

CURRICULUM VITAE

Faramarz Ismail-Beigi, MD, PhD

Personal

Born December 28, 1941, Tehran, Iran

Health status: excellent

Married; three children, born 1971, 1973, 1984

United States of America citizen

Home Address: 2735 Belvoir Blvd., Shaker Heights, OH 44122

Work Address: Case Medical Center, 10900 Euclid Ave., Cleveland, Ohio 44106-4951

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Education

Hadaf High School, Tehran, 1953-1957

B.A., Berea College, Berea, Kentucky, 1962

M.D., The Johns Hopkins School of Medicine, Baltimore, MD, 1966

Ph.D., (Biophysics), University of California, Berkeley and San Francisco, CA, 1972

Postgraduate Training

Intern in Medicine, Osler Medical Service, The Johns Hopkins Hospital, Baltimore, MD, 1966-67

Assistant Resident in Medicine, Osler Medical Service, The Johns Hopkins Hospital, Baltimore, Maryland, 1967-68

Research Fellow and Ph.D. Candidate, Cardiovascular Research Institute, University of California School of Medicine, San Francisco, and Department of Biophysics, University of California, Berkeley, California, 1968-71

Senior Assistant Resident in Medicine and Hematology, The Johns Hopkins Hospital, Baltimore, Maryland, 1971-72

Sabbatical year, Laboratory of I. S. Edelman, Univ. of California, San Francisco, CA, 1976-77

Sabbatical year, Laboratory of Dr. Leslie A. Leinwand, Department of Microbiology and Immunology, Albert Einstein College of Medicine, NY, 1991-92

Sabbatical year, Laboratory of Dr. Charles Sanders, Dept. of Physiology and Biophysics (Structural Biology), Case Western Reserve University, Cleveland, OH, 1999-2000

Faculty Appointments

Associate Professor of Medicine and Physiology, Pahlavi University, Shiraz, Iran, 1972-78

Chairman, Department of Internal Medicine, Pahlavi University, Shiraz, Iran, 1972-79

Visiting Professor, Dept. of Internal Medicine, University of California, San Francisco, CA, 1976-77

Professor of Medicine, Pahlavi University, Shiraz, Iran, 1978-82

Associate Professor of Medicine, Columbia University, New York, NY, 1984-1991

Professor of Clinical Medicine, Columbia University, 1991-93

Professor of Medicine and Chief of Division of Clinical and Molecular Endocrinology, Case Western Reserve University, 1993-2007

Staff Physician, Endocrinology, Cleveland VAMC, Cleveland, Ohio, 1993-
 Professor of Physiology and Biophysics, Case Western Reserve University, 1993-
 Professor of Biochemistry, 2010-
 Professor of Medicine, Division of Clinical and Molecular Endocrinology, Case Western Reserve
 University, 1993-

Other Appointments

Director, Pahlavi Bio-Medical Research Unit and Institute of Nuclear Medicine, Pahlavi
 University, 1972-81
 Pahlavi University Research Council, 1972-76
 Central Committee of Iranian Board of Internal Medicine, 1973-78
 Central Committee for Medical Education, Iranian Ministry of Science and Higher Education,
 1973-75
 Central Research Committee, Iranian Ministry of Science and Higher Education, 1975-78
 Attending Medical Consultant, Arad Hospital, Tehran, Iran, 1982-84
 Research Visiting Scientist, Ciba-Geigy, Basel, Switzerland, 1984
 American Heart Association Research Committee (New York Affiliate), 1987-91
 Ad hoc Member, Various Study Sections, NIH, 1987-2011
 Physiology Study Section, NIH, 1989-1992
 Executive Committee, Council on Basic Sciences, American Heart Association, 1990-92
 Editorial Board, *American Journal of Physiology: Cell Physiology*, 1992-2008
 Research and Development Committee, VA Medical Center, Cleveland, Ohio, 1994-98
 Committee on Appointments and Promotions, Dept. of Medicine, CWRU, 1994-98
 Chair, Committee on Appointments and Promotions, Dept. of Medicine, CWRU, 2003-2008
 Steering Committee, MSTP, CWRU, School of Medicine, 1996-2000
 Committee on Appointments and Promotion, and Steering Committee, Department of
 Physiology and Biophysics, CWRU, 1996-2008
 Chair, Committee on Appointments and Promotions, Dept. of Physiology and Biophysics,
 CWRU, 2005-2008
 Committee on Appointments and Promotion, Department of Biochemistry, CWRU, 2013-
 Editorial Board, *Archives Biochemistry and Biophysics*, 1997-2008
 Board of Trustees, Diabetes Association of Greater Cleveland, 1998-2006
 Executive Committee, Diabetes Association of Greater Cleveland, 1999-2002
 Chair of Research Committee, Diabetes Association of Greater Cleveland, 1999-2002
 Committee on Appointments and Promotion, School of Medicine, CWRU, 1999-2001
 Editorial Board, *Journal of Biological Chemistry*, 2007-2009
 PI (and Co-PI) of ACCORD Trial for the Ohio/Michigan Network, 2001-
 Diabetes PI, BARI-2D Trial, University Hospitals of Cleveland, 2003-2008
 Medical Director, Joslin Diabetes Center, St. Vincent Charity Hospital, 2008-2010
 PI, GRADE Diabetes Study (VA and MetroHealth), 2012-

Board Certification

American Board of Internal Medicine, 1972

Awards and Scholarships

Beaumont Tuition Scholarship, The Johns Hopkins University, 1962-66
 Recipient, Bay Area Heart Association Fellowships, 1968-71

Societies

Phi Kappa Phi
 Alpha Omega Alpha
 American Thyroid Association
 American Diabetes Association
 American Physiological Society
 American Association for the Advancement of Science
 American Society for Biochemistry and Molecular Biology
 American Association of Clinical Endocrinologists

Current Grant Support

DEVOTE trial (Novo Nordisk) at UH and VA. PI. 2/2014-2/2017 Testing the safety and efficacy of insulin Degludec versus Glargine.

NIDDK, GRADE trial. PI. Performed at the VAMC (90 out of 150 participants at the VA and 60 at Metro) Multicenter trial multi-year examining what is the best second agent to be added to metformin in patients with relatively recent onset of type 2 diabetes. 2012-2020.

2012PG-T1D031 (Weiss; Ismail-Beigi, co-PI) 03/01/13 – 02/29/19, Helmsley Charitable Trust, \$275,000, “Smart Insulins”: glucose-responsive design of an ultra-rapid subcutaneous depot

LEADER trial (Novo Nordisk) at UH and VAMC. PI. 6/2011-12/2016 Testing the safety and efficacy of liraglutide.

JDRF/Thermalin (Berenson, PI; Ismail-Beigi, co-Inv) at Thermalin, 09/1/2016-12/31/2018. Novel fast-acting insulins.

Recently Completed Research Support

ACCORDION Follow-on Study. Ismail-Beigi (PI)
 01/01/2011-12/31/2014

NIH/NHLBI

This is a follow-on project of the ACCORD trial. ACCORD is a type 2 diabetes clinical trial with 2 glycemia goals (Hb A1c of <6.0% versus 7.5%), systolic BP of <140 versus 120 mm Hg, and placebo versus fenofibrate with adequate reduction of LDL with simvastatin.

Role: PI of Ohio/Michigan Network and UH and VAMC sites

NIH-HL-HC-99-16 Ismail-Beigi (PI)
 09/30/1999-12/31/2010

Action to Control Cardiovascular Risk in Diabetes (ACCORD)

This project is a type 2 diabetes clinical trial with 2 glycemia goals (Hb A1c of <6.0% versus 7.5%), systolic BP of <140 versus 120 mm Hg, and placebo versus fenofibrate with adequate reduction of LDL with simvastatin. Role: PI of Ohio/Michigan Network and UH and VAMC sites

RO1 DK082423 (R. Muzic and F. Ismail-Beigi, dual PIs) Novel PET Imaging of Glucose Transport; July 1, 2009 – June 30, 2014. The goal of this project is to develop new probes for non-invasive imaging of glucose transport in humans.

R01 DK096549 - 01A1 (PI: Steven G Coca; Ismail-Beigi, co-PI); CASE. 7/1/2012-6/30/2017. Ismail-Beigi, Co-Investigator. Ancillary study to ACCORD investigating urinary proteins and renal failure.

2R44DK088506-02 (Frank, PI; Ismail-Beigi, co-Inv) 04/15/12 – 03/31/15 Thermalin/NIDDK, Chlorolog: production scaling and testing of a fast-acting, ultra-stable insulin analog.

7-13-IN-31 (Phillips, PI; Ismail-Beigi, co-Inv) 07/01/13 – 06/31/15
American Diabetes Association
Design of supramolecular insulin hexamers as long-acting depot

R43DK098036-01A1 (Frank, PI; Ismail-Beigi, co-Inv) 08/01/13 – 01/31/15
Thermalin/NIDDK; Hexalog: a rapid-acting ultra-concentrated insulin formulation

R43 (Frank, PI; Ismail-Beigi, co-Inv) 08/01/13 – 01/31/15
Thermalin/NIDDK Novel design of a fast-on/fast-off insulin analog for closed-loop systems

HL-061746 Adler, Ismail-Beigi (co-PIs) 09/01/2000-11/01/2008
Bypass Angioplasty Revascularization Investigation 2 Diabetes (BARI 2D) Trial.
The goal of this project was to compare insulin sensitizing agents versus insulin or insulin providing agents.

RO1 DK61994-01A1 Ismail-Beigi (PI) 07/01/2003-06/30/2007
Regulation of Glut1 Function (Continuation of RO1-DK45945). The goal of this project was to identify novel mechanisms of Glut 1 regulation.

RO1-HL03008 (Redline PI; Ismail-Beigi, co-Inv) 09/01/2003-09/29/2007
The effect of sleep apnea treatment on metabolic syndrome. The project examined whether treatment of sleep apnea improves the insulin-resistant state of obese patients in the pre-diabetic stage.

PO1-HL18708 Dubyak (PI)
02/01/2002-01/31/2007
Cardiac Bioenergetics: Thyroid hormone control of Na,K-ATPase expression. The goal of this project was to determine the role of thyroid hormone on Na,K-ATPase expression. Role: PI of Project #2.

Publications. A

Clinical Science Research (excluding abstract).

*****Basic Science publications are further below**

1. Reinhold, J. G., Parsa, A., Karimian, N., Hammick, J. W., and Ismail-Beigi, F. Availability of zinc in leavened and unleavened wholemeal as measured by solubility and uptake by rat intestine *in vitro*. J. Nutr. 104: 976-982 (1974)
2. Reinhold, J. G., Faraji, B., and Ismail-Beigi, F. Fiber vs. phytate as determinant of the availability of calcium, zinc, and iron in breadstuffs. Nutrition Reports International 12: 75-85 (1975)^a

^aThe above article was chosen by Current Contents as a Citation Classic, 1988

3. Ismail-Beigi, F., and Haghshenass, M. The dependence of hemoglobin (beta + gamma)/alpha chain synthetic ratios on the degree of anemia of beta-thalassemics. Proc. Soc. Exp. Biol. Med. 148: 459-462 (1975)
4. Reinhold, J. G., Faraji, B., Abadi, P., and Ismail-Beigi, F. Binding of zinc to fiber and other solids of wholemeal bread. In: *Trace Elements in Human Health and Disease*. Ed. A. S. Prasad. Vol I. Zinc and Copper, Academic Press, New York (1976), pp. 163-180
5. Reinhold, J. G., Faraji, B., Abadi, P., and Ismail-Beigi, F. Decreased absorption of calcium, magnesium, zinc, and phosphorus consumption as wheat bread. J. Nutr. 106: 493-503 (1976)
6. Russell, R. M., Ismail-Beigi, F., Afrasiabi, K., Rahimifar, M., Pourkamal, D., and Rhonaghy, H. Folate levels among various populations in central Iran. Am. J. Clin. Nutr. 29: 794-798 (1976)
7. Russell, R. M., Ismail-Beigi, F., and Reinhold, J. G. Folic acid content of Iranian breads and the effect of such breads on folate absorption. Am. J. Clin. Nutr. 29: 799-802 (1976)
8. Ismail-Beigi, F., and Rahimifar, M. Normal conversion of thyroxine to triiodothyronine in a subject with iodotyrosine-dehalogenase deficiency. Pahlavi Med. J. 7: 484-490 (1976)
9. Russell, R. M., Abadi, P., and Ismail-Beigi, F. Role of bacterial overgrowth in malabsorption syndrome of primary small intestinal lymphoma. Cancer 39: 2579-2583 (1977)
10. Ismail-Beigi, F., and Rahimifar, M. A variant of iodotyrosine-dehalogenase deficiency. J. Clin. Endocrinol. Metab. 44: 499-505 (1977)
11. Haghshenass, M., Ismail-Beigi, F., Clegg, J. B., and Weatherall, D. J. Mild sickle-cell disease in Iran associated with high levels of fetal hemoglobin. J. Med. Genetics 14: 168-171 (1977)
12. Ismail-Beigi, F., Reinhold, J. G., Faraji, B., and Abadi, P. The effect of cellulose added to diets of low and high fiber content upon the metabolism of calcium, magnesium, zinc, and phosphorus by man. J. Nutr. 107: 510-518 (1977)
13. Ismail-Beigi, F., Faraji, B., and Reinhold, J. G. Binding of zinc and iron to wheat bread, wheat bran and their components. Am. J. Clin. Nutr. 30: 1721-1725 (1977)
14. Russell, R. M., and Ismail-Beigi, F. A review of the pathogenesis of folic acid deficiency: A problem in Iran? Pahlavi Med. J. 8: 255-270 (1977)
15. Dabastani, A., Toosi, Z., Haghshenass, M., and Ismail-Beigi, F. Acute leukemia in adults. Pahlavi Med. J. 9: 277-288 (1978)
16. Rejaee, A., Aliabadi, P., Mostafavi-Poor, H., and Ismail-Beigi, F. Tuberculous arthritis of the knee: A study of ten patients. Iranian J. Med. Sci. 13: 34-47 (1986)
17. Reinhold, J. G., Faraji, B., Abadi, P., and Ismail-Beigi, F. The Journal of Nutrition, Volume 106, 1976: Decreased absorption of calcium, magnesium, zinc, and phosphorus consumption as wheat bread [classical article]. Nutr. Rev. 49: 204-206 (1991)

18. Genuth, S., and Ismail-Beigi, F. A medical emancipation proclamation. Arch. Internal Medicine. 160:1703 (2000).
19. Ismail-Beigi, F. (Study Investigator). Riddle, M., Rosenstock, J., and Gerich, J. The treat-to-target trial. Randomized addition of glargine or human NPH insulin to oral therapy of type 2 diabetic patients. Diabetes Care 26: 3080-3086 (2003).
20. The ACCORD STUDY GROUP. The Action to Control Cardiovascular Risk in Diabetes Trial: A multidisciplinary approach to control of cardiovascular risk in type 2 diabetes mellitus. Practical Diabetology 23: 2-7 (2004).
21. Al-Arouj, M., Bouguerra, R., Buse, J., Hafez, S., Hassanein, M., Ibrahim-Asharaf, M., Ismail-Beigi, F., El-Kebbi, I., Al-Khatib, U., Kishawi, S., Al-Madani, A., Mishal, A. A., Al-Maskari, M., Ben-Nakhi, A., and Al-Rubean, K. Recommendations for management of diabetes during Ramadan. Diabetes Care 28: 2305-2311 (2005).
22. The BARI 2D STUDY GROUP. Treatment of Coronary Artery Disease and Type 2 Diabetes Mellitus: The Rationale for the Bypass Angioplasty Revascularization Investigation 2 Diabetes (BARI 2D) Trial. Am. J. Cardiol. 97 (Suppl. 12A): 1G-66G (2006).
23. The ACCORD STUDY GROUP. Rationale, Design, and Methods of the Action to Control Cardiovascular Risk in Diabetes (ACCORD) Trial. Am. J. Cardiol. 99 (Supplement 12A): 1i-122i (2007).
24. Gerstein, H. C., Riddle, M., Kendall, D. M., Cohen, R. M., Golland, R., Feinglos, M. N., Kirk, J. K., Hamilton, B. P., Ismail-Beigi, F., and Feeney, P. Glycemic Treatment Strategies in the Action to Control Cardiovascular Risk in Diabetes (ACCORD) Trial. Am. J. Cardiol. 99 (Supplement 12A): 34i-43i (2007).
25. The ACCORD STUDY GROUP (member of the writing team). Effects of Intensive Glucose Lowering in Type 2 Diabetes. N. Engl. J. Med. 358: 2545-2559 (2008).
26. Ismail-Beigi, F. and Moghissi, E. S. Glycemia Management and Cardiovascular Risk in Type 2 Diabetes: An Evolving Perspective. Endocr. Pract. 14: 639-643 (2008).
27. Kemp, D. E., Calíbrese, J. R., and Ismail-Beigi, F. Depressive Symptoms and Diabetes (Letter to the Editor). JAMA 300:2115-2116 (2008).
28. The BARI 2D STUDY GROUP. Baseline characteristics of patients with diabetes and coronary disease enrolled in the Bypass Angioplasty Revascularization Investigation 2 Diabetes (BARI 2D) trial. Am. Heart J. 156: 528-536 (2008).
29. Moghissi, E. S., Korytkowski, M. T., DiNardo, M., Einhorn, D, Hellman, R., Hirsch, I. B., Inzucchi, S. E., Ismail-Beigi, F., Kirkman, M. S., and Umpierrez, G. E. American Association of Clinical Endocrinologists and American Diabetes Association Consensus Statement on Inpatient Glycemic Control. Endocr. Practice. 15: 1-17 (2009).
30. BARI 2D Investigators. Pop-Busui, R., Lu, J., Lopes, N., and Jones, T. Prevalence of diabetic peripheral neuropathy and relation to glycemic control therapies at baseline in the BARI 2D cohort. J. Peripheral Nervous System. 14: 1-13 (2009).
31. Moghissi, E. S., Korytkowski, M. T., DiNardo, M., Einhorn, D, Hellman, R., Hirsch, I. B., Inzucchi, S. E., Ismail-Beigi, F., Kirkman, M. S., and Umpierrez, G. E. AACE/ADA

- Consensus Statement on Inpatient Glycemic Control. *Diabetes Care.* 32: 1119-1131 (2009).
32. Kemp, D. E., Calabrese, J. R., and Ismail-Beigi, F. Antidepressant response associated with pioglitazone: Support for an overlapping pathophysiology between major depression and metabolic syndrome (Letter to the Editor). *Am. J. Psych.* 166: 619 (2009).
 33. The BARI 2D Study Group. A randomized trial of therapies for type 2 diabetes and coronary artery disease. *N. Engl. J. Med.* 360: 2503-2515 (2009).
 34. Bonds, D. E., Miller, M. E., Bergenstal, R., Buse, J. B., Byington, R. P., Cutler, J., Dudl, R. J., Ismail-Beigi, F., Kimel, A. R., Hoogwerf, B., Horowitz, K., Savage, P. J., Seaquist, E. R., Simmons, D. L., Sivitz, W. I., and Speril-Hillen, J. M. The relationship between severe hypoglycemia and mortality in type 2 diabetes: The ACCORD Study. *Br. Med. J.*, in press. (2010); PMID: 20061358
 35. Calles-Escandon, J., Lovato, L. C., Ismail-Beigi, F., Simmons-Morton, D., Banerji, M., Bonds, D. E., Faylor, A., Fonseca, V., Cohen, R. M., Kendall, D., and Pop-Busui, R. Effects of intensive glycemia lowering on mortality in various baseline subgroups in the ACCORD trial. *Diabetes Care.* 33: 721-727 (2010); PMID: 20103550
 36. Miller, M. E., Bonds, D. E., Gerstein, H., Seaquist, E., Bergenstal, R., Calles, J., Childress, D., Craven, T., Cuddihy, R., Dailey, G., Feinglos, M., Ismail-Beigi, F., Largay, J., O'Connor, P., Paul, T., Savage, P., Schubart, U., Sood, S., and Genuth, S. Effect of HbA1C (A1C) level and baseline characteristics on the risk of severe hypoglycemia in the ACCORD Trial. *Br. Med. J.*, in press (2010); PMID: 20061360
 37. Krikorian, A., Ismail-Beigi, F., and Moghissi, E. S. Comparisons of different Insulin Infusion Protocols (IIP): A review of recent literature. *Current Opinion in Clinical Nutrition and Metabolic Care.* 13: 198-204 (2010); PMID: 20040862
 38. Ginsberg, H. N., Elam, M. B., Lovato, L. C., Crouse III, J. R., Leiter, L. A., Linz, P., Friedewald, W. T., Buse, J. B., Gerstein, H. C., Probstfield, J., Grimm, R. H., Ismail-Beigi, F., Bigger, J. T., Goff, Jr., D. C., Cushman, W. C., Simons-Morton, D. G., and Byington, R. P. Effects of Combination Lipid Therapy in Type 2 Diabetes Mellitus. *N. Engl. J. Med.* 362: 1563-1574 (2010); PMID: 20228404
 39. Cushman, W. C., Evans, G. W., Byington, R. P., Goff, Jr., D. C., Grimm, Jr. R. H., Cutler, J. A., Simons-Morton, D. G., Basile, J. N., Corson, M. A., Probstfield, J. L., Katz, L., Peterson, A., Friedewald, W. T., Buse, J. B., Bigger, J. T., Gerstein, H. C., and Ismail-Beigi, F. Effects of Intensive Blood-Pressure Control in Type 2 Diabetes Mellitus. *N. Engl. J. Med.* 362: 1575-1585 (2010); PMID: 20228401
 40. Abdelmannan, D., Tahboub, R., Genuth, S., and Ismail-Beigi, F. Effect of Dexamethasone on Oral Glucose Tolerance in Normal Individuals. *Endocr. Pract.* 16: 770-777 (2010); PMID: 20350917
 41. Ismail-Beigi, F., Craven, T., Banerji, M. A., Basile, J., Calles, J., Cohen, R. M., Cuddihy, R., Cushman, W. C., Genuth, S., Grimm, R. H., Hamilton, B. P., Hoogwerf, B., Karl, D., Katz, L., Krikorian, A., O'Connor, P., Pop-Busui, R., Schubart, U., Simmons, D., Taylor, H., Thomas, A., Weiss, D., and Hramiak, I., for the ACCORD trial Group. Effect of intensive treatment of hyperglycemia on microvascular complications of type 2 diabetes: an analysis of the ACCORD randomized trial. *Lancet.* 376: 419-430 (2010); PMID: 20594588

42. Nyalakonda, K., Sharma, T, and Ismail-Beigi, F. Preservation of Beta Cell Function in Type 2 Diabetes. *Endocr. Pract.* 16: 1038-1055 (2010); PMID: 21030360
43. The ACCORD Study Group and ACCORD Eye Study Group. Effects of Medical Therapies on Retinopathy Progression in Type 2 Diabetes. *N. Engl. J. Med.* 363:233-244 (2010); PMID: 20587587
44. Pop-Busui, R., and others for the ACCORD Study Group. Effect of Cardiac Autonomic Dysfunction on Mortality Risk in the Action to Control Cardiovascular Risk in Diabetes (ACCORD) Trial. *Diabetes Care.* 33: 1578-1584 (2010).
45. Wolfram, T., and Ismail-Beigi, F. Efficacy of Diets Containing High Amounts of Fiber in the Management of Type 2 Diabetes. *Endocr. Pract.* 17: 132-142 (2011)
46. O'Connor, P. J., Ismail-Beigi, F. Near-Normalization of Glucose and Microvascular Diabetes Complications: Data from ACCORD and ADVANCE. *Therapeutic Advances in Endocrinology and Metabolism.* 2: 17-26 (2011).
47. Ismail-Beigi, F. Action to Control Cardiovascular Risk in Diabetes (ACCORD) Trial: Clinical Implications. *Clin. Chem.* 57: 261-263 (2011); PMID: 20974799
48. O'Connor, P. J., Ismail-Beigi, F. Near-Normalization of Glucose and Microvascular Diabetes Complications: Data from ACCORD and ADVANCE. *Therapeutic Advances in Endocrinology and Metabolism.* *Clin Med Res.* 9:159-160 (2011); PMID: 22090573
49. Gerstein, H., Miller, M. E., Genuth, S., Ismail-Beigi, F., Buse, J. B., Goff, D. C., Probstfield, J. L., Cushman, W. C., Ginsberg, H. N., Bigger, J. T., Grimm, R. H., Byington, R. P., Rosenberg, Y. D., Friedewald, W. T. Long-Term Effects of Intensive Glucose Lowering on Cardiovascular Outcomes. *N. Engl. J. Med.* 364: 818-828 (2011); PMID: 21366473
50. Ismail-Beigi, F., Moghissi, E., Tiktin, M., Hirsch, I. B., Inzucchi, S., and Genuth, S. Individualizing Glycemic Targets in Type 2 Diabetes: Implications of Recent Clinical Trials. *Ann. Intern. Med.* 154: 554-559 (2011); PMID: 21502652
51. Handelsman Y., et al. F. Ismail-Beigi, Member of the Writing Team. American Association of Clinical Endocrinologists Medical Guidelines for Clinical Practice for Developing a Diabetes Mellitus Comprehensive Care Plan. *Endocr. Pract.* 17: 287-302 (2011); PMID: 21474420
52. Kemp, D. E., Ismail-Beigi, F., Ganocy, S. J., Conroy, C., Gao, K., Obral, S., Fein, E., Findling, R. L., and Calabrese, J. R. Use of Insulin Sensitizers for the Treatment of Major Depressive Disorder: A Pilot Study of Pioglitazone for Major Depression Accompanied by Abdominal Obesity. *J. Affect Disord.* 136: 1164-73 (2012); PMID: 21782251
53. Ismail-Beigi, F., Craven, T. E., O'Connor, P. J., Karl, D., Calles-Escandon, J., Hramiak, I, Genuth, S., Cushman, W. C., Gerstein, H. C., Probstfield, J. L., Katz, L., Schubart, U., for the ACCORD Study Group. Combined intensive blood pressure and glycemic control does not produce an additive benefit on microvascular outcomes in type 2 diabetic patients. *Kidney International.* 81: 586-594 (2012); PMID: 22166848

54. Coca, S. G., Haq, N., Ismail-Beigi, F., Thompson, A., Krumholz, H. M., Parikh, C. R. Intensive Glucose Control in Type 2 Diabetes and Benefits to the Kidney: Systematic Review and Meta-analysis. *Archives Internal Medicine*. 172:761-769 (2012); PMID: 22636820
55. Genuth, S., and Ismail-Beigi, F. Clinical Implications of the ACCORD Trial. *J. Clin. Endocrinol. Metab.* 97: 41-48 (2012); PMID: 22049171
56. Weinstock, T. G., Wang, X., Rueschman, M., Ismail-Beigi, F., Aylor, J., Babineau, D. C., Mehra, R., and Redline, S. A Controlled Trial of CPAP Therapy on Metabolic Control in Individuals with Impaired Glucose Tolerance and Sleep Apnea. *Sleep*. 35: 617-625 (2012); PMID: 22547887
57. Faghihimani, E., Aminorroaya, A., Rezvanian, H., Adibi, P., Ismail-Beigi, F., and Amini, M. Salsalate reduces insulin resistance and plasma glucose level in persons with prediabetes. *Endocr. Pract.* 18: 826-833 (2012). PMID: 22784842
58. Ismail-Beigi, F. Pathogenesis and Glycemic Management of Type 2 Diabetes Mellitus: A Physiological Approach. *Arch. Iran. Med.* 15: 239-46 (2012). PMID: 22424044
59. Punthakee, Z., Miller, M. E., Launer, L. J., Williamson, J. D., Lazar, R. M., Cukierman-Yaffee, T., Seaquist, E. R., Ismail-Beigi, F., Sullivan, M. D., Lovato, L. C., Bergenstal, R. M., Gerstein, H. C. Action to Control Cardiovascular Risk in Diabetes Memory in Diabetes (MIND) Study Group, and Action to Control Cardiovascular Risk in Diabetes Study Group Poor Cognitive Function and Risk of Severe Hypoglycaemia in Type 2 Diabetes in the ACCORD Trial. *Diabetes Care*. 35: 787-793 (2012); PMID: 22374637
60. Ismail-Beigi, F. Glycemic Management of Type 2 Diabetes. *N. Engl. J. Med.* 366: 1319-1327 (2012). PMID: 22475595
61. Bonds, D. E., Miller, M. E., Dudl, J., Feinglos, M., Ismail-Beigi, F., Malozowski, S., Seaquist, E., Simmons, D. L., and Sood, A. Severe hypoglycemia symptoms, antecedent behaviors, immediate consequences and association with glycemia medication usage: secondary analysis of the ACCORD clinical trial data. *BMC Endocr Disord.* 12:5 (2012); PMID: 22646230
62. Taheri, N., Aminorroaya, A., Ismail-Beigi, F., and Amini, M. Effect of dexamethasone on glucose homeostasis in normal and prediabetic individuals with a first-degree relative with type 2 diabetes. *Endocrine Practice* 18: 855-863 (2012). PMID: 22784841
63. Fonseca, V., McDuffie, R., Calles, J., Cohen, R. M., Feeney, P., Feinglos, M., Gerstein, H., Ismail-Beigi, F., Morgan, T., Pop-Busui, R., Riddle, M., and the ACCORD study group. Determinants of Weight Gain in the Action to Control Cardiovascular Risk in Diabetes (ACCORD) Trial. *Diabetes Care*. 36: 2162-2168 (2013). PMID: 23412077
64. Seaquist, E. R., Miller, M. E., Fonseca, V., Ismail-Beigi, F., Launer, L. J., Punthakee, Z., and Sood, A. Effect of Thiazolidinediones and Insulin on Cognitive Outcomes in ACCORD-MIND. *J. Diabetes Complications*. 27:485-491 (2013). PMID: 23680059
65. Barzilay, J. I., Lovato, J., Murray, A. M., Williamson, J., Ismail-Beigi, F., Karl, D., Papademetriou, V., and Launer, L. J. Albuminuria and Cognitive Decline in People with

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