UNIVERSITY OF PENNSYLVANIA - PERELMAN SCHOOL OF MEDICINE
Curriculum Vitae

Date: 05/29/2026

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If you are not a U.S. citizen or holder of a permanent visa, please indicate the type of visa you have:
none (U.S. citizen)

Education:

1972	B.Sc.	(First Class Honors) Southampton University, UK (Physiology and Biochemistry)
1976	Ph.D.	Southampton University, UK (Biochemistry)

Postgraduate Training and Fellowship Appointments:

1972-1976	Science Research Council Postgraduate Fellowship, Southampton University, UK
1976-1979	Postdoctoral Fellowship, Molecular Pharmacology, Johns Hopkins University School of Medicine, Baltimore, MD

Military Service:
[none]

Faculty Appointments:

1979-1982	Research Associate, Department of Pharmacology and Experimental Therapeutics, Johns Hopkins University School of Medicine
1982-1988	Assistant Professor of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania School of Medicine
1985-1988	Assistant Professor of Obstetrics and Gynecology, University of Pennsylvania School of Medicine (Secondary)
1988-1994	Associate Professor of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania School of Medicine
1988-1994	Associate Professor of Obstetrics and Gynecology, University of Pennsylvania School of Medicine (Secondary)
1994-2011	Professor of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania School of Medicine
1994-present	Professor of Systems Pharmacology and Translational Therapeutics in Obstetrics and Gynecology, University of

	Pennsylvania School of Medicine (Secondary)
1997-2000	Professor of Biochemistry and Biophysics, University of Pennsylvania School of Medicine (Secondary)
2006-present	Professor of Systems Pharmacology and Translational Therapeutics in Biochemistry and Biophysics, University of Pennsylvania School of Medicine (Secondary)
2012-present	Molinoff Professor, University of Pennsylvania School of Medicine

Hospital and/or Administrative Appointments:

1995-1996	Interim Chair, Department of Pharmacology, University of Pennsylvania School of Medicine
1997-2005	Associate Dean for Post-doctoral Research Training and Director Biomedical Postdoctoral Programs, University of Pennsylvania School of Medicine
2006-Present	Director Center of Excellence in Environmental Toxicology, University of Pennsylvania School of Medicine
2007-Present	Co-Leader, Tobacco and Environmental Carcinogenesis Program, The Abramson Cancer Center
2010-Present	Director Certificate Program in Environmental Health Sciences, Perelman School of Medicine
2012-2022	Director Translational Research Training Program in Environmental Health Sciences, Perelman School of Medicine, University of Pennsylvania
2014-2019	Deputy Director Penn Superfund Research Program, University of Pennsylvania
2022-Present	Co-Director Translational Research Training Program in Environmental Health Sciences, Perelman School of Medicine
2025-Present	Director Translational Research Training Program in Environmental Health Sciences, Perelman School of Medicine

Other Appointments:

1985-Present	Member, Pharmacology Graduate Group
1985-Present	Member, Abramson Cancer Center
1988-2024	Member, Center for Research and Reproduction and Women's Health (CRRWH)
1988-2023	Member, Biochemistry & Molecular Biophysics Graduate Group
2023-Present	Member, Biochemistry, Biophysics & Chemical Biology Graduate gropu
2024-Present	Member, Center for Women's Health and Reproductive Medicine (CWHRM)

Specialty Certification:

[none]

Licensure:

[none]

Awards, Honors and Membership in Honorary Societies:

1972	B.Sc. (First Class Honors)
1981	Alberta Heritage Foundation for Medical Research, Visiting Lecturer
1983	Pharmaceutical Manufacturers Association Foundation, Research Starter Grant
1986	Albert Ethelbert Ebert Prize and Medal, awarded by the American Pharmaceutical Association
1988	Honorary Masters Degree, University of Pennsylvania
1988-1993	Research Career Development Award, National Cancer Institute
1990	Commendation for Outstanding Teaching, Class of '92
1997	Dean's Award for Excellence in Graduate Education
1998	Elected to the Johns Hopkins Society of Scholars
2005	Biomedical Postdoctoral Council-Recognition Award for Distinguished Service
2009	Outstanding Reviewer for Steroids
2010	Fellow of American Chemical Society
2010	National Postdoctoral Association Distinguished Service Award
2011-2013	Prostate Cancer Foundation Challenge Award
2012	The Thelma Brown and Henry Charles Molinoff Professor of Pharmacology(Endowed Chair), University of Pennsylvania School of Medicine
2013	Outstanding Reviewer for Steroids
2014	Distinguished Faculty Award, Pharmacology Graduate Group
2016	Outstanding Reviewer Journal Medicinal Chemistry, American Cancer Society
2017	Recognized as one of the most prolific authors in Chemical Research in Toxicology. American Chemical Society
2019	Founders Award, Division of Chemical Toxicology, American Chemical Society

Memberships in Professional and Scientific Societies and Other Professional Activities:

International:

1985-1988	International Study Group for Steroid Hormones
1991-Present	Biochemical Society
1991-Present	United States-Israel Binational Science Foundation (Ad hoc Reviewer, 1991-present)
1992-Present	Wellcome Trust (Ad hoc Reviewer, 1992-present)

1999-2001	International Society of Polycyclic Aromatic Compounds
2000-Present	Program Fonds zur Forderung Der wissenchaftlichen Furschung, Austria (Member, START, 2000-present)
2005	World Health Organization (Consultant, International Agency for Research on Cancer Monograms)
2010	World Health Organization (Consultant, International Agency for Research on Cancer Monograms)
2015-Present	Research Institute for Fragrance Materials (Member, Expert Panel)

National:

1985-2003	New York Academy of Sciences
1987-1997	American Association for Cancer Research (Teller, 1992-1993 Member, Task Force on Endocrinology,1995 Program Committee, Annual Meeting,1997 Gertrude Elion Cancer Research Grants Scientific Review Committee,2020-2023)
1988-Present	Endocrine Society
1991-Present	March of Dimes Research Foundation (Ad hoc Reviewer)
1991-2007	National Institutes of Health (Ad Hoc Reviewer: Biochemical Endocrinology SS (1991-92); Chair, Special Emphasis Panel- Chemical Pathology Study Section (2002);Ad-Hoc Member: Cancer Etiology Study Section (2002-2004);Permanent Member: Cancer Etiology Study Section (2004-2008);NIEHS, Ad-Hoc Reviewer: P30 Environmental Health Sciences Core Center Program (2006);NIEHS, Special Emphasis Panel Review of Superfund Research Program Grants (2012);NIEHS, Review of Rapid Response IRB protocol (2014);NCI, Reviewer 2015/05 NCI-RTRB-P30-Cancer Center Support Grants (2015);NCI, Reviewer R21/R03 Discovery, proteomimetic chimeras, bioinformatics, assessment of biomarkers, and clinical research in various tumor models (2015);NCI, Special Emphasis Panel, Clinical and Translational Exploratory/Developmental Studies (2016))
1994-1996	National Cancer Institute (Chemical Pathology Site Visit Team)
1996-Present	National Science Foundation (Ad hoc Reviewer for Biochemistry Program)
1997-Present	American Association for the Advancement of Science
1999-2000	Engineering and Public Policy National Academy of Sciences (Member, Advisory Committee on Science, 1999-2000)

2000-Present	American Chemical Society (Division of Chemical Toxicology, Program Chair 2005-2006, Chair-Elect Division of Chemical Toxicology, 2011; Chair 2012-2014; Past Chair 2015-2016; Chair Awards Committee, 2017-2018; Member Program Committee, 2017-2019; Member Nominations Committee 2020-2023)
2001-Present	National Science Foundation (Advisory Committee, Graduate Student and Postdoctoral Data for NSF-NIH Survey, 2001)
2002-2005	National Postdoctoral Association (Member Advisory Committee)
2003-Present	GREAT Group of the American Association of Medical Colleges (Steering Committee, 2003-present; Co-Chair, Postdoctoral Committee, 2003-2005; Chair-Elect, 2004-2005; Chair, 2005-2006; Past-Chair, 2006-2007 Nominating Committee, 2009)
2005	National Center for Toxicological Research (External Reviewer)
2008-2022	CounterACT Center of Excellence UMDNJ-Rutgers University (Member, External Advisory Board)
2008	USMLE (Ad-Hoc Committee on Licensure)
2009-Present	NIEHS Center for Environmental Exposures and Disease-Rutgers University (2009-2015 Member; Chair 2015-Present)
2010-2014	University of North Carolina Superfund Basic Research Program (Member, External Advisory Board)
2010-Present	Markey Cancer Center University of Kentucky (Member, External Advisory Board)
2010-Present	NIEHS Center for Environmental Health in North Manhattan, Mailman School of Public Health (Member & Chair External Advisory Committee)
2010-2022	NIEHS, Center for Environmental Genetics U. Cincinnati (Member, External Advisory Board)
2018-Present	University of Berkeley Superfund Basic Research Program (Member External Advisory Board)
2020-2023	National Advisory Environmental Health Sciences Council (Member)
2021-Present	Gulf-Coast Center for Precision Environmental Health (Chair, External Advisory

Board)

Local:

1989-1992	John Morgan Society (Recorder, 1989-1990; President, 1991-1992)
2004-2009	Delaware Valley Drug Metabolism Group
2004-2009	Delaware Valley Enzymology Club

Editorial Positions:

1983-1985	Correspondent, Trends in Pharmacological Sciences (Current Awareness Series)
1985-Present	Ad Hoc Reviewer, Journal of Pharmaceutical Sciences
1987-1990	Editorial Consultant, International Cancer Research Data Bank: Cancergram (Chemical Carcinogenesis: Aromatic Hydrocarbons and Heterocyclic Analogs)
1988-Present	Ad Hoc Reviewer, Journal of Biological Chemistry
1988-Present	Ad Hoc Reviewer, Biochemical Pharmacology
1990-Present	Ad Hoc Reviewer, Cancer Research
1991-Present	Editorial Advisory Board, Biochemical Journal
1992-Present	Ad Hoc Reviewer, Biochemistry (A.C.S. Journal)
1993-Present	Editorial Board, Steroids
1996-Present	Ad Hoc Reveiwer, Journal Medicinal Chemistry
1996-Present	Ad Hoc Reviewer, Molecular Endocrinology
1996-Present	Ad Hoc Reviewer, Journal Pharmacology & Experimental Therapeutics
1996-Present	Ad Hoc Reviewer, Analytical Biochemistry
1997-Present	Ad Hoc Reviwer, Chemico-Biol. Interactions
1998-Present	Ad Hoc Reviewer, British Journal of Cancer
1998-Present	Ad Hoc Reviewer, Proceedings of the National Academy of Sciences USA
1998-Present	Ad Hoc Reviewer, Carcinogenesis
1998-Present	Ad Hoc Reviewer, Biochimica et Biophysica Acta
1999-Present	Ad Hoc Reviewer, FEBS Letters
2000-Present	Ad-Hoc Reviewer, Life Sciences
2000-Present	Ad-Hoc Reviewer, Prostate
2000-Present	Ad hoc Reviewer, Journal of Molecular Biology
2000-Present	Ad Hoc Reviewer, Chemical Reviews (A.C.S. Journal)
2000-Present	Ad Hoc Reviewer, Endocrinology
2001-Present	Ad Hoc Reviewer, Archives Biochemistry and Biophysics
2002-Present	Ad Hoc Reviewer, Journal of Organic Chemistry
2002-Present	Ad Hoc Reviewer, Endocrine Reviews
2002-Present	Ad Hoc Reviewer, Journal American Chemical Society
2003-Present	Ad-hoc Reviewer Proceedings National Academy of Sciences

2003-2008	Editorial Board, Journal of Biological Chemistry
2003-Present	Ad-Hoc Reviewer Toxicological Sciences
2003-2005	Editorial Board, Chemical Research in Toxicology
2004-Present	Ad-Hoc Reviewer, Molecular Pharmacology
2005-Present	Ad Hoc Reviewer, Chemical Research in Toxicology (A.C.S. Journal)
2005-Present	Ad-Hoc Reviewer, Journal of Natural Products
2005-Present	Ad-Hoc Reviewer, Clinical Cancer Research
2007-Present	Ad-Hoc Reviewer, Polyaromatic Compounds
2007-Present	Ad-Hoc Reviewer, European Journal of Medicinal Chemistry
2008-Present	Ad-Hoc Reviewer, International Journal of Cancer
2009-Present	Editorial Board, Journal of Steroid Biochemistry and Molecular Biology
2009-Present	Ad-Hoc Reviewer, Endocrine Related Cancer
2010-Present	Ad-Hoc Reviewer, PLoS One
2010-Present	Editor, Special Issue on Targeted Enzyme Inhibitors: Journal of Steroid, Biochemistry & Molecular Biology
2010-2015	Editorial Board, Journal of Biological Chemistry
2010-Present	Ad-Hoc Reviewer, Science
2011-Present	Ad-Hoc Reviewer, Journal Liquid Chromatography
2011-Present	Ad Hoc Reviewer, Nature
2011-Present	Ad-Hoc Reviewer, Acta Crystallography
2011-Present	Ad-Hoc Reviewer, Molecular Clinical Therapeutics
2012-Present	Ad-Hoc Reviewer, Analytical Chemistry
2013-Present	Ad-Hoc Reviewer, FEBS Journal
2013-Present	Ad-Hoc Reviewer, Bioorganic Medicinal Chemistry Letters
2014-Present	Editorial Board, Molecular and Cellular Endocrinology
2014-Present	Editor Special Issue: Chemico-Biological Interactions: 17th International Workshop on the Enzymology and Molecular Biology of Carbonyl Metabolism
2014-Present	Ad Hoc Reviewer and Editorial Board, Molecular Endocrinology
2014-Present	Ad-Hoc Reviewer, Andrology
2014-Present	Ad-Hoc Reviewer, Nature Chemical Biology
2018-2023	Senior Editor Cancer Research, Population and Prevention Science
2020-2022	Editor, Steroids
2022-Present	Editor-in-Chief, STEROIDS

Academic and Institutional Committees:

1983-1988	Member, University Council Committee on Research
1984-1985	Chair, Sub-Committee for Policy on Computer Software
1984-1985	Member, Sub-Committees for Graduate Core Courses in Cell Biology, Biochemistry and Systems Physiology
1984-1994	Biomedical Graduate Curriculum Committee
1985-1988	Chair, University Council Committee on Research
1985-1988	Member, Corporate Sponsored Research Board
1985-1988	Interviewing Panel, Medical School Admissions

1986-1988	Ex-officio member, Faculty Grants and Awards Committee
1986-1987	Chair, Sub-Committee for Course on Scientific Writing
1986-1987	Member, Academic Review Committee for Otorhinolaryngology and Human Communication
1986-1987	Member, Sub-Committee for Review of Bridge Curriculum in Endocrinology
1986-1988	Member, Search Committee for Chairperson for Otorhinolaryngology and Human Communication
1987-1989	Member, Sub-Committee on Policy for Misconduct in Science
1987-1989	Member, Sub-Committee on Indirect Costs
1987-1994	Chair, Emergency Financial Aid Committee
1988-1994	Member, Teaching Evaluation Sub-Committee for Appointments and Promotions
1989	Chair, Sub-Committee to Evaluate Pathology 100
1990-1993	MSTP, Advisory Committee
1990-1993	University Judiciary Committee
1990-1992	Search Committee for Trustee Professorship in Pharmacology
1990-1991	Member, Committee to Reorganize the Graduate Group in Biochemistry
1990-1994	Institutional Biohazard Safety Committee
1990-1994	Environmental Health and Safety Committee
1990-1994	Medical School Animal Care and Use Committee
1991	Member, Committee to Review the Graduate Group in Physiology
1992-1994	Chair, Analytical Search Committee in Pharmacology
1993-1994	Member, Steering Committee of Medical Faculty Senate
1994	Chair-Elect, Medical Faculty Senate
1995	Member, Search Committee for Vice Dean for Medical School Education
1995-1996	Member, Institute for Environmental Medicine Policy and Research Advisory Board
1996	Member, Biotechnology Task Force
1996-1997	Member, Committee to Review Department of Radiation Oncology
1997-present	Member, Steering Committee for Center for Cancer Pharmacology
1998-2000	Member, Academic Review Committee University of Pennsylvania School of Medicine
1998-1999	Member, Committee to Review the Department of Molecular & Cellular Engineering and the Institute for Human Gene Therapy
2001-present	Chair, Office of Postdoctoral Programs Advisory Committee
2001-2005	Chair, Biomedical Postdoctoral Programs Advisory Committee
2002	Member, Committee to Review CAMB Graduate Group
2005-2006	Member, Search Committee for Director of Center for Research on Reproduction and Women's Health
2008	Member, Review of Graduate Group in Genomics & Computational Biology
2011	Member, University Committee to Review Center for Public Health Initiatives

2012	Member, Review of Graduate Group in Biostatistics and Epidemiology
2012	Member, Vice-Provost for Research Review Committee for Center for Public Health Initiatives
2012-2013	Member, Committee to Review the Biostatistics & Epidemiology Graduate Group
2016-Present	Member, Public Health Subcommittee-Future of Medicine Ver. 2
2016	Member, Committee to Review Department of Medical Ethics and Health Policy

Major Academic and Clinical Teaching Responsibilities:

1984-2000	Medical Students: Pharmacology-100 (16 years) 1. Give 3 lectures and 2 conferences 2. Give structured review of last half of the course
1984-Present	Graduate Student Education, Lecturer, Fundamentals of Pharmacology, six lectures
1984-Present	Graduate Student Education, Supervise thesis research and laboratory rotations
1985-Present	Postdoctoral Training: 1. Supervise postdoctoral fellows, full-time
1985-1988	Graduate Student Education, Course Director, Fundamentals of Pharmacology, PHRM 623 (three times)
1991-1993	Participation in Continuing Education Courses Offered By Department of Pharmacology, University of Pennsylvania, Lecturer, General Pharmacology Course, Wyeth-Ayerst
1992-1993	Participation in Continuing Education Courses Offered By Department of Pharmacology, University of Pennsylvania, Lecturer, General Pharmacology Course, DuPont Merck
1994	Participation in Continuing Education Courses Offered By Department of Pharmacology, University of Pennsylvania, Lecturer, Receptor-Biology Course, DuPont Merck
1998-2005	Graduate Student Education, Course Director, Practical Modern Enzymology, BMB523/PHRM 523
1998-2005	Graduate Student Education, Lecturer, Practical Modern Enzymology. Six lectures
1998-2005	Graduate Student Education, Lecturer, Principles of Cancer Pharmacology, Three Lectures
1998-2005	Graduate Student Education, Group Leader, Topics in Cancer Pharmacology
1998-Present	Graduate Student Education, Teach one-module of Bioethics Training to all BGS students
1999-Present	Curriculum Design: 1. Redesign mandatory bioethics training for all graduate-students and postdoctoral trainees within School of Medicine with distance based learning modules
2000-2002	Medical Students: Curriculum - 2000 Modules 1 & 2

1. Give 1 lecture on Prostaglandins
2. Give 3 lectures in Reproduction/Endocrine Section

2001-2005	Graduate Student Education, Lecturer, Frontiers in Cancer Pharmacology
2003-Present	Graduate Student Teaching, Medical Pharmacology-PHRM 600-four lectures
2006-Present	Graduate Student Education, Molecular Toxicology-PHRM590, Course Director and Seven Lectures
2010-Present	Director, Certificate Program in Environmental Health Sciences
2015-2016	Graduate Student Teaching-Introduction to Superfund Sites and Health Effects of Hazardous Waste-PHRM 657/ENVS 657 (Co-Course Director) Six letures

Lectures by Invitation (Last 5 years):

Feb, 2021	"Air Pollution, Nitroarenes and Nrf2" Department of Chemistry, University of California Riverside
Jul, 2021	"Environmental Exposomics and Lung Cancer Risk Assessment in the Philadelphia Metropolitan Area Using ZIP code-level Hazard Indices" Toxicology Forum Virtual Symposium
May, 2023	"Human Aldo-Keto Reductases & _the Dark Side of NRF2 (NFE2L2)" Sendai University, Japan
Mar, 2024	"Air Pollution and Lung Cancer: Exposomics and NRF2 (NFE2L2)" Wayne State University, Detroit
Oct, 2024	"Air Pollution and Lung Cancer: Exposomics and NRF2 (NFE2L2): University of Cincinnati, Cincinnati, Ohio
Jul, 2025	"Role of AKR1C3 in PCOS" Symposium Recent Discoveries in PCOS, Endocrine Society, San Francisco
Jul, 2025	"AKR1C3: An Androgen Synthesizing Enzyme that Complexes with the AR", Symposium Novel Actions of Nuclear Receptors & Transcription Factors, Endocrine Society, San Francisco
Feb, 2026	"AKR1C3 and the Androgen Receptor; Partners in Crime" University of Kentucky, College of Pharmacy
Jul, 2026	"Adventures in Steroid Enzymology" Department of Pharmacology & Toxicology UTMB, Distinguished Lecture

Organizing Roles in Scientific Meetings:

1996	Organizer, Career Workshops in Pharmacology University of Pennsylvania, School of Medicine
1996	Organizer, Retreat on Chemistry in Medicine University of Pennsylvania School of Medicine
1996	Organizer, Annual Enzyme Symposium University of Pennsylvania
1997	Organizer, Faculty Retreat in Pharmacology University of Pennsylvania School of Medicine
1997	Organizer, Annual Enzyme Symposium University of Pennsylvania

1998	Organizer, Annual Enzyme Symposium University of Pennsylvania
1999	Organizer, Career Workshops for SOM, Postodoctoral Appointees University of Pennsylvania School of Medicine
2000	Organizer, Faculty Retreat in Pharmacology University of Pennsylvania School of Medicine
2001	Organizer, Career Workshops for SOM, Postodoctoral Appointees SOM
2002	Organizer, ACS Symposium on "The Emerging Role of Aldo-Keto Reductases in the Metabolism of Toxic Substances" 224th National Meeting of the American Chemical Society, Boston, Toxicology
2003	Organizer, Faculty Retreat in Molecular Toxicology University of Pennsylvania School of Medicine
Jun, 2005	Organizer, American Chemical Society Symposium on Tobacco Carcinogenesis, Division of Chemical Toxicology, 230th National Meeting of the American Chemical Society Washington, DC
Jun, 2005	Organizer, ACS Symposium on "Where Toxicology Meets the Law - Focus on Dioxin", 230th National Meeting of the American Chemical Society Washington, DC
May, 2006	Organizer, 1st Center of Excellence in Environmental Toxicology Symposium: The Environment, Health and Disease, University of Pennsylvania School of Medicine Villanova Conference Center, Villanova PA
Aug, 2006	Program Chair, Division of Chemical Toxicology, American Chemical Society San Francisco
Aug, 2006	Organizer, ACS Symposium on "Frontiers in Chemical Toxicology", 232nd National Meeting of the American Chemical Society San Francisco
May, 2007	Organizer, 2nd Center of Excellence in Environmental Toxicology Symposium: Genes and Environmental Health, University of Pennsylvania School of Medicine Villanova Conference Center, Villanova PA
Mar, 2008	Program Co-Chair, International Workshop, "Pre-receptor Steroid Metabolism as A Target for Pharmacological Treatment", Eisbee, Germany
Mar, 2008	Organizer, Annual Environmental Health Sciences Core Centers Mtg, University of Pennsylvania School of Medicine and 3rd Center of Excellence in Environmental Toxicology Symposium: "Omics" Approaches in Environmental Health (these were concurrent programs)

	SOM
Mar, 2010	Co-Organizer Workshop on Nantoxicology, University of Pennsylvania Science Center
May, 2010	Organizer, 4th Center of Excellence in Environmental Toxicology Symposium: Oxidative and Nitrative Stress and Environmental Health. Villanova Conference Center, Villanova PA
Mar, 2011	Chair, Program Organizing Committee 1st International Congress on Steroid Research Chicago, IL
May, 2011	Organizer, 5th Center of Excellence in Environmental Toxicology Symposium: Environmental Health and Reproduction, Endocrinology and Development. Villanova Conference Center
May, 2012	Co-Organizer, 6th Center of Excellence in Environmental Toxicology Symposium: Gene-Environment Interactions and Childhood Metabolic Disorders (Co-Sponsored by the Children's Hospital of Philadelphia). Villanova Conference Center, Villanova PA
Mar, 2013	Program Committee, 2nd International Congress on Steroid Research Chicago, IL
May, 2013	Organizer 7th Annual Symposium Center of Excellence in Environmental Toxicology, Environmental Health in Translation Villanova Conference Center, Villanova PA
Feb, 2014	Co-Organizer: Impact of Unconventional Natural Gas Drilling Operations on The Environment and Public Health (CEET and CPHI) PSOM
Jul, 2014	Program Organizer, 17th International Workshop on The Enzymology and Molecular Biology of Carbonyl Metabolism SkyTop Lodge, SkyTop, PA
Mar, 2015	Program Committee, 3rd International Congress on Steroid Research Chicago, IL
May, 2015	Organizer of 10th Anniversary Symposium of Center of Excellence in Environmental Toxicology-PSOM University of Pennsylvania, Philadelphia
Jun, 2016	Organizer 11th Annual Center of Excellence in Environmental Toxicology Symposium, Exposure Biology: Population-Based to Personal-PSOM University of Pennsylvania
Jun, 2017	Organizer 12th Annual Center of Excellence in Environmental Toxicology Symposium, Windows of Susceptibility

University of Pennsylvania

Dec, 2017 Co-Organizer, 30th Annual Superfund Research & Training Meeting
Philadelphia

Jun, 2018 Organizer, 13th Annual Center of Excellence in Environmental Toxicology, Computational and Systems Toxicology
University of Pennsylvania

Jul, 2018 Member, International Organizing Committee Congress Steroid Research
Seoul, Republic of South Korea

May, 2019 Organizer, 14th Annual Center of Excellence in Environmental Toxicology Symposium, Environmental Neuroscience
University of Pennsylvania

Sep, 2020 Organizer 15th Annual Center of Excellence in Environmental Toxicology Symposium, Environmental Exposures & Cancer
University of Pennsylvania-Virtual

Nov, 2021 Organizer 16th Annual Center of Excellence in Environmental Toxicology Symposium, Air Pollution & Lung Health
University of Pennsylvania

Nov, 2022 Organizer 17th Annual Center of Excellence in Environmental Toxicology Symposium "Climate Change & Human Health"
University of Pennsylvania

Oct, 2023 Co-organizer "Steroid Congress 2023"
Virtual

Nov, 2023 Co-organizer 19th Annual Center of Excellence in Environmental Toxicology Symposium "The Next Generation of Environmental Health Researchers"
University of Pennsylvania

Nov, 2024 Co-organizer, 19th Annual Center of Excellence in Environmental Toxicology Symposium, "Engaging Communities to Impact Health".
University of Pennsylvania

Jun, 2026 Co-organizer, 20th Annual Symposium Center of Excellence in Environmental Toxicology "20 Years of Environmental Health Research at Penn: Past, Present and Future"
Smilow Translational Research Building

Bibliography:

Research Publications, peer reviewed (print or other media):

1. Merry AH, Penning TM, Munday KA, Akhtar M: Oestrogen-stimulated cholesterol and lipid synthesis in Xenopus laevis liver. Biochem. Soc. Trans. 1: 1326-1327, 1973.

2. Penning TM, Merry AH, Munday KA, Akhtar M: Studies on the biosynthesis, assembly and secretion of vitellogenin, an oestrogen-induced multicomponent protein. Biochem. J. 162: 157-170, 1977.

3. Smith DF, Penning TM, Ansari AQ, Munday KA, Akhtar M: Oestrogen-induced

cholesterol and fatty acid biosynthesis in Xenopus laevis liver during vitellogenic response. Biochem. J. 174: 353-361, 1978.

4. Penning TM, Westbrook EM, Talalay P: On the number of steroid-binding sites of delta 5-3-oxosteroid isomerase. Eur. J. Biochem. 105: 461-469, 1980.

5. Penning TM and Talalay P: Linkage of an acetylenic secosteroid suicide substrate to the active site of delta 5-3-ketosteroid isomerase. Isolation and characterization of a tetrapeptide. J. Biol. Chem. 256: 6851-6858, 1981.

6. Penning TM, Covey DF, Talalay P: Inactivation of delta 5-3-oxo steroid isomerase with active-site-directed acetylenic steroids. Biochem. J. 193: 217-227, 1981.

7. Penning TM, Covey DF, Talalay P: Irreversible inactivation of delta 5-3-ketosteroid isomerase of Pseudomonas testosteroni by acetylenic suicide substrates. Mechanism of formation and properties of the steroid-enzyme adduct. J. Biol. Chem. 256: 6842-6850, 1981.

8. Penning TM: Inactivation of delta5-3-ketosteroid isomerase(s) from beef adrenal cortex by beta, gamma-acetylenic ketosteroids. Steroids 39: 301-311, 1982.

9. Penning TM and Covey DF: Inactivation of delta 5-3-ketosteroid isomerase(s) from beef adrenal cortex by acetylenic ketosteroids. J Steroid Biochem 16: 691-699, 1982.

10. Penning TM, Heller DN, Balasubramanian TM, Fenselau CC, Talalay P: Mass spectrometric studies of a modified active-site tetrapeptide from delta 5-3-ketosteroid isomerase of Pseudomonas testosteroni. J. Biol. Chem. 257: 12589-12593, 1982.

11. Penning TM and Talalay P: Inhibition of a major NAD(P)-linked oxidoreductase from rat liver cytosol by steroidal and nonsteroidal anti-inflammatory agents and by prostaglandins. Proc Natl Acad. Sci. USA 80: 4504-4508, 1983.

12. Penning TM, Mukharji I, Barrows S, Talalay P: Purification and properties of a 3 alpha-hydroxysteroid dehydrogenase of rat liver cytosol and its inhibition by anti-inflammatory drugs. Biochem. J. 222: 601-611, 1984.

13. Penning TM: Irreversible inhibition of delta 5-3-oxosteroid isomerase by 2-substituted progesterones. Biochem. J. 226: 469-476, 1985.

14. Penning TM: Inhibition of 5 beta-dihydrocortisone reduction in rat liver cytosol: A rapid spectrophotometric screen for nonsteroidal anti-inflammatory drug potency. J. Pharmaceut. Sci. 74: 651-654, 1985 Notes: [Awarded The Albert Ethelbert Ebert Prize and Medal]

15. Penning TM, Sharp RB, Krieger NR: Purification and properties of 3 alpha-hydroxysteroid dehydrogenase from rat brain cytosol. Inhibition by nonsteroidal anti-inflammatory drugs and progestins. J. Biol. Chem. 260: 15266-15272, 1985.

16. Sharp RB, Senior MB, Penning TM: Potent inhibition of mammalian progesterone synthesis by 2 alpha-cyanoprogesterone. Biochem. J. 230: 587-594, 1985.

17. Smithgall TE and Penning TM: Indomethacin-sensitive 3 alpha-hydroxysteroid dehydrogenase in rat tissues. Biochem. Pharmacol. 34: 831-835, 1985.

18. Smithgall TE and Penning TM: Sex differences in indomethacin-sensitive 3 alpha-hydroxysteroid dehydrogenase of rat liver cytosol. Cancer Res. 45: 4946-4949, 1985.

19. Penning TM: Indomethacin and glucocorticoid metabolism in rat liver cytosol. Biochem. Pharmacol. 35: 4203-4209, 1986.

20. Ricigliano JW and Penning TM: Active-site directed inactivation of rat ovarian 20 alpha-hydroxysteroid dehydrogenase. Biochem. J. 240: 717-723, 1986.

21. Smithgall TE and Penning TM: Inhibition of trans-dihydrodiol oxidation by the non-steroidal anti-inflammatory drugs. Carcinogenesis 7: 583-588, 1986.

22. Smithgall TE, Harvey RG, Penning TM: Regio- and stereospecificity of homogeneous 3 alpha-hydroxysteroid-dihydrodiol dehydrogenase for trans-dihydrodiol metabolites of polycyclic aromatic hydrocarbons. J. Biol. Chem. 261: 6184-6191, 1986.

23. Ivins JK and Penning TM: Radiochemical detection of dihydrodiol dehydrogenase: distribution of the enzyme in male Sprague-Dawley rat tissues and its sensitivity to inhibition by indomethacin and 6-medroxyprogesterone acetate. Cancer Res. 47: 680-684, 1987.

24. Penning TM and Sharp RB: Prostaglandin dehydrogenase activity of purified rat liver 3 alpha-hydroxysteroid dehydrogenase. Biochem. Biophys. Res. Commun. 148: 646-652, 1987.

25. Penning TM, Carlson KE, Sharp RB: Affinity-labelling of the anti-inflammatory drug and prostaglandin-binding site of 3 alpha-hydroxysteroid dehydrogenase of rat liver cytosol with 17 beta- and 21-bromoacetoxysteroids. Biochem. J. 245: 269-276, 1987.

26. Sharp RB and Penning TM: Inhibition of progesterone synthesis in normal and transformed human placental cells by tight binding inhibitors of 3 beta-hydroxysteroid dehydrogenase. Steroids 51: 441-457, 1988.

27. Smithgall TE and Penning TM: Electrophoretic and immunochemical characterization of 3 alpha-hydroxysteroid/dihydrodiol dehydrogenases of rat tissues. Biochem. J. 254: 715-721, 1988.

28. Smithgall TE, Harvey RG, Penning TM: Spectroscopic identification of ortho-quinones as the products of polycyclic aromatic trans-dihydrodiol oxidation catalyzed by dihydrodiol dehydrogenase. A potential route of proximate carcinogen metabolism. J. Biol. Chem. 263: 1814-1820, 1988.

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