

GEORGE GRUNBERGER, M.D., F.A.C.P., F.A.C.E.

Chairman, Grunberger Diabetes Institute
Clinical Professor, Department of Internal Medicine
Clinical Professor, Center for Molecular Medicine & Genetics
Wayne State University School of Medicine
Professor, Department of Internal Medicine
Oakland University William Beaumont School of Medicine
Visiting Professor, First Faculty of Medicine
Charles University, Prague (Czech Republic)

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EDUCATION

1973 BA degree (Biochemistry), Columbia College, New York, NY
1977 MD degree, New York University School of Medicine, New York, NY

TRAINING

1977-1980 Residency, Internal Medicine
Case Western Reserve University
University Hospitals of Cleveland, Cleveland, Ohio
1980-1983 Fellowship (clinical and basic research), Endocrinology and Metabolism,
Diabetes Branch, National Institute of Arthritis, Diabetes, Digestive and Kidney Diseases
National Institutes of Health, Bethesda, Maryland

FACULTY APPOINTMENTS,

Wayne State University, Detroit, Michigan

1986-1992 Associate Professor (tenured), Department of Internal Medicine
Associate Professor (tenured), Department of Molecular Biology and Genetics
1992-2002 Professor (tenured), Department of Internal Medicine
1995-1996 Interim Chairman, Department of Internal Medicine
1992-1994 Professor (tenured), Department of Molecular Biology & Genetics
1994-present Professor (tenured), Center for Molecular Medicine & Genetics
1986-present Regular member of the Graduate Faculty (appointed 1986-1991, reappointed 1991, reappointed 1996, reappointed 2001)
1986-2002 Associate, Department of Physiology
1990-2002 Adjunct Graduate Faculty, Department of Nutrition and Food Sciences
1997-2000 Director, Center for Molecular Medicine and Genetics
1998-2002 Henry L. Brasza Professor
2002-present Clinical Professor, Department of Internal Medicine, Center for Molecular Medicine & Genetics

Oakland University William Beaumont School of Medicine, Rochester, Michigan

2011-present Professor, Internal Medicine

Charles University, Prague, Czech Republic

2015-present Visiting Professor, First Faculty of Medicine

HOSPITAL OR OTHER PROFESSIONAL APPOINTMENTS

1983-1986 Senior Clinical Associate, the Clinical Center, National Institutes of Health, Bethesda, Maryland
1986-2002 Director, Diabetes Program, Division of Endocrinology, Metabolism and Hypertension,
Department of Internal Medicine, Wayne State University
1986-2002 Medical Director, Diabetes Program, Harper Hospital/Detroit Medical Center, Detroit, Michigan
1987-1993 Chief Medical Director, Weight Management Program, Department of Internal Medicine,
Wayne State University School of Medicine
1991-1995 Vice-Chief, Section of Endocrinology, Harper Hospital, Detroit, Michigan
1995-1996 Physician-in-Chief, The Detroit Medical Center
1986-2003 Medical Staff, Detroit Receiving Hospital, Detroit, Michigan
1986-2003 Medical Staff, Hutzel Hospital, Detroit, Michigan
1989-2002 Medical Staff, Bon Secours Cottage Hospital, Grosse Pointe, Michigan
2003-present Medical Staff, William Beaumont Hospital, Royal Oak, Michigan
2002-2010 Medical Staff, St. Joseph Mercy - Oakland

2002-present Chairman – Grunberger Diabetes Institute

MAJOR PROFESSIONAL SOCIETIES, current

American Diabetes Association

The Endocrine Society

American College of Physicians (as of 1989, Fellow)

European Association for the Study of Diabetes

American Association of Clinical Endocrinologists (as of 2000, Fellow of the American College of Endocrinology)

LICENSURE & BOARD CERTIFICATION

Past licensure - States of Maryland and Ohio

Current licensure - State of Michigan

1978 - Diplomate, National Board of Medical Examiners

1980 - Diplomate, American Board of Internal Medicine

HONORS AND AWARDS

1983 American Diabetes Association, Distinguished Service Citation

1987 Session Chair, Annual Meeting, American Diabetes Association, Session Chair, Annual Meeting, The Endocrine Society

1988 Session Chair, Annual Meeting, American Diabetes Association, Session Chair, Annual Meeting, The Endocrine Society

1991 Moderator, Diabetic Foot Problems, a satellite symposium of the 14th International Diabetes Federation Congress

1992 Foundation for Promotion of Cancer Research Fellowship Award, Tokyo, Japan

1992 American Diabetes Association, Michigan Affiliate Meritorious Award

1995 American Diabetes Association Outstanding Leadership Award

1998 Session Chair, VII International Symposium on Insulin Receptors & Insulin Action

2001 American Diabetes Association – Award for Dedication to the Health and Well-Being of People with Diabetes

2001-present Elected by his peers for inclusion in the Best Doctors in America® each year from 2001 to 2016

2017 *Prima Vitae* Award from American College of Endocrinology Foundation

2018 Honorary Membership, the Czech Diabetological Society

SERVICE

Patient Care

1986-2002 Daily patient contact
Additionally, outpatient diabetes practice - 4 days/week
endocrinology rounding - 3 months/year
Bon Secours Hospital - endocrinology consults

2002-present Full-time clinical practice

Journal Editorship

2002-present Editorial Board, *Practical Diabetology*

2003-present Co-Editor, *Diabetes/Metabolism Research and Reviews*

2012-present Associate Editor, *Journal of Diabetes*

Reviewer, major national journals, current

Diabetes

J Clin Endocrinol Metabol

Diabetes Care

Diabetes/Metabolism Research and Reviews

Diabetes, Obesity, Metabolism

Endocrine Practice

Reviewer, ad hoc, research grants, current

National Institutes of Health

American Diabetes Association

BOARDS AND COMMITTEES

National level

1988	Veterans Administration, Washington, D.C., Merit Review Board (Endocrinology)
1991	National Institutes of Health (NIDDK/AHR) Review Committee, Bethesda, MD
1991	National Institutes of Health (NIDDK/RFA 91-05) Review Committee
1993	National Institutes of Health (NIDDK/DK 93-12) Review Committee
1994	National Institutes of Health Endocrinology Study Section
1999	National Institutes of Health (NIDDK/DK 98-021) Review Committee
2001	National Institutes of Health (NCCAM ZAT1 E) Study Section
1993	Veterans Administration, Merit Grants review (Endocrinology)
1995	Veterans Administration, Merit Grants review (Endocrinology)
1992-1995	American Diabetes Association - Board of Directors
1992-1994	American Diabetes Association - Professional Practice Committee
1990-1992 and 1994-1996	American Diabetes Association - Research Policy Committee
1992-1995	American Diabetes Association/National Heart, Lung & Blood Institute National Faculty for "Cardiovascular Risk Factor Management" Program
1994-1995	American Diabetes Association - Vice Chair, Council on Clinical Endocrinology, Diabetes and Metabolism
1995-2001	American Diabetes Association, Reviewer, abstracts for the Annual Scientific Meeting
1996-2000	American Diabetes Association - Scientific and Medical Meetings Oversight Committee
1997-2000	American Diabetes Association – Chair, Scientific and Medical Meetings Oversight Committee
1999.	American Diabetes Association - Nominating Committee
2000-2002	American Diabetes Association – Publications Policy Committee
1998.	American Diabetes Association – Great Lakes Region Design Team
2000	Association of Program Directors in Endocrinology & Metabolism – Curriculum Development Committee
2000-2002	American Board of Internal Medicine – Diabetes Management Improvement Module
2001-2002	American Association of Clinical Endocrinologists – Coding Committee
2002-2005	American Association of Clinical Endocrinologists – Clinical and Practice Management Initiatives Committee
2004-2012	American Association of Clinical Endocrinologists – Clinical Research Committee
2004-2011	American Association of Clinical Endocrinologists – Intensive Insulin Management Guidelines Task Force
2004-2014	American Association of Clinical Endocrinologists – Public and Media Relations Committee
2005-2012	American Association of Clinical Endocrinologists – Educational Initiatives Committee
2006-2012	American Association of Clinical Endocrinologists – Board of Directors
2006-2008	Medical Director, United Physicians Research Institute
2006-2013	Maximax International – Executive Medical Director
2006-2009	American Association of Clinical Endocrinologists – Chapters Steering Committee, Vice-Chair
2009-2011	American Association of Clinical Endocrinologists – Chapters Steering Committee, Chairman
2011-2018	American Association of Clinical Endocrinologists – AACE Education Services Committee
2011-2012	American Association of Clinical Endocrinologists -Task Force for Global Data Registry
2010-2012	American Association of Clinical Endocrinologists – Diabetes Council Scientific Advisory Group
2010-2018	American Association of Clinical Endocrinologists – Diabetes Resource Center Task Force
2009-2018	American Association of Clinical Endocrinologists - Continuous Glucose Monitoring Task Force
2012-2013	American Association of Clinical Endocrinologists – AACE Education Services Committee - Chairman
2011-2015	American Association of Clinical Endocrinologists/American College of Endocrinology – Awards Committee
2010-2018	American Association of Clinical Endocrinologists – Corporate AACE Partnership Steering Committee (2014-2015, Co-Chair)
2011-2014	American Association of Clinical Endocrinologists – Chapters Committee
2009-present	American Association of Clinical Endocrinologists – Insulin Pump Therapy & Management Patient Safety Task Force - Chairman

2009-2015 American Association of Clinical Endocrinologists - Primary Care Physician Education Committee, Chairman
 2010-2017 American Association of Clinical Endocrinologists - Liaison to the FDA
 2010-present American Association of Clinical Endocrinologists - Clinical Practice Guidelines for Developing Diabetes Comprehensive Care Plan
 2010-2017 American Association of Clinical Endocrinologists – Annual Meeting Clinical Congress Program Committee – (Chairman, Committee for 2012 Annual Meeting)
 2012-2018 AACE/ACE – Diabetes Scientific Committee
 2012-2013 American Association of Clinical Endocrinologists – Treasurer

BOARDS AND COMMITTEES (cont'd)

National level

2012-2018 American Association of Clinical Endocrinologists – Finance Committee (Chairman 2012-2013)
 2012-2017 American Association of Clinical Endocrinologists – FDA Issues Committee – Chairman
 2012-2017 American Association of Clinical Endocrinologists – NDEP Strategic Directions Group - Liaison
 2012-2013 American Association of Clinical Endocrinologists - Task Force for FDA Draft Guidance on Bio-similar Product Development
 2012-2013 American Association of Clinical Endocrinologists - Task Force for Revenue Development
 2012-2018 American Association of Clinical Endocrinologists - Diabetes Resource Center Committee
 2012-2018 American Association of Clinical Endocrinologists - Executive Committee
 2013-2018 American Association of Clinical Endocrinologists - AACE Educational Institute
 2012-present American Association of Clinical Endocrinologists - Task Force on the Comprehensive Diabetes Management Algorithm
 2012-2013 American Association of Clinical Endocrinologists - Task Force on Retired/Senior/Emeritus Membership Categories
 2012-2015 American Association of Clinical Endocrinologists - Task Force on Obesity Education Steering Committee
 2012-2013 American Association of Clinical Endocrinologists - Task Force to Develop Primary Care Physician Educational Incretin Programs
 2012-2013 American College of Endocrinology – Secretary/Treasurer
 2012-2013 American College of Endocrinology – Finance Committee- Chairman
 2012-2013 American College of Endocrinology – Funding Development Committee – Secretary/Treasurer
 2013-2018 AACE/ACE - Lipid Scientific Committee
 2013-2018 AACE/ACE - Obesity Scientific Committee
 2013-present American Association of Clinical Endocrinologists - JDRF - representative
 2013-2015 American Association of Clinical Endocrinologists - Council on Clinical Practice & Research
 2013-2015 American Association of Clinical Endocrinologists - Council on Education
 2013-2014 American Association of Clinical Endocrinologists - Task Force re AACE Obesity Consensus Conference
 2013-2014 American Association of Clinical Endocrinologists - Vice President
 2014-2015 American Association of Clinical Endocrinologists - President Elect
 2015-2016 American Association of Clinical Endocrinologists - President
 2016-2017 American Association of Clinical Endocrinologists - Immediate Past President
 2016-2017 American Association of Clinical Endocrinologists - Chair, Nominating Committee
 2015-2017 American Association of Clinical Endocrinologists -Public Relations Oversight and Rapid Response Committee
 2016-2018 American Association of Clinical Endocrinologists - Awards Committee (2016-2017, Chair)
 2016-2017 American Association of Clinical Endocrinologists - Chair, CEO Search Committee
 2015-present American College of Endocrinology - Endocrine University Program Committee
 2016-2017 American College of Endocrinology - Chancellor
 2017-present American Association of Clinical Endocrinologists - Past President
 2017-2018 American College of Endocrinology - Nominating Committee
 2017-2018 American College of Endocrinology - President Elect
 2017-2018 American Association of Clinical Endocrinologists - Task Force on the Use of Follow-on Biologics and Biosimilars for Endocrine Diseases
 2018-present American Association of Clinical Endocrinologists - Past Presidents Council
 2018-present American Association of Clinical Endocrinologists - Board of Trustees
 2018-present American Association of Clinical Endocrinologists - Chair, Disease State Oversight Committee
 2017-present American Association of Clinical Endocrinologists - Task Force to Develop Lipid Algorithm
 2018-present American Association of Clinical Endocrinologists - 2019 Annual Meeting Clinical Congress Program Subcommittee
 2017-present American Association of Clinical Endocrinologists – FDA Liaison

2013-present FDA - Center for Drug Evaluation and Research Special Government Employee
 2018-present FDA - member, Clinical Chemistry and Clinical Toxicology Devices panel, Center for Devices and Radiological Health
 2015-present NIH/NIDDK - Diabetes Prevention Program Outcomes Study - Data Safety Monitoring Board

State level

1986-1999 Board of Directors, American Diabetes Association, Michigan Affiliate
 1995-1997 Vice President, American Diabetes Association, Michigan Affiliate
 1997-1999 President, American Diabetes Association, Michigan Affiliate
 1987-1990 Chairman, Scientific Review Committee, American Diabetes Association, Michigan Affiliate
 1990-1994 Chairman, Research Policy Committee, American Diabetes Association, Michigan Affiliate
 1987-1993 Founder & President, Diabetes Club of Michigan

BOARDS AND COMMITTEES (cont'd)

1991-1993 Executive Committee and Board of Directors, Coalition for Diabetes Education & Minority Health
 2002. Co-chair, Diabetes Committee, Greater Detroit Area Health Council/Health Care Quality Forum
 2005-2006 American Association of Clinical Endocrinologists – Co-Chair, Michigan Chapter
 2006-2011 American Association of Clinical Endocrinologists – President, Michigan Chapter
 2011-2012 American Association of Clinical Endocrinologists – Immediate Past President, Michigan Chapter
 2010-2014 Juvenile Diabetes Research Foundation – Board of Directors

Wayne State University-wide level

1989 Graduate Assistantship Review Committee
 1990 Internal Review Committee, Department of Molecular Biology & Genetics
 1990 and 1993 Internal Review Committee, Plastic and Reconstructive Surgery Residency
 1993 Supplemental Research Equipment Fund Review Committee
 1994 -1997 Hearing Panel
 1996-1997 Interim Director, Center for Molecular Medicine & Genetics
 1997-2000 Director, Center for Molecular Medicine & Genetics
 1997-1999 Director, Center for Clinical Research
 1998 Chair, Internal Review Committee, Department of Nutrition and Food Sciences
 1999 Internal Review Committee, Department of Ophthalmology
 2000-2002 Chair, C.S. Mott Center for Human Growth and Development Advisory Committee

Wayne State University School of Medicine level

1990 Co-Chair, Faculty Research Equipment Campaign, Wayne State University School of Medicine
 1991-1992 Search Committee for the Chairman, Department of Internal Medicine, Wayne State University
 1991-2001 Chairman, The Diabetes Committee, The Detroit Medical Center/ Wayne State University School of Medicine
 1992-1995 Executive Committee, Faculty Senate, Wayne State University School of Medicine
 1992-1996 Research Development Committee, Faculty Senate, Wayne State University School of Medicine
 1994-1995 Chairman, Merit Salary Review Committee, Wayne State University School of Medicine
 1994-1995 Chairman, Promotion & Tenure Committee, Wayne State University School of Medicine
 1995-2000 Council of Departmental Chairs
 1995-1999 Council of Specialists-in-Chief
 1999 Promotion Committee (medical students), Wayne State University School of Medicine
 1999-2000 Chair, Basic Science Chairs

Department of Internal Medicine level

1988-1992 Chairman, Research Committee, Department of Internal Medicine
 1987-1994 Promotion and Tenure Committee, Department of Internal Medicine
 1993-1994 Board of Directors, Affiliated Internists
 1995-1996 Interim Chairman, Department of Internal Medicine
 1995-1996 President, Affiliated Internists

Department of Molecular Biology & Genetics level

1990-1992 Human and Animal Investigation Committee
 1993-1994 Molecular Medicine Liaison Committee
 1993-1994 Advisory/Strategic Planning Committee

Center of Molecular Medicine & Genetics level

1994-1996 Molecular Medicine Liaison Committee

1995-1996 Associate Director
1996-1997 Interim Director
1997-2000 Director

The Detroit Medical Center (DMC) level

1987-1991 Chairman, Pancreas Transplantation Committee, Member, Transplantation Committee The Detroit Medical Center
1995-1996 DMC Medical Board
1995-1997 Central Region Ambulatory Planning Committee
1995-1996 Interim Physician-in-Chief
1996-1997 Central Region Advisory Board

Harper Hospital level

1986-2001 Medical Director, Diabetes Program
1987-1996 Research Committee, Harper-Grace Hospitals, Detroit, Michigan

BOARDS AND COMMITTEES (cont'd)

1987-1994 Dietetic Internship Committee, Harper Hospital
1989-1992 Laboratory Utilization Committee, Harper Hospital
1991-1992 Nutrition Advisory Committee, Harper Hospital
1991-1995 Board of Trustees, Harper Staff Trust Fund, Harper Hospital
1993-1994 Laboratory Utilization, Quality Enhancement/Clinical Resource Management, Harper Hospital
1994-1996 Cardiovascular/Diabetes team, Quality Enhancement/Clinical Resource Management Committee Harper Hospital

St. Joseph Mercy – Oakland

2002-2007 Institutional Review Board/Research Committee

Others

2000 Detroit Medical Club – Secretary
2000-2003 Detroit Academy of Medicine – Secretary & Treasurer
2003-2004 Detroit Academy of Medicine – President-Elect
2004-2005 Detroit Academy of Medicine - President

2009 Juvenile Diabetes Research Foundation - Session Chair for “Diabetes Today and Tomorrow” conference (1,100 attendees)
2010 Juvenile Diabetes Research Foundation - Program Co-chair for “Diabetes Today and Tomorrow” conference (1,500 attendees)
2011-2016 Juvenile Diabetes Research Foundation - Session Chair for “Diabetes Today and Tomorrow” conference (1,500 attendees)

TEACHING (selected activity)

Sixteen years (full-time faculty) at Wayne State University (1986-2002)

2002 – 2016: teaching in selected courses at the Wayne State University Graduate School (Physiology, Pathology, etc.) and School of Medicine (year 1 biochemistry)

Courses conceived, curriculum developed and taught, Wayne State University Graduate School

Department of Molecular Biology & Genetics
-"Molecular Biology of Cellular Signaling", MBG #740
Graduate School, Fall semester, 1987 (28 hours)
-"Molecular Biology of Cellular Signaling", MBG #740
Graduate School, Fall semester, 1989 (28 hours)
-"Molecular Biology of Cellular Signaling", MBG #740
Graduate School, Fall semester, 1991 (28 hours)
-"Molecular Biology of Cellular Signaling", MBG #740
Graduate School, Fall semester, 1993 (27 hours)
-"Molecular Biology of Cellular Signaling", MBG #740
Graduate School, Fall semester, 1995 (27 hours)

- "Molecular Biology of Cellular Signaling", MBG #740
Graduate School, Fall semester, 1997 (28 hours)
- "Molecular Biology of Cellular Signaling", MBG #7400
Graduate School, Fall semester, 2000 (29 hours)

Other teaching, Wayne State University Graduate School

- "Molecular Biology of Cancer", MBG #712
Graduate School, Spring semester, 1991 (6 hours);
Spring semester, 1993 (6 hours)
- "Advanced Human Genetics," MBG #760
Graduate School, Winter semester, 1992 (2 hours),
Winter semester, 1994 (2 hours)
- "Cancer Biology II", CB #721
Graduate School, Spring semester, 1993 (2 hours)
- "Cancer Biology II", Biological Sciences #565
Graduate School, Spring semester, 1993 (2 hours)
Spring semester, 1995 (2 hours)
- "Molecular Biology of Cancer", CB #722

TEACHING (cont'd)

- Graduate School, Spring semester, 1993 (6 hours)
- "Biomedical Cell Biology, IBS #7020 (Signaling section leader)
Graduate School, Fall semester, 1998 (7 hours)
Graduate School, Fall semester, 1999 (7 hours)
Graduate School, Fall semester, 2000 (5 hours)
- A variety of lectures in the graduate courses of Departments of Molecular Biology & Genetics,

Physiology, Immunology and Microbiology, Pharmacy, Pathology, Nutrition and Food Science, etc., 1986-2002 (average 10-15 contact hours per year)

Teaching, Wayne State University School of Medicine - Undergraduate (medical students)

- Clinical Correlation mini-symposium (3 hours)
1st year medical students, 1997-2002
- Pathophysiology of Diabetes Mellitus and Hypoglycemia (lectures and workshops)
2nd year medical students, 1987-2002
- Physical Diagnosis
2nd year medical students, 1987-1996
- Internal Medicine rounding, 3rd and 4th year medical students
Detroit Receiving Hospital, 1987-1989 (1 month each year)
Harper Hospital, 1988 (1 month), 1993 (1 month), 1995 (1 month), 1996 (1 month)
- Endocrinology attending/rounding (3 months each year),
4th year medical students, 1986-2002

Teaching, Oakland University William Beaumont School of Medicine (2nd year medical students)
2011 - present Endocrinology course: Glucose homeostasis

Teaching, School of Medicine - postgraduate (residents)

- Internal Medicine and Endocrinology rounding (as above)
- Endocrinology lectures (monthly for Endocrine elective)
1987-2001 (every 4 weeks)
- Endocrinology lectures, Bon Secours Hospital Family Medicine residents
1987-1998 (every 3 - 4 weeks)
- Internal Medicine Annual Comprehensive Review
1987-1997, 2000, 2001, 2002, 2003, 2007, 2008

Thesis/Dissertations directed

- Maria L. Terry, B.A.
Master's thesis, "Bioeffects of diacylglycerols in rat adipocytes", 1986-1988
- Karoly Nagy, M.D.
Doctoral thesis (Ph.D.), "Regulation of protein kinase C activity in human diabetes mellitus", 1988-1990
- Diane D. Deutsch, M.S.
Doctoral thesis (Ph.D.), "Natural human inhibitor of insulin receptor tyrosine kinase", 1990-1996
- Suresh Mathews, Ph.D.

Postdoctoral level, "Regulation of the insulin receptor tyrosine kinase inhibitor in freshly isolated hepatocytes", 1994-2002 (currently Assistant Professor, Auburn University)

- P.R. Srinivas, Ph.D.

Postdoctoral level, "Natural human inhibitor of insulin receptor tyrosine kinase", 1991-1995; appointed to faculty 1995 (Assistant Professor, Internal Medicine 1995-1998; currently special fellow, National Cancer Institute/NIH)

- Vivian Cintrón, B.S.

Doctoral thesis (Ph.D.), Characterization and mapping of the mouse " α_2 -HS-glycoprotein gene and its product" 1994-1998 (postdoctoral fellowship, Diabetes Branch, NIDDK, NIH; currently research associate Eli Lilly & Co.)

- Xiaoling Qiang, Ph.D.

Postdoctoral level, "C-peptide signaling", 1999-2001 (currently research associate, North Shore – Long Island Jewish health System)

- Zhen-guo Li, Ph.D.

Postdoctoral level, "C-peptide signaling", 1999-2001 (currently Assistant Professor, Neurology, Wayne State University School of Medicine)

- Xiaohua Zhou, Ph.D.

Postdoctoral level, "Insulin signaling in aged fetuin-null mice", 2001-2002

Doctoral (Ph.D.) committee, Graduate School

-Steven A. Silletti, B.S.

"Tumor autocrine motility factor receptor", 1991-1994

TEACHING (cont'd)

-Hairong Geng, B.S.

"Role of EGF receptor in ornithine decarboxylase-introduced tumorigenesis", 1996-1998

Master's committee, Graduate School

-Arthur Tessier, B.S.

"Intracellular signaling", 1992

-David G. Karustis, B.S.

"IGF-I and IGF-I receptor Signaling", 1995-1996

Continuing Medical Education course organized and directed:

Selected programs:

"Update in Diabetes Management 1987" (7 CME hours) - February 1987

"Diabetes: 1987 Answers to old problems" (4 CME hours) - December 1987

"Diabetes Update - Questions for 1991" (5.5 CME hours) - April 1991

"Cardiovascular Risk Factor Management" (4 CME hours) - March 1993

"Diabetes Mellitus: Getting Ready for the Millennium" (5 CME hours) - May 1998

"International Motor City Diabetes Symposium" (8.5 CME hours) - October 1998

"Second Annual International Motor City Diabetes Symposium" (9.5 CME hours) – October 1999

"Third Annual International Motor City Diabetes Symposium" (7 CME hours) – October 2000

"Fourth Annual International Motor City Diabetes Symposium" (6.5 CME hours) – October 2001

"What's New in Prevention and Treatment of Diabetes?" (4 CME hours) – September 2003

"Diabetes Day for primary care physicians" -AACE program (4.25 CME hours) - June 2009

"Diabetes Day for primary care physicians" - AACE program (4.25 CME hours) - May 2010

GRANT SUPPORT

Grants approved and funded only

1. History

American Diabetes Association

"Modulation of the insulin receptor function by diacylglycerols in diabetic patients: Effect of improved metabolic control"

Principal Investigator: George Grunberger, MD

\$50,000 (direct cost); 1986-1988

Foundation for Medical Research and Education

"Biological actions of insulin in mammalian cells mutated by chemical carcinogens"

Principal Investigator: George Grunberger, MD

\$15,000 (direct cost); 1986-1987

National Institutes of Health, Biomedical Research Support Grant (S07 RR05384-24)

"Bioeffects of diacylglycerols in rat adipocytes"

Principal Investigator: George Grunberger, MD

\$20,000 (direct cost); 1986-1987

National Institutes of Health, Biomedical Research Support Grant

"Diabetes research program"

Principal Investigator: George Grunberger, MD

\$300,000 (direct cost); 1986-1989

Upjohn Company (M 5200/0111)

"Control of glycemia in Type II diabetes by intermittent administration of glyburide" (competitive, investigator-initiated)

Principal Investigator: George Grunberger, MD

\$80,000 (total cost); 1987-1990

Research Equipment Award, Wayne State University

\$55,000 (direct cost), 1987 (with Drs. Levy, Sowers, Luk, McDonald, Zemel, Cadnapaphornchai)

Research Equipment Award, Wayne State University

\$37,308 (direct cost); 1987 (with Dr. Luk)

Lipha Chemicals (87-2D-6023)

"A double-blind, placebo-controlled, randomized, parallel group study of metformin in combination with glyburide in the control of obese, type II diabetes mellitus (NIDDM) patients"

Principal Investigator: George Grunberger, MD

\$79,000 (total cost); 1988-1990

Research Equipment Award, Wayne State University

Principal Investigator: George Grunberger, MD

\$18,000 (direct cost); 1988

Diabetes Research and Education Foundation

"Modulation of protein kinase C in human Type II diabetes"

Principal Investigator: George Grunberger, MD

\$20,000 (direct cost); 1988-1989

American Diabetes Association Michigan Affiliate

"Insulin Signaling in Diabetes Mellitus"

Principal Investigator: George Grunberger, MD

\$24,869 (direct cost); 1988-1989

Squibb-Novo (503)

"A comparison of Novolin 70/30 with NPH in the treatment of patients with Type II diabetes mellitus."

Principal Investigator: George Grunberger, MD

\$18,000 (total cost); 1988-1990

Pfizer Pharmaceuticals (88-R-022)

"Effect of glipizide on insulin resistance in hypertensive patient with Type II diabetes mellitus" (competitive, investigator-initiated)

GRANT SUPPORT - (cont'd)

Principal Investigator: George Grunberger, MD
\$78,777 (total cost); 1988-1990

Research Equipment Award, Wayne State University
Principal Investigator: George Grunberger, MD
\$8,900 (direct cost); 1989

Research Equipment Award, Wayne State University
Principal Investigator: George Grunberger, MD
\$2,650 (direct cost); 1989

Research Equipment Award, Wayne State University
\$15,650 (direct cost); 1989 (with Drs. Sowers, Santora, Kasim, Levy, Jacobs, Bagchi, Rydstedt, Walsh)

Squibb-Novo (314)
"Clinical experience with NovolinPen in the treatment of IDDM and NIDDM"
Principal Investigator: George Grunberger, MD
\$29,200 (total cost); 1990-1991

Research Equipment Award, Wayne State University
Principal Investigator: George Grunberger, MD
\$9,400 (total cost); 1990

Research Equipment Award, Wayne State University
Principal Investigator: George Grunberger, MD
\$9,100 (total cost); 1990

American Diabetes Association Michigan Affiliate "pp63: An inhibitor of insulin receptor tyrosine kinase"
Principal Investigator: George Grunberger, MD
\$9,000 (total cost) - graduate student training fellowship; 1990-1991

American Diabetes Association Michigan Affiliate, "Effect of diabetes on the dysfunctional left ventricle"
Co-Investigator: George Grunberger, MD
(P.I.: Steven J. Lavine, MD)
\$24,647 (total cost); 1990-1991

Research Equipment Award, Wayne State University
Principal Investigator: George Grunberger, MD
\$18,413 (direct cost); 1991 (with Drs. Sowers, Kasim, Schiebinger, Peuler)

Center for Molecular Biology
"Natural human insulin receptor tyrosine kinase inhibitor (pp63)"
Co-Investigator: George Grunberger, MD
(P.I.: A. Scott Goustin, PhD)
\$23,430 (total cost); 1991-1992

Wayne State University, "Graduate Research Assistant" Award
Principal Investigator: George Grunberger, MD
\$12,000 plus 1-year tuition assistance and health insurance for a graduate student; 1991-1992

Upjohn (M5220/0003)
"Pharmacokinetics and pharmacodynamics of glimepiride in non-insulin-dependent diabetes mellitus subjects"
Co-Investigator: George Grunberger, MD
(P.I.: Linda A. Jaber, Pharm D)
\$81,014 (total cost); 1992

Research Equipment Award, Wayne State University

Co-investigator: George Grunberger, MD
\$6,585 (direct cost); 1992

GRANT SUPPORT - (cont'd)

National Institutes of Health (1 R29 DK 40046-01)
"Nutrition, obesity and gestational diabetes in rats"
Co-Investigator: George Grunberger, MD (10% effort)
(P.I.: K-LC Jen, PhD)
\$349,912 (total cost); 1988-1993

National Institutes of Health (1 R01 AG10428)
"Prevention and control of physical frailty in minority aged"
Co-Investigator: George Grunberger, MD (5% effort)
(P.I.: John B. Waller, DPH)
\$199,966 (total cost); 1992-1993

Lipha Chemicals (89-1C-6023)
"The safety and effectiveness of long-term, open-labeled metformin treatment in obese, non-insulin dependent, diabetes mellitus (NIDDM) patients"
Principal Investigator: George Grunberger, MD (5% effort)
\$112,940 (total cost); 1989-1993

Pfizer Pharmaceuticals (88-SM-209)
"The effect of glipizide in preventing the development of non-insulin dependent diabetes mellitus (NIDDM) in patients with impaired glucose tolerance (IGT)"
Principal Investigator: George Grunberger, MD (5% effort)
\$70,800 (total cost); 1989-1993

Wayne State University
External Graduate Support
Principal Investigator: George Grunberger, MD
\$2,000; 1993

Novo Nordisk
"Randomized clinical trial of the safety and benefits of injecting insulin through clothing"
Principal Investigator: George Grunberger, MD (5% effort)
\$7,000; 1993-1994

National Institutes of Health (2 R01 HD 24497-04)
"Insulin resistance and altered cellular calcium metabolism in pregnancy"
Co-Investigator: George Grunberger, MD (10% effort)
(P.I.: James R. Sowers, MD)
\$356,372 (total cost); 1991-1994

Eli Lilly (F3Z-MC-I0AF)
"LY275585 vs. Humulin R: Premeal therapy in new patients with type II diabetes"
Principal Investigator: George Grunberger, MD (5% effort)
\$64,983 (total cost); 1993-1995

Miles (D92-014)
"Double-blind, placebo-controlled study of the efficacy, tolerability and safety of miglitol in the treatment of elderly patients with mild non-insulin-dependent diabetes mellitus inadequately controlled with diet alone"
Principal Investigator: George Grunberger, MD (5% effort)
\$120,000 (total cost); 1993-1995

Wyeth-Ayerst (812-A-104 US)
"Randomized, multiple-dose, placebo-controlled, double-blind parallel group study of the safety, tolerance, pharmacokinetics, and pharmacodynamics of ARI-509 in diabetic patients"
Principal Investigator: George Grunberger, MD (5% effort)
\$144,351 (total cost); 1994-1995

National Institutes of Health (1 R01 DK44382)
"Natural insulin receptor tyrosine kinase inhibitor"
Principal Investigator: George Grunberger, MD (25% effort)

\$407,172 (total cost); 1992-1995

GRANT SUPPORT - (cont'd)

Hoffmann - La Roche (BM14330A)

"Double-blind, parallel, multicenter comparison of two doses of acetyl-L-carnitine with placebo in the prevention of progression and treatment of diabetic peripheral neuropathy after 52 weeks of therapy"

Principal Investigator: George Grunberger, MD (5% effort)

\$367,610 (total cost); 1994-1996

Hoffmann-La Roche (BM15006A)

"Safety, tolerability and efficacy trial of acetyl-L-carnitine in patients with diabetic peripheral neuropathy receiving 52 weeks of therapy"

Principal Investigator: George Grunberger, MD (5% effort)

\$31,283 (total cost); 1995-1996

Hoffmann - La Roche (NC14975)

"The antihypertensive efficacy and safety of mibefradil in comparison with amlodipine in patients with mild to moderate essential hypertension"

Principal Investigator: George Grunberger, MD (5% effort)

\$53,540 (total cost); 1995-1996

Wyeth-Ayerst (81-084, 81-085, 84-196, 84-197 CR)

Efficacy and safety of tolrestat in the prevention and treatment of diabetic retinopathy in insulin-dependent and non-insulin-dependent diabetic patients@

Principal Investigator: George Grunberger, MD (5% effort)

\$887,216 (total cost); 1990-1996

Wyeth-Ayerst (709A-300 US)

"Efficacy and safety of tolrestat in the prevention of diabetic nephropathy in normotensive insulin-dependent diabetic patients"

Principal Investigator: George Grunberger, MD (5% effort)

\$152,638 (total cost); 1990-1996

Wyeth-Ayerst (709A-306-US)

"Efficacy of tolrestat in the prevention of diabetic neuropathy"

Principal Investigator: George Grunberger, MD (5% effort)

\$352,459 (total cost); 1991-1996

Wyeth-Ayerst (709A-310-US)

"The safety of long-term oral administration of tolrestat in patients with diabetic peripheral sensorimotor neuropathy"

Principal Investigator: George Grunberger, MD (5% effort)

\$106,642 (total cost); 1993-1996

Eli Lilly (F32-MC-10A0)

"Long term monitoring of safety in patients treated with LY275585"

Principal Investigator: George Grunberger, MD (5% effort)

\$15,360 (total cost); 1994-1996

Miles (X92-014)

"Extension study to investigate the long-term efficacy, tolerability and safety of miglitol in the treatment of elderly patients with mild non-insulin-dependent diabetes mellitus"

Principal Investigator: George Grunberger, MD (5% effort)

\$48,039 (total cost); 1995-1996

Genentech (F0695g)

A randomized, double-blind, placebo controlled, multicenter, multidose study of the combined effects of insulin and rhIGF-I in subjects with insulin-dependent diabetes mellitus"

Principal Investigator: George Grunberger, MD (5% effort)

\$67,511 (total cost); 1996-1997

Novo Nordisk (AGEE/DCD/065/USA)

"Repaglinide in type II diabetes: a placebo controlled, double-blind, randomized six month fixed dose

safety study"

Principal Investigator: George Grunberger, MD (5% effort)

\$69,129 (total cost); 1996-1997

GRANT SUPPORT - (cont'd)

Bayer (P.R.O.T.E.C.T)

Precose: Resolution of optimal titration to enhance current therapies"

Principal Investigator: George Grunberger, MD

\$3,000 (total cost); 1996-1997

Alteon (201228 ST0138)

"A placebo-controlled safety and efficacy study of pimagedine in patients with type II diabetes mellitus and overt diabetic nephropathy"

Principal Investigator: George Grunberger, MD (8% effort)

\$288,731 (total cost); 1995-1999

Alteon (AGPR0002)

"A placebo-controlled safety and efficacy study of pimagedine in patients with type I diabetes mellitus and overt diabetic nephropathy"

Principal Investigator: George Grunberger, MD (8% effort)

\$182,156 (total cost); 1995-1999

SmithKline Beecham (BRL 49653C/024)

"A 26-week randomized, double-blind, placebo controlled study to evaluate the efficacy, safety and tolerability of BRL 49653C when administered to patients with non-insulin dependent diabetes mellitus"

Principal Investigator: George Grunberger, MD (5% effort)

\$98,884 (total cost); 1997-1999

SmithKline Beecham (BRL 49653C/079)

"A 26-week randomized, double-blind, placebo controlled study to evaluate the efficacy, safety and tolerability of BRL 49653C when administered to patients with non-insulin dependent diabetes mellitus who are inadequately controlled on a maximal dose of glyburide"

Principal Investigator: George Grunberger, MD (5% effort)

\$7,500 (total cost); 1997-1999

Hoffmann-LaRoche (NR 15500/M30087)

"Safety and efficacy of mibefradil versus amlodipine in hypertensive patients and hypertensive, non-insulin dependent diabetic patients"

Principal Investigator: George Grunberger, MD (5% effort)

\$150,000 (total cost); 1997-1999

Pfizer (078-106-560)

A multicenter, double-blind, placebo controlled, parallel-group study of the effects of oral zopolrestat in normotensive, type I diabetics with incipient nephropathy"

Principal Investigator: George Grunberger, MD (5% effort)

\$153,000 (total cost); 1996-1999

Pro-Neuron (401.97.201)

"A phase II, multi-center, open label, clinical trial, to address the safety and efficacy of PN401 in diabetic neuropathy"

Principal Investigator: George Grunberger, MD (5% effort)

\$25,000 (total cost); 1998-1999

Parke-Davis (1008-029-45)

"A 5 week double blind, placebo controlled trial of 3 dosages of Pregabalin for treatment of patients with painful diabetic peripheral neuropathy"

Principal Investigator: George Grunberger, MD (2% effort)

\$10,000 (total cost); 1998-1999

National Institutes of Health (1 F31 DK 09521-01)

National Research Service Award (fellow: VJ Cintron)

Sponsor: George Grunberger, MD

\$20,825 (total cost); 1996-1999

Merck (147-00)

"A double-blind randomized, placebo-controlled study to evaluate the renal protective effects of losartan in patients with non insulin dependent diabetes mellitus and nephropathy"

Principal Investigator: N.F. Rossi, co-PI: George Grunberger, MD (5% effort)

GRANT SUPPORT - (cont'd)

\$79,800 (total cost); 1996-2000

Glaxo Wellcome (PPA 30014)

"A multicenter randomized, parallel-group, open-label, glyburide-controlled cardiac safety study of oral GI262570 sodium tablets or micronized glyburide administered for 12 months to subjects with type 2 diabetes mellitus"

Principal Investigator: George Grunberger, MD (5% effort)

\$20,340 (total cost); 2000

Sensus (SEN-3631)

"A pilot study of a growth hormone antagonist for proliferative diabetic retinopathy"

Principal Investigator: R. N. Frank; co-investigator: George Grunberger, MD (2% effort)

\$80,000 (total cost); 1998-2000

Pfizer (078-107-503)

"Double-blind, placebo-controlled parallel -group study of the effects of oral zopolrestat in subjects with peripheral symmetrical diabetic polyneuropathy"

Principal Investigator: George Grunberger, MD (5% effort)

\$471,528 (total cost); 1995-2000

Parke-Davis (1014-01)

"A 24-month, double-blind, randomized, placebo-controlled, fixed-dose, parallel-group, multi-center study of zenarestat (CCI-1014) in the treatment of diabetic neuropathy"

Principal Investigator: George Grunberger, MD (5% effort)

\$589,000 (total cost); 1998-2001

Parke-Davis/Pfizer (1014-031)

"A long-term, double-blind, placebo-controlled, parallel group study of zenarestat in diabetic patients at risk of foot ulcer"

Principal Investigator: George Grunberger, MD (5% effort)

\$150,000 (total cost), 2000-2001

SmithKline Beecham (BRL 49653C/105)

"An open-label extension study to assess the long-term safety, tolerability and efficacy of BRL 49653C when administered as monotherapy, once daily to patients with non-insulin dependent diabetes mellitus"

Principal Investigator: George Grunberger, MD (5% effort)

\$40,000 (total cost), 1997-2001

SmithKline Beecham (BRL 49653C/112)

"An open-label extension study to assess the long-term safety, tolerability and efficacy of BRL 49653C when administered once or twice daily in combination with glyburide to patients with non-insulin dependent diabetes mellitus"

Principal Investigator: George Grunberger, MD (5% effort)

\$40,000 (total cost), 1997-2001

SmithKline Beecham (BRL 49653C/143)

"A 24-week randomized, double-blind study to compare the efficacy, safety and tolerability of *Avandia* in combination with glyburide in African American patients with type 2 diabetes mellitus who are inadequately controlled on glyburide monotherapy"

Principal Investigator: George Grunberger, MD (5% effort)

\$40,000 (total cost), 2000-2001

Pharmacia & Upjohn (716-MET-0096-0011)

"The effect of PNU-182716 on HBA1c levels in type 2 diabetic patients, a double-blind placebo controlled, randomized, multi-center dose-finding and dose frequency study"

Principal Investigator: George Grunberger, MD (5% effort)
\$60,000 (total cost); 2000-2001

Parke Davis/Pfizer (1008-029/033)
"A double-blind, placebo-controlled trial of Pregabalin for treatment of patients with painful diabetic peripheral neuropathy"
Principal Investigator: George Grunberger, MD (2% effort)
\$17,000 (total cost), 1999-2001

GRANT SUPPORT - (cont'd)

Novo Nordisk (NN622-2078)
"NNC 61-0029 in type 2 hypertriglyceridemic diabetic subjects: A twelve week, double-blind, parallel, placebo-controlled dose-ranging study with an open pioglitazone arm to investigate safety and efficacy"
Principal Investigator: George Grunberger, MD (5% effort)
\$45,000 (total cost); 2000-2001

ASTA Medica (D-24470-3160)
"Proof of concept trial on the antidiabetic properties of dextipotam in patients with type 2 diabetes mellitus"
Principal Investigator: George Grunberger, MD (2% effort)
\$30,000 (total cost); 2000-2001

Eli Lilly Corporation (B7A-MC-MBBM)
"Protein kinase C β inhibitor in diabetic retinopathy"
Eli Lilly Corporation (B7A-MC-MBBK)
"Protein kinase C β inhibitor in diabetic macular edema"
Principal Investigator: Robert N. Frank, MD co-investigator: George Grunberger, MD (2% effort)
\$112,110 (total cost); 1998-2002

Aventis (HOE 901/4002)
"Target glycemic control and the incidence of symptomatic nocturnal hypoglycemia in insulin naïve subjects with type 2 diabetes on oral hypoglycemic agent(s) and treated with insulin glargine or NPH human insulin"
Principal Investigator: George Grunberger, MD (5% effort)
\$40,000 (total cost); 2000-2002

Novartis (A2301)
"A multicenter, double-blind, randomized, parallel-group, fixed dose study to prospectively evaluate the safety, efficacy and tolerability of oral nateglinide plus rosiglitazone combination therapy compared to oral rosiglitazone monotherapy in patients with type 2 diabetes mellitus"
Principal Investigator: George Grunberger, MD (5% effort)
\$24,000 (total cost); 2000-2002

Novo Nordisk Pharmaceuticals (NN622-1341)
"NNC61-0029 in type 2 diabetic subjects: A fifty-two week double blind, parallel, active-controlled (Diabeta and Glucophage) Study to investigate safety and efficacy"
Principal investigator: George Grunberger, MD (5% effort)
\$85,400 (total cost); 2001-2003

Novo Nordisk Pharmaceuticals (NN622-1346)
"NNC61-0029 in combination with Glucophage versus Actos plus Glucophage in type 2 diabetes: A six-month, double-blind, multicenter, randomized, parallel study of efficacy and safety"
Principal investigator: George Grunberger, MD (5% effort)
\$24,000 (total cost); 2002-2004

Novo Nordisk Pharmaceuticals (NN622-1347)
"NNC61-0029 in type 2 hypertriglyceridemic diabetic subjects: A twenty-six week, double-blind, multicenter, randomized, parallel, active-controlled study to investigate safety and efficacy"
Principal investigator: George Grunberger, MD (5% effort)
\$24,000 (total cost); 2002-2004

Takeda Pharmaceuticals
"The effects of insulin resistance in coronary blood flow in patients with type 2 diabetes mellitus"

Principal Investigator: Marcelo Di Carli, MD; co-investigator: George Grunberger, MD (2% effort)
\$260,180 (total cost); 1999-2002

Wyeth-Ayerst Research (3093A1-200-US)

"A randomized, parallel, double-blind, placebo-controlled, multicenter study of the safety and efficacy of 4 doses of PTP-112 in patients with type 2 diabetes"

Principal Investigator: George Grunberger, MD (5% effort)
\$67,800 (total cost); 2001-2002

GRANT SUPPORT - (cont'd)

Aventis (HMR 1964/3002)

"A multinational, multicenter, controlled, open, 1:1 randomized, parallel clinical trial comparing HMR 1964 with regular human insulin in subjects with type 2 diabetes mellitus also using NPH insulin"

Principal investigator: George Grunberger, MD (5% effort)

\$41,000 (total cost); 2002-2003

Aventis (HMR 1964/3012)

"A multinational, multicenter, controlled, open, 1:1 randomized, parallel clinical trial comparing HMR 1964 with regular insulin in subjects with type 2 diabetes mellitus also using NPH insulin – comparative 26-week safety extension study"

Principal investigator: George Grunberger, MD (5% effort)

\$41,000 (total cost); 2002-2003

Aventis (HMR1964/3004)

"A multinational, multicenter, controlled, open, 1:1:1 randomized, parallel clinical trial to assess noninferiority between pre- and post-meal administration of HMR1964 and pre-meal regular human insulin in subjects with type 1 diabetes mellitus receiving insulin glargine as the basal insulin therapy"

Principal investigator: George Grunberger, MD (5% effort)

\$40,000 (total cost); 2001-2003

Amylin Pharmaceuticals (2993-112)

"Randomized, triple-blind, parallel-group, placebo-controlled, multicenter study to examine the effect on glucose control of AC2993 given two times a day for 34 weeks in subjects with type 2 diabetes mellitus treated with metformin alone"

Principal investigator: George Grunberger, MD (5% effort)

\$55,000 (total cost); 2002-2003

Amylin Pharmaceuticals (2993-113)

"Randomized, triple-blind, parallel-group, placebo-controlled, multicenter study to examine the effect on glucose control of AC2993 given two times a day for 34 weeks in subjects with type 2 diabetes mellitus treated with a sulfonylurea alone"

Principal investigator: George Grunberger, MD (5% effort)

\$55,000 (total cost); 2002-2003

Takeda Pharmaceuticals (TL-677-008)

"A 12-week, randomized, double-blind, parallel-arm, placebo-controlled, dose-ranging study for safety and efficacy of TAK-677 in type II diabetic subjects as measured by glycemic control"

Principal investigator: George Grunberger, MD (5% effort)

\$21,570 (total cost); 2002-2003

Aventis (HOE 490/3502)

"An open-label comparison study to evaluate the role of glimepiride vs. pioglitazone in combination with metformin or metformin extended release in subjects with type 2 diabetes mellitus not responding to metformin monotherapy"

Principal investigator: George Grunberger, MD (5% effort)

\$40,000 (total cost); 2002-2003

Novartis (CLAF237A 2203)

"A 12-week, multicenter, double blind, randomized, parallel-group, dose-ranging study to assess the efficacy, safety and tolerability of LAF235 25 mg bid, 25, 50 or 100 mg od compared to placebo in patients with type 2 diabetes"

Principal investigator: George Grunberger, MD (5% effort)

\$59,332 (total cost); 2001-2003

GlaxoSmithKline (NPP 30004/5)

"A multicenter, double-blind, randomized, placebo-controlled study to evaluate the safety and efficacy of lamotrigine 100 mg/day or 200 mg/day, 300 mg/day and 400 mg/day compared with placebo in subjects with painful diabetic neuropathy"

Principal investigator: George Grunberger, MD (2% effort)

\$54,400 (total cost); 2003

GRANT SUPPORT - (cont'd)

GlaxoSmithKline (BRL 49653C/048)

A randomized, double-blind study to compare the durability of glucose lowering and preservation of pancreatic beta-cell function of rosiglitazone monotherapy compared to metformin or glyburide/glibenclamide in patients with drug-naïve, recently diagnosed type 2 diabetes mellitus”

Principal Investigator: George Grunberger, MD (2% effort)

\$50,000 (total cost), 2000-2003

Pfizer (A0531063)

“A multi-center, randomized, double-blind, double-dummy study evaluating the safety and efficacy of the addition of amlodipine to quinapril or losartan in the treatment of diabetic hypertensive subjects”

Principal investigator: George Grunberger, MD (2% effort)

\$21,437 (total cost); 2003-2004

Novartis (CCIB 002FUS12)

“A multicenter, double-blind, randomized, parallel group study to evaluate the effects of Lotrel and Lotensin HCT on microalbuminuria in mild to moderate hypertensive subjects with type 2 diabetes mellitus”

Principal investigator: George Grunberger, MD (5% effort)

\$58,442 (total cost); 2003-2006

Principal investigator: George Grunberger, MD (5% effort), investigator-initiated (Aventis-funded)

“A prospective, randomized, open-label clinical trial to compare the efficacy of glimepiride, insulin glargine, and diet/exercise vs. glimepiride, metformin, and diet/exercise in patients with type 2 diabetes, poorly controlled with an oral anti-diabetic agent”

\$245,760 (total cost); 2002-2004

Amylin (137-155)

“A Phase 3B, multicenter, open-label study investigating the clinical utility and safety of pramlintide in subjects with type 1 and type 2 diabetes mellitus who have not achieved glycemic targets with insulin therapy”

Principal investigator: George Grunberger, MD (2% effort)

\$12,000 (total cost); 2003-2004

Aventis (HMR1964A/3502)

“APIDRA administered in a fixed bolus regimen vs. variable bolus regimen based on carbohydrate counting in adult subjects with type 2 diabetes receiving Lantus as basal insulin: a multicenter, randomized, parallel, open label clinical study”

Principal investigator: George Grunberger, MD (2% effort)

\$61,600 (total cost); 2004-2005

Eli Lilly (F3Z-US-IOOQ)

“A comparison of prandial insulin lispro mixtures therapy to glargine basal-bolus therapy with insulin lispro on the overall glycemic control of patients with type 2 diabetes previously treated with oral agents combined with insulin glargine”

Principal investigator: George Grunberger, MD (2% effort)

\$43,117 (total cost); 2004-2005

Mitsubishi Pharma America

“A phase II, randomized, double-blind, placebo-controlled, 24-week dose finding study to evaluate the efficacy and safety of 20 mg., 40 mg and 80 mg of MCC_257 in patients with mild to moderate diabetic neuropathy”

Principal Investigator: George Grunberger, MD

\$ 92,360 (total cost); 2006-2007

Amylin Pharmaceuticals (137-156)

“A randomized, double-blinded, placebo-controlled, multicenter study evaluating the efficacy and safety of adding Symlin® to Lantus® (insulin glargine) in subjects with type 2 diabetes who are not achieving glycemic targets”

Principal Investigator: George Grunberger, MD

\$34,435; 2005-2006

Amylin Pharmaceuticals (137-161)
"Symlin®: An observational study"
Principal Investigator: George Grunberger, MD

GRANT SUPPORT - (cont'd)

\$12,000; 2006-2007

Pfizer (A5091035)

"A phase 3, open-label, multi-center, randomized, parallel group study of the efficacy and safety of fixed combination torcetrapib/atorvastatin administered once daily (QD) compared to fixed combination ezetimibe/simvastatin for 6 weeks in subjects with dyslipidemia"

Principal Investigator: George Grunberger, MD

\$60,772 (total cost); 2006

Novo Nordisk (Predictive 303)

"Impact of self-adjusted titration guideline in subjects with type 2 diabetes mellitus: A 6-month, multicenter, open-label, randomized, parallel-group, treat-to-target of the efficacy and safety of Levemir® (insulin detemir [rDNA origin] injection)"

Principal Investigator: George Grunberger, MD

\$20,000 (total cost); 2006

Eli Lilly & Company (F3Z-US-IOOV)

"The DURABLE trial: Assessing the durability of basal vs. LisPro Mix 25 insulin efficacy"

Principal Investigator: George Grunberger, MD

\$62,344; 2006-2009

Pfizer (A217-1029)

"Efficacy and safety of Exubera (inhaled insulin) compared with subcutaneous human insulin therapy in adult subjects with type 2 diabetes mellitus: A long-term, outpatient, open-label, parallel-group comparative trial"

Principal investigator: George Grunberger, MD

\$185,000 (total cost); 2002-2009

Biodel (VIAJECT™-06J and VIAJECT™-07J)

"An Open-Label, Multi-Center, Randomized, Parallel Group Study Comparing the Efficacy and Safety of Insulin VIAJECT™ and Regular Human Insulin in Patients with Type 1 Diabetes Mellitus, VIAJECT™-06J and Type 1 Follow-Up Study, VIAJECT™-07J"

Principal Investigator: George Grunberger, MD

\$60,230 (total cost); 2006-2009

sanofi-aventis (HMR1964A/3515)

"All To Target Trial Lantus® (insulin glargine) with stepwise addition of APIDRA® (insulin glulisine) or Lantus with one injection of Apidra vs. a twice-daily premixed insulin regimen (Novolog® Mix 70/30) in adult subjects with type 2 diabetes failing dual or triple therapy oral agents: a 64-week, multicenter, randomized, parallel, open-label clinical study"

Principal Investigator: George Grunberger, MD

\$98,000 (total cost); 2006-2009

sanofi-aventis (PDY5807)

"A multi-center, randomize, double-blind, placebo-controlled study of the effect of SSR180575 at two doses for 24 weeks treatment on the rate of regeneration of epidermal nerve fibers in patients with mild diabetic peripheral neuropathy"

Principal Investigator: George Grunberger, MD

\$100,000 (total cost); 2007-2009

Eli Lilly & Company (H9X-MC-GBCJ)

"The Effect of Dose Titration of LY2189265 (GLP-1 analog IV-Fc) in Overweight and Obese Patients with Type 2 Diabetes Mellitus (The EGO Study)"

Principal Investigator: George Grunberger, MD

\$78,000 (total cost); 2008-2009

Eli Lilly & Company (H9X-MC-GBCK)

“Assessment of dose-dependent effects of LY2189265 on glycemic control in patients with type 2 diabetes treated only with lifestyle interventions”

Principal Investigator: George Grunberger, MD

\$35,654 (total cost); 2008-2010

GRANT SUPPORT - (cont'd)

Novartis (CLAF237B2224)

"A multi-center, randomized, double-blind study to evaluate the efficacy and long-term safety of vildagliptin modified release (MR) as add-on therapy to metformin in patients with type 2 diabetes"

Principal Investigator: George Grunberger, MD

\$49,072 (total cost); 2009-2011

National Institutes of Health (NHLBI)

"Action to Control Cardiovascular Risk in Diabetes (ACCORD)"

Principal investigator: George Grunberger, MD

\$1,037,183 (direct cost); \$1,302,244 (total cost); 2003-2010

National Institutes of Health (NHLBI)

"Atherothrombosis Intervention in Metabolic Syndrome with Low HDL/High Triglyceride and Impact on Global Health Outcomes (AIM-HIGH)"

Principal Investigator: George Grunberger, MD

\$510,250 (total cost); 2005-2011

GlaxoSmithKline (GLP112754)

"A randomized, open-label, parallel-group, multicenter study to determine the efficacy and long-term safety of albiglutide compared with insulin in subjects with type 2 diabetes mellitus"

Principal Investigator: George Grunberger, MD

\$39,000 (total cost); 2009-2011

GlaxoSmithKline (GLP112755)

"A randomized, open-label, parallel-group, multicenter study to determine the efficacy and safety of albiglutide when used in combination with pioglitazone with or without metformin in subjects with type 2 diabetes mellitus"

Principal Investigator: George Grunberger, MD

\$25,000 (total cost); 2009-2011

GlaxoSmithKline (GLP112757)

"A randomized, double-blind, placebo- and active-controlled, parallel-group, multicenter study to determine the efficacy and safety of albiglutide administered in combination with metformin and glimepiride compared with metformin plus glimepiride and placebo and with metformin plus glimepiride, and pioglitazone in subjects with type 2 diabetes mellitus"

Principal Investigator: George Grunberger, MD

\$29,000 (total cost); 2009-2011

GlaxoSmithKline (GLP108486)

A Randomized, Open-Label, Active-Controlled, Parallel-Group, Multicenter Study to Determine the Safety and Efficacy of Albiglutide Administered in Combination With Insulin Glargine as Compared with the Combination of Insulin Glargine and Preprandial Lispro Insulin in Subjects With Type 2 Diabetes Mellitus"

Principal Investigator: George Grunberger, MD

\$32,000 (total cost); 2010-2012

GlaxoSmithKline (GLP114179)

"A Randomized, Open-Label, Parallel Group, Multicenter Study to Determine the Efficacy and Safety of Albiglutide as Compared With Liraglutide in Subjects With Type 2 Diabetes Mellitus"

Principal Investigator: George Grunberger, MD

\$24,000 (total cost); 2010-2012

Johnson & Johnson (28431754-DIA-3009)

"A Randomized, Double-Blind, 3-Arm Parallel-Group, 2-Year (104-Week), Multicenter Study to Evaluate the Efficacy, Safety, and Tolerability of JNJ 28431754 100 mg and JNJ-28431754 300 mg Compared With Glimepiride in the Treatment of Subjects With Type 2 Diabetes Mellitus Not Optimally Controlled on Metformin Monotherapy"

Principal Investigator: George Grunberger, MD

\$84,000 (total cost); 2009-2012

Eli Lilly & Company (H9X-MC-GBDA)

"A Randomized, Placebo-Controlled Comparison of the Effects of Two Doses of LY2189265 or Exenatide

on Glycemic control in Patients with Type 2 Diabetes on Stable Doses of Metformin and Pioglitazone (AWARD-1: Assessment of Weekly Administration of LY2189265 in Diabetes-1)”

Principal Investigator: George Grunberger, MD

GRANT SUPPORT - (cont'd)

\$83,495; 2010-2012

Valeritas (V4006)

“Effectiveness of V-Go™ for Patients with Diabetes in a Real-World Setting: A Long-term, Prospective, Observational Registry (SIMPLE)”

Principal Investigator: George Grunberger, MD

\$30,000 (total cost); 2011-2013

Eli Lilly & Company (I2R-MC-BIAK)

“A Comparison of LY2605541 versus Human Insulin NPH as Basal Insulin Treatment in Insulin-Naive Patients with Type 2 Diabetes Mellitus not Adequately Controlled with 2 or More Oral Antihyperglycemic Medications: An Open-Label; Randomized Study”

Principal Investigator: George Grunberger, MD

\$80,000 (total cost); 2013-2014

National Institutes of Health (NHLBI)

“Action to Control Cardiovascular Risk in Diabetes Follow-On Study (ACCORDION)”

Principal investigator: George Grunberger, MD

\$15,000 (total cost); 2010-2015

Novo Nordisk (LEADER EX2211-3748)

“Liraglutide Effect and Action in Diabetes: Evaluation of Cardiovascular outcome Results.”

Principal Investigator: George Grunberger, MD

\$56,000 (total cost); 2010-2016

Sanofi US Services (EFC12404)

“A randomized, 30-week, active-controlled, open label, 3-treatment arm, parallel-group, multicenter study comparing the efficacy and safety of the insulin glargine/lixisenatide fixed ratio combination to insulin glargine alone and to lixisenatide alone on top of metformin in patients with Type 2 diabetes mellitus”

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Principal Investigator: George Grunberger, MD

\$73,060 (total cost); 2014-2016

Sanofi US Services (EFC12405)

“A randomized, 30-week, active-controlled, open label, 2-treatment arm, parallel-group, multicenter study comparing the efficacy and safety of the insulin glargine/lixisenatide fixed ratio combination to insulin glargine with or without metformin in patients with Type 2 diabetes mellitus”

Principal Investigator: George Grunberger, MD

\$76,300 (total cost); 2014-2016

Merck, Sharp & Dohme Corp. (MK-8835-001-0025)

A Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled Clinical Trial to Evaluate the Efficacy and Safety of Ertugliflozin (MK-8835/PF-04971729) in Subjects with Type 2 Diabetes Mellitus with Stage 3 Chronic Kidney Disease Who Have Inadequate Glycemic Control on Background Antihyperglycemic Therapy

Principal Investigator: George Grunberger, MD

\$227,731 (total cost); 2014-2016

Merck, Sharp & Dohme Corp. (MK-8835-002-0025)

“A Phase III, Multicenter, Randomized, Double-Blind, Active-Comparator-Controlled Clinical Trial to Study the Safety and Efficacy of the addition of Ertugliflozin (MK-8835/PF-04971729) Compared with the Addition of Glimepiride in Subjects with Type 2 Diabetes Mellitus Who Have Inadequate Glycemic Control on Metformin”

Control

Principal Investigator: George Grunberger, MD

\$396,247 (total cost); 2014-2016

Lexicon (LX4211.1-312-T1DM)

“A phase 3, randomized, double-blind, placebo controlled, parallel-group, multi center study to evaluate

the net clinical benefit of sotagliflozin as adjunct to insulin therapy in type 1 diabetes”

Principal Investigator: George Grunberger, MD

\$ (total cost); 2015-2016

EXSCEL (Duke Clinical Research Institute/Amylin) - BCB109

“ A Randomized, Placebo Controlled Clinical Trial to Evaluate Cardiovascular Outcomes After Treatment with Exenatide Once Weekly in Patients with Type 2 Diabetes Mellitus”

GRANT SUPPORT - (cont'd)

Principal Investigator: George Grunberger, MD

\$126,450 (total cost); 2010-2017

Eli Lilly & Company (B5K-MC-IBHD)

“Safety and efficacy of human Regular U-500 insulin administered by continuous subcutaneous insulin infusion versus multiple daily injections in subjects with type 2 diabetes mellitus: A randomized, open-label, parallel clinical trial (VIVID: Evaluating U-500R infusion versus injection in type 2 diabetes mellitus)”

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mellitus)”

Principal investigator: George Grunberger, MD

\$ (total cost); 2015-2017

Current Support

Medtronic MiniMed (CEP266)

“Post Approval Study of the TS (Threshold Suspend) Feature with a Sensor-Augmented Pump System”

Principal Investigator: George Grunberger, MD

\$23,800 (total cost); 2014-2018

Medtronic MiniMed (CEP304)

“Multi-center, Randomized, Parallel, Adaptive, Controlled Trial in Adult and Pediatric Patients with Type 1 Diabetes Using Hybrid Closed Loop System and Control (CSII, MDI and SAP) at Home”

Principal Investigator: George Grunberger, MD

\$175,000 (total cost); 2017-

Novo Nordisk (NN1250-4252)

“A trial comparing the efficacy and safety of insulin degludec and insulin glargine 300 units/mL in subjects with type 2 diabetes mellitus inadequately treated with basal insulin with or without oral

antidiabetic

drugs”

Principal Investigator: George Grunberger, MD

\$120,000 (total cost); 2017-

PATENTS

Provisional No. PCT/US01/42832: Inhibition of alpha-2 HS glycoprotein (AHSG/Fetuin) in obesity and insulin control of glucose homeostasis, filed October 29, 2001 (Grunberger G, Mathews ST, Jen K-LC, Goustin AS, Srinivas PR)

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Mathews ST, S Rakhade, X Zhou, DV Coscina, and G Grunberger: Improved insulin sensitivity of fetuin-null mice protects aging-induced obesity and insulin resistance. *Diabetes* 51; Suppl 2: A328, 2002.

Grunberger G, AA Abbasi, S Parikh, M Nicola, C Gherlan, A Turan, M Vitale, H Dave, and D Johnson: Novel diabetes care credit system: a model for comprehensive and optimal diabetes care. *Diabetologia* 46 (Suppl 2): A235, 2003.

Grunberger G, JD Artiss, and K-LC Jen: Beneficial effects of a new soluble fiber FBCx in obese patients with type 2 diabetes. *Diabetes* 54; Suppl 2: A440, 2005.

Jen K-LC, G Grunberger, and J Artiss: The benefits of early intervention in obese patients with FBCx, a new dietary fiber. *Obesity Research* 13: A120, 2005.

Jen K-LC, G Grunberger, and J Artiss: Interaction of FBCxTM and dietary fat in body weight regulation in obese patients with diabetes. Annual Meeting of the North American Association for Study of Obesity, 2006.

Grunberger G, A Chang, MG Garcia-Soria, FT Botros, R Bsharat, and Z Milicevic: Monotherapy with the once weekly long-acting GLP-1 analog LY2189265 for 12 weeks in patients with type 2 diabetes: dose-dependent effects on glycemic control in a randomized, double-blind, placebo-controlled study. *Diabetes* 60, abstract 1094, 2011.

Grunberger G, A Chang, MG Garcia-Soria, FT Botros, R Bsharat, and Z Milicevic: Monotherapy with the once-weekly GLP-1 analog dulaglutide (LY2189265) for 12 weeks in patients with type 2 diabetes: dose-dependent effects in a randomized, double-blind, placebo-controlled study. *Diabetologia* 54; Suppl1: S318, 2011.

Rosenfeld C, G Grunberger, P Strange: Effectiveness of V-Go® for patients with diabetes in a real-world setting: A long-term, prospective, observational registry (SIMPLE). AACE 22nd Annual Scientific and Clinical Congress, pp. 42-43, Phoenix, AZ, 2013.

Grunberger, G, Bode B, Hershon K, Rosenfeld C, Strange P: Effectiveness of V-Go® for patients with diabetes in a real-world setting (SIMPLE); *Diabetes* 62; Suppl 1: A252, 2013.

Grunberger G, S Gough, T Forst, V Pechtner, R Shaginian, H Wang, L Fernandez: The 2 week fasting glucose as a predictor of response to once weekly dulaglutide 1.5 mg. AACE 23rd Annual Scientific and Clinical Congress, pp. 34-35, Las Vegas, NV, 2014.

Grunberger G, C Rosenfeld, B Bode, K Hershon, P Strange: Initiating V-Go® in patients using long acting insulin. AACE 23rd Annual Scientific and Clinical Congress, p 35, Las Vegas, NV, 2014.

Strange P, C Rosenfeld, B Bode, K Hershon, G Grunberger: Initiating more than one V-Go® in patients with type 2 diabetes. AACE 23rd Annual Scientific and Clinical Congress, p 35, Las Vegas, NV, 2014.

GRUNBERGER G, BW BODE, C Rosenfeld, P STRANGE, K HERSHON: Effectiveness of Switching to V-Go®

in Patients with Type 2 Diabetes: Long-term Follow-up from the SIMPLE Study. Diabetes 63; Suppl 1: A602, 2014.

First T, S Gough, G Grunberger, V Pechtner, R Shaginian, H Wang, L Fernandez: The 2 week fasting glucose as a predictor of response to once weekly dulaglutide 1.5 mg. Diabetologia 57; Suppl 1: S335, 2014.

Grunberger G, L Chen, Á Rodríguez, FJ Tinahones, SJ Jacober, J Bue-Valleskey: Basal insulin peglispro (BIL) provides better HbA1c control with less nocturnal hypoglycemia than NPH when used in combination with oral agents in T2D patients: IMAGINE 6. Diabetes 64; Suppl 1: A256, 2015.

Á Rodríguez, FJ Tinahones, L Chen, G Grunberger, S Jacober, J Bue-Valleskey: Basal insulin peglispro in combination with oral agents provides similar glycaemic control when given once daily in the morning or at bed-time in insulin naïve type 2 diabetic patients. Diabetologia 58; Suppl 1: S76, 2015.

PUBLICATIONS (cont'd)

6. Published abstracts since 1990 (peer-reviewed, published and presented only) - cont'd

Grunberger G, L Chen, A Rodriguez, FJ Tinahones, SJ Jacober, J Bue-Valleskey: Basal insulin peglispro (BIL) provides better HbA1c control with less nocturnal hypoglycaemia than NPH when used in combination with oral agents in type 2 diabetic patients: IMAGINE 6. Diabetologia 58; Suppl 1: S475, 2015.

Rosenstock J, R Aronson, M Hanefeld, PM Piatti, P Seruclat, X Cheng, T Zhou, E Niemoeller, E Souham, G Grunberger, M Davies: Clinical impact of LixiLan, attractable fixed-ratio combination of insulin glargine plus lixisenatide in type 2 diabetes inadequately controlled on oral agents: Lixilan-O trial. ACCP annual meeting, 2016.

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded; average 30 presentations annually between 1986 and 1999)

Invited lectures and seminars (basic and clinical research; clinical issues):

February 8, 2000: Dept. of Microbiology & Immunology, Medical College of Ohio, Toledo, OH
March 11, 2000: OHEP Internal Medicine Update, Grosse Pointe, MI
March 30, 2000: Endocrine Fellows Conference, San Diego, CA
June 7, 2000: Intensive Internal Medicine Board Review, Troy, MI
June 28, 2000: Insulin resistance in type 2 diabetes, Chicago, IL
August 30, 2000: Pathophysiology of type 2 diabetes, Memorial Hospital Grand Rounds, Owosso, MI
September 8, 2000: Cardiovascular disease and diabetes, Grand Rounds, University of Louisville, Louisville, KY
September 27, 2000: Effective diabetes care for adults, keynote speaker, Institute of Gerontology, Wayne State University
October 4, 2000: Ophthalmology Grand Rounds, Kresge Eye Institute, Detroit, MI
October 5 and 12, 2000: Endocrinology course lectures, Bon Secours Cottage Hospital, Grosse Pointe, MI
October 6, 2000: Visiting Professor, Columbia University College of Physicians & Surgeons, New York, NY
October 31, 2000: Cardiovascular morbidity and mortality in diabetes, Grand Rounds, Sparrow Hospital, Lansing, MI
November 1, 2000: Basic science update, Dept. Pharmaceutical Sciences, Wayne State University
November 8, 2000: Endocrinology review course, Dearborn, MI
November 28, 2000: Genetics of diabetes mellitus, Wayne Day, Wayne State University
December 20, 2000: Medicine Grand Rounds, Beaumont Hospital, Royal Oak, MI
January 19, 2001: Visiting Professor lectures, Hoffmann-La Roche, Basel, Switzerland
January 31, 2001: Basic Medical Science lecture, St. John Hospital and Medical Center, Detroit, MI
February 5, 2001: Medicine Grand Rounds, Fairview Hospital/Cleveland Clinic, Cleveland, OH
February 7, 2001: Medicine Grand Rounds, Allegheny General Hospital, Pittsburgh, PA
February 9, 2001: Symposium on Advances in Influencing Insulin Resistance, Stirin, Czech Republic
March 7-8, 2001: Visiting Professorship lectures, Ohio State University College of Public Health, Columbus, OH
March 10, 2001: Insulin Resistance Symposium, Northville, MI
March 14, 2001: Endocrinology Grand Rounds, Wayne State University
March 20, 2001: St. John's Mercy Medical Center, St. Louis, MO
April 5 – 6, 2001: Visiting Professorship lectures, Dartmouth-Hitchcock Medical Center, Hanover, NH
April 11, 2001: Diabetes Health Symposium, Annual Meeting of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Baltimore, MD
April 17, 2001: Medicine Grand Rounds, St. John Hospital and Medical Center, Detroit, MI
April 18, 2001: Medicine Grand Rounds, Mercy Medical Center, Dubuque, IA
May 2, 2001: Michigan Statewide Genetics Symposium
May 11, 2001: 13th Annual Great Lakes State Family Practice Review Course, Southfield, MI
May 17, 2001: Medicine Grand Rounds, Sturgeon Bay, WI
May 18, 2001: Medicine Grand Rounds, Oconto, WI
May 23, 2001: Endocrinology Grand Rounds, University of California-Irvine, Orange, CA
May 24, 2001: Mini-Medical School, Wayne State University, Detroit, MI
June 13, 2001: 21st Annual OHEP Intensive Internal Medicine Board Review, Troy, MI
July 11, 2001: Cardiology Grand Rounds, Henry Ford Hospital, Detroit, MI
August 15, 2001: Update in Type 2 Diabetes Management, Detroit, MI
September 21, 2001: Medicine Grand Rounds, St. Francis Hospital, Evanston, IL
September 27, 2001: Update in Type 2 Diabetes Management, Flint, MI
October 2, 2001: Grand Rounds, New England/Tufts Medical Center, Boston, MA
October 15-16, 2001: Visiting Professor, Marshall University Medical School, Huntington, WV
October 19, 2001: 4th International Motor City Diabetes Symposium, Detroit, MI
October 26, 2001: Medicine Grand Rounds, Greenville Medical Center, Greenville, SC
October 30, 2001: Type 2 diabetes update, Southfield, MI
November 5, 2001: Systemic Pathophysiology, Graduate School, Wayne State University, Detroit, MI
November 6, 2001: Treating to target in type 2 diabetes, Dearborn, MI
November 8, 2001: Department of Physiology Seminar series, Wayne State University, Detroit, MI
November 9, 2001: Medicine Grand Rounds, St. Joseph Mercy Oakland, Pontiac, MI
November 9, 2001: Medical, Surgical, and Social Care of the Homebound patient; OHEP, Southfield, MI
November 14, 2001: Medicine Grand Rounds, VA Medical Center, Bay Pines, FL
November 27, 2001: Update in Preventive Cardiology, St. John Health System, Detroit, MI
January 22, 2002: Ambulatory Grand Rounds I, Division of General Medicine, Wayne State University

School of Medicine
February 23, 2002: Michigan Pharmacists Association Annual Meeting, Dearborn, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

March 19, 2002: Visiting Professor, Abbott Laboratories, Chicago, IL
March 20, 2002: Advances in Diabetes Care, Detroit, MI
March 26, 2002: Ambulatory Grand Rounds II, Division of General Medicine, Wayne State University School of Medicine
April 15, 2002: Ambulatory Grand Rounds, Lexington, KY
May 8, 2002: 14th Annual Great Lakes State Family Practice Review, Southfield, MI
May 13, 2002: Hypoglycemia, Endocrine lecture series, St. Joseph Mercy, Pontiac, MI
May 20, 2002: Visiting Professor, University of Maryland, Baltimore, MD
May 24, 2002: Type 2 Diabetes Update, Endocrine lecture series, St. Joseph Mercy, Pontiac, MI
June 5, 2002: 22nd Annual OHEP Intensive Internal Medicine Board Review, Troy, MI
June 27, 2002: Metabolic syndrome update, Farmington Hills, MI
August 9, 2002: 2nd Annual Update in Internal Medicine, Bay Harbor, MI
August 14, 2002: Medicine Grand Rounds, St. Joseph Mercy, Pontiac, MI
September 27, 2002: Cardiac Health in Diabetes, Detroit Medical Center, Detroit, MI
September 30, 2002: Medicine Grand Rounds, North Oakland Medical Center, Pontiac, MI
October 3, 2002: Meeting Contemporary Treatment Goals in Type 2 Diabetes, Houston, TX
October 30, 2002: Meeting Contemporary Treatment Goals in Type 2 Diabetes, Bal Harbour, FL
November 4, 2002: Systemic Diabetes Pathophysiology – Department of Pathology, Wayne State University, Detroit, MI
November 7, 2002: 3rd Annual Diabetes Conference – Exploring the Frontiers of Diabetes, Saginaw, MI
January 11, 2003: General Motors Occupational Health Symposium, Palm Springs, CA
January 22, 2003: Ophthalmology Grand Rounds, Kresge Eye Institute, Detroit, MI
January 30, 2003: Cardiovascular Implications and treatment of Diabetes, Troy, MI
February 22, 2003: Annual Convention, Michigan Pharmacists Association, Dearborn, MI
April 14, 2003: Genetics for Genetic Counselors, State of Hawaii Department of Health, Honolulu, HI
April 15, 2003: Genetics for Your Practice, State of Hawaii Department of Health, Honolulu, HI
May 2, 2003: 5th Annual International Motor City Diabetes Symposium, Dearborn, MI
May 13, 2003: Getting to Goal in Type 2 Diabetes, Clarkston, MI
June 4, 2003: 23rd Annual OHEP Intensive Internal Medicine Board Review, West Bloomfield, MI
June 24, 2003: Update, Diabetes Management, Cleveland, OH
August 2, 2003: 23rd Annual Meeting, Bangladesh Medical Association of North America, Ypsilanti, MI
September 6, 2003: What's New in Prevention and Treatment of Diabetes?, Troy, MI
September 20, 2003: MOEMA Annual Meeting, Kalamazoo, MI
October 4, 2003: 5th Annual Diabetes Management Update, Mt. Pleasant, MI
October 23, 2003: Department of Physiology, Basic Science Seminars, Wayne State University
October 27, 2003: Dyslipidemia/CV risk factors in Diabetes, Pfizer Educational Series, Ann Arbor, MI
October 28, 2003: Dyslipidemia in Diabetes, Primary Care Education series, Bloomfield Hills, MI
November 3, 2003: Systemic Pathophysiology graduate course (PTH 7500), Wayne State University
November 8, 2003: Second Annual Diabetes Health Expo, American Diabetes Association, Dearborn, MI
November 18, 2003: Strategies & Resources for Glycemic Control, Houston, TX
January 20, 2004: Molecular Basis of Insulin Resistance, Department of Pathology (PTH 8010), Wayne State University
January 24, 2004: Regional Endocrinology Consultancy, Cleveland, OH
January 28, 2004: Risk Factors Beyond Glucose, Southfield, MI
February 5, 2004: Epidemic of Cardiovascular Disease in Diabetes, San Juan, Puerto Rico
February 6, 2004: Type 2 diabetes, St. Joseph Mercy Oakland, CME, San Juan, Puerto Rico
February 10, 2004: Type 2 diabetes: pathophysiology and treatment, Department of Pathology (PTH 8010), Wayne State University
February 12, 2004: Strategies & Resources for Glycemic Control, Dearborn, MI
February 18, 2004: Risk Factors Beyond Glucose, Bloomfield Hills, MI
March 16, 2004: The Impact of Dyslipidemia in Diabetes, Bingham Farms, MI
March 18, 2004: The Surgeon and Diabetes, OHEP Basic Science Course, Southfield, MI
March 29, 2004: Diabetes Management in Real World, Troy, MI
March 31, 2004: Oakland County Osteopathic Association, Troy, MI
March 31, 2004: Year I medical students' clinical nutrition course, WSU School of Medicine, Detroit, MI
May 6, 2004: Getting to Goal, St. Joseph Mercy Hospital, Pontiac, MI
May 13, 2004: Reaching and Sustaining HgbA1c Goal, Family Practice physicians, Clinton Twshp, MI
May 19, 2004: Diabetes CME conference, St. Joseph Mercy Hospital, Pontiac, MI

May 27, 2004: Urgent Endocrine Problems, St. Joseph Mercy Oakland Surgery Conference, Pontiac, MI
 August 7, 2004: Update in Primary Care VI, McLaren Regional Medical Center, Flint, MI
 August 13, 2004: St. Joseph Mercy CME Conference, Traverse City, MI
 September 21, 2004: Understanding pathophysiology of type 2 diabetes, Gastroenterology Grand Rounds, Wm. Beaumont Hospital, Royal Oak, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – cont'd

September 21, 2004: It Matters How You Reach and Sustain A1c Goal, Bloomfield Hills, MI
 September 29, 2004: Senior Lifestyle Expo, Rochester, MI
 October 13, 2004: Diabetes Update, Congdon Lecture, Genesys Regional Medical Center, Grand Blanc, MI
 October 26, 2004: Take Control Earlier, Birmingham, MI
 November 6, 2004: Basal-bolus concept in treatment of type 2 diabetes, Bloomfield Hills, MI
 November 8, 2004: Systemic Pathophysiology graduate course (PTH-7500), Wayne State University
 November 18, 2004: Dyslipidemia Therapy: Are the Goals Achievable?, Troy, MI
 March 16, 2005: Type 2 diabetes: Effective Insulin Management, Medicine Grand Rounds, Wm. Beaumont Hospital, Royal Oak, MI
 April 19, 2005: Insights into initiating insulin therapy. Clarkston, MI
 April 20, 2005: Insulin in controlling diabetes. Bloomfield Hills, MI
 July 13, 2005: Update in insulin management. Distinguished Faculty Program, Troy, MI
 July 20, 2005: Exenatide in diabetes management, Washington, MI
 July 29, 2005: Type 2 diabetes and metabolic syndrome, Summer Conference, Traverse City, MI
 August 25, 2005: Introducing exenatide in diabetes practice, Detroit, MI
 August 30, 2005: Impact of atypical antipsychotics on medical comorbidities, Virginia, MN
 August 30, 2005: Metabolic consequences of atypical antipsychotics, Duluth, MN
 September 1, 2005: Impact of atypical antipsychotics and medical comorbidities in mental illness, Lansing, MI
 September 7, 2005: Management of inpatient hyperglycemia, McLaren Grand Rounds, Flint, MI
 September 20, 2005: Atypical antipsychotics and metabolic consequences, Pottstown, PA
 September 20, 2005: Impact of atypical antipsychotics and medical comorbidities in mental illness, Doylestown, PA
 September 21, 2005: Update in insulin management, Birmingham, MI
 September 22, 2005: Impact of antipsychotics on metabolic comorbidities in mental health, Southfield, MI
 September 26, 2005: Impact of atypical antipsychotics on medical comorbidities, Danville, IL
 September 27, 2005: Impact of antipsychotics on metabolic comorbidities in mental health, Peoria, IL
 September 27, 2005: Metabolic consequences of atypical antipsychotics, Bloomington, IL
 October 4, 2005: Pancreatic hormones and Amylin, Ann Arbor, MI
 October 5, 2005: Introduction to Byetta® (exenatide) injection, Southfield, MI
 November 7, 2005: Systemic Pathophysiology graduate course (PTH-7500), Wayne State University
 November 8, 2005: Getting away from insulinocentric treatment of diabetes, Bon Secours Hospital, Grosse Pte, MI
 November 16, 2005: Amylin analog, Symlin®, Troy, MI
 November 17, 2005: Impact of atypical antipsychotics on medical comorbidities, Bingham Farms, MI
 November 18, 2005: Take Control Earlier, North Oakland Medical Center, Pontiac, MI
 November 30, 2005: Treating patients to their dyslipidemia goals, Pontiac Osteopathic Hospital, Pontiac, MI
 November 30, 2005: Management of psychiatric illness and metabolic comorbidities, Birmingham, MI
 December 3, 2005: Physiology of insulin secretion and glucose metabolism. Intensified Insulin Delivery/Insulin Pump Therapy for Insulin Dependent and Insulin Requiring Type 1 and Type 2 Diabetic Patients, AACE Course, San Diego, CA
 December 6, 2005: Management of psychiatric illness and metabolic comorbidities, Washington, DC
 December 7, 2005: Impact of atypical antipsychotics on medical comorbidities, Allentown, PA
 December 7, 2005: Management of psychiatric illness and metabolic comorbidities, Stroudsburg, PA
 December 12, 2005: Impact of atypical antipsychotics on medical comorbidities, Detroit, MI
 December 12, 2005: Management of psychiatric illness and metabolic comorbidities, Birmingham, MI
 December 13, 2005: Managing basal insulin rates, St. Joseph Mercy Oakland, Pontiac, MI
 January 11, 2006: Update in management of type 2 diabetes, North Oakland Medical Center, Pontiac, MI
 January 21, 2006: Therapy of diabetes: Where do we go from next? Update in Hypertension and Diabetes, Ypsilanti, MI
 January 24, 2006: Incretin mimetics: A new treatment option, Bloomfield Hills, MI
 February 2, 2006: 2006 Update on Therapy of Type 2 Diabetes, Bon Secours Hospital, Grosse Pte, MI
 February 7, 2006: Introducing exenatide, Sylvania, OH
 February 8, 2006: Incretin mimetics in management of type 2 diabetes, Toledo, OH
 March 7, 2006: Management of psychiatric illness and metabolic comorbidities, Lansing, MI
 March 13, 2006: Incretin mimetics: A new treatment option in the continuum of care of type 2 diabetes,

Pontiac, MI

- March 15, 2006: New insulin treatment options, Bloomfield Hills, MI
- March 16, 2006: An introduction to Byetta® (exenatide) injection, Saginaw, MI
- March 21, 2006: 2006 Update in management of type 2 diabetes, Alpena Regional Hospital, Alpena, MI
- March 22, 2006: Incretin mimetics in management of type 2 diabetes, Cheboygan, MI
- March 28, 2006: Update in treatment of dyslipidemias, North Oakland Medical Center, Pontiac, MI
- April 4, 2006: Management of psychiatric illness and metabolic comorbidities, Columbus, OH
- April 12, 2006: Levemir®: A new long-acting basal insulin, Troy, MI
- April 13, 2006: Therapy of Diabetes: Where Do We Go Next?, Ann Arbor, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – cont'd

- April 19, 2006: Introduction to Byetta® (exenatide) injection, Detroit, MI
- April 20, 2006: Introduction to Byetta® (exenatide) injection, Troy, MI
- April 24, 2006: Levemir®: A new long-acting basal insulin, Troy, MI
- April 25, 2006: Levemir®: A new long-acting basal insulin, Midland, MI
- April 26, 2006: Pancreatic Hormones and the Amylin Analog, Symlin®, Pontiac, MI
- May 1, 2006: Levemir®: A new long-acting basal insulin, Grosse Pointe Farms, MI
- May 2, 2006: Update in treatment of dyslipidemias, St. Joseph Mercy Oakland, Pontiac, MI
- May 2, 2006: Management of psychiatric illness and metabolic comorbidities, Kalamazoo, MI
- May 10, 2006: Incretin Mimetics: A New Treatment Option in Type 2 Diabetes, Warren, MI
- May 11, 2006: Incretin Mimetics: A New Treatment Option in Type 2 Diabetes, Traverse City, MI
- May 12, 2006: Incretin Mimetics: A New Treatment Option in Type 2 Diabetes, Petoskey, MI
- May 12, 2006: Diabetes Management in 2006 and Beyond, Munson Medical Ctr Grand Rounds, Traverse City, MI
- May 16, 2006: Pancreatic Hormones and the Amylin Analog, Symlin®, Cincinnati, OH
- May 17, 2006: Update on diabetes management, Ohio State University, Columbus, OH
- May 17, 2006: Optimizing Symlin® Clinical Use in Insulin-Requiring Diabetes, Columbus, OH
- May 18, 2006: Levemir®: A new long-acting basal insulin, Royal Oak, MI
- May 22, 2006: Levemir®: A new long-acting basal insulin, Troy, MI
- May 23, 2006: An introduction to exenatide in type 2 diabetes management, Grand Rapids, MI
- May 24, 2006: An introduction to exenatide in type 2 diabetes management, Cedar Springs, MI
- May 24, 2006: Insights into Initiating Insulin Therapy, Grand Rapids, MI
- June 6, 2006: Levemir®: A new long-acting basal insulin, Northville, MI
- June 20, 2006: Levemir®: A new long-acting basal insulin, Sylvania, OH
- June 21, 2006: Update on diabetes management, Medical University of Ohio, Toledo, OH
- June 22, 2006: Taking Care of Diabetes In the Hospital, St. Joseph Mercy Oakland, Pontiac, MI
- June 26, 2006: Levemir®: A new long-acting basal insulin, Dearborn, MI
- June 27, 2006: Levemir®: A new long-acting basal insulin, Ann Arbor, MI
- June 29, 2006: Pancreatic Hormones and the Amylin Analog, Symlin®, Saginaw, MI
- July 10, 2006: Impact of atypical antipsychotics on medical comorbidities, Toledo, MI
- July 13, 2006: New insulin treatment options for diabetes management, Birmingham, MI
- July 20, 2006: Levemir®: A new long-acting basal insulin, Detroit, MI
- August 1, 2006: Levemir®: A new long-acting basal insulin, Kalamazoo, MI
- August 2, 2006: New options for insulin therapy, Bridgman, MI
- August 2, 2006: New approaches to diabetes therapy, Kalamazoo, MI
- August 5, 2006: Advances in diabetes management: 2006 and beyond. 26th Annual BMANA Convention, Detroit, MI
- August 7, 2006: Exubera®: Changing the diabetes experience, Port Huron, MI
- August 9, 2006: Exubera®: Changing the diabetes experience, Troy, MI
- August 16, 2006: Patient Case Studies in Management of Type 2 Diabetes, St. Joseph Mercy Oakland, Pontiac, MI
- August 28, 2006: Optimizing treatment of dyslipidemia in type 2 diabetes, St. Joseph Mercy Oakland, Pontiac, MI
- September 6, 2006: Using inhaled insulin in practice, Troy, MI
- September 12, 2006: When Should You Start Insulin in Type 2 Diabetes?, Bon Secours Cottage, Grosse Pointe, MI
- September 14, 2006: Update on treatment of dyslipidemia, Bloomfield Hills, MI
- September 19, 2006: Atypical antipsychotics and comorbidities in mental illness, Pontiac, MI
- September 20, 2006: Management of psychiatric illness and metabolic comorbidities, Flint, MI
- September 21, 2006: Byetta®: Key learning and clinical pearls, Frankenmuth, MI
- September 26, 2006: Incretins: Translating science into patient care, West Bloomfield, MI
- September 28, 2006: How to use inhaled insulin in type 2 diabetes?, Brighton, MI
- October 18, 2006: Management of bipolar disease and metabolic comorbidities. Pontiac, MI

October 25, 2006: Appropriate use of oral hypoglycemic agents in type 2 diabetes mellitus. Michigan State Medical Society Annual Scientific Meeting, Troy, MI

October 25, 2006: Byetta®: First incretin analog in diabetes practice. Bloomfield Hills, MI

October 31, 2006: Pancreatic hormones and pramlintide in the treatment of diabetes. St. Joseph Mercy Oakland, Pontiac, MI

November 1, 2006: Alterations of endocrine function. Pathophysiology course at University of Detroit Mercy

November 1, 2006: New perspectives on incretin hormone. Ann Arbor, MI

November 6, 2006: Systemic Pathophysiology graduate course (PTH-7500), Wayne State University

November 6, 2006: Expanding insulin options. Birmingham, MI

November 7, 2006: Insight into Levemir®, a new long-acting basal insulin, West Branch, MI

November 8, 2006: Intensifying insulin therapy. Midland, MI

November 14, 2006: Management of psychiatric illness and medical comorbidities. Syosset, NY

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

November 15, 2006: Management of metabolic syndrome in psychiatric illness. Smithtown, NY

November 20, 2006: Schizophrenia and metabolic syndrome. Saginaw, MI

November 21, 2006: Management of metabolic syndrome in severe mental illness. Westland, MI

November 28, 2006: Dynamic relationship between insulin and glucagon. Roscommon, MI

December 18, 2006: Exubera®: Changing the diabetes experience. Monroe, MI

December 19, 2006: How does inhaled insulin fit into your practice? Troy, MI

December 20, 2006: Staring inhaled insulin in patients with type 2 diabetes. Southfield, MI

January 8, 2007: Managing inpatient hyperglycemia. Mid-Michigan Medical Center, Midland, MI

January 9, 2007: Understanding the role of incretins and DPP-4 inhibition. Big Rapids, MI

January 16, 2007: Using basal insulins in management of type 2 diabetes. Troy, MI

January 18, 2007: Opportunities for incretins in type 2 diabetes. Detroit Receiving Hospital

January 20, 2007: Emerging therapies in the management of diabetes. Borgess diabetes retreat, Augusta, MI

January 22, 2007: Case studies in management of type 2 diabetes. Troy, MI

January 23, 2007: Dynamic relationship between insulin and glucagon. Novi, MI

January 29, 2007: 2007 Update on diabetes management. St. Joseph Mercy-Ann Arbor, MI

January 30, 2007: Exubera®: Changing the diabetes experience. Ann Arbor, MI

February 7, 2007: Inhaled insulin in diabetes practice. Marshall, MI

February 8, 2007: Using Exubera® in management of diabetes. Kalamazoo, MI

February 9, 2007: Expanding insulin options. Stevensville, MI

February 15, 2007: Incretins in treatment of diabetes. Bon Secours Hospital, Grosse Pointe, MI

February 19, 2007: Levemir®, a long-acting basal insulin. Grosse Pointe, MI

February 20, 2007: ADOPT, the largest head-to-head diabetes trial. Jackson, MI

February 20, 2007: Using insulins in 2007. Bay City, MI

February 26, 2007: Using inhaled insulin. Troy, MI

February 27, 2007: Management of mental illness and diabetes. Saginaw, MI

March 1, 2007: Update on treatment of type 2 diabetes. Grand Rounds, Spectrum-Blodgett, Grand Rapids, MI

March 1, 2007: Exubera®: Changing the diabetes experience. Muskegon, MI

March 2, 2007: Using inhaled insulin in clinical practice. Grand Rapids, MI

March 7, 2007: Using inhaled insulin in clinical practice. Troy, MI

March 8, 2007: Byetta®: Key learning and clinical pearls. Commerce, MI

March 13, 2007: Using Byetta® in clinical practice. Cleveland, OH

March 14, 2007: Managing inpatient hyperglycemia. Grand Rounds, St. Vincent Charity, Cleveland, OH

March 14, 2007: Understanding the role of incretins and DPP-4 inhibition. Southfield, MI

March 15, 2007: New insulin treatment options for diabetes management. Troy, MI

March 19, 2007: Emerging therapies in management of diabetes. Farmington Hills, MI

March 20, 2007: Management of psychiatric illness and medical comorbidities. Columbus, OH

March 21, 2007: Management of psychiatric illness and medical comorbidities. Worthington, OH

March 27, 2007: Changing diabetes experience. Monroe, MI

April 3, 2007: Understanding the role of incretins and DPP-4 inhibition. Detroit Receiving Hospital

April 13, 2007: Current strategies and needs for managing the critically ill patient with diabetes. AACE 16th Annual Meeting, Seattle, WA

April 17, 2007: Risk vs. Benefit of treatments for the mentally ill. St. Louis, MO

April 19, 2007: Clinical Update on Diabetes. Family Medicine Scientific Session. Michigan State University, Augusta, MI

April 24, 2007: Options for combination therapy in type 2 diabetes. Livonia, MI

April 25, 2007: Initiation and intensification of insulin therapy. Rochester, MI

April 26, 2007: Options for combination therapy in type 2 diabetes. Dearborn, MI

May 1, 2007: Initiating insulin therapy. St. Clair Shores, MI
 May 1, 2007: Treatment strategies for mentally ill with metabolic comorbidities. Troy, MI
 May 2, 2007: Combination drug therapy for patients with type 2 diabetes. Novi, MI
 May 3, 2007: Insulin analog choices. Troy, MI
 May 7, 2007: Using incretin analogs. Jonesville, MI
 May 8, 2007: Lessons from clinical experience with Byetta®. Tecumseh, MI
 May 12, 2007: Wayne State University Medical Alumni Reunion. Detroit, MI
 May 14, 2007: ADOPT, the largest head-to-head diabetes trial. Bingham Farms, MI
 May 15, 2007: Treatment strategies for mentally ill with metabolic comorbidities. Novi, MI
 May 22, 2007: Translating science into patient care. Indianapolis, IN
 May 22, 2007: Treatment strategies for mentally ill with metabolic comorbidities. Indianapolis, IN
 May 24, 2007: A case study approach to insulin initiation. Troy, MI
 May 30, 2007: A case study approach to insulin initiation. West Bloomfield, MI
 May 31, 2007: Insulin initiation and device update. Ann Arbor, MI
 June 5, 2007: Treatment strategies for mentally ill with metabolic comorbidities. Okemos, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

June 12, 2007: Understanding the role of incretins and DPP-4 inhibition. Monroe, MI
 June 14, 2007: Update on insulin analogs in practice. Troy, MI
 June 19, 2007: Lessons from clinical experience with Byetta®. Rochester Hills, MI
 June 21, 2007: Update on treatment of dyslipidemias. Birmingham, MI
 June 27, 2007: Grand Rounds, St. Joseph Mercy Oakland, Pontiac, MI
 June 28, 2007: Place for inhaled insulin in clinical practice. Ann Arbor, MI
 July 19, 2007: Insulin analog choices. Troy, MI
 July 26, 2007: Discussion of core defects in type 2 diabetes. Novi, MI
 August 4 and 5, 2007: 7th Annual Update in Internal Medicine. Wayne State University, Bay Harbor, MI
 August 7, 2007: Different insulin analogs for different patients. Dearborn, MI
 August 9, 2007: Translating science into patient care. Bloomfield Hills, MI
 August 15, 2007: Using insulin analogs in practice. Farmington Hills, MI
 August 21, 2007: Translating science into patient care. West Bloomfield, MI
 August 28, 2007: Byetta® in primary care setting. Flint, MI
 August 28, 2007: Consider weight when prescribing insulin. Northville, MI
 September 25, 2007: Targeting mechanisms for a comprehensive approach. Northville, MI
 September 25, 2007: Core defects of type 2 diabetes. Howell, MI
 October 2, 2007: Gain control-sustain control. Farmington Hills, MI
 October 9, 2007: GLP-1 analogs: clinical pearls. Lansing, MI
 October 9, 2007: Medical Grand Rounds, Mt. Clemens General, Mt. Clemens, MI
 October 11, 2007: Gain control-sustain control, Troy, MI
 October 13, 2007: Metabolic syndrome and type 2 diabetes update. 32nd Annual Conference of the Michigan Academy of Physician Assistants. Traverse City, MI
 October 16, 2007: Metabolic issues in using antipsychotic drugs. Flint, MI
 October 16, 2007: Assessing the risk vs. benefit in mentally ill. Bay City, MI
 October 16, 2007: Treatment strategies for mentally ill with metabolic comorbidities. Grand Blanc, MI
 October 18, 2007: Insulin analogs in practice. Southfield, MI
 October 20, 2007: Insulin analog choices for different patients. APPGC Annual Scientific Meeting. Cincinnati, OH
 October 22, 2007: Translating Science into Patient Care. Louisville, KY
 October 23, 2007: Byetta use in practice. Clarksville, IN
 October 23, 2007: Incretin analogs in type 2 diabetes. Columbus, IN
 October 23, 2007: GLP-1 analogs: Key learnings. Indianapolis, IN
 October 29, 2007: Managing inpatient hyperglycemia. Oakwood Hospital, Dearborn, MI
 November 5, 2007: Diabetes mellitus. Systemic Pathophysiology graduate course (PTH-7500), Wayne State University
 November 5, 2007: DPP-4 inhibitors in clinical practice. Detroit, MI
 November 6, 2007: Byetta use in practice. Waterford, MI
 November 8, 2007: Insulin analogs in clinical practice. Rochester Hills, MI
 November 14, 2007: Managing inpatient hyperglycemia. William Beaumont Hospital. Royal Oak, MI
 November 14, 2007: Choice of insulin analogs in type 2 diabetes. Novi, MI
 November 16, 2007: Managing inpatient hyperglycemia. William Beaumont Hospital. Troy, MI
 November 26, 2007: Byetta experience. 2007 Update. Cadillac, MI
 November 27, 2007: GLP-1 analogs: Use in type 2 diabetes. Traverse City, MI
 December 4, 2007: Metabolic issues in using antipsychotic drugs. Flint, MI
 December 5, 2007: Treatment strategies for mentally ill with metabolic comorbidities. Lansing, MI

December 11, 2007: Disease of the Month, Center for Molecular Medicine & Genetics, Wayne State University
 December 13, 2007: Insulin analog choices. Troy, MI
 December 17, 2007: Integrating new technologies into diabetes management. Novi, MI
 December 19, 2007: Internal Medicine Grand Rounds. William Beaumont Hospital, Royal Oak, MI
 January 8, 2008: Internal Medicine Grand Rounds. St. Joseph Mercy Oakland, Pontiac, MI
 January 29, 2008: Educational Series on Diabetes. Division of Endocrinology, University of Hawaii, Honolulu, HI
 January 30, 2008: Update on use of TZD's in type 2 diabetes. Honolulu, HI
 January 31, 2008: Levemir: A Long-Acting Basal Insulin, Honolulu, HI
 February 1, 2008: Update on clinical trials in type 2 diabetes. Honolulu, HI
 February 5, 2008: Advancing our understanding of glycemic control. Trenton, MI
 February 14, 2008: Endocrinology Update: Glycemic Targets in 2008, Bon Secours Hospital, Grosse Pointe, MI
 February 18, 2008: Clinical Challenges with DPP-4 Analogs. Detroit, MI
 February 26, 2008: Clinical pharmacology of insulin analogs. Lansing, MI
 February 26, 2008: Using basal insulins in practice. Okemos, MI
 February 28, 2008: Clinical challenges with use of incretin analogs in practice. Milford, MI
 March 4, 2008: Helping patients achieve 24/7 control. Mt. Pleasant, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

March 6, 2008: Byetta update, Bloomfield Hills, MI
 March 13, 2008: Use of GLP-1 analogs in practice. Troy, MI
 March 18, 2008: Risks vs. benefits of treatments in mentally ill. Lansing, MI
 March 19, 2008: The insulin analog difference. Livonia, MI
 March 24, 2008: Incretin analogs in practice. Rock Hill, SC
 March 25, 2008: Byetta use update. USC School of Medicine, Columbia, SC
 March 27, 2008: Translating science into patient care. Southfield, MI
 April 12, 2008: Do the benefits of new therapies in diabetes justify the cost? Annual meeting of Michigan Chapter of AACE, Ann Arbor, MI
 April 14, 2008: A case-based approach to challenges in type 2 diabetes. West Bloomfield, MI
 April 22, 2008: Advancing our understanding of glycemic control. Cadillac, MI
 April 23, 2008: Clinical challenges in type 2 diabetes management. West Branch, MI
 April 28, 2008: Managing inpatient hyperglycemia. Oakwood Hospital, Dearborn, MI
 May 6, 2008: Basal and prandial insulin therapy. St. Joseph Mercy Oakland, Pontiac, MI
 May 16, 2008: Clinical trials targeting glycemia. Annual meeting of AACE. Orlando, FL
 May 20, 2008: Gain control-sustain control. Houston, TX
 May 21, 2008: Use of TZD's in type 2 diabetes: update. Ft. Worth, TX
 June 3, 2008: Refocusing on glucose regulation in T2DM. Livonia, MI
 June 25, 2008: Managing glycemic levels in type 2 diabetic patient. Blue Cross Blue Shield, New Hudson, MI
 June 26, 2008: Gain control-sustain control, Birmingham, MI
 July 8, 2008: Update on management of type 2 diabetes. Houston, TX
 July 11, 2008: A combination therapy regimens in type 2 diabetes. Troy, MI
 July 15, 2008: Clinical challenges in type 2 diabetes management. Lansing, MI
 July 17, 2008: Byetta update. Bloomfield Hills, MI
 July 28, 2008: Update on managing glycemia in type 2 diabetes. Troy, MI
 July 29, 2008: Advancing our understanding of glycemic control. Southfield, MI
 July 31, 2008: Translating science into patient care. St. Joseph Mercy Oakland, Pontiac, MI
 August 2-3, 2008: WSU School of Medicine 8th Annual Update in Internal Medicine, Bay Harbor, MI
 August 4, 2008: Update of type 2 diabetes management. Grand Blanc, MI
 August 12, 2008: Does glycemic control matter? Birmingham, MI
 August 13, 2008: Clinical review and discussion on managing type 2 diabetes. Troy, MI
 August 24, 2008: Quo Vadis, Endocrinology and Metabolism? Annual meeting of Carolinas Chapter of AACE, Hilton Head, Island, SC
 August 26, 2008: Managing glycemic levels in type 2 diabetes. Houston, TX
 September 10, 2008: Update on Byetta use in practice. Troy, MI
 September 17, 2008: Helping patients fit improved control into their lives. West Bloomfield, MI
 September 18, 2008: Managing glycemia in type 2 diabetic patient. Grand Blanc, MI
 September 19, 2008: How do you manage type 2 diabetes in 2008? 2nd annual diabetes symposium, Dearborn, MI
 September 19, 2008: Update in Diabetes. Am Society of Hypertension, Midwest Chapter, Plymouth, MI
 September 23, 2008: Update on management of type 2 diabetes. Honolulu, HI
 September 25, 2008: Clinical trials targeting glucose control vs. cardiovascular risks. Honolulu, HI

October 2, 2008: The insulin analog difference. Birmingham, MI
 October 10-12, 2008: Conference on Childhood diabetes & obesity (3 lectures). Doha, Qatar
 October 14, 2008: Assessing triple therapy in type 2 diabetes. Lansing, MI
 October 20, 2008: Update on type 2 diabetes management. Grand Blanc, MI
 October 21, 2008: Diabetes Update. CME symposium. Pontiac, MI
 October 22, 2008: Do we know how to manage type 2 diabetes in 2008? 143rd annual scientific meeting, Michigan State Medical Society, Troy, MI
 October 29, 2008: Clinical Update on Diabetes. Medical Grand Rounds. Northern Michigan Hospital, Petoskey, MI
 November 3, 2008: Diabetes mellitus. Systemic Pathophysiology graduate course (PTH-7500), Wayne State University
 November 4, 2008: Building a combination therapy for type 2 diabetes. Birmingham, MI
 November 5, 2008: 9th Annual Norman N. Krieger, M.D. Lecture in Geriatric Medicine. Novi, MI
 November 5, 2008: Initiating, titrating, intensifying insulin analog therapy. Novi, MI
 November 6, 2008: Management strategies for cardiometabolic diseases. Birmingham, MI
 November 7, 2008: Refocusing on glucose regulation in T2DM. Trenton, MI
 November 11, 2008: Navigating through decisions on insulin therapy management. Waterford, MI
 November 13, 2008: Byetta: Key learnings and clinical pearls. Birmingham, MI
 November 17, 2008: Practical review of basal and prandial insulin analogs. Troy, MI
 November 18, 2008: The benefits, the risks, and the balance – decisions in treating mental illness. Waterford, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

November 20, 2008: Combination therapy for type 2 diabetes. Detroit, MI
 December 2, 2008: Making mealtime insulin control achievable. West Bloomfield, MI
 December 4, 2008: Diagnosis and treatment of hepatosteatosis. 48th Annual Meeting of Sociedad Mexicana de Nutricion y Endocrinología, Cancún, Mexico
 December 4, 2008: Strict glucose control increases cardiovascular risk? 48th Annual Meeting of Sociedad Mexicana de Nutricion y Endocrinología, Cancún, Mexico
 December 9, 2008: Managing glycemia in type 2 diabetes. Division of Endocrinology, U of Missouri, Columbia, MO
 December 9, 2008: Update on type 2 diabetes management. Jefferson City, MO
 December 11, 2008: Intensive insulin therapy in type 2 diabetes. Birmingham, MI
 December 16, 2008: Confronting difficult clinical decisions in treating mental illness. Farmington Hills, MI
 December 16, 2008: Combination therapy regimen for type 2 diabetes. Mt. Clemens, MI
 January 17, 2009: Clinical Research Principles, Tempe, AZ
 February 17, 2009: Management of Inpatient Glycemia, Firelands Regional Med Center, Sandusky, OH
 February 18, 2009: Achieving 24/7 Glucose Control, Troy, MI
 March 3, 2009: Recent findings related to TZD therapy, Grand Blanc, MI
 March 5, 2009: Insulin Analog update, Wyandotte, MI
 March 12, 2009: Incretin key learnings, Bloomfield Hills, MI
 March 24, 2009: Translating science to patient care, Troy, MI
 March 31, 2009: Diabetes: a case-based approach, Southfield, MI
 April 2, 2009: Decision on insulin therapy management, Novi, MI
 April 23, 2009: Bile acid resins in diabetes management, Troy, MI
 April 28, 2009: Monitoring comorbidities in severe mental illness, Warren, MI
 April 28, 2009: Incretin analogs in diabetes practice, Clarkston, MI
 May 20, 2009: Managing glycemic control in type 2 diabetes, Commerce Twshp, MI
 May 21, 2009: Basal insulin therapy, Munster, IN
 May 21, 2009: Insulin analog difference, Oak Brook, IL
 May 22, 2009: Using insulin analog premixes, Advocate Healthcare, Oak Brook, IL
 May 26, 2009: Addressing weight issue in type 2 diabetes therapy, Grand Rapids, MI
 May 27, 2009: Achieving glycemic control in hospitals, Spectrum-Butterworth System, Grand Rapids, MI
 May 28, 2009: Once-daily use of insulin basal analog, Rochester, MI
 June 3, 2009: Diabetes Dialog, Troy, MI
 June 19, 2009: Optimal use of insulin analogs, Detroit, MI
 June 23, 2009: Enhancing our knowledge of type 2 diabetes, Milwaukee, WI
 June 24, 2009: Targeting barriers to glycemic control, Milwaukee, WI
 June 24, 2009: Clinical challenges in diabetes practice, Milwaukee, WI
 June 26, 2009: Achieving 24/7 glycemic control, troy, MI
 June 27, 2009: Advances in management of type 2 diabetes, AACE PCP program, Dearborn, MI
 July 21, 2009: Diabetes expert series, Saline, MI
 July 23, 2009: Using bile acid resins in diabetes management, Grand Blanc, MI

July 30, 2009: Colesevelam in type 2 diabetes: an update, Detroit, MI
 August 19, 2009: Helping your patients achieve glycemic control, Detroit, MI
 August 25, 2009: Update on insulin analogs in type 2 diabetes management, Commerce Twshp, MI
 August 27, 2009: Intensifying insulin therapy, Detroit, MI
 September 14, 2009: Managing glycemic control in type 2 diabetes, Bloomfield Hills, MI
 September 16, 2009: A1c reduction and weight loss with incretin analogs, Rochester, MI
 September 19, 2009: Diabetes and vascular care, ADA Diabetes EXPO, Detroit, MI
 September 22, 2009: What matters most in insulin analogs?, Southfield, MI
 September 23, 2009: Gain control, sustain control in type 2 diabetes, Troy, MI
 October 5, 2009: Strategies for earlier use of combination therapy, Bryan Medical Group, Bryan, OH
 October 5, 2009: Hypoglycemia and its effect on patients with type 2 diabetes, Defiance, OH
 October 6, 2009: Glycemic levels in type 2 diabetes, Gladwin, MI
 October 6, 2009: Update on type 2 diabetes, MMPC Beltline, Grand Rapids, MI
 October 6, 2009: Update on type 2 diabetes research trials, Grand Rapids, MI
 October 12, 2009: Insulin analog update, Woodland Hills, CA
 October 13, 2009: Contemporary and future approach to insulin therapy, Diabetes Symposium, Providence Tarzana Medical Center, Tarzana, CA
 October 26, 2009: Startegies in action, Bayside, NY
 October 27, 2009: Glycemic targets for type 2 diabetes, Swanson Diabetes Seminar, The Valley Hospital, Ridgewood, NJ
 October 29, 2009: Hypoglycemia in type 2 diabetes management, Grosse Pointe Farms, MI
 November 3, 2009: Using insulin analogs in intensive diabetes therapy, Honolulu, HI
 November 9, 2009: Diabetes, Systemic Pathophysiology graduate course (PTH-7500), Wayne State University

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – cont'd

November 9, 2009: DPP-4 inhibitors in management of type 2 diabetes, Rochester, MI
 November 10, 2009: When to consider GLP-1 analog therapy?, Toledo, OH
 November 10, 2009: Weight reductions with GLP-1 analogs, Toledo, OH
 November 11, 2009: Strategies for cardiometabolic diseases, Southfield, MI
 November 12, 2009: Using DPP-4 inhibitors in type 2 diabetes, Jackson, MI
 November 16, 2009: Glucose monitoring: A new era, Troy, MI
 November 18, 2009: Update on type 2 diabetes management, Grand Rounds, Univ of Mississippi Med Ctr, Jackson, MS
 November 18, 2009: Managing cardiometabolic risk: Univ of Mississippi Medical Center, Jackson, MS
 November 19, 2009: Combination therapy in type 2 diabetes management, Birmingham, MI
 December 5, 2009: Diabetic dyslipidemia, 4th SPED/AACE meeting, San Juan, Puerto Rico
 December 8, 2009: Practical review of insulin analogs, Troy, MI
 December 9, 2009: An update on saxagliptin research study results, Birmingham, MI
 December 10, 2009: Sustained A1c reduction and weight loss: An exenatide update, Bloomfield Hills, MI
 December 10, 2009: Use of DPP-4 inhibitors in clinical practice, Rochester, MI
 December 11, 2009: Case-based discussion of progress in diabetes therapy, Jackson, MI
 December 15, 2009: Metabolic comorbidities of severe mental illness, Flint, MI
 December 15, 2009: Incretin analogs in type 2 diabetes therapy, Lapeer, MI
 December 15, 2009: Monotherapy with GLP-1 analogs, Troy, MI
 January 12, 2010: Contemporary issues in diabetes management, Orlando, FL
 January 13, 2010: Influence of aging on diabetes, Orlando, FL
 January 13, 2010: Targeting barriers to glycemic control, Winter Haven, FL
 January 26, 2010: Managing glycemic levels in type 2 diabetes, Grosse Pointe Woods, MI
 January 27, 2010: Gain control, sustain control on type 2 diabetes, Bloomfield Hills, MI
 February 2, 2010: Challenges in managing type 2 diabetes, The Woodlands, TX
 February 2, 2010: Cardiovascular outcomes studies in type 2 diabetes, Houston, TX
 February 18, 2010: A case-based approach to improve glycemic control in type 2 diabetes, Birmingham, MI
 February 20-21, 2010: AACE Advanced good clinical research practice course, San Francisco, CA
 February 23, 2010: Hypoglycemia and its effects on patients with type 2 diabetes, Lansing, MI
 February 25, 2010: Treatment strategies for patients with type 2 diabetes, Lansing, MI
 March 9, 2010: Managing type 2 diabetes in 2010, Youngstown, OH
 March 9, 2010: Update in type 2 diabetes management, Hubbard, OH
 March 11, 2010: Byetta addresses defects in type 2 diabetes, Troy, MI
 April 1, 2010: Liraglutide in type 2 diabetes, Okemos, MI
 April 6, 2010: GLP-1 receptor agonists, Milan, OH
 April 7, 2010: Liraglutide, a new GLP-1 receptor agonist, Flushing, MI
 April 8, 2010: Update on liraglutide, Troy, MI

April 23, 2010: Insulin Pumps- AACE Diabetes symposium, Boston, MA
 May 4, 2010: Liraglutide - results of phase 3a studies, Austintown, OH
 May 6, 2010: Actos - update in type 2 diabetes management, Troy, MI
 May 11, 2010: Liraglutide update, Detroit, MI
 May 13, 2010: GLP-1 receptor agonists, MI Osteopathic Association annual meeting, Dearborn, MI
 May 15, 2010: Diabetes day for primary care physicians, AACE program, Troy, MI
 May 18, 2010: Review of the RECORD study, Spring, TX
 May 18, 2010: 2010 update on type 2 diabetes management, Houston, TX
 May 19, 2010: Managing glycemia in type 2 diabetes, Houston, TX
 May 19, 2010: Cardiovascular outcomes studies in type 2 diabetes, Sugarland, TX
 May 24, 2010: Byetta addresses defects in type 2 diabetes, Troy, MI
 May 27, 2010: Update on type 2 diabetes management, The Toledo Hospital, Toledo, OH
 May 27, 2010: Hypoglycemia and its effects on patients with type 2 diabetes, Toledo, OH
 June 2, 2010: Gain control, sustain control in type 2 diabetes, Birmingham, MI
 June 10, 2010: GLP-1 and its role in the diabetes continuum, Detroit, MI
 June 15, 2010: Glycemic control with weight loss in type 2 diabetes management, Grand Rapids, MI
 June 19, 2010: Role of hypoglycemia in management of diabetes, Detroit, MI
 June 22, 2010: Influence of aging on diabetes, Aurora Sinai Hospital, Milwaukee, WI
 June 22, 2010: Hypoglycemia in management of diabetes, Milwaukee, WI
 July 8, 2010: Victoza in the continuum of treatment of type 2 diabetes, Livonia, MI
 August 3, 2010: Prediabetes, Cleveland Clinic Foundation CME
 August 10, 2010: Comorbidities in patients with mental illness, W Reuther Psych Hospital, Westland, MI
 August 30, 2010: GLP-1 and its role in the diabetes continuum, Louisville, KY
 August 31, 2010: The value of weight loss in achieving glycemic control, Louisville, KY
 August 31, 2010: GLP-1 receptor agonists in treatment of type 2 diabetes, Louisville, KY
 September 13, 2010: AACE/ADA guidelines for treatment of diabetes, Troy MI
 September 21, 2010: GLP-1 agonists and insulin analogs: their role in therapy of type 2 diabetes, Detroit, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – cont'd

October 5, 2010: Monitoring cardiometabolic comorbidities in mental illness, HRDI, Chicago, IL
 October 12, 2010: Continuous glucose monitoring: practical implications, Toledo, OH
 October 13, 2010: CGM: a tool to optimize insulin therapy decisions; Columbus, OH
 October 14, 2010: Update on insulin pumps, 47th annual diabetes symposium, Columbus, OH
 October 14, 2010: Professional continuous glucose monitoring, Powell, OH
 October 20, 2010: Patient-oriented approach to insulin initiation, Troy, MI
 October 26, 2010: Metabolic comorbidities in severe mental illness, Okemos, MI
 November 2, 2010: 2010 Improving glycemic control in type 2 diabetes, Waterford, MI
 November 2, 2010: Monitoring comorbidities in patients with mental illness, Traverse City, MI
 November 6, 2010: Diabetes: A practical update, N. Michigan Regional Hospital, Bay Harbor, MI
 November 20, 2010: Diabetes EXPO 2010, St John River District Hospital, Port Huron, MI
 November 29, 2010: Update on GLP-1 and insulin analogs, Birmingham, MI
 December 14, 2010: Monitoring comorbidities in patients with mental illness, Toledo, OH
 December 16, 2010: Professional continuous glucose monitoring update, Troy, MI
 December 21, 2010: ADA/AACE guidelines for management of type 2 diabetes, Southfield, MI
 January 4, 2011: Professional continuous glucose monitoring, Sparta, NJ
 January 5, 2011: Endocrinology Grand Rounds, Weill Cornell Medical College, New York, NY
 January 5, 2011: ACCORD trial implications: NJ Chapter of AACE, Raritan, NJ
 January 12, 2011: Update on use of TZDs in type 2 diabetes, Livonia, MI
 January 26, 2011: Medical Grand Rounds: Update on type 2 diabetes management, Wm. Beaumont Hospital, Royal Oak, MI

 February 15, 2011: Managing cardiometabolic risk, Woodland Hills, CA
 February 16, 2011: Individualized management of glycemic control, Lancaster, CA
 February 16, 2011: Call to action on cardiometabolic risk in type 2 diabetes, Torrance, CA
 February 17, 2011: Update on type 2 diabetes management, Torrance, CA
 February 17, 2011: Update on cardiometabolic risk in type 2 diabetes, Pasadena, CA
 February 23, 2011: Individualized management of type 2 diabetes, Milwaukee, WI
 February 23, 2011: Comprehensive management of type 2 diabetes, Madison, WI
 March 6, 2011: New pathways and novel pharmacologic approaches to diabetes management, Diabetes Update Symposium (co-sponsored by American Diabetes Association), Hyderabad, India
 March 7, 2011: Update on comprehensive glycemic control, Ahmedabad, India
 March 8, 2011: Update on comprehensive glycemic control, Pune, India
 March 9, 2011: Update on comprehensive glycemic control, Chennai, India
 March 10, 2011: Update on comprehensive glycemic control, Bangalore, India

March 22, 2011: Using exenatide according to the ADA/AACE guidelines, Cadillac, MI
 March 22, 2011: Exenatide and improvement of beta-cell function, Cadillac, MI
 March 25, 2011: AACE/ACE glycemic algorithm, 1st Annual Diabetes Symposium, Bay City, MI
 March 29, 2011: ADA/AACE guidelines for amnagement of DM, Mt. Pleasant, MI
 March 29, 2011: GLP-1 analogs vs. insulin, Lansing, MI
 March 31, 2011: Professional continuous glucose monitoring, Toledo, OH
 April 27, 2011: Improving beta-cell function, Farmington Hills, MI
 May 3, 2011: Diabetes and Cancer: is there a connection? Tohme-Swanson Diabetes Symposium, The Valley Hospital, Ridgewood, NJ
 May 3, 2011: Update on incretin impairment and use of GLP-1, Fair Lawn, NJ
 May 5, 2011: Update on GLP-1 analogs in type 2 DM, Birmingham, MI
 May 10, 2011: Individualized management of glycemic control, Sheboygan, WI
 May 10, 2011: Individualized management of glycemic control, Mequon, WI
 May 13, 2011: Treating type 2 DM: Don't play catch up; 112th Convention of Michigan Osteopathic Association, Dearborn, MI
 May 24, 2011: Improving glycemic control in type 2 DM with insulin, Troy, MI
 June 2, 2011: A new DPP-4 inhibitor for treatment of type 2 DM, Livonia, MI
 June 20, 2011: Bromocriptine: a new approach in the treatment of type 2 DM, Troy, MI
 July 12, 2011: DPP-4 inhibitors in treatment of type 2 DM, Grand Rapids, MI
 July 13, 2011: Improving beta-cell function in type 2 DM, Birmingham, MI
 July 19, 2011: Colesevelam in treatment of type 2 DM, Tulsa, OK
 July 26, 2011: DPP-4 inhibitors in treatment of type 2 DM, Okemos, MI
 August 17, 2011: Incorporating incretin-based therapies into the diabetes treatment algorithm, AACE Program, Boston, MA
 August 18, 2011: Incorporating incretin-based therapies into the diabetes treatment algorithm, AACE Program, Chicago, IL
 August 23, 2011: Therapeutic options for patients with type 2 DM, West Bloomfield, MI
 September 1, 2011: DPP-4 inhibitors in treatment of type 2 DM, Grand Blanc, MI
 September 7, 2001: Bromocriptine: a new approach in the treatment of type 2 DM, Southfield, MI
 September 8, 2011: DPP-4 inhibitors in treatment of type 2 DM, St. Clair Shores, MI
PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

September 20, 2011: Glycemic control from a GLP-1 receptor agonist, Toledo, OH
 September 22, 2011: Primary prophylaxis of coronary artery disease, 7th Annual Cardiology Symposium, DMC, Southfield, MI
 October 15, 2011: Addressing the incretin defect in type 2 DM, AACE Diabetes Day for Primary Care Physicians, Grand Rapids, MI
 November 2, 2011: Disease progression and the doctor, Detroit, MI
 November 15, 2011: A new DPP-4 inhibitor for type 2 diabetes, Fort Wayne, IN
 November 15, 2011: Enhancing incretin effect in treatment of diabetes, Fort Wayne, IN
 November 18, 2011: Practical strategies in clinical management of diabetes, Medical grand rounds, Mt. Clemens Regional Medical Center, Mt. Clemens, MI
 December 6, 2011: Managing type 2 diabetes: Dual approach for a dual effect, Livonia, MI
 December 7, 2011: Cardiometabolic risk in patients with type 2 diabetes, Houston, TX
 December 7, 2011: Management of cardiovascular risk in type 2 diabetes, The Woodlands, TX
 December 20, 2011: Using GLP-1 analogs in type 2 diabetes, Westerville, OH
 December 20, 2011: Treating type 2 diabetes: Don't play catch up, Columbus, OH
 February 4, 2012: Diabetes Day for Primary Care Physicians, AACE program (3 lectures), Dearborn, MI
 February 6, 2012: Cardiometabolic risk in type 2 diabetes, Platteville, WI
 February 7, 2012: Management of cardiovascular risk in type 2 diabetes, Racine, WI
 February 7, 2012: Cardiometabolic risk in type 2 diabetes, LaCrosse, WI
 February 8, 2012: Challenging clinical inertia, Lansing, MI
 February 16, 2012: Individualized management of glycemic control, Brooklyn, NY
 February 17, 2012: Managing type 2 diabetes: A 2012 update, Medical Grand Rounds, Methodist Hospital, Brooklyn, NY
 February 17, 2012: Emerging science in type 2 diabetes, Flushing, NY
 February 21, 2012: Differentiating DPP-4 enzyme and native GLP-1, Grand Rapids, MI
 February 27, 2012: Continuous glycemic control in a single weekly dose, Southfield, MI
 March 5, 2012: Cardiometabolic risk in type 2 diabetes, Madison, WI
 March 6, 2012: Individualized management of glycemic control, Moline, IL
 March 6, 2012: Management of cardiovascular risk in type 2 diabetes, Madison, WI
 March 20, 2012: Professional continuous glucose monitoring, Lansing, MI
 March 20, 2012: DPP-4 inhibitors for treatment of adult patients with type 2 diabetes, East Lansing, MI

April 19, 2012: Update on DPP-4 inhibitors, Southfield, MI
 May 3, 2012: Initiating and intensifying insulin treatment, Warren, MI
 May 25, 2012: Is it time for a revolution? Role of CSII in improving care in patients with type 1 diabetes, symposium at 21st Annual Scientific and Clinical Congress of AACE, Philadelphia, PA
 May 30, 2012: Once-weekly GLP-1 receptor agonist, Toledo, OH
 June 11, 2012: Current Issues: Will PPAR Agonist Therapy Survive? 72nd Annual Scientific Meetings of ADA, Philadelphia, PA
 June 11, 2012: Building better insulin therapy, symposium at the 72nd Annual Scientific Meetings of ADA, Philadelphia, PA
 June 20, 2012: Once-weekly GLP-1 receptor agonist, Commerce Township, MI
 July 24, 2012: Update on enhancing incretin effect in type 2 diabetes, Wayland, MI
 July 24, 2012: A new approach for improving glycemic control, Grand Rapids, MI
 July 31, 2012: Managing mealtime insulin, American Academy of Family Physicians, Fort Wayne, IN
 August 29, 2012: CV risk and comorbidities in type 2 diabetes, AACE International Academy, Guangzhou, China
 August 29, 2012: Incretins and other novel therapies for type 2 diabetes, AACE International Academy, Guangzhou
 August 30, 2012: The role of incretins in diabetes and metabolism, 11th Annual Meeting of the Chinese Society of Endocrinology, Guangzhou
 September 14, 2012: Incretin based therapy & pancreatic cancer. Diabetes mellitus and cancer. AACE Consensus Conference, New York, NY
 October 29, 2012: Difference between GLP-1 and DPP-4 inhibitors in therapy of type 2 diabetes. Butler, PA
 October 30, 2012: Role of GLP-1 in type 2 diabetes. Erie, PA
 November 7, 2012: Type 2 diabetes-2012 update: Focus on the elderly. 13th Annual Norman N. Krieger, MD Lecture in Geriatric Medicine, Novi, MI
 November 12, 2012: Use of bromocriptine-QR in type 2 diabetes. Southfield, MI
 November 13, 2012: Emerging science in type 2 diabetes. Grand Rapids, MI
 November 14, 2012: Bydureon: A1c reductions in once-weekly dose. Farmington Hills, MI
 November 17, 2012: Early insulin management and delivery. AACE course for PCPs. Bethesda, MD
 November 27, 2012: Diabetes technology update. Birmingham, MI
 December 5, 2012: Exenatide extended release in type 2 diabetes. Clinton Township, MI
 December 8, 2012: Early insulin management and delivery. AACE course for PCPs. Orange, CA
 December 10, 2012: Regulation of glucose homeostasis. Oakland University William Beaumont School of **PRESENTATIONS** (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**
 Medicine, Rochester, MI
 December 15, 2012: Early insulin management and delivery. AACE course for PCPs. Iselin, NJ
 February 18, 2013: Triglyceride therapy redefined. Southfield, MI
 February 20, 2013: Incretins in type 2 diabetes. Troy, MI
 February 23, 2013: Early insulin management and delivery. AACE course for PCPs. Las Vegas, NV
 February 25, 2013: One year data on GLP-1 vs. DPP-4 inhibitor. Grand Rapids, MI
 March 9, 2013: Early insulin management and delivery. AACE course for PCPs. Boston, MA
 March 16, 2013: Deep dive into diabetes. 2013 MICNP Annual Advanced Practice Nursing Conference. Lansing, MI
 March 20, 2013: Diabetes. Systemic Pathophysiology graduate course (PTH-7500), Wayne State University
 April 11, 2013: Dynamic approach to diabetes management in the primary care setting. Troy, MI
 April 22, 2013: New treatment options to improve glycemic control in type 2 diabetes; Birmingham, MI
 April 23, 2013: SGLT-2 inhibitors in type 2 diabetes management. St. Anthony, MN
 April 23, 2013: A new treatment option to improve glycemic control in adult with T2DM. Minneapolis, MN
 April 24, 2013: Powerful A1c reductions with GLP-1 receptor agonists. Farmington Hills, MI
 May 1, 2013: The enduring challenge of T2DM: Assessing current tools. Phoenix, AZ
 May 3, 2013: Severe insulin resistance in diabetes: Pathogenesis and improved patient management. Phoenix, AZ
 May 7, 2013: Improving glycemic control for adult patients with type 2 diabetes. Troy, MI
 May 11, 2013: Optimizing patient outcomes in type 2 diabetes: A roadmap for clinical success. Los Angeles, CA
 May 15, 2013: The role of kidneys in management of type 2 diabetes. Southfield, MI
 May 16, 2013: Triglyceride therapy redefined. Troy, MI
 May 20, 2013: Metformin...Then what? Guidelines in practice. Grand Rapids, MI
 June 4, 2013: Stepwise approach to initiating and intensifying insulin treatment. Bloomfield Hills, MI
 June 5, 2013: A new treatment option to improve glycemic control in type 2 diabetes. Flint, MI
 July 9, 2013: Diabetes treatment update 2013. Medicine Grand Rounds, University of Tennessee,

Knoxville, TN

July 9, 2103: Professional continuous glucose monitoring. Endocrinology Consultants. Knoxville, TN

July 9, 2013: 2013 Focus on what matters. Health Star Physicians Clinic. Morristown, TN

July 9, 2013: Improving glycemic control for adults with type 2 diabetes. Knoxville, TN

July 10, 2013: Stepwise approach to initiating and intensifying insulin treatment. Troy, MI

July 16, 2103: Incretin-based treatment options for adult patients with T2DM. Bloomfield Hills, MI

July 17, 2013: V-Go insulin delivery device for continuous insulin delivery. Beverly Hills, CA

July 18, 2013: Options in insulin delivery. Orange, CA

July 18, 2013: V-Go insulin delivery device for continuous insulin delivery. Costa Mesa, CA

July 23, 2013: Treatment options to improve glycemic control in type 2 diabetes. Preventive Medicine Center, Flint, MI

July 26-28, 2013: 13th Wayne State University Annual Update in Internal Medicine. Bay Harbor, MI

August 6, 2013: The role of kidneys in management of type 2 diabetes. Grand Ledge, MI

August 7, 2013: A new treatment option to improve glycemic control in type 2 diabetes. Troy, MI

August 10, 2013: AACE 2013 Diabetes algorithm. AADE 2103 Annual Meeting. Philadelphia, PA

August 11, 2013: New options for treatment of type 2 diabetes. Honolulu, HI

August 12, 2013: Incretin-based treatment options. Honolulu, HI

August 12, 2013: Optimizing therapy for type 2 diabetes. Honolulu, HI

August 17, 2013: AACE program: Type 2 diabetes day for primary care providers. Troy, MI

August 17, 2013: Initiating and intensifying insulin therapy. AACE program. Troy, MI

August 21, 2013: New treatment options to improve glycemic control in type 2 diabetes. Kalkaska, MI

August 21, 2013: The role of kidneys in management of type 2 diabetes. West Branch, MI

August 24, 2013: Initiating and intensifying insulin therapy. AACE program. Louisville, KY

September 5, 2013: New options in medical treatment of obesity. Troy, MI

September 17, 2013: A new treatment option to improve glycemic control in type 2 diabetes. Lansing, MI

September 17, 2013: V-Go insulin delivery device for continuous insulin delivery. Saginaw, MI

September 18, 2013: Managing type 2 diabetes: Treatment options. Farmington Hills, MI

October 1, 2013: Understanding and accurate use of Humulin R U-500. Troy, MI

October 2, 2013: New treatment options to improve glycemic control in type 2 diabetes. Bloomfield Hills, MI

October 5, 2013: AACE program: New strategies in obesity management. Dearborn, MI

October 8, 2013: Redefining the use of basal insulin. Midland, MI

October 11, 2013: Options for treatment of type 2 diabetes. 2013 Annual meeting of the Michigan Academy of Physician Assistants. Traverse City, MI

October 15, 2013: Understanding and accurate use of Humulin R U-500. Midland, MI

October 15, 2013: Understanding and accurate use of Humulin R U-500. Bay City, MI

October 15, 2013: V-Go insulin delivery device for continuous insulin delivery. Southfield, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

October 22, 2013: Case-based approach to individualized management of glycemic control. Gainesville, GA

October 22, 2013: Challenging clinical inertia: initiation of combination therapy in T2DM. Atlanta, GA

October 23, 2013: Sweet and sour: The mix of diabetes and depression. Annual Scientific meeting of the Michigan State Medical Society. Troy, MI

October 29, 2013: The role of kidneys in management of type 2 diabetes. Southfield, MI

November 2, 2013: AACE program: New strategies in obesity management. Chicago, IL

November 4, 2013: New treatment options to improve glycemic control in type 2 diabetes. Grand Rapids, MI

November 9, 2013: Approach to patients with severe insulin resistance and type 2 diabetes - 2013 and beyond. 11th World Congress Insulin Resistance, Diabetes & Cardiovascular Disease, Los Angeles, CA

November 13, 2013: Diabetes and Cancer. LIII International Congress of Sociedad Mexicana de Nutrición y Endocrinología. Cancún, Mexico

November 20, 2013: A new treatment option to improve glycemic control in type 2 diabetes. Roseville, MI

November 20, 2013: The role of kidneys in management of type 2 diabetes. Warren, MI

November 16, 2013: Initiating and intensifying insulin therapy. AACE program. New York City, NY

November 21, 2013: AACE program: LDL and beyond. Current and future approaches to cholesterol management. Houston, TX

November 23, 2013: AACE program: New strategies in obesity management. Bethesda, MD

December 3, 2013: New options in medical treatment of obesity. Troy, MI

December 4, 2013: Obesity, diabetes, insulin resistance and the renal connection. Endocrinology Grand Rounds. McLaren Macomb Hospital. Mt. Clemens, MI

December 4, 2013: AACE program: New strategies in obesity management. Kenilworth, NJ

December 7, 2103: Initiating and intensifying insulin therapy. AACE program. Caguas, Puerto Rico

December 9, 2013: Regulation of glucose homeostasis. Oakland University William Beaumont School of Medicine, Rochester, MI

December 10, 2013: New strategies for obesity management and Challenges in managing diabetes in pregnancy. Grand Rounds, Obstetrics & Gynecology, Wayne State University. Detroit, MI

December 10, 2013: A new treatment option for management of glycemic control. Saginaw, MI

December 11, 2013: A novel treatment option for chronic weight management. Borges Bariatric Center, Kalamazoo, MI

December 11, 2013: A novel treatment option for chronic weight management. Kalamazoo, MI

December 14, 2013: AACE program: New strategies in obesity management. New Orleans, LA

December 17, 2013: New options in medical treatment of obesity. Indianapolis, IN

January 22, 2014: Changing paradigms in type 2 diabetes management. Southfield, MI

January 30, 2014: Role of kidneys in type 2 diabetes, Farmington Hills, MI

February 9, 2014: Intensifying insulin therapy. ADA 61st Annual Advanced Postgraduate Course, San Francisco, CA

February 11, 2014: Changing paradigms in type 2 diabetes, Midland, MI

February 19, 2014: Evolving paradigms in disease understanding and treatment. Troy, MI

February 25, 2014: New agents for treatment of obesity. Clarksville, IN

February 25, 2014: Lorcaserin in obese patients with type 2 diabetes. Somerset, KY

February 25, 2014: Obesity as a disease. Treat is as such. Lexington, KY

March 3, 2014: Role of kidneys in pathophysiology of diabetes. Bloomfield Hills, MI

March 11, 2014: The AACE comprehensive diabetes management algorithm. Endocrine University, Rochester, MN

March 19, 2014: Diabetes. Systemic Pathophysiology graduate course (PTH-7500), Wayne State University

March 19, 2014: Changing paradigms in type 2 diabetes. Bloomfield Hills, MI

March 27, 2014: Update in the management of type 2 diabetes in adults. Troy, MI

April 1, 2014: Role of kidneys in type 2 diabetes. East Lansing, MI

April 8, 2014: Is there a difference in European and American diabetology? Department of Internal Medicine. Charles University, Prague, Czech Republic

April 10, 2014: Place of PPAR- γ agonists in treatment of diabetes in 2014. 50th annual meeting of the Czech Diabetes Society. Luhacovice, Czech Republic

April 10, 2014: How can we be more successful in treatment of diabetes? 50th annual meeting of the Czech Diabetes Society. Luhacovice, Czech Republic

April 11, 2014: Incretin-based diabetes management. Does it work? Is it safe? Is it all about glucose control? Slovak Academy of Sciences. Bratislava, Slovakia

April 16, 2014: Type 2 diabetes in adults and improving glycemic control. Detroit, MI

April 23, 2014: Comprehensive diabetes management: An update. Medicine Grand Rounds, DMC Huron Valley-Sinai Hospital, Commerce, MI

April 29, 2014: Advancing paradigm changes in type 2 diabetes management. Lansing, MI

May 3, 2014: Incretin based treatment of diabetes. Wayne State University Update Symposium, Dearborn, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

May 6, 2014: Incretin impairment: discovering core defects in type 2 diabetes. Montpelier, OH

May 6, 2014: Type 2 diabetes guidelines: What's the role of incretin therapies? Perrysburg, OH

May 15, 2014: New approach to glycemic control in type 2 diabetes: Targeting the kidney. AACE 23rd annual scientific and clinical congress, Las Vegas, NV

May 16, 2014: Evaluating the obese patient: Who is at risk for obesity-related complications? AACE 23rd annual scientific and clinical congress, Las Vegas, NV

May 20, 2014: A novel treatment option for chronic weight management. Westland, MI

May 20, 2014: Lorcaserin in obese patients with type 2 diabetes. Ann Arbor, MI

May 23, 2014: Update in diabetes management. Division of Endocrinology, University of Washington School of Medicine, Seattle, WA

May 28, 2014: Reaching new millstones: The role of GLP-1 in an aging population. Bloomfield Hills, MI

June 4, 2014: Update in type 2 diabetes guidelines. Detroit, MI

June 15, 2014: Update in the management of type 2 diabetes in adults. San Francisco, CA

June 25, 2014: Changing paradigms in type 2 diabetes. Troy, MI

July 8, 2014: Incretin system in type 2 diabetes. Van Nuys, CA

July 8, 2014: Role of GLP-1 in managing older patients with type 2 diabetes. Bakersfield, CA

July 9, 2014: Evolution of the incretin system in type 2 diabetes. Sansum Clinic, Santa Barbara, CA

August 19, 2014: Once-weekly treatment options for patients with type 2 diabetes. Clarkston, MI

August 20, 2014: Treating obesity as a disease. Bloomfield Hills, MI

September 2, 2014: The role of renal excretion in type 2 diabetes, Huron Valley Sinai Hospital, Commerce Township, MI

September 5, 2014: Chronic weight management with targeted pharmacotherapy. Oak Brook, IL

- September 22, 2014: SGLT-2 inhibitor therapy in type 2 diabetes. Lansing, MI
- September 24, 2014: Update on SGLT-2 inhibitor therapy in type 2 diabetes. Midland, MI
- September 25, 2014: What matters in improving glycemic control on diabetes, Troy, MI
- October 7, 2014: Providing individualized treatment options for type 2 diabetes. Brighton, MI
- October 14, 2014: Individualized therapy for adults with type 2 diabetes. Commerce Township, MI
- October 21, 2014: Update on SGLT-2 inhibitor therapy in type 2 diabetes. Berkley, MI
- October 25, 2014: New strategies in obesity management; AACE course, Dallas, TX
- October 27 2014: Regulation of glucose homeostasis. Oakland University William Beaumont School of Medicine, Rochester, MI
- October 28, 2014: Addressing chronic weight management with pharmacotherapy. Charlotte, NC
- November 4, 2014: Incretin impairment in type 2 diabetes. Columbus, OH
- November 5, 2014: SGLT-2 inhibition: A glucuretic treatment of type 2 diabetes. Bloomfield Hills, MI
- November 11, 2014: Update on pharmacotherapy for weight management. Peoria, IL
- November 15, 2014: New strategies in obesity management; AACE course, San Francisco, CA
- November 17, 2014: Treatment of adult patients with type 2 diabetes. Bloomfield Hills, MI
- November 20, 2014: Advancing paradigm changes in type 2 diabetes management. 12th World Congress Insulin Resistance, Diabetes & Cardiovascular Disease, Los Angeles, CA
- November 22, 2014: Minimizing hypoglycemia in managing diabetes: The role of incretins. 12th World Congress Insulin Resistance, Diabetes & Cardiovascular Disease, Los Angeles, CA
- December 2, 2014: Intensifying insulin therapy. 20th Annual Kaiser Permanente Diabetes Symposium, Anaheim, CA
- December 2, 2014: Incretin impairment: Discovering core defects in type 2 diabetes. Ventura, CA
- December 2, 2014: The role of GLP-1 in aging population. Oxnard, CA
- December 4, 2014: Treatment of adult patients with type 2 diabetes. Birmingham, MI
- December 6, 2014: New strategies in obesity management; AACE course, Miami, FL
- December 9, 2014: SGLT-2 inhibition: A glucuretic treatment of type 2 diabetes. Kalamazoo, MI
- December 11, 2014: Individualizing your treatment decisions. Dearborn, MI
- December 16, 2014: Update on SGLT-2 inhibition in therapy of type 2 diabetes. Petoskey, MI
- January 13-14, 2015: Comprehensive diabetes course for industry; AACE course, Philadelphia, PA
- January 27, 2015: Treatment of adult patients with type 2 diabetes. Frankenmuth, MI
- February 3, 2015: Treatment of adult patients with type 2 diabetes. Huntington Internal Medicine Group, Huntington, WV
- February 4, 2015: Update on treatment choices in type 2 diabetes. Barboursville, WV
- February 13, 2015: Use of initial combination therapy in management of type 2 diabetes. Utica, MI
- February 17, 2015: SGLT2 inhibition: A glucuretic treatment option for treatment of type 2 diabetes. Stevensville, MI
- March 6, 2015: Practical application of CGM in type 1 DM. 97th Annual meeting of the Endocrine Society. San Diego, CA
- March 7, 2015: Clinical & practical applications of DexCom continuous glucose monitoring. 97th Annual meeting of the Endocrine Society. San Diego, CA
- March 10, 2015: Update on use of GLP-1 receptor agonists. Lansing, MI
- March 11, 2015: Diabetes. Systemic Pathophysiology graduate course (PTH-7500), Wayne State Univer

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

- March 17, 2015: Empagliflozin as therapy for improved glycemic control in adults with type 2 diabetes. Lansing, MI
- March 23-24, 2015: Course: pathophysiology and treatment of type 2 diabetes. Atlanta, GA
- March 25, 2015: 14th Annual AACE Endocrine University: Initiating and interpreting glucose meter/insulin pump/sensor downloads in your practice. Rochester, MN
- March 31, 2015: Treatment of adults with type 2 diabetes. Charlotte, NC
- March 31, 2015: Update on treatment of type 2 diabetes, Greensboro, NC
- March 31, 2015: New approaches to therapy of type 2 diabetes. Winston Salem, NC
- April 14, 2015: What do we get out of clinical trials: ACCORD as a model. Department of Internal Medicine, Charles University, Prague, Czech Republic
- April 14, 2015: Update on antidiabetic agents. Diabetology in USA. School of Medicine, Charles University, Prague
- April 14, 2015: Health care delivery in USA in 2015: How does it affect patients with diabetes? School of Medicine, Charles University
- April 16, 2015: Treatment algorithms and their success in therapy of type 2 diabetes. Plenary at the 51st annual meeting of the Czech Diabetes Society. Luhačovice, Czech Republic
- April 16, 2015: Modern approaches to treatment of diabetes in every day practice. Symposium at the 51st annual meeting of the Czech Diabetes Society. Luhačovice, Czech Republic

April 21, 2015: Advancing paradigm changes in type 2 diabetes management. Akron, OH
 April 21, 2015: Individualized approach to the treatment of type 2 diabetes. Erie, PA
 April 22, 2015: Options to consider when intensifying treatment of type 2 diabetes. Mt. Pleasant, MI
 April 28, 2015: Options to consider when intensifying treatment of type 2 diabetes. Westlake, OH
 April 30, 2015: Options to consider when intensifying treatment of type 2 diabetes. Farmington Hills, MI
 May 1, 2015: Deciphering the latest therapy recommendations for type 2 diabetes. At ACP annual meeting, Boston, MA

 May 5, 2015: Learn more about a treatment option for type 2 diabetes. Minneapolis, MN
 May 6, 2015: New therapeutic options for therapy of patients with type 2 diabetes. Milwaukee, WI
 May 6, 2015: Intensification of type 2 diabetes treatment after oral therapy. Troy, MI
 May 9, 2015: Advances in pumping and CGM: Using the newest technology today. 8th annual Type OneNation summit. Belleville, MI

 May 19, 2015: Treatment of adult patients with type 2 diabetes. Falls Church, VA
 May 20, 2015: New approaches to treatment of type 2 diabetes. Arlington, VA
 May 20, 2015: Treatment of adult patients with type 2 diabetes. Gaithersburg, MD
 May 21, 2015: Glucagon and the enigmatic alpha cell. Birmingham, MI
 May 26, 2015: Learn more about a treatment option for adult patients with type 2 diabetes. Chicago, IL
 May 27, 2015: Introducing concentrated insulins into diabetes therapy. Midland, MI
 May 28, 2015: Introducing concentrated insulins into diabetes therapy. Mt. Pleasant, MI
 June 16, 2015: Long term effects of once weekly therapy on A1c and weight. Muskegon, MI
 June 17, 2015: Introducing concentrated insulins into diabetes therapy. West Bloomfield, MI
 June 23, 2015: Update on treatment of adults with type 2 diabetes. High Point, NC
 June 23, 2015: Update on treatment of adults with type 2 diabetes. Greensboro, NC
 June 30, 2015: Intensification of type 2 diabetes treatment after oral therapy. Grand Blanc, MI
 July 8, 2015: Diabetes and insulin therapy. Bloomfield Hills, MI
 July 14, 2015: Multiple options for improved glycemic control in type 2 diabetes. Muskegon, MI
 July 14, 2015: Therapy for type 2 diabetes along with diet and exercise. Grand Rapids, MI
 July 15, 2015: Targeting weight regulation through GLP-1 pathway. Southfield, MI
 July 21, 2015: Treatment of adult patients with type 2 diabetes. Lincolnshire, IL
 July 29, 2015: Targeting weight regulation through GLP-1 pathway. Lansing, MI
 July 31, 2015: 2015 AACE comprehensive diabetes algorithm. 15th Wayne State University Annual Update in Internal Medicine. Bay Harbor, MI

 July 31, 2015: Diabetes drugs for weight loss management or weight loss drugs for diabetes management? 15th Wayne State University Annual Update in Internal Medicine. Bay Harbor, MI
 July 31, 2015: What do you do next if base insulin is not enough to achieve glucose control? 15th Wayne State University Annual Update in Internal Medicine. Bay Harbor, MI

 August 3, 2015: Multiple options for improved glycemic control in type 2 diabetes. Beachwood, OH
 August 4, 2015: Multiple options for improved glycemic control in type 2 diabetes. Canfield, OH
 August 6, 2015: Can you manage diabetes without glucose monitoring? Didn't think so! AADE 2015 Annual Meeting, New Orleans, LA

 August 7, 2015: Diabetes and Cancer: An update. XV Annual Congress of the Peruvian Endocrine Society, Lima, Peru
 August 7, 2015: Will vitamin D save the mankind? Facts vs fiction. XV Annual Congress of the Peruvian Endocrine Society, Lima, Peru

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

August 12, 2015: Using concentrated insulins in diabetes therapy. Troy, MI
 August 17, 2015: Treatment options for adult patients with type 2 diabetes. Stevens Point, WI
 August 18, 2015: Treatment options for adult patients with type 2 diabetes. Green Bay, WI
 August 19, 2015: Intensification of type 2 diabetes treatment after oral therapy. Tecumseh, MI
 August 20, 2015: Using concentrated insulins in diabetes therapy. Bridgewater, NJ
 August 25, 2015: Targeting weight regulation through GLP-1 pathway. Charleston, SC
 August 25, 2015: Glucagon and the enigmatic alpha cell. Charleston, SC
 August 25, 2015: Untangling the core defects in diabetes: A Multisystem disease, Summerville, SC
 August 27, 2015: Dual therapy for adults with type 2 diabetes. Geisinger Clinic Endocrinology, Wiles Barre, PA

 August 27, 2015: Providing individualized treatment options in type 2 diabetes. Allentown, PA
 August 31, 2015: New therapeutic options for adults with type 2 diabetes. Pittsburgh, PA
 September 1, 2015: Learning about treatment options for type 2 diabetes. Wheeling, WV
 September 11, 2015: What endocrinologists need to know about T2DM in 2015 and beyond. California Chapter of AACE Annual Meeting, Newport Beach, CA
 September 13, 2015: Update in type 2 diabetes research. Workshop associated with EASD 2015, Stockholm

September 22, 2015: Targeting weight regulation through GLP-1 pathway. Perrysburg, OH
September 23, 2015: Individualized approach to the treatment of adults with type 2 diabetes. Birmingham, MI
September 30, 2015: Diabetes care in 2015. Diabetes symposium of Hurley Medical Center, Flint, MI
October 13, 2015: Multiple options for improved glycemic control in type 2 diabetes. Saginaw, MI
October 21, 2015: Multiple options for improved glycemic control in type 2 diabetes. Troy, MI
October 24, 2015: SGLT2 inhibitors and DKA: The clinical stories. AACE/ACE scientific review: Association of SGLT2 inhibitors and DKA. Dallas, TX
October 27, 2015: Cardiovascular outcome trials in type 2 DM. Abu Dhabi, UAE
October 28, 2015: Cardiovascular outcome trials in type 2 DM. Dubai Hospital, Dubai, UAE
October 28, 2015: Update on type 2 diabetes therapy. Dubai, UAE
October 28, 2015: Obesity and bariatric surgery. Comprehensive endocrine review course. Gulf Chapter AACE, Dubai, UAE
October 29, 2015: Changing diabetes treatment paradigm: Achieve and maintain success rather than going from failure to failure. The Third Clinical Congress of the Gulf Chapter AACE. Dubai, UAE
October 29, 2015: Risks of antidiabetic drugs: Separating facts from fiction. The Third Clinical Congress of the Gulf Chapter AACE. Dubai, UAE
October 29, 2015: Use of technology in managing patients with type 1 diabetes. The Third Clinical Congress of the Gulf Chapter AACE. Dubai, UAE
October 31, 2015: Cardiovascular outcome trial in type 2 DM. Doha, Qatar
November 6, 2015: Intensification of type 2 diabetes treatment after oral therapy. Bay City, MI
November 6, 2015: Multiple options for improved glycemic control in type 2 diabetes. Midland, MI
November 10, 2015: Individualized approach to the treatment of adults with type 2 diabetes. New York, NY
November 11, 2015: Individualized approach to the treatment of adults with type 2 diabetes. Garden City, NY
November 14, 2015: Clarifying the role of novel and merging treatments for diabetic retinopathy and related eye disorders. Symposium at the AAO 2015 Annual Meeting. Las Vegas, NV
November 17, 2015: Multiple options for improved glycemic control in type 2 diabetes. Grand Rapids, MI
November 25, 2015: AACE guidelines on metabolic disorders. Annual international course on clinical endocrinology. AACE - SMNE, Puerto Vallarta, Jalisco, Mexico
December 8, 2015: Multiple options for improved glycemic control in type 2 diabetes. Twinsburg, OH
December 9, 2015: Clinical overview of concentrated insulins. Birmingham, MI
December 13, 2015: The year in diabetes. 7th joint SPED/AACE International Meeting and 38th Annual Meeting of the Puerto Rican Society of Endocrinology and Diabetes. San Juan, PR
December 15, 2015: Using concentrated insulins in diabetes therapy. Tulsa, OK
December 16, 2015: Diabetes and insulin therapy. Oklahoma City, OK
December 17, 2015: Contribution of the kidney to the pathophysiology of type 2 diabetes. Birmingham, MI
January 20, 2016: Basal insulins to help improve glycemic control in type 2 diabetes. Rochester, MI
January 26, 2016: Update on GLP-1 receptor agonist treatment of type 2 diabetes. South Lyon, MI
January 27, 2016: The diabetes treatment experience. West Bloomfield, MI
February 2, 2016: Basal insulin options for patients with type 1 and type 2 diabetes. Fountain Valley, CA
February 2, 2016: Update on insulin use in patients with diabetes. Beverly Hills, CA
February 2, 2016: Basal insulin analogs in patients with diabetes. Beverly Hills, CA
February 3, 2016: Basal insulin options for patients with type 1 and type 2 diabetes. Mission Viejo, CA
February 3, 2016: Update on insulin use in patients with diabetes. Fullerton, CA
February 3, 2016: Use of insulin in patients with diabetes. Redondo Beach, CA
February 5, 2016: Advancement in Diabetes: 2016 Symposium. Saginaw, MI
February 6, 2016: AACE Diabetes Day for primary care clinicians (2 lectures). Novi, MI
February 9, 2016: New basal insulin options for primary care management of diabetes. Marshall, MI
February 9, 2016: Update on insulin use in diabetes. Jackson, MI

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

February 16, 2016: Role of GLP-1 receptor agonists in management of type 2 diabetes. Canton, OH
February 16, 2016: Place for GLP-1 receptor agonist in type 2 diabetes management. Cortland, OH
February 16, 2016: Update on use of GLP-1 redactor agonists. Beachwood, OH
February 19, 2016: Quo Vadis, Clinical Endocrinology? NIH Inter-institute Endocrine Grand Rounds. Bethesda, MD
February 23, 2016: Dulaglutide as an option for type 2 diabetes management. Troy, MI
March 1, 2016: Individualized approach to treatment of patients with type 2 diabetes. Cedar Rapids, IA
March 1, 2016: Update on treatment approaches of adults with type 2 diabetes. Dubuque, IA
March 1, 2016: Use of SGLT2 inhibitors in type 2 diabetes. Cedar Falls, IA
March 2, 2016: Individualized approach to treatment of patients with type 2 diabetes. Cedar Rapids, IA
March 2, 2016: Use of SGLT2 inhibitors in type 2 diabetes. Des Moines, IA
March 2, 2016: Update on comprehensive management of type 2 diabetes mellitus. Des Moines, IA
March 9, 2016: 15th Annual AACE Endocrine University: Initiating and interpreting glucose meter/insulin

- pump/sensor downloads in your practice. Rochester, MN
- March 10, 2016: AACE comprehensive diabetes course for Janssen diabetes representatives. Bridgewater, NJ
- March 23, 2016: Individualizing treatment of adults with type 2 diabetes. Birmingham, MI
- March 31, 2016: 2016 update in type 2 diabetes management. Medicine Grand Rounds, DMC Huron Valley-Sinai Hospital, Commerce Township, MI
- April 5, 2016: Update on SGLT2 inhibitors in management of type 2 diabetes. Scottsdale, AZ
- April 5, 2016: Individualizing treatment of adults with type 2 diabetes. Scottsdale, AZ
- April 5, 2016: Update on comprehensive management of type 2 diabetes mellitus. Scottsdale, AZ
- April 15, 2016: Modern approach to treating diabetes in everyday practice. Symposium at the 52nd annual meeting of Czech Diabetes Society. Luhačovice, Czech Republic
- April 16, 2016: Should we use high doses of insulin in patients with type 2 diabetes? Plenary at the 52nd annual meeting of Czech Diabetes Society. Luhačovice, Czech Republic
- April 18, 2016: Update on antidiabetic agents. School of Medicine. Charles University, Prague
- April 18, 2016: What is new in diabetes research and therapy: A year in review. PhD course "News in biochemical research". First Faculty of Medicine, Charles University, Prague
- April 18, 2016: Practical advice for therapy of a patient with type 2 diabetes. Symposium of the Clinic for Endocrinology & Metabolism, 3rd Internal Medicine Clinic, Charles University, Prague
- April 19, 2016: Continuing the Czech school in biochemistry in the USA. Society of Prof. J.V. Kostir, Charles University, Prague
- April 21, 2016: Clinical guidelines update: The 2016 AACE diabetes algorithm. 8th Annual meeting of ADIT, Dubrovnik, Croatia
- April 21, 2016: Cardiovascular outcome studies in type 2 diabetes. Symposium at the 8th Annual meeting of ADIT, Dubrovnik
- April 20, 2016: Current approach to treating diabetes in everyday practice. Brno, Czech Republic
- May 10, 2016: Long-acting insulin options in adults with type 1 and 2 diabetes. Dallas, TX
- May 10, 2016: Update on insulin management in diabetes. Mesquite, TX
- May 10, 2016: Basal insulin options in managing adults with diabetes. Plano, TX
- May 17, 2016: Individualized approach to treatment of adults with diabetes. Madison, WI
- May 17, 2016: Update on use of SGLT2 inhibitors in type 2 diabetes. Janesville, WI
- May 17, 2016: Comprehensive approach to therapy of adults with type 2 diabetes. Brookfield, WI
- June 7, 2016: Options to go further in treatment of type 2 diabetes. Stamford, CT
- June 7, 2016: Update in approaches to type 2 diabetes patients. Yonkers, NY
- June 7, 2016: Individualizing approach to patients with type 2 diabetes. White Plains, NY
- June 8, 2016: Update on SGLT2 inhibitors in treatment of type 2 diabetes. Sleepy Hollow, NY
- June 8, 2016: Options for individualized therapy of type 2 diabetes. West Nyack, NY
- June 8, 2016: Do we need SGLT2 inhibitors as an option for type 2 diabetes? Stamford, CT
- June 20, 2016: SGLT2 inhibition: Glucoretic option for treatment of type 2 diabetes. Weatherford, TX
- June 21, 2016: Update on using SGLT2 inhibition in patients with type 2 diabetes. Hickory Creek, TX
- June 21, 2016: Intensifying therapy for type 2 diabetes. Fort Worth, TX
- June 21, 2016: Utilizing weekly GLP-1 RA in therapy of type 2 diabetes. Colleyville, TX
- August 3, 2016: Challenges in intensifying treatment for patients with type 2 diabetes. Dearborn, MI
- August 11, 2016: Basal insulin consideration in the Medicare population. West Bloomfield, MI
- August 30, 2016: Intensifying treatment for type 2 diabetes after oral therapy. Taylor, MI
- September 14, 2016: How do we implement new evidence when managing cardiovascular risk in patients with diabetes? Symposium at the 52nd Annual meeting of EASD, Munich, Germany
- September 25, 2016: Type 2 diabetes update: What endocrinologists need to know about T2DM in 2016 and beyond. Annual meeting of Michigan Chapter of AACE, Mackinac Island, MI
- October 9, 2016: Endocrine Skills Summit 2016. Reimbursement for your diabetes technology work. Chicago, IL

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – cont'd

- October 24, 2016: Glucose homeostasis. Endocrinology course. Oakland University William Beaumont School of Medicine, Rochester, MI
- November 7, 2016: Can SGLT2 inhibition awaken transformation in type 2 diabetes management? Bloomfield Hills, MI
- November 9, 2016: Initiating concentrated insulin in adults with diabetes. Commerce, MI
- November 26, 2016: Diabetes Conclave (Connecting the Kidney to Heart in Diabetes), Manila, Philippines
- November 29, 2016: Goals in lipids for diabetic patients. What is the evidence? LVI SMNE Congreso Internacional. Monterrey, NL, Mexico
- December 3, 2016: GLP-1 RA the "SUSTAINED new LEADER" for Prevention of CVD in Diabetes? 14th Annual World Congress on Insulin Resistance, Diabetes and Cardiovascular Disease, Los

Angeles, CA

December 8, 2016: Using PCSK9 inhibitors to achieve further LDL-C control. Bloomfield Hills, MI

January 24, 2017: A breakthrough in cardiovascular outcomes. Troy, MI

February 2, 2017: Practical strategies to using novel GLP-1 RA and basal insulin combinations in clinical practice. Pri-Med Annual Conference, Ft. Lauderdale, FL

February 22, 2017: The challenge of improving glycemic control in patients with type 2 diabetes. Utica, MI

February 28, 2017: Cardiovascular outcomes in diabetes. Sparrow Hospital, Lansing, MI

February 28, 2017: Addressing cardiovascular risk in patients with type 2 diabetes. Grand Rapids, MI

March 8, 2017: 16th Annual AACE Endocrine University: Initiating and interpreting glucose meter/insulin pump/sensor downloads in your practice. Rochester, MN

March 18, 2017: AACE Diabetes Day for Primary Care Clinicians: Advances in Diabetes Care, Novi, MI (AACE comprehensive diabetes management algorithm; Update on insulin-based agents for type 2 diabetes)

March 21, 2017: Cardiovascular outcomes in type 2 diabetes. Iron Mountain, MI

March 21, 2017: Advances in management of type 2 diabetes and cardiovascular disease. Marquette, MI

March 27, 2017: Update in type 2 diabetes management, Ostrava, Czech Republic

March 28, 2017: Update on diabetes technology, School of Medicine, Olomouc, Czech Republic

March 29, 2017: Update on diabetes technology, Dept. of Medicine, Charles University, Prague

March 30, 2017 : Pharmacology of modern antidiabetic drugs, School of Medicine, Charles University, Prague

March 30, 2017 : Mechanisms of action of SGLT-2 inhibitors. PhD course, First Faculty of Medicine, Charles University, Prague

April 3, 2017: Advances in type 2 diabetes management. Faculty Hospital, Brno, Czech Republic

April 4, 2017: Update on diabetes technology. Institute of Clinical and Experimental Medicine, Prague

April 5, 2017: Mechanisms of gliflozin therapy influencing cardiovascular risk of diabetes. 15th Symposium on Arterial Hypertension. Prague

April 5, 2017: Current Approaches to management of Patients with Type 1 and 2 Diabetes. Symposium at the 53rd annual meeting of the Czech Diabetes Society. Luhačovice

April 20, 2017: A breakthrough in cardiovascular outcome in type 2 diabetes. Columbus, OH

April 21, 2017: Update on type 2 diabetes management. Dublin, OH

April 21, 2017: Advances in management of type 2 diabetes and cardiovascular disease. Westerville, OH

April 25, 2017: Advances in managing cardiovascular outcomes. Indianapolis, IN

April 25, 2017: A breakthrough in cardiovascular outcome in type 2 diabetes. Lafayette, IN

April 26, 2017: Understanding GLP-1 therapy: Patients with diabetes and renal impairment. Troy, MI

May 9, 2017: Global Diabetes Pandemic - Local Implications. Grand Rounds. Department of Obstetrics & Gynecology. Wayne State University. Detroit, MI

MI May 17, 2017: The challenge of improving glycemic control in type 2 diabetes. Sterling Heights, MI

June 9, 2017: Visualizing the future of diabetes management. San Diego, CA

June 12, 2017: Use of PCSK9 inhibitors - satellite of the ADA Annual Meeting, San Diego, CA

June 20, 2017: Options in basal insulin therapy. Lansing, MI

June 27, 2017: Once weekly GLP-1 RA options fo patients with type 2 diabetes. Fishers, IN

June 27, 2017: Advances in type 2 diabetes management. Carmel, IN

IN June 27, 2017: Incretin enhancers as first injectable therapy in type 2 diabetes. West Lafayette, IN

July 14, 2017: Are AACE guidelines too strict? Achieve Targets in Diabetes Care. Annual Meeting. Key-meeting. Keystone, CO

July 15, 2017: AACE and ATTD guidelines for CGM. ATDC meeting. Keystone, CO

July 15, 2017: Diabetes complications update. ATDC meeting. Keystone, CO

August 5, 2017: CGM symposium. Satellite at the AADE annual meeting, Indianapolis, IN

August 8, 2017: Long-acting GLP-1 RA in type 2 diabetes. Iowa Falls, IA

August 8, 2017: Once weekly GLP-1 RA as first injectable in type 2 diabetes. Boone, IA

August 8, 2017: Incretin enhancers in type 2 diabetes management. Waterloo, IA

August 9, 2017: Breakthrough in cardiovascular outcomes. Cedar Rapids, IA

August 9, 2017: SGLT-2 inhibitors in type 2 diabetes management. Des Moines, IA

PRESENTATIONS (Selected invited activity since 2000; abstract presentations excluded) – **cont'd**

August 10, 2017: Long-acting GLP-1 RAs in type 2 diabetes management. Cedar Rapids, IA

August 10, 2017: Once-weekly GLP-1 RA as first injectable in type 2 diabetes. Mount Vernon, IA

August 24, 2017: Advances in pharmacotherapy of type 2 diabetes. Troy, MI

September 10, 2017: Durability of type 2 diabetes treatment: Current gaps and possible solutions. Satellite of EASD annual meeting, Lisbon, Portugal

September 11, 2017: Long-term management of type 2 diabetes: how to reinforce glycemic

durability? Satellite of EASD annual meeting, Lisbon

September 21, 2017: SGLT-2 inhibition transforms type 2 diabetes management. Troy, MI

September 28, 2017: Understanding the treatment of diabetes. Birmingham, MI

October 3, 2017: Options for basal insulin therapy. Norfolk, NE

October 3, 2017: Long-acting GLP-1 RAs in type 2 diabetes management. Norfolk, NE

October 11, 2017: rethinking basal insulin options for patients with type 1 and type 2 diabetes. Dearborn, MI

October 11, 2017: Advances in diabetes treatment and technology. Medicine Grand Rounds. Huron Valley-Sinai Hospital. Commerce Twshp., MI

October 12, 2017: What's next after basal insulin? Troy, MI

October 14, 2017: Diabetes Technology Update for Clinicians. 8th Annual Chapter of AACE, Bloomington, MN

Meeting, Minnesota/Midwest

October 18, 2017: GLP-1 RAs in type 2 diabetes management. Akron, OH

October 18, 2017: Once weekly GLP-1 receptor agonists. Lorain, OH

October 18, 2017: Update in type 2 diabetes management. Beachwood, OH

October 24, 2017: Long-acting GLP-1 RAs in type 2 diabetes management. Upper Arlington, OH

October 24, 2017: Once-weekly GLP-1 RA as first injectable in type 2 diabetes. Columbus, OH

November 3, 2017: Emerging technologies in the insulin pump and continuous glucose monitoring space. Diabetes Dialogue. Berlin, Germany

November 8, 2017: It's time to look beyond HbA1c. Indianapolis, IN

November 14, 2017: Diabetes treatment in 2027. Works Diabetes Day 2017. Bern, Switzerland

November 18, 2017: Prevalence and treatment of type 2 diabetes. Highlights of AACE and ADA guidelines - 2017. Troy, MI

December 1, 2017: Role of technology in managing patients with diabetes and insulin resistance. 15th Congress on Insulin Resistance, Diabetes & Cardiovascular Disease. Los Angeles, CA

December 4, 2017: What's new in diabetes management? Hradec Králové, Czech Republic

December 4, 2017: Updates in management of type 2 diabetes. Prague, Czech Republic

December 5, 2017: What's new in type 2 diabetes management? Municipal Hospital, Ostrava, Czech Republic

December 5, 2017: Management of diabetes or ask any questions about diabetes. Ostrava

December 6, 2017: Incorporating cardiovascular outcome studies in diabetes guidelines. Karlovy Vary, Czech Republic

December 6, 2017: Updates in management of diabetes mellitus. Plzeň, Czech Republic

December 7, 2017: Is there a difference between European and American diabetology? South Czech Diabetology Day. České Budějovice. Czech Republic

December 7, 2017: Management of diabetes or ask any questions about diabetes. Příbram, Czech Republic

December 8, 2017: Incorporating cardiovascular outcome studies in diabetes guidelines. Olomouc, Czech Republic

December 13, 2017: What comes after basal insulin for your patients with type 2 diabetes? Detroit, MI