

CURRICULUM VITAE

Dorene Samuels Markel, M.S., M.H.S.A.

Director, University of Michigan Brehm Center
Assistant Research Scientist, Department of Learning Health Sciences
University of Michigan Health System
The Brehm Center
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EDUCATION AND TRAINING

High School

9/1974 – 6/1977 Fordson High School, Dearborn, Michigan

Undergraduate Universities

9/1977 – 5/1979 University of Michigan - Dearborn, Michigan (transferred)

6/1979 – 2/1981 Michigan Technological University, Houghton, Michigan
Bachelor of Science in Biology (Specialization: Genetics)

Graduate Schools

9/1982 – 12/1983 University of Michigan Medical School, Department of Human Genetics, Ann Arbor, Michigan;
Master of Science in Human Genetics (Specialization: Genetic Counseling)

9/1988 – 8/1991 University of Michigan, School of Public Health, Department of Health Services Management and Policy, Ann Arbor, Michigan, Executive Master's Program;
Master of Health Services Administration

Certificates

04/2016 – 10/2016 University of Michigan Development Community Fundraising Fundamentals

01/2015 – 03/2015 Managing to Learn Course Certification (intensive Lean/A3 thinking course for health system senior leadership and managers)

12/2014 Michigan Quality System, Lean Healthcare Course. (2-day course).

11/2013 – 12/2013 AAMC Medical Education Research Certificate (MERC) Program. University of Michigan Medical School, Department of Medical Education. Course Leader: Dr. Larry Gruppen

- 4/2013 – 10/2016 University of Michigan Development Community Fundraising Fundamentals Certificate. Major Gift Officer Training.
- 11/2016 – 12/2016 University of Michigan Medical School Leadership Academy Certificate. Led by: Harley Ostis, President & CEO, H.S. Ostis, Inc.

Internships

- 9/1982 – 12/1983 Division of Medical Genetics, Department of Internal Medicine; University of Michigan Medical School, Ann Arbor, Michigan; rotation supervised by Thomas D. Gelehrter, M.D.
- 9/1982 – 12/1983 Division of Pediatric Genetics, Department of Pediatrics; University of Michigan Medical School, Ann Arbor, Michigan; rotation supervised by Golder Wilson, M.D., Ph.D., and Diane Baker, M.S.
- 3/1984 Department of Medical Genetics; Henry Ford Hospital, Detroit, Michigan; internship supervised by Jacquelyn Roberson, M.D. and Janice Bach, M.S.

APPOINTMENTS

- 8/2008 - present Director, Brehm Center, University of Michigan Health System [30% effort: 8/2008-10/2009, 70% effort: 11/2009-8/2010, 100% effort: 9/2010-present; partial appointment effort reflects prior concurrent roles with MICHR]. Role also includes managing the Brehm Coalition of 10 senior type 1 diabetes scientists at 9 institutions.
- 9/2007 - present Faculty Appointment, Department of Learning Health Sciences (formerly the Department of Medical Education), University of Michigan Medical School. Assistant Research Scientist, 9/2012 – present; Research Investigator, 9/2007 – 8/2012 [faculty appointment with no protected time].
- 9/2003 – 5/2011 Adjunct Instructor, Eastern Michigan University, College of Health and Human Services. Clinical Research Administration Master's Degree Program
Guest lecturer: 2003 – 2011; Course instructor: 2006 – 2010.
- 11/2009 – 8/2010 Associate Director for Alliances and Collaborations, Michigan Institute for Clinical and Health Research (MICHR) [20% effort; role concurrent with Brehm Center Director role], member of MICHR Faculty Leadership Cabinet.
- 11/2006 – 11/2009 Managing Director, Michigan Institute for Clinical and Health Research (MICHR) [100% effort: 11/06-7/08, 70% effort: 8/08-10/09; role concurrent with Brehm Center role]. Home of NIH Clinical and Translational Science Award (CTSA). U of M Regental approval to institute status, November 17, 2006, [formerly named: Center for the Advancement of Clinical Research, (CACR)]
- 6/2006 – 11/2009 Director for Clinical and Translational Research, Medical School Administration, University of Michigan Medical School (concurrent with MICHR role).

- 8/2001 – 5/2006 Program Director, Center for the Advancement of Clinical Research (CACR)
University of Michigan Medical School.
(University Title: Administrative Director Healthcare)
[formerly named: Center for Clinical Investigation and Therapeutics (CCIT)]
Center Director: Daniel Clauw, M.D.
- 4/1996 – 7/2001 Administrative Director, General Clinical Research Center
University of Michigan, Ann Arbor, Michigan
GCRC Center Director: Paul Watkins, M.D. (1991 - 1999)
GCRC Center Director: John Wiley, M.D. (2000 - 2007)
Principal Investigator: Robert Kelch, M.D.
- 1/2000 – 11/2000 Interim Administrative Director (concurrent with GCRC appointment)
University of Michigan Medical School Institutional Review Board (IRBMED)
- 10/1995 – 4/1996 Director, Clinical Trials Center, General Clinical Research Center
University of Michigan, Ann Arbor, Michigan
GCRC Center Director: Paul Watkins, M.D.
- 10/1990 – 10/1995 Director, Family Studies Core (primary role)
Human Genome Center, "Genomic Technology & Genetic Disease"
University of Michigan, Ann Arbor, Michigan
Center Directors: Drs. Meisler, Ph.D. and Gelehrter, M.D. (1993 - 1996)
Founding Center Director: Francis Collins, M.D., Ph.D. (1990 - 1993)
- 10/1990 – 10/1995 Genetic Counselor, Department of Internal Medicine (secondary role)
Division of Molecular Medicine & Genetics,
University of Michigan, Ann Arbor, Michigan
Division Chief: David Ginsburg, M.D.
- 4/1986 – 10/1990 Genetic Counselor (new university title created for my position)
Department of Neurology, University of Michigan, Ann Arbor, Michigan
Roles in this position:
- Director, University of Michigan Huntington's Disease Preclinical Testing Program
 - Genetic Counselor, Department of Neurology, Movement Disorders Clinic . Clinic Chief: Anne B. Young, M.D., Ph.D.
 - Study Coordinator, NIH Grant #501 NS15655
"PET Study of Biochemistry and Metabolism of CNS";
Subprojects: Huntington's Disease - PI: Anne B. Young, M.D., Ph.D.;
Disorders of Motor Function - PI: Sid Gilman, M.D. (Chairman,
Department of Neurology)

- 1/1984 – 4/1986 Research Associate I
 Department of Neurology, University of Michigan
 Ann Arbor, Michigan
 Same duties as above; recognition of new title by University in April, 1986.
- 4/1983-12/1983 Research Assistant
 Department of Human Genetics, University of Michigan
 Ann Arbor, Michigan
 Principal Investigator: Ernest Chu, Ph.D.
 Karyotype analysis of leukemic bone marrow in genetic research studies.
- 6/1982 – 4/1983 Research Assistant
 Department of Pediatrics, University of Michigan, Ann Arbor, Michigan
 Principal Investigators: James V. Neel, M.D. and Samir Hanash, M.D., Ph.D.
 Two-dimensional gel electrophoresis of blood proteins in genetic research studies.
- 9/1979 – 2/1981 Research Assistant
 Department of Biological Sciences, Michigan Technological University
 Houghton, Michigan
 Principal Investigator: Thomas Snyder, Ph.D.
 Starch gel electrophoresis in population genetic research studies.

RESEARCH INTERESTS

My research interests initially centered on the human aspects of disease and research information sharing with patients, families, students and communities. Earlier in my career this focus centered on issues related to genetic risk-assessment information and processes and barriers for sharing genetic diagnosis and risk with patients and families, including the ethical, legal and regulatory aspects. My many years serving on the Medical School IRB were prompted by my interest in the impact of human genetic research and genetic risk prediction and diagnosis on patients and their families in research studies. The latter part of my career has taken those same interests and applied them more broadly to issues of patient and community engagement in clinical research. I was the originator of the U of M's website for clinical research engagement (originally called "Engage" and now called UMClinicalStudies.org). My interest in how the community perceives clinical research involvement was the basis for my NIH grant entitled: "*Engaging the Community in Clinical Research*". In my role as the Brehm Center Director, we are studying and using new models of collaboration with groups of scientists and also among those that fund research, to increase the success and efficiency of the goals of those respective groups. We use a systems analysis approach to looking at complex problems, conduct research and analysis and assist institutional leaders in recommending new approaches and solutions. A current new project is positioning the U of M to launch a institution-wide Diabetes Institute, that would span the breadth of the many schools and colleges and also bridge the interdisciplinary areas that are involved in diabetes research and clinical care. Another new key area of focus is in the area of Learning Health Systems (LHS). I am be engaging the Brehm Center in this area to launch diabetes as an initial platform for a LHS at UMHS. In this area I am also exploring the ethical, legal an social issues that may apply to a LHS and are engaging other university ethical and regulatory leaders to further their understanding to proactively prepare for the an operationalized LHS. The Brehm Center also works to encourage cross-talk between groups that have similar goals, but often lack connection and collaborative interaction.

GRANTS

Previous Grants

JDRF Grant Key: 17-2014-7 (PI: Markel) 1/1/2014 – 6/30/2016
Proposal Title: “*De-differentiation during progression of beta cell loss in type 1 diabetes.*”
This is a multi-site award to the Brehm Coalition of Scientists. Role on project: PI and Brehm Coalition Manager (5% effort). Funding \$1,054,713 for a 2-year period, with 6 month extension.

3 UL1RR024986-05S1 (PI: Shanley) 6/1/11-5/31/12
NIH/NCRR
NIH CTSA Supplement to MICHR CTSA Parent Grant. Proposal Title: “*Multidisciplinary approach to study Type 1 diabetes with residual C-peptide.*” This pilot project involves 7 Brehm Coalition institutions and their respective CTSA’s. Role on project: Co-investigator and overall Project Organizer (10% effort). Funding: \$497,901 for 1-year period.

1 R03 NS065491-0 (PI: Markel) 9/30/08-8/31/10
NIH/NINDS
“*Engaging the Community in Clinical Research,*” Dorene Markel (PI) “Partners in Research” R03 Grant. This grant was awarded in two parts to academic and community partner organizations. My community partner was Celeste Choate, Associate Director of the Ann Arbor Public Library.
Role: Principal Investigator (10% Effort)
Funding: \$130,000 for 2-year period.

1UL1RR024986-01 (PI: Shanely; former PI: Clauw, then Pienta) 9/17/07-5/31/12
1TL1RR024988-01
1KL2RR024988-01
NIH/NCRR
“*Michigan Institute for Clinical and Health Research – Clinical and Translational Sciences Award*”
Roles: Founding Managing Director (9/07-10/09, 100% Effort), Associate Director (11/09-8/10, 20% effort)
Funding \$55 Million for 5-year period.

1 T15 HL072514-01A1 (PI: Goold) 8/4/04-7/31/08
NIH/NHLBI
“*Valid Consent/Refusal: A Core Competency for Research*”
The goals of this project are to develop, implement and evaluate a course designed to improve knowledge and skills of investigators for obtaining consent. *Role: Co-Investigator (10% Effort)*
Michigan Clinical Research Collaboratory An Integrated Academic-Community Research Enterprise (NIH). 9/30/04-12/29/07 (10% effort). The goal of this project was to conduct a feasibility study to see how to best achieve the long-range goal of making data sharing among a broad community of clinical researchers a standard practice. *Role: Collaborator/Human Subjects Expert.* PI: Dan Clauw, M.D.

General Clinical Research Center Grant (NIH). 1995 – 2001 (100% effort). Served as Administrative Director, and saw the grant through a successful competitive renewal in 2000, and wrote many of the grant sections. PI: Gil Omenn M.D., Ph.D.

Michigan Human Gemone Center Grant (NIH). 1990 – 1995 (100% effort). Played a key role in the writing and success of this grant. I developed and ran the Family Studies Core of this grant and played a leadership role as a member of the Executive Leadership Team. PI: Francis Collins, M.D, Ph.D.

PET Study of Biochemistry and Metabolism of CNS. 1984 – 1990 (100% effort). Served as a genetic counselor and study coordinator to these two subprojects of this grant:

Huntington's Disease - PI: Anne B. Young, M.D., Ph.D.

Disorders of Motor Function - PI: Sid Gilman, M.D. (Chairman, Neurology)

HONORS, AWARDS AND ACHIEVEMENTS

Copper Scroll Academic Honor, 1980

Phi Sigma Academic Honor, 1981

Graduated with High Honor in Biology, 1981

Graduated with Honor in Human Genetics, 1983

University of Michigan Distinguished Research Administrator Award, 2001 (first year awarded)

Graduate of the U of M Research Administrators Information Network (RAIN) Program, 2001

President-elect, Society of (GCRC) Administrative Managers (SAM), 2001

Graduate of Healthcare Leadership Institute-Leadership Development Program (UM Health System and Business School) 2003-2004

University of Michigan Medical School Administration Staff Team Award 2005

Society of Research Administrators, Clinical Trials Research Administration 101 and 201 Certifications

University of Michigan Medical School Administrator of the Year Nomination, 2007

Medical School Dean's Award, Administrator of the Year – Honorable Mention (1 of 3), 2008

Medical School Dean's Award, Administrator of the Year – Honorable Mention (1 of 2), 2009

University of Michigan School of Public Health Alumni Society Board of Governors, 2010 – 2012

University of Michigan Health System, Ideal Patient Care Experience Committee Honoree, 2012

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

American College of Healthcare Executives (ACHE), member, since 2015

American Diabetes Association (ADA), member, since 2011

American Society of Human Genetics (ASHG), member, since 1983

Association of Clinical Research Professionals (ACRP), member, since 2001

Council for Support and Advancement of Education (CASE), member since 2016

Drug Information Association (DIA), member, since 2001

Michigan Association of Genetic Counselors (MAGC), member, since 1983

Michigan Society of Research Administrators (MSRA), member, since 2001

National Council of University Research Administrators (NCURA), member, since 2001

National Society of Genetic Counselors (NSGC), member, since 1983

Public Responsibility in Medicine and Research (PRIM&R), member, since 2000

Society for Clinical and Translational Science (SCTS), member, since 2009

Society of Clinical Research Associates (SoCRA), member, since 2001

Society of (GCRC) Administrative Managers (SAM), former member; 2001 President-elect

Society of Research Administrators International (SRA), member, since 2001

PEER-REVIEW SERVICE

Journal of Genetic Counseling, Reviewer, 1995 – present. Selected to review as needed.

Journal of Health Disparities Research and Practice, 2011 – present. Selected to review as needed.

TEACHING

Students and Trainees Mentored (does not include mentored Brehm Scholars)

Janet Kinney, U of M K30 Program Scientific Advisory Committee (2005-08)

Patti Franckowiak, U of M Genetic Counseling Program Master's Thesis Project (2004-06)

Dana Jackson, EMU Clinical Research Administration Master's Thesis Project (2005-06)

Sarah Drewes, U of M Genetic Counseling Program Master's Thesis Project (2016-17)

Courses and Intramural Lectures

2006-present Adjunct Faculty Instructor, Eastern Michigan University. Teaching course (4 credits) on “Ethical Considerations in Clinical Research” (CLRA 592) every other year as needed.

2003-2012 Lecturer, U of M Genetic Counseling Program. HG 624 “Research Skills for Genetic Counselors.”

2001-2011 Lecturer, Clinical Research Methods Course, Topic: “Ethical Issues in Human Subjects Protection and the IRB Process.”

2000-2009 Lecturer, Training Program in Clinical Research, Special Populations Subcore Series; Topic: “Human Genetic Issues in Clinical Research.”

2003-2005 Adjunct Faculty, Eastern Michigan University. Guest lectures in Clinical Administration Master's Program.

1998-2001 Course Coordinator and Primary Lecturer for Science Portion of University of Michigan Summer Science Academy (formerly the Macy Minority Students in Medicine Summer Science Academy) sponsored by the Medical School Dean's Office. Instruction given to 50 minority Michigan high school students in genetics, medicine, clinical and biomedical research (24 – 36 hours of class hours each summer). 2002: responsible for 1/2 day of genetics instruction.

1990-1998 Lecturer, Medical Student Course HG 501: Medical Genetics. Topic: Huntington Disease.

Other Presentations and Lectures

1984-present Over 200 national, regional, university and community presentations and lectures given. Including keynote speaker presentations at national professional meetings. Topics including: IRB Regulations and Review, Human Subjects Issues, Huntington's Disease, P.E.T. Scanning in H.D. and OPCA, Genetic Testing, Ethical Issues in Genetics and Clinical Research, Genetics of Breast Cancer, the Human Genome Project, Clinical Research, Research Participant Recruitment and General Human Genetics Education.

Educational Advisory Committees

2009-present Coordinator and Member, Brehm Scholars Selection Committee

2009-present Brehm Scholars Society Faculty Advisor and Mentor.

2004-2012 Member, Eastern Michigan University Clinical Research Administration Program Advisory Board, Chair: Dr. Stephen Sonstein.

2006-2010 Member, Michigan Institute for Clinical and Health Research Educational Programs Advisory Committee (combination of previous K30, K12 and T32 grants).

2005-2008 Member, Institutional Human Subjects Accreditation Education Subcommittee, Judy Nowack, Chair, Office for the Vice President for Research.

2003-2008 Member, Medical School Clinical Research K12 Grant Advisory Committee, Robert Kelch, M.D., Chair.

2001-2008 Member, University of Michigan Training Program in Clinical Research (K30) Curriculum Committee, David Schteingart, M.D., Chair.

1998-2008 Member, University of Michigan Training Program in Clinical Research (K30) Advisory Committee, Chair, David Schteingart, M.D., P.I.

COMMITTEE, ORGANIZATIONAL AND VOLUNTEER SERVICE

Institutional Service

2016-present Medical School Operations and Administration Committee (OAC) Planning Committee.

2016-present University of Michigan Faculty Senate Assembly, Communications and External Relations Advisory Committee (CERAC), 3-year appointment.

2014-present University of Michigan Health System, Learning Health System Core Team.

2014-present University of Michigan Health System, Learning Health System Legion.

2014-present University of Michigan Health System JDRF Walk-a-thon Captain.

- 2013-present Faculty Associate, Global REACH, University of Michigan Medical School.
- 2010-present Investigator Member, Center for Bioethics and Social Sciences in Medicine.
- 2009-present Member, Brehm Scholars Selection Committee and Brehm Scholars Society Faculty Advisor and Mentor.
- 2009-present Member, Medical School Dean's Advisory Council- All (DAC-All).
- 2005-present Member, Medical School Administration Operations and Administration Committee, Matthew Comstock, Chair.
- 2005-present Collaborator, Research Projects of Dr. Lisa Newman (Surgery), "Multi-ethnic Studies of Breast Cancer."
- 2013-2014 Member, "Collaborate Symposium" Planning Team and Platform Presenter.
- 2012-2014 Member, UMHS Diabetes Working Committee, Dr. Paul Lee, chair.
- 2008-2014 Member, Michigan Institute for Clinical and Health Research, Research Ethics and Integrity Program
- 2008-2013 Member, Medical School Office of Research Leadership Committee, Steve Kunkel, Chair.
- 2008-2013 Member, Medical School Office of Research Leadership Committee, Steve Kunkel, Chair.
- 2006-2013 Member, Center for Genetics in Health and Medicine, Advisory Committee, Chair Dr. Sally Camper.
- 2010-2012 Member, University of Michigan School of Public Health Alumni Society Board of Governors, Ann Arbor, Michigan (elected position).
- 2010-2012 Faculty Associate, University of Michigan Center for Global Health, Dr. Sofia Merajver, Director.
- 2007-2010 Member, Office Research Compliance Review Advisory Committee (OHRCCR), OVPR, Ray Hutchinson, Chair; Ron Maio, Director.
- 2006-2010 Member, Ideal Patient Care Experience Working Group, Marcy Waldinger, Chair.
- 2006-2010 Member, Michigan Institute for Clinical and Health Research (MICHR) Executive Committee.
- 2006-2010 Member, Michigan Institute for Clinical and Health Research (MICHR) Operating Committee.

- 2004-2010 Member, Institutional IRB Council, Judy Nowack, Chair, Office for the Vice President for Research.
- 2004-2008 Member, Task Force on the Research Enterprise (T-FORE), Medical School Office for Research and Graduate Studies (ORGS).
- 2003-2009 Member, Cancer Center Clinical Trials Office Advisory Committee, David Smith, M.D., Chair (not currently convening meetings)
- 2002-2009 Member, Cancer Center Clinical Research Executive Committee, Max Wicha, M.D., Chair (not currently convening meetings)
- 1997-2009 Member, Medical School Grant Processing Administrators Committee.
- 2007-2009 Member, eResearch Regulatory Management Lead Team, OVPR, Marvin Parnes, Chair.
- 2003-2008 Member, Institutional Human Subjects Accreditation Working Group, Judy Nowack, Chair, Office for the Vice President for Research.
- 2001-2008 Member, Medical School Compliance Infrastructure Committee for Research (CIC-R), Patricia Ward, Chair, Office for the Research and Graduate Studies (not currently convening meetings).
- 2000-2008 Member, Medical School Clinical Research Infrastructure Task Force (CRITF), Office of the Medical School Associate Dean for Research and Graduate Studies (not currently convening meetings).
- 2006-2008 Member, Clinical Research Billing Lead Team, U of M Health System.
- 1999-2008 Member, Department of Human Genetics, Genetic Counseling Program Admissions Committee.
- 2003-2007 Member, IRBMED Subcommittee on Risk Assessment, Alan Sugar, M.D., Chair, IRBMED.
- 1996-2007 Member, GCRC Advisory Committee (GAC), Staff Member, 1996-2001, Voting Member 2001-2007.
- 1999-2006 Sexual Harassment Policy Office Liaison, Human Resources & Affirmative Action Administration.
- 2001-2006 Member, University of Michigan Health System Data Warehouse Steering Committee, Douglas Strong, Chair.
- 1999-2006 Member, Center for the Advancement of Clinical Research (CACR) Executive Committee.

- 1998-2006 Scientist Member, University of Michigan Medical School Institutional Review Board (IRBMED).
- 2004 Member, Program for the Education and Evaluation of Responsible Research and Scholarship (PEERRS) Advisory Committee Chair, John Mather, M.D., Chair, Office for the Vice President for Research.
- 2001-2004 Member, Clinical Research Billing Committee, University Health System Compliance Office, Leslie Kamil, Chair.
- 2001-2004 Member, Data Warehouse Access Review Board (DWARB), Leslie Kamil, JD, Chair.
- 2003 Chair, Clinical Research Activity Committee. Office of Research and Graduate Studies and CACR.
- 2002-2003 Member, Health System Information Security and Privacy Committee, Leslie Kamil, J.D., Chair.
- 2002-2003 Chair, Office for the Vice President for Research Staff Recognition Program Selection Committee.
- 2001-2003 Member, Clinical Research Data Quality Assurance Committee, Robert Todd, M.D. Chair, Office for the Vice President for Research.
- 2000-2003 Member, Health System Compliance Officers Committee, Theodore Sanford, M.D., Chair.
- 2000-2003 Member, Human Research Coordinating Council, Education Subcommittee and PEERRS Core Team Subcommittee, Office for the Vice President for Research.
- 2000-2002 Member, Health System Facility Compliance Committee, Leslie Kamil, J.D., Chair.
- 2000 Member, Committee on Compliance, Training and Certification, re: Human Subjects Protection (Office of the Vice President for Research)
- 2000 Consultant, Medical School Institutional Review Board (IRBMED). Reviewed office and board processes and policies (sponsored by Office for the Vice President for Research and Medical School Associate Dean for Research and Graduate Studies)
- 1999-2000 Member, Department of Internal Medicine Faculty Orientation Program Development Committee.
- 1999-2000 Presenter, Contributor and Primary Organizer, General Clinical Research Center Competitive Renewal Grant Application and Site Visit (Director: Administrative Core), PI-Gilbert Omenn, M.D., Ph.D., Program Director-John Wiley, M.D..

- 1999-2000 Member, GCRC Competitive Renewal Grant Writing Committee, Douglas Greene, M.D., Chair.
- 1999-2000 Member, General Clinical Research Center Program Director Search Committee, Medical School Dean's Office, Douglas Greene, M.D., Chairperson.
- 1997-2000 Co-chair, Council on Genetics & Society (formerly the Genome Ethics Committee), University of Michigan School of Public Health.
- 1995-1997 Director, Clinical Trials Center, University of Michigan General Clinical Research Center.
- 1993-1995 Chairperson, University of Michigan Genome Ethics Committee, GenEthics Advisory Subcommittee.
- 1993-1995 Consultant, "Linkage and Mapping of Breast Cancer to Chromosome 17"; Barbara L. Weber, M.D., P.I.
- 1990-1995 Executive Member, University of Michigan Human Genome Center Executive Committee, Francis Collins, M.D., Ph.D., Chair.
- 1990-1995 Genetic Counselor, University of Michigan, Department of Internal Medicine, Division of Molecular Medicine and Genetics, specializing in the genetic counseling of Huntington's disease patients and families.
- 1994 Presenter and Contributor, Genome Center Competitive Renewal Grant Application and Site Visit (Director: Ethical, Legal and Social Issues Core), PIs-Miriam Meisler, Ph.D. and Thomas Gelehrter, M.D.
- 1994 Presenter and Contributor, General Clinical Research Center Competitive Renewal Grant Application and Site Visit (Director: Human Genetic Studies Core), PI-Giles Bole, M.D., Program Director-Paul Watkins, M.D.
- 1991-1994 Board Member, University of Michigan Hospitals Child Care Center Governing Board.
- 1989-1990 Presenter and Contributor, Genome Center Initial Grant and Site Visit (Director: Family Studies Core), PI-Francis Collins, M.D., Ph.D.
- 1984-1990 Director, University of Michigan, Department of Neurology, Huntington's Disease Preclinical Testing Program; responsible for developing and running this program for the prenatal and presymptomatic testing of Huntington's Disease.

Professional Service (Regional and National)

- 2010-present Founding Member, Type 1 Diabetes Alliance. Group consisting of the top non-industry funders of Type 1 Diabetes Research in the U.S. (includes JDRF, ADA, NIDDK, Helmsley Charitable Trust, and a few other family foundations).

- 2010-present Member, Michigan Department of Community Health, Scientific Advisory Board (with oversight for the Michigan BioTrust for Health)
- 2000-present Member, National Society of Genetic Counselors, Genetic Services Committee, Research Subcommittee.
- 1996-present Member, National Society of Genetic Counselors, Neurogenetics Special Interest Group.
- 1996-present Member, National Society of Genetic Counselor, Genetic Research Special Interest Group.
- 2006-2013 Adjunct Faculty, Eastern Michigan University. Teaching course (4 credits) on Ethical Considerations in Clinical Research, taught every other year as needed. (CLRA 592)
- 2004-2013 Member, Eastern Michigan University Clinical Research Administration Program Advisory Board, Chair: Dr. Stephen Sonstein.
- 2009-2010 Member, NIH-NCRR Clinical and Translational Sciences Award Consortium Steering Committee (non-voting member)
- 2007-2010 Member, NIH-NCRR Clinical and Translational Sciences Award Consortium Administrators Key Function Committee
- 2001-2007 Member, Michigan Department of Community Health-Genetic Policy Working Group.
- 2003-2006 Adjunct Faculty, Eastern Michigan University. Guest lectures in Clinical Administration Master's Program.
- 2004 Member, National Society of Genetic Counselors Research Short Course Planning Committee and Course Faculty Member.
- 2003 Mock Site Visitor, Wayne State University, proposed General Clinical Research Center.
- 2001 President-elect, Society of (GCRC) Administrative Managers (SAM). National elected position. Resignation from this position was required, when I left the GCRC Administrative role.
- 2001 Mock Site Visitor, University of Alabama-Birmingham General Clinical Research Center.
- 1998-2001 Member, National Society of Genetic Counselors, Professional Issues Committee, Ethics Subcommittee (three year term).
- 1994-2001 Member, Michigan Department of Community Health - Genetic Disease Advisory Committee.
- 2000 Mock Site Visitor, Baylor School of Medicine General Clinical Research Center.

- 2000 Mock Site Visitor, Northwestern University General Clinical Research Center.
- 1998-2000 Project Leader, Society of (GCRC) Administrative Managers, "Annual Report Guideline Initiative."
- 1994-2000 Chairperson (1994-96), Member (1994-present), National Society of Genetic Counselors, Social Issues Committee, Genetic Research Issues Subcommittee.
- 1995-1996 Working Group Member, National Society of Genetic Counselors, "Standardization of the Family Pedigree Task Force."
- 1995-1996 Working Group Member, "Genetic Counselors as Educators on Human Genome Issues" - Beth Fine, M.S., P.I. (National Center for Human Genome Research - Ethical, Legal and Social Issues Program).
- 1993-1996 Working Group Member, National Society of Genetic Counselors, Cancer Genetics Network.
- 1994-1995 Planning Committee, 1995 National Society of Genetic Counselors Annual Education Conference.
- 1988-1989 Planning Committee, 1989 National Society of Genetic Counselors Region IV Education Conference.
- 1985-1989 Genetic Counselor, Ann Arbor Jewish Community Council's area Tay-Sachs screening project.
- 1986-1987 Planning Committee, 1987 Huntington Disease Society of America National Convention.
- 1985-1986 Committee Member, 1986 National Society of Genetic Counselors Education Conference Program Committee and Workshop and Paper Abstract Review subcommittees.

Community Service

- 2016-present Chair, Our House of Michigan, Fundraising and Outreach Committee, www.ourhousemi.org
- 2014-present Member, Walk to Cure Diabetes Planning Committee, Juvenile Diabetes Research Foundation (JDRF) Metro Detroit/SE Michigan Chapter.
- 2012-present Founding Member, Board of Directors for Our House of Michigan, a non-profit organization focused on providing housing and services to youth "aging-out" of the foster care system. New organization formed from former CASA Committee, www.ourhousemi.org
- 2012-present Mentor, Our House of Michigan. See above. One-on-one mentoring of young adult aging out of foster care. My mentee also has a young child.
- 2008-present Advisor/Mentor to Brehm Scholars' Society at the University of Michigan.

- 2011-2012 Member, Friends of CASA (Court Appointed Special Advocates) Aging-Out Committee. Work focused on providing assistance and services to foster children who age out of the foster care system at age 18.
- 2010-2013 Member, University of Michigan School of Public Health Alumni Society Board of Governors, Ann Arbor, Michigan (elected position).
- 2003-2009 U of M Health System Credit Union, Ambassador (Midwest Financial Credit Union)
- 2004 Huron High School Senior Class Graduation Party Committee, Fundraising Co-chair
- 1999-2000 Coach, Ann Arbor Recreation and Education Youth Field Hockey (4th and 5th grades)
- 1995-2000 Co-Chair, Thurston Elementary School, Thurston PTO: Beautification Committee.
- 1994-2000 Troop Leader, Treasurer and Cookie Manager, Girl Scouts of America, Troop 428.
- 1998-1999 Children's Manager, "Thurston Players" Theatrical Production Group.
- 1991-1994 Advisory Board Member, University of Michigan Health System Child Care Center

CONSULTING POSITIONS

- 2009 Consultant, Michigan State University, CTSA Grant Preparation.
- 2008 Contributing Scholar (video interview), Laureate Educational Video on Clinical Research Administration.
- 2007 Consultant, University of North Carolina Medical School Dean's Office, CTSA Grant Preparation.
- 1994-1995 Consultant, University of Iowa - Human Genome Center, Ethical Issues Program, P.I. Jeffrey Murray, M.D.
- 1993-1995 Consultant, Indiana University, The Poynter Center for the Study of Ethics and American Institutions, book published by the Poynter Center entitled: "Early Warning: Cases and Ethical Guidance for Presymptomatic Testing in Genetic Diseases." P.I. David H. Smith.
- 1993-1994 Consultant, University of Utah Genome Center, Genetics and Society Program, Jeffrey Botkin, M.D., Director.
- 1984-1994 Genetic Consultant, Huntington Disease Society of America, East Michigan Chapter.
- 1992-1993 Consultant, National Institutes of Health - National Center for Human Genome Research, NIH- DOE Ethical, Legal and Social Implications Joint Working Group
- 1992-1993 Consultant, National Institutes of Health, Institutional Review Board Guidebook, Human Genetics Research Chapter Development Committee.

BIBLIOGRAPHY

Peer Reviewed Journals and Publications

1. Young AB, Penney JB, Starosta-Rubinstein S, **Markel DS**, Berent S, Giordani B, Ehrenkaufner R, Jewett D, Hichwa R: PET scan investigations of Huntington's disease: Cerebral metabolic correlates of neurological features and functional decline. *Ann Neurol.* 20:296-303, 1986.
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3. Young AB, Penney JB, Starosta-Rubinstein S, **Markel DS**, Berent S, Rothley J, Betley A, Hichwa R: Normal caudate glucose metabolism in persons at-risk for Huntington's disease. *Arch Neurol.* 44:254-257, 1987.
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