Diabetes Mellitus (lectures and workshops), 2nd year medical students, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997
- Physical Diagnosis, 2nd year medical students, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997
- Internal Medicine rounding, 3rd and 4th year medical students, Harper Hospital, 1987, 1988, 1990, 1997
- Endocrinology rounding (3 months), 4th year medical students, Detroit Medical Center, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997

4. Teaching, School of Medicine - postgraduate (interns, residents and fellows) (3 months).

- Endocrinology rounding (as above)
- Endocrinology lectures (monthly for Endocrine elective), 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997 (every 4 weeks)
- Internal Medicine Annual Comprehensive Review, 1987
- Lecturer in workshop entitled "Diabetes Mellitus Type II" Veterans Administration Hospital, Allen Park, 1987
- Lecturer in the continuing medical education course "Endocrinology conferences", Bon Secours Hospital, 1988
- Continuing Medical Education "Endocrinology review course", 1992, 1996
- Teaching physician assistants diabetes as part of the requirements for their graduation, Grace Hospital, 1995
- Board review course - Endocrinology and Metabolism, 1995
- Supervising and teaching fellows, residents, interns and students diabetes and endocrinology clinic Weekly, UHC, 1987-1998
- Supervising and teaching fellows, residents, interns and students in diabetes and endocrinology clinic Weekly, VA Hospital, 1995 -1998
- Actively participating Weekly in Endocrinology Grand Rounds with fellows, residents, interns and students, UHC, 1987-1998
- Actively participating in resident's reports, Harper Hospital and Detroit Receiving Hospital, 1987-1998
- Professor, Grand Rounds, 1997, 1998

5. Continuing Medical Education Course Director "Current trends in medical treatment of patients with non-insulin dependent diabetes mellitus", March, 1993

6 Endocrinology Molecular Biology Course "The Calcium Signal", 1997

Community Teaching

1. Endocrinology CME course "Syndrome X-treatment" discussion, 1993
2. Diabetes day: lectures in diabetes; 1987-1995, 1997, 1998
3. Evening lectures to community physicians on current topics in diabetes and diabetes management, 1993-1998
4. Lecturing and directing Endocrinology rounds with residents at Bon Secours Hospital as part of their requirements for the residency program, 1991-1998
5. Appearing on TV and radio programs on topics related to diabetes care, 1994-1996

Basic Sciences

- Lecturer in Course 740 - "Molecular biology of cellular signalling" to graduate students in the Molecular Biology department, 1988, 1989, 1991, 1993, 1995

Guiding Medical Residents and Fellows in Biomedical Research

- Karoly Nagy, M.D. (Graduate of School of Medicine in Hungary). "Role of $(Ca^{2+}+Mg^{2+})$ -ATPase in insulin action." 1987-1988.
- Tom Vybiral, M.D. (Resident in Department of Internal Medicine, Wayne State University School of Medicine). "Abnormalities in glucose utilization in cultured fibroblasts from Type II diabetic patients", 1988, 1989.
- Chris W. Mantzoros (Resident in Department of Internal Medicine, Wayne State University School of Medicine) "Insulin resistance in ovarian hypertecosis", 1992, 1993.
- Marwan Hamaty, M.D. (Resident in Department of Internal Medicine, Wayne State University School of Medicine) "Prevalence of cardiac autonomic neuropathy in urban diabetic population", 1993.
- Jerome Scott (fellow), guiding a research on effects of insulin and pro insulin in ischemic heart disease. Division of Cardiology, Wayne State University School of Medicine, 1993-1995.
- Renne A. Bobrowski (fellow), guiding research on changes in PTH and PTHrp during pregnancy in late fetal life and in the newborn. Department of Obstetrics and Gynecology, Wayne State University School of Medicine, 1993-1995.
- Z. Zhu, M.D. (fellow from West China University Medical Sciences, UPR). "Role of abnormal Ca^{2+} ATPase activity in "Glucose Blindness" of β cells in diabetes", 1995-1997.

Guiding Medical Resident for presentations in American College of Physicians
- Ramaswami N, 1996, Alrefai H, 1998.

METORING

- **Marwan Hamaty, M.D. (Fellow, Diabetes and Endocrinology and Metabolism), 1995-1998.**

GRANT SUPPORT

Recipient of the Award from Chief Scientist Ministry of Health, Jerusalem, Israel \$5,000, 1981.

American Diabetes Association, Research and Development Award. "Cellular Calcium Homeostasis and Insulin Cellular Action in Type II Diabetes Mellitus", Principal Investigator: Joseph Levy, M.D. \$80,000, 1985-1989.

Research Equipment Award, Wayne State University Principal Investigator: Joseph Levy, M.D. \$55,000, 1987.

Biomedical Research Support (NIH grant no. S07RR05384), Wayne State University, "Longitudinal study of changes in basolateral membrane metabolism in non-insulin-dependent rat. Effect of dietary magnesium and calcium intake", Principal Investigator: Joseph Levy, M.D. \$100,000, 1987-1989.

Wayne State University, Research Equipment Award. Co-Investigator: Joseph Levy, M.D. \$18,000, 1988.

American Diabetes Association-Michigan Affiliate, "Insulin signalling in Diabetes Mellitus", Co-Investigator: Joseph Levy, M.D. \$24,869, 1988-1989.

Pfizer Pharmaceuticals, "Effect of glipizide on insulin resistance in hypertensive patients with Type II diabetes mellitus" (competitive, investigator - initiated) Co-Investigator: Joseph Levy, M.D. \$78,777, 1988-1990.

Pfizer Pharmaceuticals, "The effect of glipizide in preventing the development of non-insulin dependent diabetes mellitus (NIDDM) in patients with impaired glucose tolerance", Co-Investigator: Joseph Levy, M.D. \$35,000, 1989-1991.

Research Equipment Award, Wayne State University Co-Investigator: Joseph Levy, M.D. \$15,650, 1989.

Sandoz Pharmaceuticals, "Calcium channel blockers reduce ischemia induced brain damage in diabetes", (competitive, investigator-initiated) Principal Investigator: Joseph Levy, M.D. \$15,000, 1993-1995.

Sinai Hospital Biomedical Research Grant, "Influence of Parathyroid hormone upon insulin induced glucose disappearance". Co Principal Investigator: Joseph Levy, M.D. \$3,793, 1993-

1995 (and salary for technician).

FMRE. "Parathyroid hormone related peptide in diabetic pregnancies". Co-Principal Investigator: Joseph Levy, M.D. \$5,655, 1994-1995.

National American Diabetes Association "Abnormal function and gene expression of islet cells Ca^{2+} -ATPase a cause for the 'glucose blindness' in diabetes. Principal Investigator: Joseph Levy, M.D. \$100,000, 1994 -1996.

Sinai Hospital Biomedical Research Grant "Effect of Vit D induced hypercalcemia upon glucose utilization". Co Principal Investigator: Joseph Levy, M.D. \$6,280, 1994-1996 (and salary for technician).

Astra Merck Group; Merck Co. Inc. "Calcium channel blockers improve nerve conduction in patients with diabetic neuropathy" (investigator initiated) Principal Investigator Joseph Levy, M.D. \$95,000, 1996-1998.

Astra Merck Group; Merck Co. Inc. "Does Calcium Blockage Decrease Ischemia-Brain Damage in Diabetics?" Principal Investigator: Joseph Levy, M.D. (with Joseph Dunbar-Physiology Department) \$39,764, 1996-1998.

Bayer Pharmaceutical; "Effect of Adalat on brain ischemia in diabetic rats". Principal Investigator: Joseph Levy, M.D. (with Joseph Dunbar, Physiology Department) \$15,000, 1997-1998.

Sinai Hospital Biomedical Research Grant "Effect of calcium upon insulin-mediated glucose metabolism in adipocytes. Co Principal Investigator: Joseph Levy, M.D. (with Andrew Saxe, M.D.) Salary for technician and \$5,000. 1997-1998.

Pending

National Institutes of Health (N.I.H.) "Role of ($\text{Ca}^{2+}+\text{Mg}^{2+}$)-ATPase in insulin resistance". Principal Investigator: Joseph Levy, M.D. \$514,463 - Approved but not funded.

PUBLICATIONS

Original Observations

1. Ornoy A, Levy J, Atkin I, Salamon J. Scanning and transmission electron microscopic observations on the origin and structure of matrix vesicles in epiphyseal cartilage of young rats. *Isr J Med Sci* 15:928-936, 1979.
2. Levy J, Ornoy A, Atkin I. Influence of tetracycline on the calcification of epiphyseal rat cartilage. Transmission and scanning electron microscopic studies. *Acta Anat* 106:360-369,

1980.

3. Ornoy A, Atkin I, Levy J. Ultrastructural studies on the origin and structure of matrix vesicles in bone of young rats. *Acta Anat* 106:450-461, 1980.
4. Keren A, Tzivoni D, Gavish D, Levy J, Gottlieb S, Benhorin J, Stern S. Etiologic factors, Publications (cont'd)
warning signs and therapy of atypical ventricular tachycardia (Torsade de pointes): A study of ten patients. *Circulation* 64:1167-1174, 1981.
5. Weidenfeld J, Siegel RA, Levy J, Chowars I. *In vitro* metabolism of cortisol by human adipose tissue. *J Steroid Biochem* 817:357-360, 1982.
6. Corcos AP, Weidenfeld J, Levy J, Barash V, Siegel RA, Gutman A, Chowars I. Correction of bromocriptine of hypothalamic dysfunction and postprandial hypoglycemic symptoms in a 31 year old woman. *Clin Endocrinol (Oxf)* 19:477-483, 1983.
7. Levy J, Gavin JR III, Fausto A, Gingerich RL, Avioli LV. Impaired insulin action in rats with non-insulin-independent diabetes. *Diabetes* 33:901-906, 1984.
8. Branski D, Levy J, Globus M, Aviad I, Keren A, Chowars I. Dysphagia as a primary manifestation of hyperthyroidism. *J Clin Gastroenterol* 6 (S):437-440, 1984.
9. Neshar R, Tuch B, Hage C, Levy J, Cerasi E. Time-dependent inhibition of insulin release: suppression of arginine effect by hyperglycemia. *Diabetologia* 26:142-145, 1984.
10. Levy J, Teitelbaum SL, Gavin JR III, Fausto A, Kurose H, Avioli LV. Bone calcification and calcium homeostasis in rats with non-insulin-dependent diabetes. *Diabetes* 34:365-372, 1985.
11. Levy J, Gavin JR III, Hammerman MR, Avioli LV. $(Ca^{2+}+Mg^{2+})$ -ATPase activity in kidney basolateral membrane in non-insulin-dependent diabetic rats: Effect of insulin. *Diabetes* 35:899-905, 1986.
12. Levy J, Stern Z, Gutman A, Gavin JR III, Avioli LV. Plasma calcium and phosphate levels in an adult non-insulin-dependent diabetic population. *Calcif Tissue Int* 39:316-318, 1986.
13. Levy J, Gavin JR III, Morimoto S, Hammerman MR, Avioli LV. Hormonal regulation of $Ca^{2+}+Mg^{2+}$ -ATPase activity in canine renal basolateral membrane. *Endocrinology* 119:2405-2411, 1986.
14. Levy J, Avioli LV, Roberts ML, Gavin JR III. $(Na^{+}+K^{+})$ -ATPase activity in kidney basolateral membranes of non-insulin-dependent diabetic rats. *Biochem Biophys Res Comm* 139:1313-1319, 1986.

15. Levy J, Gavin JR III, Scott M, Avioli LV. Mineral homeostasis in NIDD rats and their neonates during pregnancy and lactation. *Bone* 8:1-6, 1987.
16. Levy J, Suzuki Y, Gavin JR III, Grunberger G, Avioli LV. Changes in plasma membrane phospholipid composition in non-insulin-dependent diabetic rats. *Diabetologia* 31:315-321, Publications (cont'd) 1988.
17. Levy J, Reid I, Halstad L, Gavin JR III, Avioli LV. Abnormal cell calcium concentrations in cultured bone cells obtained from femurs of obese and non-insulin-dependent diabetic rats. *Calcif Tissue Int* 44:131-137, 1989.
18. Dunbar JC, Houser F, Levy J. Beta cell desensitization to glucose, induced by hyperglycemia, is augmented by increased calcium. *Diab Res Clin Pract* 7:187-196, 1989.
19. Levy J, Grunberger G, Karl IE, Gavin JR III. Effects of food restriction and insulin treatment on $(Ca^{2+}+Mg^{2+})$ -ATPase response to insulin in kidney basolateral membranes of non-insulin-dependent diabetic rats. *Metabolism* 39:25-33, 1990.
20. Nagy K, Grunberger G, Levy J. Insulin antagonistic effects of insulin receptor antibodies on plasma membrane $(Ca^{2+}+Mg^{2+})$ -ATPase activity: A possible etiology of type B insulin resistance. *Endocrinology* 126:45-52, 1990.
21. Nagy K, Levy J, Grunberger G. High-fat feeding induces tissue specific alteration in proportion of activated insulin receptor. *Acta Endocrinologica (Copenh)* 122:361-368, 1990.
22. Grunberger G, Levy J. Diacylglycerols modulate phosphorylation of the insulin receptor from human mononuclear cells. *Europ J Biochem* 187:191-198, 1990.
23. Zemel MB, Sowers JR, Shehin S, Walsh MF, Levy J. Impaired calcium metabolism associated with hypertension in Zucker obese rats. *Metabolism* 39:704-708, 1990.
24. Levy J, Sowers JR, Zemel MB. Abnormal Ca^{2+} -ATPase activity in erythrocytes of non-insulin-dependent diabetic rats. *Horm Metab Res* 22:136-140, 1990.
25. Grunberger G, Nagy K, Rempinski D, Levy J. Abnormal insulin receptor tyrosine kinase activity in kidney basolateral membranes from non-insulin-dependent diabetic rats. *J Clin Lab Med* 115:704-711, 1990.
26. Karl IE, Gavin JR III, Levy J. Glucose utilization in epitrochlearis muscle of streptozocin-induced non-insulin-dependent diabetic rats: Effect of insulin. *Diabetes* 39:1106-1151, 1990.

27. Terry ML, Levy J, Grunberger G. Diacylglycerols modulate insulin action in rat adipocytes. *Horm Metab Res* 23:251-306, 1991.
28. Nagy K, Levy J, Grunberger G. Decreased activity and impaired translocation of protein kinase C activity in human non-insulin-dependent diabetes mellitus. *Metabolism* 40:807-813, 1991.

Publications (cont'd)

29. Foldes J, Mei-Shu-Shih, Levy J. Bone structure and calcium metabolism in obese Zucker rats. *Int J Obesity* 16:95-102, 1992.
30. Levy J, Russell JE, Blair H, Avioli LV. Bone maturation and bone resorption by rat peritoneal macrophages in non-insulin-dependent streptozotocin induced diabetic rats. *J Lab Clin Med* 119:732-737, 1992.
31. Cowan T, Levy J, Dunbar JC. The interaction of diabetes and hypertension in the incidence of cataracts in streptozotocin-induced diabetic rats. *Diab Nutr Metab.* 6:123-128, 1993.
32. Grunberger G, Levy J. Insulin therapy, blood pressure, and NIDDM. *Diabetes Care* 16:954, 1993.
33. Levy J, Rempinski D, Kuo TH. Hormone-specific defect in insulin regulation of (Ca²⁺+Mg²⁺)-Adenosine-Triphosphatase activity in kidney membranes from streptozotocin non-insulin-dependent diabetic rats. *Metabolism* 43:604-613, 1994.
34. Levy J, Rempinski D. Decreased activity of the (Ca²⁺+Mg²⁺)-ATPase and a hormone specific defect in insulin regulation of the ATPase in kidney basolateral membranes from obese fa/fa rats. *Metabolism*, 43:1055-1061,1994.
35. Levy J, Gavin JR III. Blood levels of insulin-like growth factors I and II in neonates of non-insulin-dependent diabetic rats. *Acta Diabetologica*, 31:164-168, 1994.
36. Levy J, Gavin JR III. Different genes for obesity are associated with loss of regulation of the membrane (Ca²⁺+Mg²⁺)-ATPase in the obesity syndrome. Lessons from animal models. *Int J Obesity*, 19:97-102, 1995.
37. Mantzoros CS, Lawrence WD, Levy J. Does an endogenous ovarian factor cause the insulin resistance in some patients with ovarian stromal hyperthecosis and the hyperandrogenism, insulin resistance and acanthosis nigricans syndrome? *J Reprod Med*, 6:491-494, 1995.
38. Levy J, Vandenberg M, Grunberger G. Insulin versus glipizide treatment in patients with non-insulin-dependent diabetes mellitus: Effects on blood pressure and glucose tolerance. *Am J Hypertens*, 8:445-453, 1995.
39. Saxe A, Gibson G, Gingerich R, Levy J. Parathyroid hormone decreases in-vivo insulin effect

- on glucose utilization. *Calcif Tissue Int.* 57:127-132, 1995.
40. Hamaty M, Levy J. Diabetes combination therapy: too much of a good thing? *Patient Care* 30:209-190, 1996.
 41. Saxe A, Dean S, Gibson G, Pandian MR, Levy J. Parathyroid hormone-related peptide in venous umbilical cord of healthy neonates. *J. Perinatal Med.* 25:288-291, 1997.
 42. Hamaty M, Levy J. Diabetic neuropathy or something else? *Patient Care* 31:218:221, 1997.
 43. Levy J, Zhu Z, Dunbar J. The effect of glucose and calcium on Ca^{2+} -ATPase in pancreatic islets isolated from normal and NIDDM rat models. *Metabolism* 47:185-189, 1998.
 44. Hamaty M, Levy J. Diabetes, a bruit and more. *Patient care* 32:150-151, 1998.
 45. Saxe AW, Gibson G, Levy J. Effect of chronic Vitamin D-infusion upon in-vivo glucose disposal. *Calcif Tissue Int.* 64:248-251, 1999.
 46. Levy J. Abnormal cell calcium homeostasis in type 2 Diabetes. A new look on old disease. *Endocrine* 10:1-6, 1999.
 47. Rajkumar V, Ragatzki P, Sima A, Levy J. Enhanced platelet aggregation high homocysteine level, and microvascular disease in diabetic muscle infarctious implications for therapy. *Endocrine*, In press.
 48. Hamaty M, Guzman C, Walsh MF, Levy J, Sowers JR. High glucose enhanced actylcaholine stimulated cGMP masks impaired vascular reactivity tail arteries from short term hyperglycemic rats. *The Journal of Experimental Diabetes Research*, In press.
 49. Levy J, Rempinski D, C TH. Insulin phosphorylates the membrane ($\text{Ca}^{2+}\text{Mg}^{2+}$)-ATPase. Submitted for publication.
 50. Levy J, Rempinski D. Monoclonal antibodies to the plasma membrane ($\text{Ca}^{2+}\text{Mg}^{2+}$)-ATpase decrease insulin stimulation of glucose oxidation and lipogenesis in rat epididymal fat cells. Submitted for publication.

Review Articles

- 51 Sowers JR, Levy J, Zemel MB. Hypertension and Diabetes. *Med Clin North Am* 72(6):1399-1414, 1988.
- 52 Levy J, Zemel MB, Sowers JR. Role of cellular calcium metabolism in abnormal glucose metabolism and diabetic hypertension. *Am J Med* 87(Suppl 6A):7-17, 1989.
- 53 Levy J, Gavin JR III, Sowers JR. Diabetes mellitus: A disease of abnormal cellular calcium

metabolism? (Refereed, non-invited review with original concepts) Am J Med 96:260-273, 1994.

- 54 Garber AJ, Campese VM, Franz MJ, Hoogwer JB, Levy J, Mitch W, Moore MA, Steffes MW. Diagnosis and Treatment of diabetic Nephropathy; Consensus statement. Diabetes Care 11:1357-1361, 1994 and Diabetes Care 19:S103-S106, 1996.
- 55 Levy J, Gavin JR III, Sowers JR. Abnormal cellular calcium metabolism in diabetes (update). Am J Med. 99:222-224, 1995.

Chapters and Books

56. Levy J. Insulin resistance in neonatal NIDDM. Role of abnormal cell Ca^{2+} homeostasis. In Frontiers in Diabetes Research: Lessons from animal diabetes III. (ed) E Shafrir. Smith Gordon press, London 1991, pp 567-573.
57. Levy J. Discussion: Diabetes and reproduction; neonatally and gestationally induced diabetes. In Frontiers in Diabetes Research. Lesson from animal diabetes III. (ed) E. Shafrir. Smith Gordon press, London 1991, pp 579-584.
58. Levy J, Sowers JR. Intracellular Ca^{2+} and insulin action. Possible role in the pathogenesis of Syndrome X. In: Foá PP and Walsh MF (eds) Ion channels and Ion pumps: Metabolic and Endocrine Relationships in Biology and Clinical Medicine Vol 6, Springer-Verlag 1994, pp 116-136.

Case Reports

59. Wanderman JL, Levy J, Stern S, Flomanm Y, Applebaum A, Borman JB. Perforation of the interatrial septum in a 71 year old woman: Successful repair nine days following acute myocardial infarction. Chest 63:632-635, 1973.
60. Hurwich BJ, Goldstein U, Levy J, Herishanu Y. Successful 44-hour hemodialysis for multiple drug intoxication. Isr J Med Sci 10:495-497, 1974.

Education Material

61. Levy J. Insulin and glucose measurements in relatives of diabetic patients during oral glucose tolerance test. M.D. thesis. 1970.
62. Levy J. Diabetic Ketoacidosis: Subsequent Care. Endocrinology Conferences. Bon Secours Hospital. 1988.

PUBLISHED ABSTRACTS

1. Ornoy A, Levy J, Atkin I. Scanning and transmission electron microscopic observation on the origin and structure of matrix vesicles in epiphyseal cartilage of young rats. Third

International Workshop on Calcified Tissues. March 5-9, 1978.

2. Levy J, Ornoy A, Atkin I. The effects of tetracyclines on formation of matrix vesicles in the epiphyseal plates of young rats. Third International Workshop on Calcified Tissues. March 5-9, 1978.
3. Ornoy A, Atkin, I, Levy J. Ultrastructural studies on the origin and structure of matrix vesicles in cartilage and bone. Perspectives for future challenges in Dentistry 25th Anniversary - Congress of Dental Medicine. Jerusalem, July, 1978.
4. Levy J, Ornoy A, Atkin I. Tetracycline inhibition of matrix vesicles formation and calcification in the epiphyseal plates of young rats. *Isr J Med Sci* 14:931, 1978.
5. Levy J, Teitelbaum SL, Bergfeld M, Fausto A, Scott M, Griffin G, Avioli LV. Mild diabetes mellitus does not affect bone calcification or calcium homeostasis. Fifth Annual Scientific Meeting of the American Society for Bone and Mineral Research. A36 June, 1983.
6. Levy J, Gavin JR III, Fausto A, Scott M, Griffin G, Avioli LV. Mineral and parathyroid hormone (PTH) levels in neonates of non-insulin-dependent diabetic (NIDD) rats. Sixth Annual Scientific Meeting of the American Society for Bone and Mineral Research. A36 June, 1984.
7. Levy J, Gavin JR III, Fausto A, Avioli LV. Postreceptor insulin resistance in long-term NIDD rats. *Diabetes* 33 (Suppl 1) 136A:522, 1984.
8. Levy J, Fausto A, Gavin JR III, Gingerich RL, Avioli L V. Acquired impairment in insulin action in rats with non-insulin-dependent diabetes (NIDD). *Clin Res* 32(2):521A, 1984.
9. Levy J, Gavin JR III, Morimoto S, Hammerman MR, Avioli LV. Polypeptide hormones directly regulate $(Ca^{2+}+Mg^{2+})$ -ATPase activity in canine renal proximal tubular basolateral membrane. *Clin Res* 33(2):436A, 1985.
10. Levy J, Gavin JR III, Hammerman MR, Lowry MD, Avioli LV. Different effect of insulin and insulin-like growth factors (IGF-I and IGF-II) on $(Ca^{2+}+Mg^{2+})$ -ATPase activity in canine renal proximal tubular basolateral membrane (BLM). Seventh Annual Scientific Meeting of American Society for Bone and Mineral Research. June, 1985.
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PRESENTATIONS

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