

- 02/05 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Clinical Genomics, IBC Life Sciences, San Diego, CA, February 17-18, 2005.
- 02/05 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Translational Research, Cambridge Health Institute, San Francisco, CA, February 8-9, 2005.
- 01/05 ***Bacterial enterotoxins confer resistance to colon cancer.*** Pennsylvania Society of Colorectal Surgeons, Philadelphia, PA, January 14, 2005.
- 12/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Grand Rounds, Department of Radiology, Thomas Jefferson University, Philadelphia, PA, December 7, 2004.
- 12/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** New Jersey Chapter of the American College of Surgeons, Parsippany, NJ, December 4, 2004.
- 11/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Visiting Professor, Department of Immunology, Johns Hopkins School of Medicine, Baltimore, MD, November 12, 2004.
- 11/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Grand Rounds, Department of Medicine, Thomas Jefferson University, Philadelphia, PA, November 11, 2004.
- 11/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Visiting Professor, Lankenau Research Institute, Wynnewood, PA, November 4, 2004.
- 11/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Ventana Medical Systems, Inc., Tuscon, AZ, November 2, 2004.
- 10/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Molecular Pathology Institute, LabCorp Inc., Research Triangle Park, N.C, October 19, 2004.
- 10/04 ***Bacterial enterotoxins confer resistance to colon cancer.*** Kimmel Cancer Center Grand Rounds, Thomas Jefferson University, Philadelphia, October 13, 2004.
- 10/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Keynote Address, Mauvernay Symposium and Awards, Tulane University, New Orleans, October 8, 2004.
- 10/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Department of Anatomy, Philadelphia College of Osteopathic Medicine, Pennsylvania, October 5, 2004.
- 09/04 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Department of Medicine Grand Rounds, Paoli Memorial Hospital, Paoli, Pennsylvania, September 29, 2004.
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- 7/04 **Bacterial enterotoxins confer resistance to colon cancer.** Louisiana Cancer Research Consortium Seminar, Louisiana State and Tulane Universities, New Orleans, Louisiana, July 15, 2004.
- 7/04 **From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.** Department of Medicine Grand Rounds, Tulane University, New Orleans, Louisiana, July 14, 2004.
- 5/04 **From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.** Department of Medicine Grand Rounds, University of Indiana, Indianapolis, Indiana, May 12, 2004.
- 2/04 **From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.** Department of Pharmacology and Integrative Biology, University of Texas Houston, February 23, 2004, Houston, Texas.
- 02/04 **From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.** Department of Surgery, Thomas Jefferson University, February 18, 2004, Philadelphia, PA.
- 11/03 **Novel diagnostics and therapeutics for GI malignancies.** Kimmel Cancer Center Staff Seminar, Thomas Jefferson University, November 9, Philadelphia, PA.
- 09/03 **Guanylyl cyclase is a marker and target for colorectal cancer.** Translational Research Conference, Helen Graham Cancer Center, Christiana Medical Center, Christiana Delaware. September 15, Philadelphia
- 08/03 **Guanylyl cyclase is a marker and target for colorectal cancer.** Oncology Grand Rounds, Thomas Jefferson University, June 23, Philadelphia.
- 07/03 **Interaction of antihistamines and antidepressants.** Antihistamines And Cognitive Function Advisory Board, Aventis. July 24-25, New York.
- 06/03 **Guanylyl cyclase is a marker and target for colorectal cancer.** Translational Opportunities. Kimmel Cancer Center, Thomas Jefferson University, June 23, Philadelphia.
- 06/03 **Guanylyl cyclase C is a molecular marker for staging patients with colorectal cancer.** National Surgical Adjuvant Breast and Bowel Project (NSABP), Orlando.
- 06/03 **Bacterial enterotoxins confer resistance to colon cancer.** First International Conference on NO/sGC Interaction and Its Therapeutic Implications. Leipzig, Germany.
- 04/03 **Bacterial enterotoxins confer resistance to colon cancer.** Department of Pharmacology and Toxicology, Queens University, Kingston, Ontario, Canada.
- 04/03 **From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.** McEwen Lecturer, Queens University, Kingston, Ontario, Canada.
- 02/03 **Differentiating antihistamine efficacy from potency.** Antihistamines And Cognitive Function Advisory Board, Aventis. February 12-13, New York.
- 11/02 **From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.** Department of Surgery, Thomas Jefferson University, Philadelphia, PA.
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- 11/02 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Department of Biochemistry and Molecular Pharmacology, Thomas Jefferson University, Philadelphia, PA.
- 09/02 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA.
- 07/02 ***Differentiating antihistamine efficacy from potency.*** Antihistamines And Cognitive Function Advisory Board, Aventis. July 26-27, Chicago.
- 07/02 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Department of Surgery Grand Rounds, Conemaugh Memorial Medical Center, Johnstown, PA.
- 06/02 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Department of Surgery Grand Rounds, University of Florida Gainesville, FLA.
- 06/02 ***Differentiating antihistamine efficacy from potency.*** XXXIst Congress of the European Academy of Allergology and Clinical Immunology, June 1-5, 2002, Naples, Italy.
- 03/02 ***Development of novel diagnostics and therapeutics for GI malignancies.*** Department of Surgical Oncology, Fox Chase Cancer Center, Philadelphia, PA.
- 01/02 ***Development of novel diagnostics and therapeutics for GI malignancies.*** LapCorps, Inc., Research Triangle Park, NC.
- 12/01 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Thomas Jefferson University Medical Grand Rounds.
- 09/01 ***Guanylyl cyclase C and gastrointestinal malignancies.*** Kimmel Cancer Center Seminar Program, Thomas Jefferson University, Philadelphia, PA.
- 9/01 ***Guanylyl cyclase C and gastrointestinal malignancies.*** Methodist Hospital Grand Rounds.
- 08/01 ***Guanylyl cyclase C and gastrointestinal malignancies.*** Bracco Research USA, Inc., Princeton, NJ.
- 08/01 ***From bench to bedside: Development of novel diagnostics and therapeutics for GI malignancies.*** Medical Grand Rounds, Methodist Hospital, Philadelphia, PA.
- 07/01 ***Guanylyl cyclase C and gastrointestinal malignancies.*** Millennium Pharmaceuticals, Inc. Cambridge, MA.
- 07/01 ***Guanylyl cyclase C and gastrointestinal neoplasia.*** Department of Molecular Biology, Princeton University, Princeton, NJ.
- 06/01 ***Overview of Antihistamine Pharmacology.*** Aventis Global Advisory Committee Meeting, Jamaica, WI.
- 03/01 ***Guanylyl cyclase C and gastrointestinal neoplasia.*** Millennium Pharmaceuticals, Inc. Cambridge, MA.
- 02/01 ***Guanylyl cyclase C and gastrointestinal neoplasia.*** The Molecular Medicine of Colorectal Cancer; Keystone Symposia on Molecular and Cellular Biology. Taos, New Mexico, January 30-February 4, 2001.

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- 01/01 ***Guanylyl cyclase C is a biomarker and potential target in GI malignancies.*** Surgery Grand Rounds, Our Lady of Lourdes Hospital, Camden, NJ.
- 10/00 ***Guanylyl cyclase C is a biomarker and potential target in GI malignancies.*** Pennsylvania College of Osteopathic Medicine, Philadelphia, PA.
- 10/00 ***Development of novel diagnostic and therapeutics from the human genome project.*** The Human Genome Project and the Future of Healthcare. San Diego, CA.
- 6/00 ***Nitric oxide and the pathophysiology of migrain.*** Pathological Pain: Paradigms for Primary Headache. Paestum, Italy June 23-25, 2000.
- 6/00 ***Guanylyl cyclase C is a biomarker and potential target in GI malignancies.*** Upper Gastrointestinal Tract: Biology and Genetics. University of Pennsylvania, Philadelphia, PA. June 16, 2000.
- 6/00 ***Guanylyl Cyclase C: A Potential Marker for Adjuvant Trials in Colorectal Cancer.*** National Surgical Adjuvant Breast and Bowel Project (NSABP) Semi-Annual Meeting, New Orleans, LA. June 10-13, 2000.
- 5/00 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** National Medical Services, Philadelphia, PA. May 18, 2000.
- 5/00 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Abbott Laboratories, Abbott Park, IL. May 12, 2000.
- 4/00 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Sigma Xi research presentation, Philadelphia College of Osteopathic Medicine, Philadelphia, PA. April 26, 2000.
- 4/00 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** As part of the symposium ***Colorectal cancer: A paradigm for new clinical applications of molecular medicine.*** American College of Physicians-American Society of Internal Medicine Annual Meeting April 11-12, 2000, Philadelphia, PA.
- 3/00 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Mitokor Inc, Boston, MA.
- 12/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Division of Gastroenterology, University of Pennsylvania, Philadelphia, PA.
- 12/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Program in Clinical Pharmacology, University of Chicago School of Medicine, Chicago, IL.
- 11/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** American College of Surgeons Oncology Group Semi-Annual Meeting, Chicago, IL.
- 11/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Structural Biology and Bioinformatics Program, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA.
- 11/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Present and future of colorectal cancer diagnosis and therapy. University of Catania, Catania, Italy.
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- 9/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Drug Development Program, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA.
- 8/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Kimmel Cancer Center Grand Rounds, Thomas Jefferson University, Philadelphia, PA.
- 8/99 ***Nucleotide regulation of receptor guanylyl cyclases.*** Department of Pharmacology, Georgetown University, Washington, D.C.
- 8/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extra-intestinal tissues.*** Medical Grand Rounds, Georgetown University, Washington, D.C.
- 7/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.*** Department of Pharmacology, Johns Hopkins University, Baltimore, MD.
- 5/99 ***Cytochrome P450s and adverse drug reactions.*** Merck National Arthritis Health Services Organization, Atlanta, Georgia.
- 4/99 ***Translational medicine: From transmembrane signaling molecules to colon cancer diagnosis and therapy.*** Keynote address for *Alumni Day*, Thomas Jefferson University, Philadelphia, PA.
- 3/99 ***Cytochrome P450s and adverse drug reactions.*** Fredric Rieders Family Renaissance Foundation Seminar, National Medical Services, Philadelphia, PA.
- 3/99 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.*** Diadexus, San Jose, CA.
- 3/99 Symposium Chairman ***Molecular therapeutics: From the membrane to the nucleus.*** Annual meeting of the American Society for Clinical Pharmacology and Therapeutics, San Antonio.
- 7/98 ***Drug development: From bench to bedside.*** Merck Research Laboratories, Whitehouse Station, PA.
- 5/98 ***Cytochrome P450s and adverse drug reactions.*** Rhone-Poulenc Rorer, Collegeville, PA.
- 4/98 Symposium Chairman ***Molecular mechanisms of drug action.*** Annual meeting of the American Society for Clinical Pharmacology and Therapeutics, New Orleans.
- 3/4-3/6/98 ***Translational medicine: From guanylyl cyclase receptors to colon cancer diagnosis.*** Visiting Professor, Mayo Clinic, Rochester, MN.
- 11/97 ***Nucleotide regulation of receptor guanylyl cyclases.*** Alfred I. duPont Institute, Wilmington, Delaware.
- 10/97 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.*** X-Society, Thomas Jefferson University, Philadelphia, PA.
- 10/97 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.*** Nycomed, Oslo, Norway.
- 6/97 ***Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.*** Surgical Grand Rounds, The Lankenau Hospital, Lankenau, PA.
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- 4/97 **Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.** Grand Rounds, Paoli Memorial Hospital, Paoli, PA.
- 3/97 **Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.** Gen-Probe, La Jolla, California.
- 3/97 Symposium Chairman **Novel targets for drug development.** Annual meeting of the American Society for Clinical Pharmacology and Therapeutics, San Diego.
- 3/97 Symposium Chairman **Molecular mechanisms underlying obesity.** Annual meeting of the American Society for Clinical Pharmacology and Therapeutics, San Diego.
- 2/97 **Guanylyl cyclase C is a specific biomarker for colorectal cancer in extraintestinal tissues.** Boehringer Mannheim, Munich, Germany.
- 2/97, 4/97 **Panel discussion: Physician, pharmacist, and administration's perspective on pharmaceutical companies.** Program in Managed Care, Advanced Concepts for the Pharmaceutical Industry, Philadelphia.
- 2/97 **Guanylyl cyclase C is a novel biomarker for staging and post-operative surveillance of colorectal cancer.** Department of Medicine, University of Minnesota, Duluth.
- 2/97 **Novel regulation of receptor guanylyl cyclases by nucleotides.** Department of Pharmacology and Toxicology, Medical College of Wisconsin, Milwaukee.
- 2/97 **Guanylyl cyclase C is a novel biomarker for staging and post-operative surveillance of colorectal cancer.** Department of Pharmacology and Toxicology and the MACC Fund Research Center, Medical College of Wisconsin, Milwaukee.
- 2/97 **Novel regulation of receptor guanylyl cyclases by nucleotides.** Department of Pharmacology, University of Minnesota, Duluth.
- 2/97 Invited Participant **Challenges Facing Training Programs in Clinical Pharmacology,** NIH, Bethesda, MD.
- 11/96 **Regulation of guanylyl cyclase C: Clinical Applications.** Department of Physiology, Thomas Jefferson University, Philadelphia, PA.
- 10/96 Keynote speaker **Integrating basic and applied human pharmacology: Accelerating drug discovery and development.** Global Exploratory Development Meeting, Hoechst Marion Roussel, Princeton, NJ.
- 10/96 **ST receptors as a marker for colorectal tumors.** Division of Cardiology, Department of Medicine, Pennsylvania State University School of Medicine, Hershey, PA.
- 6/96 Invited participant **Informal Working Group to identify issues on pharmacokinetic comparability of biotechnology-derived pharmaceutical products,** Center for Biologics Evaluation and Research, Bethesda, MD.
- 7/96 **ST receptors as a marker for colorectal tumors.** Ciba-Corning, Inc, Walpole, MA.
- 5/96 **ST receptors as potential targets for the diagnosis and treatment of colorectal tumors.** Chiron Corp., Emeryville, CA.
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- 5/96 ***ST receptors as potential targets for the diagnosis and treatment of colorectal tumors.*** Nycomed, Inc., New York.
- 1/96 ***ST receptors as potential targets for the diagnosis and treatment of colorectal tumors.*** Nycomed, Inc., Devon, PA.
- 9/95 ***ST receptors as potential targets for the diagnosis and treatment of colorectal tumors.*** Ciba Corning, Inc., Alameda, CA.
- 4/95 ***Guanylyl cyclase C: nucleotide regulation and clinical applications.*** Queens University, Kingston, Ontario.
- 4/94 ***ST receptors as potential targets for the diagnosis and treatment of colorectal tumors.*** National Cancer Institute, April 8, 1994.
- 3/94 ***Targeting of human colorectal tumors using E. coli heat-stable enterotoxin.*** Amgen Corporation, March 17, 1994.
- 3/94 ***Targeting of human colorectal tumors using E. coli heat-stable enterotoxin.*** Oncotherapeutics Inc., March 3, 1994.
- 7/93 ***Human Pharmacology of Phase I Human Clinical Trials: Pharmacodynamics*** CDS Research, Philadelphia, Pennsylvania, July 1, 1993.
- 6/93 ***Human Pharmacology of Phase I Human Clinical Trials: Pharmacokinetics.*** CDS Research, Philadelphia, Pennsylvania, June 16, 1993.
- 6/93 Invited Panelist, ***The Clinical Pharmacology Community of Philadelphia Symposium on The Enhanced Role Of Phase I Pharmacology Studies In The 1990's.*** Philadelphia, Pennsylvania, June 23, 1993.
- 3/93 ***Molecular mechanisms underlying intestinal secretion induced by E. coli heat-stable enterotoxin,*** Terrapin Technologies, South San Francisco, California, March 19, 1993.
- 2/93 ***Molecular mechanisms underlying intestinal secretion induced by E. coli heat-stable enterotoxin,*** Alza Corporation, Palo Alto California, February 26, 1993.
- 2/93 ***Molecular mechanisms underlying intestinal secretion induced by E. coli heat-stable enterotoxin,*** presented at the Pharmaceutical Manufacturers Association Annual Awardee Meeting, February 17-18, 1993.
- 2/92 ***Regulation of particulate guanylate cyclase by ST receptors in intestine,*** Department of Biochemistry, Temple University School of Medicine, Philadelphia, Pennsylvania.
- 11/91 ***Characterization of receptors for the E. coli heat-stable enterotoxin from mammalian intestine,*** Merck Research Laboratories, West Point, Pennsylvania.
- 5/91 ***Coupling of guanylate cyclase to peptide receptors in intestinal cells,*** Amgen Corporation, Thousand Oaks, California.
- 3/89 ***Receptors for the heat-stable enterotoxin produced by E. coli in mammalian intestinal cells,*** Division of Infectious Diseases, Department of Medicine, Bowman Gray School of Medicine, Winston-Salem, North Carolina.
- 2/89 ***Receptors for the heat-stable enterotoxin produced by E. coli in mammalian intestinal cells,*** Division of Clinical Pharmacology, Department of Medicine, Thomas Jefferson University, Philadelphia,
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- 6/84 Pennsylvania.
Characterization of receptors for E. coli heat-stable enterotoxin coupled to guanylate cyclase in mammalian intestine, Gordon Research Conference *Cyclic Nucleotides and Protein Phosphorylation*.

LEADERSHIP AND SERVICE**Thomas Jefferson University**

- 2014 Search Committee, Chair of Internal Medicine
 2014-2015 Review Committee, Cancer Biology
 2014-2015 Committee on Academic Protocol
 2013-2016 Chair, Search Committee, Director of GI Oncology
 2011-2014 Director, Jefferson Center for Individualized Medicine
 2011-2013 President Search Committee
 2010-2013 Jefferson Council on Diversity and Inclusion
 2010 Jefferson Research Strategic Task Force
 2010-2015 Vice President, Clinical and Translational Science
 2010-present Associate Dean, Clinical and Translational Research
 2009 Jefferson Vaccine Center Steering Committee
 2009 Chair, Oversight Committee, Biorepository Core, Kimmel Cancer Center
 2008 Program Committee, **Symposium: Colorectal Cancer**, Thomas Jefferson University, Philadelphia, PA, February 29, 2008
 2007-2015 Chair, Cancer Clinical Research Review Committee
 2007-present Director, Program on Gastrointestinal Cancer, Kimmel Cancer Center.
 2006-2007 Chair, Search Committee for Dean of the School of Pharmacy, Thomas Jefferson University.
 2005-2010 University Library Committee.
 2005-present Chair, Department of Pharmacology and Experimental Therapeutics.
 2005-2015 Executive Committee, Kimmel Cancer Center.
 2005-2010 Member, Strategic Committee on Education.
 2005-2010 Co-Chair, Strategic Committee on Translational Initiatives and Core Resources.
 2004-present Advisory Committee on Postdoctoral Training.
 2004-2005 Search Committee for the Director of the Kimmel Cancer Center.
 2004 Ad Hoc Review Committee for the Kimmel Cancer Center.
 1997-2004 Molecular Pharmacology and Structural Biology Program.
 Membership Committee.
 Advising/Evaluation Committee.
 Curriculum Committee.
 Preliminary Exam Committee.
 2002-2006 Chair, Department of Medicine Appointments and Promotions Committee.
 1999-present Research Compliance and Oversight Committee.
 2002 Corporate Support Committee.
 2002 Faculty Advisory Committee for Jefferson Information Technology.
 2002 Dean's Planning Committee-Clinical Trials.
 2001-2004 Thomas Jefferson University Middle States Steering Committee.
 2001-2002 Committee to Establish Material Transfer Agreement Policies.

2001-2002 Search Committee, Dean of Graduate Education.
2001 Strategic Planning Steering Committee.
2001-2005 Co-Director, Medical Pharmacology (PR200).
2000 Member, Advisory Committee of the Graduate Center in the College of Graduate Studies.
2000-2006 Director, Program on Molecular Targets and Developmental Therapeutics, Kimmel Cancer Center.
1999-2000 Deputy Director, Program on Developmental Therapeutics, Kimmel Cancer Center.
1999-2003 Committee on Faculty Appointments and Promotions.
1999-2002 Department of Medicine Appointments and Promotions Committee.
1999 Department of Medicine Committee for Research.
1998 Pharmacology Curriculum Planning Committee.
1998 Search Committee, Dean of Graduate Education and Vice President of Scientific Affairs.
1998-present Director, MD-PhD Program.
1997-2007 Vice-Chair, Clinical Cancer Research Review Committee.
1998-present Medical School Admissions Committee,
1997-1999 Chair, Medication Events Subcommittee of the Pharmacy and Therapeutics Committee.
1997-1999 Search Committee, Director of the Division of Medical Oncology, Department of Medicine.
1997 Chair, Student Research Day, Thomas Jefferson University Chapter of Sigma Xi.
1997-1998 Co-Director, Thomas Jefferson University MD-PhD Training Program.
1997-1998 Chairperson, Admission Committee, MD-PhD Training Program.
1997-2005 Director, Division of Clinical Pharmacology.
1996 Co-Chair, Student Research Day, Thomas Jefferson University Chapter of Sigma Xi.
1996-1999 Appointments and Promotions Committee, Department of Biochemistry and Molecular Pharmacology.
1996-1997 Associate Director of Clinical Trials, Office of Scientific Affairs.
1996-1997 Acting Director, Division of Clinical Pharmacology.
1996-present Director, NIH Training Program in Clinical Pharmacology.
1996-1997 Director, Task Force for Adverse Drug Reactions.
1995-1997 Quality Assurance Subcommittee.
1995-present Member, University M.D.-Ph.D. Steering Committee.
1993-2000 Pharmacy and Therapeutics Committee.
1992-1995 Department of Medicine Curriculum Committee.
1991-1996 Coordinator, Division of Clinical Pharmacology Research Seminar Series.
1991-1996 Coordinator, seminar series entitled *Molecular Pharmacology and Experimental Therapeutics*, co-sponsored by the Division of Clinical Pharmacology and the Department of Pharmacology.

NIH Peer Review

2018 NCI Cancer Drug Development and Therapeutics (CDDT) Study Section, June 18-19, Bethesda, MD.

2018	NCI Chemo- and Dietary Prevention (CDP) Study Section, February 22, 2018 (ad hoc).
2017	NCI Chemo- and Dietary Prevention (CDP) Study Section, October 26, 2017 (ad hoc).
2016	Chair, NIGMS-NICHD and NICHD T32 Programs in Pediatric Clinical Pharmacology, September 13-14, Bethesda, MD.
2015	Chair, NIGMS-NICHD and NICHD T32 Programs in Pediatric Clinical Pharmacology, September 10-11, Bethesda, MD.
2014	Chair, NCI Special Emphasis Panel, December 2014.
2014	Chair, NCI Special Emphasis Panel, June 2014.
2014	Chair, NIGMS-NICHD and NICHD T32 Programs in Pediatric Clinical Pharmacology, August 25-26, Bethesda, MD.
2013-2016	Member, NCI Initial Review Group Subcommittee J.
2013	Chair, NIGMS-NICHD and NICHD T32 Programs in Pediatric Clinical Pharmacology, October 21-22, Bethesda, MD.
2012	Chair, NCI Special Emphasis Panel, December 2012.
2012	Chair, NIGMS-NICHD and NICHD T32 Programs in Pediatric Clinical Pharmacology, September 13-14, Bethesda, MD.
2011	Chair, NIGMS Special Emphasis Panel, <i>Personalized Genomics for Symptom Management: Bridging the Gaps from Genomic Discovery to Improved Health Outcomes</i> , Bethesda, June 28, 2011.
2010	Member, Site Visit Team, Cancer Center Review (ad hoc), January, 20-21, 2010.
2009	Chair, NIGMS Special Emphasis Panel, <i>Pharmacogenomics Research Network</i> , December 2009.
2009-2012	Member, NCI Initial Review Group Subcommittee J.
2009	Member, Special Emphasis Review Panel for Grand Opportunity Grants, Aug. 5-6, 2009.
2009	Member, Site Visit Team, Cancer Center Review (ad hoc), February 18-20, 2009.
2008	Member, Expert Panel on Pharmacology and Therapeutics, Pediatric Pharmacology Research Unit (PPRU) Network, National Institute of Child Health and Human Development.
May 2007	National Institutes of General Medical Sciences Council (Ad Hoc)
May 2007	National Institutes of Aging Board of Scientific Councilors (Ad Hoc)
2006	Member, NHLBI Special Emphasis Panel, <i>Cardiovascular Cell Therapy Research Network</i> , August 14-15, Bethesda, MD.
2005	Member, NCI Special Emphasis Panel ZCA1 GRB-S O1, <i>Centers of Cancer Nanotechnology Excellence</i> , July 19-21, Bethesda, MD.
2004	Chair, NIGMS Special Emphasis Panel ZRG1 GGG-B (50), <i>Pharmacogenomics Research Network</i> , December 14-15, Bethesda, MD.
2005-2007	Chair, NCI Initial Review Group Subcommittee J.
2004-2005	Co-Chair, NCI Initial Review Group Subcommittee G.
2001-2007	Member, NCI Initial Review Group Subcommittee G.
06/01	NIH Study Section. ZGM1 BRT-2.
12/00	NIH NCI ZCA1 SRRB-C J2R SEP Study Section.
3/00	NIH NCI-G M1 P Study Section (ad hoc).

1999-2000	NIH GMA2 Study Section (ad hoc).
(Inter)National	
2018-present	Invited Member, Advisory Council Regenerative Therapies, Berlin-Brandenburg Center for Regenerative Therapy, Berlin, Germany.
2018	Invited participant, NHGRI PharmGKB Future Directions Meeting; Chair, Expert Panel, Impact of PharmGKB. Bethesda, MD, January 23, 2018.
2018-present	Medical Advisor, The J. Willard and Alice S. Marriott Foundation.
2017-present	Presidents Committee, Pharmaceutical Sciences, University of Delaware.
2017	Site Visit Team, Berlin-Brandenburg Center for Regenerative Therapy, September 17-19, 2017, Berlin, Germany.
2017	Invited member, FDA Arthritis Advisory Committee Review Panel for Sirukumab, Rockville, MD, August 2, 2017.
2017-2019	National Board of Medical Examiners (NBME) United States Medical Licensing Examination (USMLE) Pharmacology and Biochemistry Test Material Development Committee (TMDC).
2017	Invited member, FDA Oncologic Drugs Advisory Committee (ODAC) Review Panel for Herceptin biosimilar, Beltsville, MD, July 13, 2017.
2017	Invited member, FDA Oncologic Drugs Advisory Committee (ODAC) Review Panel for Avastin biosimilar, Beltsville, MD, July 13, 2017.
2017	Invited member, FDA Oncologic Drugs Advisory Committee (ODAC) Review Panel for Erythropoietin biosimilar, Beltsville, MD, May25, 2017.
2017	Invited member, FDA Oncologic Drugs Advisory Committee (ODAC) Review Panel for Rituxin-Hyaluronidase, Beltsville, MD, March 29, 2017.
2017	Chair, Pharmaceutical Science and Clinical Pharmacology Advisory Committee, Center for Drug Evaluation (CDER), Food and Drug Administration (FDA), Washington, D.C., March 15, 2017.
2016	ASPET delegate to the British Pharmacological Society Meetings, London, UK, December 12-15, 2016.
2016	Invited member, FDA Arthritis Advisory Committee Review Panel for Etanercept biosimilar, Rockville, MD, July 13, 2016.
2016	Invited member, FDA Arthritis Advisory Committee Review Panel for Humira biosimilar, Rockville, MD, July 12, 2016.
2106	Invited member, international review panel for Science Foundation Ireland Research Centres Program 2016, Dublin, Ireland, June 27-28, 2016.
2016-2018	Chair, Pharmaceutical Science and Clinical Pharmacology Advisory Committee, Center for Drug Evaluation (CDER), Food and Drug Administration (FDA).
2015, 2017	Reviewer, Minnesota Regenerative Medicine Foundation.
2015	Reviewer, Croatian Science Foundation (HRZZ).
2015	Invited member, FDA Oncologic Drugs Advisory Committee (ODAC), Inaugural biosimilars review panel, January 7, 2015.
2014-2018	Member, Pharmaceutical Science and Clinical Pharmacology Advisory Committee, Center for Drug Evaluation (CDER), Food and Drug Administration (FDA)
2013-present	Board of Directors, Therapeutics Research Institute, Radnor, PA

2013-present	Chair, External Advisory Committee, NCATS-sponsored Delaware CTR Accel Program
2013-present	Member, Scientific Advisory Council, Global Biological Standards Institute, Washington, DC
2012-2014	Member, Professional Education and Publication Committee, Functional Genomics and Translational Biology Council of the American Heart Association
2010-2014	Member At Large, Leadership Committee, Functional Genomics and Translational Biology Council of the American Heart Association
11/10-present	Chair, Scientific Advisory Board, NIH-funded PharmGKB
10/08-present	Scientific Advisory Board of the Health Research Board, Clinical Research Facility, University of Galway, Ireland.
09/08	Chair, Novel Approaches to Cancer Biomarkers . Biomarker Discovery Summit. September 29-October 1, Philadelphia, PA.
2008	Member, Review Committee, Gerstner Family Career Development Awards in Individualized Medicine , Mayo Clinic, Rochester, MN, August 8, 2008.
2008-	Member, Review Committee, Pediatric Pharmacology Research Program, National Institutes of Child Health and Human Development , April 24, 2008, Rockville, MD.
2008	Member, Review Committee and Site Visit Team, National Academy Sciences , Ohio Third Frontier Program.
2008	Member, Site Visit Team, National University of Ireland Galway, Science Foundation Ireland (March 11-22, 2008).
2004-present	College of Reviewers for the Canada Research Chairs Program.
2004-2006	Council for Clinical Pharmacology.
2003	Pepper Center Research Application Review Committee, Mayo Clinic and Foundation, Rochester, MN (11/03).
2002	Co-Chair, International Advisory Committee on the Development of Fasudil, 12/06/02-12/08/02, New York, New York.
1999	NIH Agency for Health Care Policy and Research Special Emphasis Panel.
1999-2000	American College of Surgeons Oncology Group Study Committee for protocol Z0170.
1998-2004	Member, American Board of Clinical Pharmacology . Secretary (2000-2001). Executive Committee (2000-2004). Exam Committee (1999-2001). Chair, Credentialing Committee (1999-2004). Chair, Nomination Committee (2000-2002).
1998-present	Member, American Society For Pharmacology and Experimental Therapeutics . 2012-present Nominating Committee. 2011-present Executive Council. 2011-present Chair, Scientific Program Committee. 2011-present ISTCP Executive Committee. 2008-2011 Scientific Program Committee. 1999-2003 Clinical Pharmacology Executive Committee.

1997-2000	Data and Statistical Monitoring Board, Merck Research Laboratories.
1994-present	Member, American College of Clinical Pharmacology
	1999-2004 Regent.
	1995-2004 Finance Committee.
1992-present	Member, American Society For Clinical Pharmacology and Therapeutics.
	2003-present Scientific Program Committee
	Co-Chair 2003-2004
	Chair 2004-2005
	2002-2003 Chair, Strategic Planning Task Force.
	2000-2003 President-Elect, President, Past-President.
	2000-2001 Chair, Governance Task Force.
	1999-2000 Vice President.
	1/98 Strategic Planning Retreat.
	1997 Member, Nominating Committee.
	1997-2001 Scientific Program Committee.
	1995-2003 Board of Directors (re-elected 1998).
	1995-1999 Committee on Coordination of Scientific Sections.
	1995-1999 Chair, Molecular Therapeutics Section (re-elected 1998).
	1992-1995 Vice Chair, Molecular Therapeutics Section.

HONORS AND AWARDS

2018	Annual Marcus M. Reidenberg Lecture, Weill-Cornell Medical College, March 13, 2018, New York.
2017	Elected Fellow, National Academy of Inventors
2016	Kimmel Cancer Center Discovery Award for Translational Sciences. October 14, 2016, Philadelphia, PA.
2016	2016 Mentorship Award, American Society for Clinical Pharmacology and Therapeutics , April 16, 2016, San Diego, CA,
2015	Chair, Other Functions of GCs II, 7th International Conference on cGMP. cGMP: Generators, Effectors, and Therapeutic Implications , June 19-21, Trier, Germany.
2015	Reynold Spector Award in Clinical Pharmacology, American Society for Pharmacology and Experimental Therapeutics .
2014	Chair, NCI Special Emphasis Panel, June 2014.
2013	Member, National Academy of Inventors [Fellow (FNAI), 2018].
10/13	George B. Koelle Award, Mid-Atlantic Pharmacology Society Annual Meeting, Philadelphia, October 7, 2013.
06/13	Jefferson Distinguished Mentor Award, June 10, Philadelphia, PA.
05/13	NCI Special Emphasis Panel for CTSA Proposals, May 22-24, Rockville, MD.
12/12	Chair, NCI Special Emphasis Panel ZCA1 RTRB8 (J1), December 6, Alexandria, VA.
2012-present	Chair, Data Safety Monitoring Committee, CHART Trial, Cardio3.
05/12	Invited participant, NHGRI Conference on Genomics Medicine, Chicago O'Hare Hilton, May 3-4, 2012.
2012	Rawls Palmer Progress in Medicine Award, American Society for Clinical Pharmacology and Therapeutics .

2012	Fellow of the American Heart Association (FAHA).
2011-present	Executive Council, American Society for Pharmacology and Therapeutics .
2011-present	Chair, Scientific Program Committee, American Society for Pharmacology and Therapeutics .
2011-present	ISTCP Executive Committee, American Society for Pharmacology and Therapeutics .
2011	PhRMA Foundation Award in Excellence in Clinical Pharmacology.
2010	Henry Elliott Award, American Society for Clinical Pharmacology and Therapeutics .
2008-2011	Scientific Program Committee, American Society for Pharmacology and Therapeutics .
2007-present	Editorial Board Member, Personalized Medicine
2007-present	Editorial Board Member, Expert Reviews In Clinical Pharmacology
2007-present	Editorial Board Member, Drug Design, Development and Therapy
2007-present	Editorial Board Member, Regenerative Medicine
2007-present	Editorial Board, Open Pharmacology
2007-2015	Inaugural Deputy Editor, Clinical and Translational Science
2008-2012	Chair, Data Safety Monitoring Committee, C-Cure Trial, Cardio3.
2006-present	Inaugural Senior Editor, Biomarkers In Medicine
2006-present	Editorial Board Member, World Journal Of Gastroenterology
2006-present	Editor-In-Chief, Clinical Pharmacology & Therapeutics .
2006-present	Chair, NCI Initial Review Group Subcommittee J.
2005-2006	Co-Chair, NCI Initial Review Group Subcommittee J.
2005-present	Chair, Department of Pharmacology and Experimental Therapeutics.
2004	Interurban Clinical Club (Osler Society).
2004	Chair, NIGMS Special Emphasis Panel ZRG1 GGG-B (50), Pharmacogenomics Research Network , December 14-15, Bethesda, MD.
2004	Visiting Professor, Lankenau Research Institute, Wynnewood, PA, November 4, 2004.
2004-present	College of Reviewers for the Canada Research Chairs Program.
2004	Keynote Speaker, Mauvernay Symposium, Tulane University, New Orleans (10/08/04).
2004, 2005	Judge, Mauvernay Research Excellence Award.
2004	Visiting Professor, Louisiana Cancer Research Consortium Visiting Professor, Louisiana State and Tulane Universities, New Orleans, Louisiana, July 14-16, 2004.
2004-present	Editorial Board Member, Therapeutics and Clinical Risk Management .
2004-2005	Co-Chair, NCI Initial Review Group Subcommittee G.
2004-present	Council of Clinical Pharmacology.
2004	Dean's Citation for Faculty Mentoring, Thomas Jefferson University.
2004	Editorial Board Member, Physicians OnLine .
2003-2012	Editorial Board Member, Biotechnology Healthcare .
2003-2007	Editorial Board Member, Cancer Therapeutics .
2003	Review panel, Kogod Awards, Mayo Clinic and Foundation 11/20/03.
August 2003	AHRQ Special Emphasis Panel for CERTs review.
April 2003	McEwen Lecturer, Queens University, Kingston, Ontario, Canada.

12/02	Co-Chair, International Advisory Committee on the Development of Fasudil, 12/06/02-12/08/02, New York, New York.
2002-2003	Past President of the American Society for Clinical Pharmacology and Therapeutics.
01/07-08/02	Invited participant, NCI Workshop on Detection and Measurement of Occult Disease.
09/01-present	Member of the NIH Study Section NCI-G M1 P.
2001	Strategic Planning Steering Committee of Thomas Jefferson University.
06/01	NIH Study Section. ZGM1 BRT-2 (ad hoc).
2001-2002	President of the American Society for Clinical Pharmacology and Therapeutics.
02/01	Chair, Tumor Markers , The Molecular Medicine of Colorectal Cancer; Keystone Symposia on Molecular and Cellular Biology. Taos, New Mexico, January 30-February 4, 2001.
2000	Member, Advisory Committee of the Graduate Center in the College of Graduate Studies, Thomas Jefferson University.
2000-2001	President Elect of the American Society for Clinical Pharmacology and Therapeutics.
2000-2004	Secretary, American Board of Clinical Pharmacology.
3/00, 2/01	NIH Study Section. NCI-G M1 P (ad hoc).
1/00	NIH Colorectal Cancer Roundtable Meeting, San Francisco, January 5-7, 2000.
12/99	Visiting Faculty, Division of Gastroenterology, University of Pennsylvania School of Medicine, Philadelphia, PA.
12/99	Visiting Professor, Section on Clinical Pharmacology, University of Chicago, Chicago, IL.
11/99	NIH Special Emphasis Panel ZRG1 ALTX4 B Study Section Member.
11/99	Visiting Professor, Department of Pharmacology, University of Catania, Catania, Italy.
1999-2003	Clinical Pharmacology Executive Committee, American Society for Pharmacology and Therapeutics.
1999-2004	Elected Regent of the American College of Clinical Pharmacology.
1999	Tenure granted.
8/99	Visiting Faculty, Department of Pharmacology, Georgetown University School of Medicine, Washington, D.C.
7/99	NIH Agency for Health Care Policy and Research Special Emphasis Panel.
1999	NIH GMA2 Study Section (ad hoc).
1999-2000	Vice President, American Society for Clinical Pharmacology and Therapeutics.
1998	Promoted to Professor, Department of Medicine.
1998	Invited participant, Nobel Lectures and Symposia, Stockholm, Sweden.
1998-present	Member, American Board of Clinical Pharmacology.
1998-1999	Re-elected Chairman, Molecular Therapeutics Section, American Society for Clinical Pharmacology and Therapeutics.
3/98	Nominating Committee, American Society for Clinical Pharmacology and Therapeutics.
3/98	Visiting Faculty, Clinical Pharmacology Unit, Mayo Clinic, Rochester, MN.

- 1/98 Invited participant, Strategic Planning Retreat, **American Society for Clinical Pharmacology and Therapeutics**.
- 1997-present Member, Kimmel Cancer Institute, Thomas Jefferson University.
- 1997-2000 Scientific Program Committee, **American Society for Clinical Pharmacology and Therapeutics**.
- 1997-present Samuel M.V. Hamilton Professor in Medicine.
- 1997-present Director, Division of Clinical Pharmacology, Thomas Jefferson University, Philadelphia, Pennsylvania.
- 1996-1997 Associate Director of Clinical Trials, Office of Scientific Affairs, Thomas Jefferson University, Philadelphia, Pennsylvania.
- 1996-1997 Acting Director, Division of Clinical Pharmacology, Thomas Jefferson University, Philadelphia, Pennsylvania.
- 1995-present Member, Finance Committee, **American College of Clinical Pharmacology**.
- 1995-1999 Chairman, Molecular Therapeutics Section, **American Society for Clinical Pharmacology and Therapeutics** (Re-elected 1998).
- 1995-2003 Board of Directors, **American Society for Clinical Pharmacology and Therapeutics** (Re-elected 1998).
- 1994-present Fellow of the **American College of Clinical Pharmacology**.
- 1994-present Editorial Board, **Journal of Clinical Pharmacology**.
- 1994 NIH Clinical Sciences II Study Section.
- 1993-1994 Vice-Chairman, Molecular Therapeutics Section, **American Society for Clinical Pharmacology and Therapeutics**.
- 1991-1993 Pharmaceutical Manufacturers' Association Faculty Development Award in Basic Pharmacology.
- 1987 Stanford University Award for Distinguished Research In Clinical Pharmacology as a medical student.
- 1987 Elected to the American Association For Clinical Chemistry Speakers Bureau.
- 1987, 1988 Veterans Administration Award for Superior Performance.
- 1980-1982 NIH Postdoctoral Fellow.
- 1976-1979 NIH Predoctoral Fellow.
- 1975-1976 Thomas Jefferson University Graduate School Fellow.
- 1975 Bachelor of Science, Magna Cum Laude.
- 1975 New York Regents' Scholarship for graduate education.
- 1971-1975 New York Regents' Scholarship for undergraduate education.

ELECTED FELLOWSHIPS

- 2018 **National Academy of Inventors (FNAI)**
- 2012 **American Heart Association (FAHA)**
- 1994 **American College of Clinical Pharmacology (FCP)**

RESEARCH SUPPORT

Peer-Reviewed (Annual direct costs; training grants excluded):

Research**Active**

- 09/18-09/22 Department of Defense W81XWH-17-PRCRP-TTSA **Oral GUCY2C ligand blocks colorectal tumor progression in patients**, P.I., S.A. Waldman, M.D., Ph.D; 09/15/18-09/14/22; \$250,000.
- 01/19-01/22 NIH NCI F30 CA232469 Ruth Kirschstein Pre-Doctoral Fellowship Award to Jeffrey Rappaport, 01/06/19-01/05/22, \$45,792.
- 01/18-12/19 PhRMA Predoctoral Fellowship Award to Jeffrey Rappaport, 01/01/18-12/31/19, \$20,000.
- 12/12-09/19 NIH/NCI Division of Chemoprevention **Phase I trial of dolcanatide to demonstrate colorectal bioactivity in healthy volunteers** (single site study; Mayo Clinic MCR-0086-Chemoprevention Network Subaward), Site P.I., S.A. Waldman, M.D., Ph.D; 12/01/12-09/01/19; \$380,000.
- 01/17-12/21 NIH/NCI 1R01 CA204881-01 **Guanylin-GUCY2C axis in colorectal cancer initiation**. P.I., S.A. Waldman, M.D., Ph.D; 01/01/17-12/31/21; \$250,000.
- 05/16-04/21 NIH/NCI R01 CA206026-01 **GUCY2C hormone loss translates APC- β -catenin mutations into colorectal cancer**, P.I., S.A. Waldman, M.D., Ph.D; 08/01/12-06/30/16; \$230,00.
- 02/18-02/20 NIH NCI F31 CA225123 Ruth Kirschstein MD-PhD Fellowship Award to Amanda Pattison, 02/01/18-01/31/20, \$44,044.
- 06/08-05/23 NCI 5 P30 CA56036, **Translational Research Center** (Institutional Cancer Center Core Grant), P.I., K. Knudsen, M.D., S.A. Waldman, M.D., Ph.D., Gastrointestinal Cancer Program Leader.
- 1994-present Targeted Diagnostics and Therapeutics, Inc. **E. coli heat-stable enterotoxin for targeting diagnostics and therapeutics to colorectal cancer**; P.I., S.A. Waldman, M.D., Ph.D.; 11/1/1996-10/31/2018; \$700,000.
- 2017-2020 Synergy Pharmaceuticals, Inc. **Regulation of GUCY2C by hormone analogs**, P.I., S.A. Waldman, M.D., Ph.D.; 10/1/2017-09/30/2019; \$125,000.

Completed

- 07/15-06/17 NIH NIDDK F30 Ruth Kirschstein MD-PhD Fellowship Award to Dante Merlino, \$35,000.
- 08/12-06/17 NIH R01 ZFP36, **ZFP36, obesity and inflammation**, P.I., Caleb Kallen, M.D., Ph.D; 04/01/12-03/30/17; \$250,000.
- 08/12-012/16 NIH R01 CA170533 **GUCY2C hormone signaling at the intersection of obesity and colorectal cancer**, P.I., S.A. Waldman, M.D., Ph.D; 08/01/12-06/30/16; \$250,00.
- 08/12-06/16 NIH R21 **MicroRNA and colorectal cancer**, P.I., H. Yang, Ph.D; 08/01/12-06/30/16; \$125,000.
- 07/13-06/17 NIH1 F30 CA180500 Ruth Kirschstein MD-PhD Fellowship Award to Erik Blomain, \$35,000.
- 07/12-06/14 NIH Ruth Kirschstein Predoctoral Fellowship Award to Michael Magee, \$35,000.
- 08/13-07/14 ASPET Predoctoral Systems Pharmacology Award to Gilbert Kim, \$30,000.

- 06/12-05/14 Commonwealth Universal Research Enhancement (CURE), P.I., Scott A. Waldman, Program ***Occult tumor burden as a marker stratifying therapy to eliminate racial disparities in colon cancer***, P.I., S.A. Waldman, M.D., Ph.D.; 06/12-05/14; \$744,000 (Pennsylvania Tobacco Non-Formula Funds, SAP #4100059197).
- 06/10-08/14 Commonwealth Universal Research Enhancement (CURE), P.I., Scott A. Waldman, Program Project ***Center of Excellence for Cancer Immunotherapy***, P.I., S.A. Waldman, M.D., Ph.D.; 06/10-05/14; \$1,100,000 (Pennsylvania Tobacco Non-Formula Funds, SAP #4100051723).
- 09/12-08/13 ASCPT Young Investigator Award to Egeria Lin, Pharm.D, Ph.D., \$35,000.
01/13-08/13 PhRMA Foundation Predoctoral Fellowship Award to Gilbert Kim, \$30,000.
- 1975-2013 Merck Research Laboratories, ***Collaborative Program in Clinical Pharmacology***; P.I., S.A. Waldman, M.D., Ph.D. (since 1996), \$1,200,000.
- 01/10-06/12 PhRMA Foundation Postdoctoral Fellowship Award for Francheska Colon-Gonzalez, Ph.D., \$40,000.
- 10/09-09/11 NIH RC1 CA146033 ***Occult lymph node metastases and racial disparities in colon cancer outcomes***, P.I., S.A. Waldman, M.D., Ph.D.; 10/09-09/11; \$500,000 (***Challenge Grant***).
- 05/10-04/11 Veterans Administration, ***Statistical Designs for Marker Validation Studies in Treatment***, P.I., A. Zhou, Ph.D., Co-I, P.I., S.A. Waldman, M.D., Ph.D.; \$200,000.
- 01/09-12/10 Elsa Pardee, Selective targeting of colorectal cancer cells, P.I., Chang Chang, Ph.D., Co-PI, S.A. Waldman, M.D., Ph.D., \$101,811.
- 01/09-12/10 PhRMA Foundation Predoctoral Fellowship Award for Michael Valentino, M.D.-Ph.D. candidate, \$20,000.
- 11/05-10/10 NIH R21-R33 CA112147, ***Nonlinear models and mRNA expression of biomarkers by Q-RT-PCR***, P.I., T. Hyslop, Ph.D., Co-I, S.A. Waldman, M.D., Ph.D.; \$100,000.
- 07/03-12/10 NIH R01 CA95026, ***Colorectal cancer and guanylyl cyclase C in blood***, P.I., S.A. Waldman, M.D., Ph.D.; 06/03-05/08; \$782,608.
- 03/02-02/07 NIH 2R01 CA75123, ***Utility of guanylyl cyclase C as a biomarker for colorectal cancer***; P.I., S.A. Waldman, M.D., Ph.D.; 03/01/02-02/28/07; \$864,864.
- 6/00-5/08 NCI 5 P30 CA56036, ***Translational Research Center*** (Institutional Core Grant), P.I., C. Croce, M.D., S.A. Waldman, M.D., Ph.D., Developmental Therapeutics Program Leader; 6/22/95-5/31/06; \$14,130 (Program)
- 2005-2007 Commonwealth Universal Research Enhancement (CURE), P.I., John Monnier, Project ***Regulation of metastasis by guanylyl cyclase C***, P.I., G.M. Pitari, M.D., Ph.D., Co-I, S.A. Waldman, M.D., Ph.D.; \$65,000.
- 2004-2009 NIH R01 CA100370-01A2, ***US detection of sentinel lymph nodes in melanoma***, P.I. B. Goldberg, M.D., Co-I, S.A. Waldman, M.D., Ph.D.; 08/01/04-07/31/07; \$260,917.
- 2008 Affymetrix, Microarray profiling human colon tumors. P.I., S.A. Waldman, M.D., Ph.D., \$37,500.

- 2004-2005 NIH R21 **AP4 Center for Studies on Hereditary Colorectal Cancer**, P.I., B. Boman, M.D., Ph.D., Co-I, S.A. Waldman, M.D., Ph.D.; \$50,000.
- 10/02-09/04 **Merck Sharp & Dohme International Fellowships in Clinical Pharmacology** for Phil DeBruyen, M.D. **Colorectal cancer and guanylyl cyclase C**. Advisor, S.A. Waldman, M.D., Ph.D., 10/02-09/04, \$35,000.
- 02/02-01/04 Commonwealth Universal Research Enhancement (CURE), P.I., John Monnier, Project #1 **Program in Developmental Therapeutics**, P.I., S.A. Waldman, M.D., Ph.D.; 02/01/02-01/3/04; \$1,500,000.
- 7/01-6/02 **PhARMA Fellowship for Careers in Clinical Pharmacology** for Kathleen Butler, M.D. **Guanylyl cyclase C as a vaccine for colorectal cancer**. Advisor, S.A. Waldman, M.D., Ph.D., 07/01-06/02, \$24,000.
- 4/00-9/00 **Genomics Collaborative, Inc., A multi-center, multinational open label clinical study to explore relationships between genotype (from DNA) and serologic (from serum) findings and phenotypic manifestations in a large cohort of patients**, P.I., S.A. Waldman, M.D., Ph.D., 4/00-9/00; \$64,600.
- 1999-2001 NIH R21 CA79663, **Colorectal cancer and guanylyl cyclase C in blood**, P.I., S.A. Waldman, M.D., Ph.D.; 06/99-07/01; \$75,000.
- 1999-2001 **Egyptian Educational Bureau Fellowship Guanylyl cyclase C as a biomarker for colorectal cancer**, for Hanan M. Kamel MD; \$35,000.
- 1998-2002 NIH R01 HL59214, **Allosteric inhibition of guanylyl cyclase by nucleotides**, P.I., S.A. Waldman; 06/98-05/02; \$119,404.
- 1998-2002 NIH R01 CA75123, **Utility of guanylyl cyclase C as a biomarker for colorectal cancer**; P.I., S.A. Waldman, M.D., Ph.D.; 07/98-06/02; \$75,000.
- 1997-2001 NIH R01 GM28023, **Role of LPS in pathophysiology of endotoxic shock**; P.I., J. Flynn, Ph.D., Co-P.I., S.A. Waldman, M.D., Ph.D., 07/96-06/00; \$300,000; 5%.
- 1996-1999 **American Cancer Society EDT-106, Molecular targeting of colorectal tumors by E. coli heat-stable enterotoxin**; P.I., S.A. Waldman, M.D., Ph.D.; 7/96-9/99; \$80,000.
- 1996-1997 **Educational Commission for Foreign Medical Graduates International Medical Scholars Program Fellow Adverse drug reactions**; P.I., S.A. Waldman, M.D., Ph.D., for Munir Garaibeh, MD, PhD; \$35,000.
- 1995-1996 **W.W. Smith Charitable Trust, Molecular targeting of colorectal tumors by E. coli heat-stable enterotoxin**; P.I., S.A. Waldman, M.D., Ph.D.; 10/95-9/96; \$63,000.
- 1995-1997 **Ben Franklin Technology Center of Pennsylvania Ex vivo diagnostic assays for colorectal cancer using E. coli toxin**; P.I., S.A. Waldman, M.D., Ph.D.; 3/95-12/97; \$50,000.
- 1994-1998 **Targeted Diagnostics and Therapeutics, Inc. E. coli heat-stable enterotoxin for targeting diagnostics and therapeutics to colorectal cancer**; P.I., S.A. Waldman, M.D., Ph.D.; 11/1/94-10/31/98; \$160,000.
- 1994-1995 **Elsa U. Pardee Foundation Molecular targeting of colorectal tumors by E. coli heat-stable enterotoxin**; P.I., S.A. Waldman, M.D., Ph.D.; 12/1/94-11/30/95; \$66,000.
- 1994-1996 **NIH Individual National Research Service Award (F32) for Stephen Carrithers, Ph.D. Utility of E. coli heat-stable enterotoxin for targeting**

- colorectal tumors**; 2/1/94-1/31/96; \$23,000. S.A. Waldman, M.D., Ph.D., Advisor.
- 1994-1996 *Pharmaceutical Manufacturers Association Foundation, Inc. **Postdoctoral Fellowship in Clinical Pharmacology*** for Ray Urbanski M.D., Ph.D.; 1/1/94-6/30/95; \$36,000. S.A. Waldman, M.D., Ph.D., Advisor.
- 1993-1994 *US Biosciences **Molecular mechanisms underlying hypotension induced by ethylol***, P.I., S.A. Waldman, M.D., Ph.D.; 12/1/93-11/31/94; \$80,000.
- 1992-1994 NIH R55 DK43805 **Molecular characterization of ST receptors**; P.I., S.A. Waldman, M.D., Ph.D.; 10/1/92-9/31/94; \$40,000.
- 1992-1995 NSF IBN-9205617 *Investigator-Initiated Research Grant **Peptide receptors regulating intestinal secretion***, P.I., S.A. Waldman, M.D., Ph.D.; 10/1/92-4/1/95; \$48,000.
- 1992-1994 *NIH Individual National Research Service Award (F32) for Shereen Hakki, Ph.D. **Purification and characterization of ST receptors***; 12/1/92-11/30/94; \$33,000. S.A. Waldman, M.D., Ph.D., Advisor.
- 1991-1994 *W.W. Smith Charitable Trust Award **Molecular mechanisms underlying cardiovascular homeostasis***; P.I., S.A. Waldman, M.D., Ph.D.; 9/15/91-9/14/94; \$55,000.
- 1991-1992 *Pharmaceutical Manufacturers Association Foundation, Inc. **Medical Student Research Fellowship in Pharmacology-Clinical Pharmacology*** for Marlys Crane; 7/1/91-6/30/92; \$10,000. S.A. Waldman, M.D., Ph.D., Advisor.
- 1991-1992 *Pharmaceutical Manufacturers Association Foundation, Inc. **Faculty Development Award in Basic Pharmacology***; P.I., S.A. Waldman, M.D., Ph.D.; 7/1/91-6/30/93; \$60,000
- 1991-1993 *NIH **Visiting Scholars Award*** for Michel Hugues, Ph.D., Visiting Scientist, C.N.R.S., University of Nice, France; 7/91-6/93; \$26,000. S.A. Waldman, M.D., Ph.D., Advisor.
- 1991 *Pharmaceutical Manufacturers Association Foundation, Inc. **Research Starter Grant***; P.I., S.A. Waldman, M.D., Ph.D.; 1/1/91-12/31/91; \$10,000.
- 1990 *NATO **Travel Award*** for Michel Hugues, Ph.D., Visiting Scientist, C.N.R.S., University of Nice, France; 8/90; \$6,000. S.A. Waldman, M.D., Ph.D., Advisor.
- 1990 *Philippe Foundation **Travel Award*** Michel Hugues, Ph.D., Visiting Scientist, C.N.R.S., University of Nice, France; 9/90; \$8,000. S.A. Waldman, M.D., Ph.D., Advisor.
- 1988-1989 ***Stanford Medical Scholars Award*** for Rahul Doshi. S.A. Waldman, M.D., Ph.D., Advisor.
- 1988-1989 ***Stanford Medical Scholars Award*** for Lilia Fernandez. S.A. Waldman, M.D., Ph.D., Advisor.
- 1987-1990 *Veterans Administration Merit Review Grant: **Activation of guanylate cyclase by E. coli heat-stable enterotoxin***; P.I., S.A. Waldman, M.D., Ph.D.; 4/87-3/90; \$240,000.
- 1983-1987 *Veterans Administration Merit Review Grant: **Regulation of intestinal secretion by toxigenic E. coli***; P.I., S.A. Waldman, Ph.D.; 4/83-3/87; \$200,000.

- 1983-1985 NIH New Investigator Research Award: **Regulation of intestinal secretion by toxigenic E. coli**; P.I., S.A. Waldman, Ph.D.; 4/83-3/85; \$100,000. Declined due to change in the status of the P.I. to medical student.
- 1975-2012 Merck Research Laboratories, **Collaborative Program in Clinical Pharmacology**; P.I., S.A. Waldman, M.D., Ph.D. (since 1996), \$900,000.
- 1996-2012 Clinical trials, various sponsors; P.I., S.A. Waldman, M.D., Ph.D.; ~\$1,000,000/y.

Training Grants

Active

- 1996-2020 NIH T32 GM08562, **Postdoctoral training program in clinical pharmacology**; P.I., S.A. Waldman, M.D., Ph.D., \$500,000 [originally 2 slots at Jefferson; expanded to 7 slots in a joint training program in pediatric and adult clinical pharmacology with the Children's Hospital of Philadelphia (CHOP)].

Completed

- 07/10-06/15 NIH T32 GM08562-16, **Postdoctoral training program in clinical pharmacology: Supplement in Pediatric Clinical Pharmacology**; P.I., S.A. Waldman, M.D., Ph.D., \$80,000.
- 2005-2010 NIH 9 K30 RR022299-09 (formerly K30 HL004522), **K30 Award Curriculum in Human Investigation**, P.I., S.A. Waldman, M.D., Ph.D., \$300,000.
- 2003-2008 NIH R25 CA69277, **Short-term training program in translational cancer research**; P.I., S.A. Waldman, M.D., Ph.D., \$25,850.
- 2002-2005 NIH 5T32 CA09662, **Molecular pharmacology of cancer signaling**, P.I., J. Keen, Ph.D., S.A. Waldman, M.D., Ph.D., preceptor; \$25,000 graduate student training grant for Wilhelm Lubbe, MD-PhD Candidate.
- 2000-2005 NIH K30 HL004522-02, **K30 Award Curriculum in Human Investigation**, P.I., S.A. Waldman, M.D., Ph.D., \$170,000.
- 1998-2001 NIH T32-DK07705, **Molecular pharmacology of signal transduction**, P.I. G. Litwack, Ph.D.; S.A. Waldman, M.D., Ph.D., preceptor; \$25,000 graduate student training grant for Jason Park, MD-PhD Candidate.
- 1998-2000 NIH, **Cancer training in the science of DNA damage and repair**; P.I., Dennis Leeper, Ph.D.; S.A. Waldman, M.D., Ph.D., preceptor; \$25,000 postdoctoral training award for Kim Lucas, PhD.
- 1998-2003 NIH R25 CA69277, **Short-term training program in translational cancer research**; P.I., S.A. Waldman, M.D., Ph.D., \$25,850.
- 1995-2000 NIH 5T32 GM08562-07, **Postdoctoral training program in clinical pharmacology**; P.I., S.A. Waldman, M.D., Ph.D., \$125,000.

SOCIETY MEMBERSHIPS

- American Association for the Advancement of Science
 American Association for Cancer Research
 American College of Clinical Pharmacology
 Fellow (1994-present)
 Editorial Board, *Journal of Clinical Pharmacology* (1994-present)
 Finance Committee (1995-2004)
 Regent (1999-2004)

American College of Physicians
American College of Surgeons Oncology Group
American Federation for Clinical Research
American Medical Association
American Society for Biochemistry and Molecular Biology
American Society for Cell Biology
American Society for Clinical Pharmacology and Therapeutics
 Vice-Chairman, Molecular Therapeutics Section (1992-1995)
 Chairman, Molecular Therapeutics Section (1995-1999)
 Committee on Coordination of Scientific Sections (1995-1999)
 Board of Directors (1995-2003)
 Scientific Programming Committee (1997-2001; 2003-present; Co-Chair 2003-2004;
 Chair 2004-2005)
 Nominating Committee (1997)
 Vice President (1999-2000)
 Chair, Governance Task Force (200-2001).
 President Elect (2000-2001)
 President (2001-2002)
 Past President (2002-2003)
 Chair, Strategic Planning Task Force (2002-2003)
Mid-Atlantic Pharmacology Society
Sigma Xi
American Society for Pharmacology and Experimental Therapeutics
 Clinical Pharmacology Executive Committee (1999-2003)
 Scientific Program Committee (2008-2011)
 Executive Council (2011-present)
 Chair, Scientific Program Committee (2011-present)
 ISTCP Executive Committee (2011-present)
 Nominating Committee (2012-present)

Editorial Boards

Biomarkers in Medicine (**Founding Editor-In-Chief**; 2006-present)
Cancer Therapy
Clinical and Translational Research (**Founding Deputy Editor-In-Chief**; 2009-2015)
Clinical Pharmacology & Therapeutics (**Editor-In-Chief**; 2007-2019)
Drug Design, Development, and Therapy
Open Pharmacology
Personalized Medicine
Physicians OnLine
Regenerative Medicine
World Journal of Gastroenterology

Funding Agencies

College of Reviewers Canada Research Chairs Program (2004-present)
Medical Research Council of Canada (ad hoc Reviewer)
NIH
 Centers of Cancer Nanotechnology Excellence Special Emphasis Panel (07/05)
 Pharmacogenetics and Bioinformatics Special Emphasis Panel (Chair, 12/04; 02/05)

NIH Study Section. BRT2 Special Emphasis Panel (2001)
NIH Study Section. GMA2 (1999-2000, ad hoc)
NCI ZCA1 SRRB-C J2R Special Emphasis Panel (12/05/00)
NIH Study Section. NCI-G M1 P (ad hoc, 3/00, 2/01; Member, 09/01-present; Chair, 12/04-present)
Agency for Health Care Policy and Research CERTS Special Emphasis Panel (11/99; 09/03)
NIH Clinical Sciences II Study Section (1994-1995)
NIH Program Project Site Visit (3/91)
National Science Foundation
Pepper Center of the Mayo Clinic and Foundation
Scientific Foundation of Ireland (SFI)
V.A. Merit Review Program
US Department of Agriculture
Wellcome Trust

Consulting and Board Service

Current

- **Targeted Diagnostics and Therapeutics, Inc. (Exton, PA).** Inventor and Founder (1994); Chair, Scientific Advisory Board (1994-present); Member and Treasurer, Board of Directors (2015-present).
- **Therapeutic Architects (Wilmington, Delaware).** Scientific Advisory Board (2017-present).
- **Oncologisch Centrum-AZ Groeninge OECl-Designated Cancer Center Kortijk (Netherlands).** External Scientific Advisory Board (2017-present).
- **Delaware ACCEL (NCATS Clinical and Translational Research Award).** Chair, External Scientific Advisory Board (2012-present).
- **MLH Exploration LLC.** Scientific Advisory Board (2017-present).
- **Feelux Co. Ltd.** ~\$1B South Korean company with interests in electronics and biotechnology. Member, Board of Directors (2018-present).

Past

- **Celyad (Mont-Saint-Guilbert, Belgium).** Chair of the Data Safety and Monitoring Committee for CHART trials (2013-2016).
- **MacroGenics (Rockville, MD).** Consultant.
- **Merck** Consultant (1991-2010).
- **Immunovative Therapies (Tel Aviv, Israel).** Scientific Advisory Board (2014-2015).

SELECT PATENTS (from 107 issued U.S. and foreign patents; >30 applications pending)

1. Waldman, S.A. (1997) Methods of and kits and compositions for diagnosing colorectal tumors and metastasis thereof. (U.S. Patent No. 5,601,990).
2. Waldman, S.A. (1996) A novel method for specifically targeting cancer diagnostics. (U.S. Patent No. 5,518,888).
3. Waldman, S.A. (1998) Methods of and kits and compositions for diagnosing colorectal tumors and metastasis thereof. (U.S. Patent No. 5,731,159).

4. Waldman, S.A. (1994) Methods of treating metastatic colorectal cancer with ST receptor binding compounds. (U.S. Patent No. 5,879,656; March 9, 1999).
 5. Waldman, S.A. and Carrithers, S.L. (1995) Methods of and kits and compositions for diagnosing colorectal tumors and metastasis thereof. (U.S. Patent No. 5,928,873, July 27, 1999).
 6. Waldman, S.A. (1995) Compositions that specifically bind to colorectal cancer cells and methods of using the same. (U.S. Patent No. 5,962,220, October 5, 1999).
 7. Waldman, S.A. and Parkinson, S.J. (1994) Treatment of enterotoxigenic diarrhea with 2-substituted adenosine derivatives. (U.S. Patent No. 5,817,641, August, 1999).
 8. Pearlman, J., Barber, M., Schulz, S., Parkinson, S., and Waldman, S.A. (1997) Compositions that specifically bind to colorectal cancer cells and methods of using the same (CRCA-1). (U.S. Patent No. 6,060,037, May 9, 2000).
 9. Waldman, S.A. (1998) Compositions that specifically bind to colorectal cancer cells and methods of using the same (Antisense). (U.S. Patent No. 6,087,109, July 11, 2000).
 10. Waldman, S.A. (1998) Compositions that specifically bind to colorectal cancer cells and methods of using the same (CRCA-1). (U.S. Patent No. 6,120,995, September 19, 2000).
 11. Waldman, S.A. (1996) Imaging of colorectal cancer using ST receptor binding compounds. (U.S. Patent No. 6,268,159; July 31, 2001).
 12. Weinberg, D., Barber, M., Biswas, S., and Waldman, S.A. (1996): Methods of identifying and detecting pancreatic cancer. (U.S. Patent No. 6,187,536, February 13, 2001).
 13. Waldman, S.A. (1998) Methods of and kits and compositions for diagnosing colorectal tumors and metastasis thereof. (U.S. Patent No. 6,455,251, September 24, 2002).
 14. Waldman, S.A. (1998) Method of and kits and compositions for diagnosing colorectal tumors and metastases thereof. (Allowed March 12, 2003).
 15. Waldman, S.A. and Carrithers, S.L. (1999) Methods of and kits and compositions for diagnosing colorectal tumors and metastasis thereof. (U.S. Patent No. 6,602,659, August 5, 2003).
 16. Waldman, S.A. and Carrithers, S.L. (1999) Methods of screening and diagnosing esophageal cancer by determining guanylin cyclase C expression. (U.S. Patent No. 6,767,704, July 27, 2004).
 17. Waldman, S.A., Park, J., and Schulz, S. (2000) Compositions and methods for identifying and targeting cancer cells of alimentary canal origin. (U.S. Patent No. 6,844,153, January 5, 2005).
 18. Waldman, S.A. Methods of and kits and compositions for diagnosing colorectal tumors and metastasis thereof. (U.S. Patent No. 6,942,985, September 13, 2005).
 19. Waldman, S.A. ST receptor binding compounds and methods of using the same. (U.S. Patent No. 7,097,839, August 29, 2006).
 20. Waldman, S.A. Compositions that specifically bind to colorectal cancer cells and methods of using the same. (U.S. Patent No. 7,135,333, November 14, 2006).
 21. Waldman, S.A. Compositions that specifically bind to colorectal cancer cells and methods of using the same. (U.S. Patent No. 7,316,902, January 8, 2008).
 22. Waldman, S.A. (1998) Method of and kits and compositions for diagnosing colorectal tumors and metastases thereof. (U.S. Patent No. 7,402,401, July 22, 2008).
 23. Waldman, S.A. Compositions and methods for identifying and targeting cancer cells. (U.S. Patent No. 7,479,376, January 20, 2009).
 24. Waldman, S.A., Park, J., and Schulz, S. Detection of CDX2 expression. (U.S. Patent No. 7,485,422, February 3, 2009).
-

25. Waldman, S.A. Metastatic colorectal cancer vaccine. (U.S. Patent No. 7,598,229, October 6, 2009).
26. Waldman, S.A. ST receptor binding compounds and methods of using the same. (U.S. Patent No. 7,744,870, June 29, 2010).
27. Waldman, S.A., Park, J., and Schulz, S. Compositions and methods for identifying and targeting cancer cells of alimentary canal origin. (U.S. Patent No. 7,745,114, June 29, 2010).
28. Waldman, S.A. Methods of and kits and compositions for diagnosing colorectal tumors. (U.S. Patent No. 7,820,390, October 26, 2010).
29. Waldman, S.A., Park, J., and Schulz, S. Compositions and methods for identifying and targeting cancer cells of alimentary canal origin. (U.S. Patent No. 7,854,933, December 21, 2010).
30. Waldman, S.A., Park, J., and Schulz, S. Compositions and methods for identifying and targeting cancer cells of alimentary canal origin. (U.S. Patent No. 8,067,007, November 29, 2011).
31. Waldman, S.A., Pitari, G.M., Park, J., Schulz, S., Wolfe, H.R., and Lubbe, W. Use of GCC ligands. (U.S. Patent No. 8,206,704, June 26, 2012).
32. Waldman, S.A. Metastatic colorectal cancer vaccine. (U.S. Patent No. 8,329,881, December 11, 2012).
33. Wolfe, H. and Waldman, S.A. Guanylyl cyclase C ligands. (U.S. Patent No. 8,563,682, October 22, 2013).
34. Park, J., Schulz, S., and Waldman, S.A. Compositions and methods for identifying and targeting cancer cells of alimentary canal origin. (U.S. Patent No. 8,946,168, February 2, 2015).
35. Waldman, S.A., Magee, M.S., and Snook, A.E. Anti-GCC antibody molecules. (U.S. Patent No. 9,156,915, October 13, 2015).
36. Waldman, S.A., Magee, M.S., and Snook, A.E. Cell-based anti-cancer compositions with reduced toxicity and methods of making and using the same. (U.S. Patent No. 9,393,268 July 19, 2016).
37. Waldman, S.A., Park, J., and Schulz, S. Compositions and methods for identifying and targeting cancer cells of alimentary canal origin. (U.S. Patent No. 9,429,576 August 30, 2016).
38. Wolfe, H. and Waldman, S.A. Guanylyl cyclase C ligands. (U.S. patent No. 9, 447, 146 September 20, 2016).
39. Waldman, S.A., Snook, A.E., and Magee, M.S. (2017) Method of treating cancer by administering chimeric antigen receptor comprising anti-GCC antibody. (U.S. Patent No. 9,662,405).

TRAINEES

Faculty

1. Walter Kraft, MD, PhD (2001-present) Associate Professor, Director, Division of Clinical Pharmacology, and Director of Training Programs, Departments of Pharmacology & Experimental Therapeutics and Associate Director, Vascular and Hemostasis Consult Service, Department of Surgery, Thomas Jefferson University, Philadelphia, PA; R01-funded.
2. Cynthia Cheng, MD, PhD (2005-present) Associate Professor, Family Medicine, Thomas Jefferson University, Philadelphia, PA. K23 awardee; R01-funded.

3. Scott Mintzer, MD (2005-present) Associate Professor and Director of the Epilepsy Service, Department of Neurology, Thomas Jefferson University, Philadelphia, PA; K23 awardee.
4. Jonathan Brody, PhD (2007-present) Associate Professor and Director of Research, Department of Surgery, Thomas Jefferson University, Philadelphia, PA; WW Smith, American Cancer Society awardee.
5. Hushan Yang, PhD (2009-present) Assistant Professor, Department of Medical Oncology, Thomas Jefferson University, Philadelphia, PA; American Cancer Society awardee; R21, R03-funded.
6. Caleb Kallen, MD, PhD (2012-present) Assistant Professor, Department of Obstetrics and Gynecology, Thomas Jefferson University, Philadelphia, PA; R01-funded.
7. Paula Martinez, MD (2012-present) Assistant Professor, Division of Nephrology, Department of Medicine, Thomas Jefferson University, Philadelphia, PA; American Diabetes Association Awardee.
8. Jordan Winter, MD (2012-present) Assistant Professor, Department of Surgery, Thomas Jefferson University, Philadelphia, PA; R21 and ACS Awardee.
9. Ubaldo Martinez-Outshoorn, MD (2012-present) Assistant Professor, Department of Medical Oncology, Thomas Jefferson University, Philadelphia, PA; K08 awardee.
10. Shennan Weiss, MD, PhD (2016-present)-Assistant Professor, Department of Neurology, Thomas Jefferson University, Philadelphia, PA; K23 awardee.

Fellows

1. Helene Gazzano, PhD (1988-1990) Director, Analytical Development and Quality Control, Genetech, South San Francisco, CA.
2. Shereen Hakki, PhD (1990-1992; NIH NRSA Awardee) Private practice, Philadelphia, PA.
3. Michel Hugues, PhD (1990-1992; NIH NRSA Awardee) Professor, CNRS (French NIH), University de Bordeaux, France.
4. Ray Urbanski, MD, PhD (1993-1995)-PhRMA Foundation Awardee; Vice President of Research and Development, Suntory Pharmaceuticals, Japan.
5. Stephen Carrithers, PhD (1993-1996) NIH NRSA Awardee; Assistant Professor, Division of Nephrology, Department of Medicine, University of Kentucky, Lexington.
6. Tracy McGowan, MD (1995-1996) Assistant Professor, Division of Nephrology, Department of Medicine, Thomas Jefferson University, Philadelphia, PA. Director, Nephrology Research, Johnson & Johnson, Princeton, NJ.
7. Howard Greenberg, MD (1995-1997; NIH Institutional Training Grant); Associate Professor and Medical Director of the Clinical Research Unit, Division of Clinical Pharmacology, Department of Pharmacology and Experimental Therapeutics, Thomas Jefferson University, Philadelphia, PA (1997-2006), Senior Director, Clinical Pharmacology, Bristol Myers-Squibb, Princeton, NJ.
8. Scott Parkinson, PhD (1996-1998) Sigma Xi Student Research Award (1996), Jefferson Alumni Thesis Award 1999; Postdoctoral Fellow, Imperial Cancer Research Fund, Oxford, UK, Instructor, Dana Farber Cancer Center, Harvard University; Director, GI Research, Novartis, London, UK.

9. Wei Zheng, MD (1996-1998) Assistant Professor, Division of Thrombosis and Homeostasis, Department of Medicine, Temple University School of Medicine, Philadelphia, PA.
10. Munir Garaibeh, MD, PhD (1996-1997) Educational Commission for Foreign Medical Graduates International Medical Scholars Program Fellow; Professor, Department of Pharmacology, Faculty of Medicine, University of Jordan, Amman, Jordan.
11. Mala Varma, MD (1996-1998) NIH Institutional Training Grant; Assistant Professor, Division of Hematology, Department of Medicine, University of Medicine and Dentistry of New Jersey, Newark.
12. Luisa Veronese, MD (1997-1999) NIH Institutional Training Grant; Director, Oncology Research, Novartis, Basel, Switzerland.
13. Kim Lucas, PhD (1998-2000) NIH Institutional Training Grant; Regulatory Affairs, Wyeth Laboratories, Collegeville, PA.
14. Alyssa Gelmann, MD (1998-2000) NIH Institutional Training Grant; Private practice.
15. Giovanni Mario Pitari, MD (1998-2001) ASCPT Presidential Awardee ('01) Associate Professor, Division of Clinical Pharmacology, Department of Pharmacology and Experimental Therapeutics, Thomas Jefferson University, Philadelphia, PA.
16. Hanan Kamel, MD, PhD (1999-2001) Egyptian Educational Bureau Fellowship; Assistant Professor, Department of Pathology, University of Cairo, Egypt.
17. Rodney Desnoyers, MD (1999-2000) Cardeza Foundation Fellowship; Adjunct Assistant Professor, Division of Medical Oncology, Department of Medicine, Thomas Jefferson University.
18. Walter Kraft, M.D. (1999-2001) NIH Institutional Training Grant; Associate Professor, Department of Pharmacology and Experimental Therapeutics; Director of the Jefferson Clinical Research Unity, Thomas Jefferson University; R01-funded.
19. Eduardo DeMoares, MD (2000-2001) Private Practice, Sao Paulo, Brazil.
20. Kathleen Butler, MD (2000-2002) PhRMA Fellowship in Clinical Pharmacology (Recipient); (2001-2002); Director, Experimental Medicine, Astra Zeneca, DE.
21. Tong Li, M.D. (2001-2003) NIH Institutional Training Grant; Director, Clinical Pharmacology, Bristol Myers Squibb, Princeton, NJ.
22. Glen Frick, M.D., Ph.D. (2002-2004) NIH Institutional Training Grant; Director, Translational Pulmonary Medicine, GlaxoSmithKline, Philadelphia, PA (2004-2005); Director, Clinical Pharmacology-Neuroscience, Wyeth Research, Collegeville, PA (2005-present).
23. Satish Tiyyagura, M.D. (2002-2004; NIH Institutional Training Grant) Private practice.
24. Phil Debruyne, M.D. (2002-2004) Merck Sharp & Dohme International Fellowships in Clinical Pharmacology Awardee; Fellow, Clinical Oncology, University of Ghent, Belgium (2004-2006); Clinical Senior Lecturer (Assistant Professor), Beatson Cancer Centre, University of Glasgow, UK (2006-present).
25. Pradnya Mitroo, M.D. (2003-2007) Combined GI-Clinical Pharmacology fellow. Private practice.

26. Li Gong, M.D., Ph.D. (2003-2006) NIH Institutional Training Grant; FDA Reviewer (2008-present).
27. Fatih Ozdener, Ph.D. (2004) Clinical trials compliance and training manager, Roche Pharmaceuticals, Ankara, Turkey.
28. Chantell Wilson, Ph.D. (2005-2007) NIH Institutional Training Grant; Clinical Pharmacologist, Procter and Gamble, Cincinnati, Ohio (2007-present).
29. Jian Ping Gong, M.D., Ph.D. (2007-2008) NIH Institutional Training Grant; FDA Reviewer (2008-present).
30. Peng Li, M.D., Ph.D. (2008-2011). NIH Institutional Training Grant; Assistant Professor, Department of Pathology, University of Florida Gainesville.
31. Adam Snook, Ph.D. (2008-2011); Assistant Professor, Department of Pharmacology & Experimental Therapeutics, Thomas Jefferson University. Co-I of translational clinical trial of novel vaccines in colorectal cancer.
32. Alex Meija, M.D. (2007-2010) NIH Institutional Training Grant; Associate Professor, Hematology-Oncology, Taussig Cancer Institute, Cleveland Clinic.
33. Francheska Gonzalez-Colon, Ph.D. (2009-2012) PhRMA Foundation Postdoctoral Fellowship; Scientist, Early Stage Development Operations, Merck & Co.
34. Jieru Egeria Lin, Pharm.D., Ph.D. (2010-2013) AACR Travel Award (2012), AACR Top-Rated Poster (top 2.5%; 2012); Co-I of NCI translational clinical trial in cancer chemoprevention.
35. Babar Bashir, M.D. (2016-present). Competitive scholarship to attend the Duke Anticancer Agent Development and Validation Workshop in Bethesda, MD, May 2-5, 2017.
36. Allison Aka, M.D. (2016-2017).
37. Edwin Lam, Pharm.D. (2017-present).
38. Johnathan Stem, M.D. (2017-2018).
39. Ellen Caparosa, M.D. (2018-2019).

Doctoral Students

1. Marlys Crane, MD, PhD (Stanford MD-PhD program, 1986-1992)-PhRMA Foundation Medial Student Research Fellowship Awardee (1991-1992); Private practice.
2. Scott Parkinson, PhD (1996-1998) Sigma Xi Student Research Award (1996), Jefferson Alumni Thesis Award 1999; Postdoctoral Fellow, Imperial Cancer Research Fund, Oxford, UK, Instructor, Dana Farber Cancer Center, Harvard University; Director, GI Research, Novartis, London, UK.
3. Sujata Deshmane, Ph.D. (1993-1996); Director of Technical Applications, Rohm & Haas.
4. Jason Park (Jefferson MD-PhD program 1994-2003); NIH Training Grant (1997-2001); Jefferson Alumni Thesis Award (2003); The Harold L. Stewart, M.D. '26 Prize in Pathology (2003); The Henry Keller Mohler Memorial Prize in Therapeutics (2003); The Robert J. Mandle Memorial Graduation Award in Research (2003); Chief Resident in Pathology, University of Pennsylvania; Assistant Professor, Department of Pathology, UT Southwestern (2010).

5. Hank Wolfe, Ph.D. (1997-2005); Executive Vice President and Chief Scientific Officer, Genaera Corporation, Plymouth Meeting, PA.
6. Shiva Kazerounian, Ph.D. (1998-2003); ASBMB Graduate/Postdoctoral Travel Fellowship Awardee (2001), Sigma Xi Student Research Award (2002), Postdoctoral Fellow, Dana Farber Cancer Center and recipient Susan Komen Foundation Postdoctoral Fellowship Award, Harvard University.
7. Inez Ruiz-Stewart, Ph.D. (1998-2003); NIH Minority Scientist Training Award (1998-2000), Postdoctoral Fellow, Corielle Institute, New Jersey (2000-2004); Associate Director of Medical Safety Operations, Clinical Safety and Pharmacovigilance, Otsuka Pharmaceuticals.
8. Matthew DiGuglielmo (Jefferson MD-PhD program, 1997-2004); Measey Foundation Fellow (1999-2002). Physician Investigator, Dupont Children's Hospital, Newark, DE.
9. Wilhelm Lubbe (Jefferson MD-PhD program, 1999-2005) NIH Cancer Signaling Training Grant (2002-present); Sigma Xi Student Research Award (2004); ASCPT Top Abstract and Presidential Trainee Young Investigator Award (2005); Medical student (2005-2007); The Robert J. Mandle Memorial Graduation Award in Research (2007); house staff in radiation oncology, Fox Chase Cancer Center.
10. Peng Li, M.D., Ph.D. (2002-2007); Sigma Xi Student Research Award (2005); ASCPT Presidential Trainee Young Investigator Award (2005); Pathology House Staff, University of Utah, Salt Lake City.
11. Adam Snook, Ph.D. (2002-2007). NIH Cancer Immunology Training Grant (2002-2004); Sigma Xi Student Research Award (2006); Jefferson College of Graduate Studies Alumni Travel Awardee (2007). Postdoctoral Fellow, Thomas Jefferson University.
12. Jieru Egeria Lin, Pharm.D., Ph.D., M.D. (Ph.D; 2005-2009); Sigma Xi Student Research Award (2006). Jefferson College of Graduate Studies Alumni Travel Award (2007, 2008).
13. David Zuzga, Ph.D. (2005-2008). Visiting Assistant Professor, St. Joseph's University, Philadelphia.
14. Ahmara Gibbon (Jefferson MD-PhD program, 2003-2011) Sigma Xi Student Research Award (2007); NIH Minority Research Supplement (2007-2009); Minority Trainee Research Forum Travel Fellowship (2007); Jefferson College of Graduate Studies Alumni Travel Award (2009); AACR Minority Trainee Research Forum Travel Fellowship (2009); House Staff, Ophthalmology, University of Pittsburgh.
15. Michael Valentino (Jefferson MD-PhD program, 2005-2012) PhRMA Foundation Predoctoral Fellowship Award (2009-2011); Jefferson College of Graduate Studies Alumni Travel Award (2009, 2010); Jefferson College of Graduate Studies MD/PhD Thesis Prize for Innovation in Translational Research (2012), House Staff, Medicine, Thomas Jefferson University.
16. Glen Marszalowicz, Ph.D. (2009-2014) Marketing Specialist, Antibody Services, GenScript.
17. Michael Magee, Ph.D. (Immunology PhD Program; 2009-2015; NIH F30 awardee), Scientist, Bluebird Bio.
18. Crystal Kraft, Ph.D. (2010-2016); Scientific Communications.

19. Gilbert Kim, Ph.D. (2011-2016) ASPET Systems Pharmacology Fellowship (2012-2013); PhRMA Foundation Young Investigator Awardee (2013-2014); ASPET Graduate Student Travel Award (2013, 2014); ASPET Integrative Systems, Translational and Clinical Pharmacology Division Best Abstract, (2014).
20. Bo Xiang, Ph.D. (Immunology PhD Program; 2011-2016). Clinical Research Professional.
21. Erik Blomain (Jefferson MD-PhD program, 2012-2018; NIH F30 Awardee). Maria Werner-Wasick Award for Excellence in Radiation Oncology, the Hyman Menduke Award for Research Impact, the Thesis Award for Innovation in Translational Medicine. Radiation Oncology House Staff, Stanford University.
22. Dante Merlino (Jefferson MD-PhD program, 2013-present).
23. Tara Abraham (Immunology PhD Program; 2014-present).
24. Amanda Pattison (Genetics PhD Program; 2015-present). Sigma Xi Student Research Award (2017);
25. Jeffrey Rappaport (Jefferson MD-PhD program; 2016-present).
26. Trevor Baybutt (Immunology PhD Program; 2017-present).
27. John Flickinger (MD-PhD Program; Immunology Program; 2017-present).

Masters Students

1. Sanjoy Biswas (1995-1997); Staff Scientist, SmithKline Beecham.
2. Joshua Pearlman (1995-1997); Anesthesiology Houseofficer, Johns Hopkins University, Baltimore MD.
3. Frank Wagner (1995-1997); Instructor, Rowan University, Philadelphia, PA.
4. Michael Barber (1995-1998); Staff Scientist, SmithKline Beecham.
5. Ishrat Mannan (1996-1998); Staff Scientist, SmithKline Beecham.
6. Scott Prawer (1996-1998); Internal Medicine Houseofficer, University of Minnesota, Minneapolis.
7. Chi So (1996-1998); Staff Scientist, SmithKline Beecham.
8. Jen-Pyng Kou (1996-1998); Staff Scientist, SmithKline Beecham.
9. William Wixted (1996-1998); Staff Scientist, SmithKline Beecham.
10. Alexander Tankelevitch (1998-2000); Senior Clinical Scientist, Wyeth Laboratories.
11. Troy Abernethy (1998-2000); Medical student, Boman Gary School of Medicine (2001-2005); House Officer, Medical College of Virginia.
12. Tracy Fava (1998-2000); Staff Scientist, Bristol Myers-Squibb.
13. Joanne Burke (1999-2001); Clinical Research Associate, Merck Research Laboratories.
14. Matthew Witek (2002-2004) Sigma Xi Student Research Award (2004; 2006); Assistant Professor, Radiation Oncology, University of Wisconsin.
15. Jieru Egeria Lin (2002-2004); Medical Student, University of Illinois Chicago.
16. Dan Cifarelli (2003-2004); Doctoral Student, University of South Carolina, Charleston, SC.

17. Karoline Smith (2003-2004) Masters Student, Clinical Research Associate, Pharmaceutical Industry.
18. Ijeoma Agba (2005-2007) Masters Student, Scientist, Merck & Co.
19. Tamara Edwards (2005-2007) Masters Student, Scientist, Redox Pharmaceutical.
20. Caitlin Grever (2008-2010). Masters Student.
21. Karl Nielsen (2004-2009) Masters Student, Scientist, Merck & Co.
22. Priyanka Mude (2009-2011). Masters Student.
23. Chia-Ho Cho (2009-2012). Masters Student.
24. Amanda Aing (2012-2016). Masters Student.
25. Jamie Caudil (2016-present). Masters Student.
26. Rachel Nelson (2017-2018). Masters Student.

PUBLICATIONS (H Index 64; >16,000 citations)

Peer-Reviewed

1. Waldman, S.A. and Chepenik, K.P. (1979) Identification and partial characterization of phospholipases A in rat embryos. **IRCS Medical Science** 7: 350.
2. Waldman, S.A. and Chepenik, K.P. (1979) Characterization and comparison of two plasma membrane reference enzymes with those of other organelles during mammalian embryogenesis. **Int. J. Biochem.** 11: 155-160.
3. Lewicki, J.A., Brandwein, H.J., Waldman, S.A., and Murad, F. (1980) Purified guanylate cyclase: characterization, iodination, and preparation of monoclonal antibodies. **J. Cyclic Nucleotide Res.** 6: 283-296.
4. Murad, F., Lewicki, J.A., Brandwein, J.J., Mittal, C.K., and Waldman, S.A. (1981) Guanylate cyclase: purification, properties, free radical activation, radiolabelling, and preparation of hybridoma antibodies. **Adv. Cyclic Nucleotide Res.** 14: 229-240.
5. Brandwein, H.J., Lewicki, J.A., Waldman, S.A., and Murad, F. (1982) Effect of GTP analogues on purified soluble guanylate cyclase. **J. Biol. Chem.** 257: 1309-1311.
6. Waldman, S.A., Lewicki, J.A., Brandwein, H.J., and Murad, F. (1982) Partial purification and characterization of particulate guanylate cyclase from rat liver after solubilization with trypsin. **J. Cyclic Nucleotide Res.** 8: 359-370.
7. Waldman, S.A., Lewicki, J.A., Chang, L.Y., and Murad, F. (1983) Highly purified particulate guanylate cyclase from rat lung: Characterization and comparison with soluble guanylate cyclase. **Mol. Cell. Biochem.** 57: 155-166.
8. Waldman, S.A., O'Hanley, P.D., Schoolnik, G.K., Falkow, S., and Murad, F. (1984) A simple, sensitive, and specific assay for the heat-stable enterotoxin of *Escherichia coli*. **J. Infect. Dis.** 149: 83-89.
9. Waldman, S.A., Chepenik, K.P., and Waite, B.M. (1984) Acyl composition and phospholipase activities in plasma membranes isolated from rat embryos. **Int. J. Biochem.** 16: 593-599.

10. Waldman, S.A., Sinacore, M.S., Lewicki, J.A., Chang, L.Y., and Murad, F. (1984) Selective activation of particulate guanylate cyclase by a specific class of porphyrins. **J. Biol. Chem.** 259: 4038-4042.
11. Garipey, J., O'Hanley, P.D., Waldman, S.A., Murad, F., and Schoolnik, G.K. (1984) A common antigenic determinant found in two functionally unrelated toxins. **J. Exp. Med.** 160: 1253-1258.
12. Waldman, S.A., Rapoport, R.M. and Murad, F. (1984) Atrial natriuretic factor selectively activates particulate guanylate cyclase and elevates cGMP in rat tissues. **J. Biol. Chem.** 259: 14332-14334.
13. Winquist, R., Rapoport, R.M., Waldman, S.A., Murad, F., Schwartz, K., and Faison, E. (1984) Atrial natriuretic factor elicits an endothelium-independent relaxation and activates particulate guanylate cyclase in vascular smooth muscle. **Proc. Natl. Acad. Sci. USA** 81: 7661-7664.
14. Waldman, S.A., Rapoport, R.M., Fiscus, R., and Murad, F. (1985) Effects of atriopeptin on particulate guanylate cyclase from rat adrenal. **Biochim. Biophys. Acta** 845: 298-303.
15. Waldman, S.A., Chang, L.Y., and Murad, F. (1985) A two-step procedure for obtaining highly purified particulate guanylate cyclase from rat lung. **Prep. Biochem.** 15: 103-120.
16. Leitman, D., Waldman, S.A., Rapoport, R.M., and Murad, F. (1985) Specific atrial natriuretic factor receptors mediate increased cyclic GMP accumulation in cultured bovine aortic endothelial and smooth muscle cells. **Trans. Assoc. Amer. Phys.** 98: 243-252.
17. Fiscus, R., Rapoport, R.M., Waldman, S.A., and Murad, F. (1985) Atriopeptin II elevates cyclic GMP, activates cyclic GMP-dependent protein kinase and causes relaxation in rat thoracic aorta. **Biochim. Biophys. Acta** 846: 179-184.
18. Rapoport, R.M., Waldman, S.A., Schwartz, K., Winquist, R.J., and Murad, F. (1985) Effects of atrial natriuretic factor, sodium nitroprusside, and acetylcholine on cyclic GMP levels and relaxation in rat aorta. **Eur J. Pharm.** 115: 219-229.
19. Waldman, S.A., Kuno, T., Kamisaki, Y., Chang, L.Y., Garipey, J., O'Hanley, P.D., Schoolnik, G.K., and Murad, F. (1986) Intestinal receptor for heat-stable enterotoxin of *Escherichia coli* is tightly coupled to a novel form of particulate guanylate cyclase. **Infect. Immun.** 51: 320-326.
20. Kuno, T., Kamisaki, Y., Waldman, S.A., Garipey, J., Schoolnik, G., and Murad, F. (1986) Characterization of the receptor for heat-stable enterotoxin from *Escherichia coli* in rat intestine. **J. Biol. Chem.** 261: 1470-1476.
21. Kuno, T., Andresen, J.W., Kamisaki, Y., Waldman, S.A., Chang, L.Y., Saheki, S., Leitman, D.C., Nakane, M., and Murad, F. (1986) Co-purification of an atrial natriuretic factor receptor and particulate guanylate cyclase from rat lung. **J. Biol. Chem.** 261: 5817-5823.
22. Kamisaki, Y., Saheki, S., Nakane, M., Palmieri, J.A., Kuno, T., Chang, B., Waldman, S.A., and Murad, F. (1986) Soluble guanylate cyclase from rat lung exists as a heterodimer. **J. Biol. Chem.** 261:7236-7241.

23. Waldman, S.A., Rapoport, R.M., Ginsburg, R., and Murad, F. (1986) Desensitization to nitroglycerin in vascular smooth muscle from rat and human. **Biochem. Pharm.** 35: 3525-3531.
24. Rapoport, R.M., Winkquist, R.J., Baskin, E.P., Faison, E.P., Waldman, S.A., and Murad, F. (1986) Effects of atriopeptins on relaxation and cyclic GMP levels in rat and rabbit aortas. **Eur. J. Pharm.** 120: 123-126.
25. Murad, F., Waldman, S.A., Fiscus, R.R., and Rapoport, R.M. (1986) Regulation of cyclic GMP synthesis and the interactions with calcium. **J. Cardiovasc. Pharm.** 8: 557-560.
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