David R. Giovannucci, Ph.D.

I. PERSONAL INFORMATION

David Rocco Giovannucci
610 Farnsworth Road
Waterville, OH 43566
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Email: david.giovannucci@utoledo.edu

EDUCATION AND TRAINING

1978 Austin Catholic Preparatory High School, Detroit, MI.
1984 B.S. Biological Sciences, Wayne State University, Detroit, MI.
1984 B.A. Literature, Wayne State University, Detroit, MI.
1993 Ph.D. Biological Sciences, Wayne State University, Detroit, MI.
1998 Postdoc. Physiology. University of Michigan, Ann Arbor, MI

PRE and POST-DOCTORAL FELLOWSHIPS

Dates: 1986-88
Institution: Wayne State University, Detroit, Michigan, Department of Biological Sciences
Discipline: Biological sciences (Biophysics)
Sources: Thomas C. Rumble & B. Halley Graduate Fellowships

Dates: 1993-98
Institution: University of Michigan, Ann Arbor, Michigan, Department of Physiology
Discipline: Neuroscience
Sources: National Institutes of Health (Individual Postdoctoral Research Fellowship), American Heart Association-Midwest Affiliate (Postdoctoral Research Fellowship Award)

EMPLOYMENT

1984-1992 Graduate Teaching/Res Assistant, Dept. Biology, Wayne State University, Detroit, MI.

1992-1993 Lecturer in Life Sciences, Part-time Faculty, Oakland Community College, Southfield, MI.

1993-1998 Postdoctoral Fellow, Dept. Physiology, University of Michigan, Ann Arbor.

1998-1999 Assistant Director of Imaging Core Facility, Depts. Physiology and Internal Medicine, University of Michigan Medical School, Ann Arbor, MI.

1999-2002 Research Assistant Professor, Dept. of Pharmacology and Physiology, University of Rochester Medical Center, Rochester, NY (salaried, full-time, non-tenure track).

1999-2002 Assistant Director, Real-Time Confocal Core Facility, University of Rochester Medical Center.

2002-2009 Assistant Professor, Department of Neurosciences (formerly Dept. of Anatomy and Neurobiology), University of Toledo, College of Medicine (formally Medical

University of Ohio), Toledo, OH (salaried, full-time, tenure-track).

2006-2011 Director and Sackler Scholar, Raymond & Beverly Sackler Laboratory for Neuroendocrine Tumor Research, University of Toledo, College of Medicine, Toledo, OH.

2009-2015 Associate Professor (with tenure), Department of Neurosciences, College of Medicine, University of Toledo Health Science Campus. Toledo OH

2015-present Professor, Department of Neurosciences, College of Medicine, University of Toledo Health Science Campus. Toledo OH

2015-present Adjunct Graduate Faculty, Department of Biological Sciences, Wayne State University, Detroit

AWARDS AND COMMENDATIONS

2006 University of Toledo College of Medicine New Investigator Award for Research

2006-2011 Scholar of The Raymond & Beverly Sackler Foundation

2010 College of Medicine Dean's Award for Mentoring

2011 Recognition of Service to the Microscopy Society of America as Program Chair, Microscopy & Microanalysis Meeting

2011 College of Medicine Graduate Student Mentoring Award

2012 Office of Undergraduate Research Recognition Award for Mentoring

2014 Certificate of Recognition for Service as Chair of the Graduate Council

II. SERVICE

COMMITTEES – THE UNIVERSITY OF TOLEDO

2002-2007 Annual Graduate Student Research Forum (Judge)

2003-2007 Member, Cellular and Molecular Neuroscience Program Steering Committee

2004-2007 Chair, Health Science Campus Graduate Faculty Committee

2004-2011 Member, Health Science Campus Graduate Executive Committee

2005-2007 Member, Ph.D. Program Committee

2006 Member, Medical Microbiology & Immunology Chair Search Committee

2006-present Chair, Advanced Microscopy & Imaging Center Advisory Committee

2007 Member, Ph.D. Dissertation Awards Committee

2007-2008 Member, College of Medicine Faculty Awards Committee

2008 Member, Graduate Council Harmonization Committee

2008-present Member, Graduate Admissions Committee

2008-present Elected Senate Representative for College of Medicine, University of Toledo Faculty Senate

2008-2014 Member of Graduate Council

2008-2013 Member of Graduate Council Faculty Membership Committee

2009-2011 Member of Departmental Faculty Search Committees

2009-2014	Member of Graduate Council Executive Committee
2010-present	Member of Medical Student Research Committee
2011-present	Co-director of Neurosciences Ph.D. Steering Committee
2011-present	Member of UT Faculty Research Awards Committee
2012	Chair, Department of Neurosciences Faculty Search Committee
2012-2013	Vice Chair of Graduate Council
2013-2014	Chair of Graduate Council
2013-2014	Member, University Council
2013-2014	Member, University Council Executive Committee
2013-2014	Chair, University Council Committee on Graduate and Professional Programs
2014	Member, President's Strategic Planning Subgroup for Graduate and Professional Education
2016	Program Review Participant, Department of Biological Sciences, Wayne State University, Detroit, MI

REGIONAL, NATIONAL AND INTERNATIONAL PROFESSIONAL SOCIETIES AND ACTIVITIES

1985-1990	Association for Research in Vision and Ophthalmology (Member)
1993-2011	Society for Neuroscience (Member)
1996-2000	American Association for the Advancement of Science (Member)
1997-present	The Biophysical Society/Exocytosis Subgroup (Member)
2001-2008	American Heart Association/ Basic Cardiovascular Res. Interest Group (Member)
2005-present	Microscopy Society of America (Member)
2007, 2010	Microscopy Society of America (Session Chair)
2008-11	Microscopy Society of America (Executive Committee-Ex Officio)
2008-present	The American Physiological Society (Member)
2008-2010	North American Neuroendocrine Tumor Society (Member)
2011	Microscopy Society of America (International Meeting Program Chair)

REGIONAL, STATE, AND LOCAL PROFESSIONAL SOCIETIES AND ACTIVITIES

1999-2002	Member, Ontario and Western New York Ion Channel Interest Group
2000-2002	Member, New York State Cardiac Electrophysiology Society
2007-present	Treasurer, Northwest Ohio Microscopy Society
2007	Member, University of Toledo College of Medicine Prostate Cancer Focus Group
2008	Member, University of Toledo College of Medicine Clinical Investigational A-Fib Group

COMMUNITY SERVICE AND ORGANIZATIONS

2007	University of Toledo Health Matters (A partnership of University Medical Center, Buckeye CableSystem and The Toledo Blade to promote public health issues) "Carcinoid Tumor Research: Studies Could Lead to New Treaments"
2007-2008	Seminar speaker and Mentor for IMAGINE/IMAGINE II Program (a Howard Hughes Medical Institute program to facilitate the professional development for high school and junior high school teachers in Ohio.)
2012	Microscopy & Microanalysis Meeting Report, Microscopy Today, vol. 21
2014	"Spit Happens", published in UT Discovers
2014	"New Grant: Salivary Biomarkers for Fatigue", May JCCTR newsletter, published on-line.
2014	"Researcher developing method to test saliva for fatigue", Toledo Blade, May, Sec. W, pg.31.
2014	'Researcher develops method to test saliva for fatigue", UT News, August 4
2012-2014	Judge, Midwest Graduate Research Symposium, a Graduate Student Association run event for presenting research, networking, and fostering intercollegiate friendships and collaborations amongst peer and aspirational institutions to advance research and education. Over 25 different universities typically participate in the MGRS.

III. EDUCATION ACTIVITIES

TEACHING (*approximately 90 contact hours per year*)

Medical Education

2004-present	Human Structure and Development (ANAT679), College of Medicine, Microanatomy Teaching Staff (1rst year medical students, 176 students, lecture & lab, 8 hours).
2005-08	Integrative Pathophysiology (INDI777), College of Medicine, Problem Based Learning Facilitator (1rst year medical students, ~12 students, small group, 30 hours).

Graduate Education

PAST

2002-2006	Journal Paper Review in Neurobiology, College of Graduate Studies, Course Director (graduate students, ~10 students, small group, 30 hours).
2002-2006	Principles of Cellular and Molecular Neurobiology, College of Graduate Studies, Teaching Staff (graduate students, ~10 students, lecture, 4 hours).
2004-2007	Grant Writing Course, College of Graduate Studies, Teaching Staff (graduate students, ~10 students, small group, 30 hours).
2007-2009	Journal Review in Biomedical Sciences (BMSP 6370/8370), College of Graduate Studies, Course Co-Director (1rst year graduate students, ~20 students, lecture,

30 hours).

2007-2010 Systems Pathophysiology I (BSMP 6310/8310), College of Graduate Studies, Teaching Staff (graduate students, ~20 students, lecture, 2 hours).

CURRENT

2002-present Introduction to Biomedical Research/Mentored Research (BMSP 6390/8390), College of Graduate Studies, Lab Rotation Mentor (graduate students, 2-3 students, small group and lab, 32 hours).

2004-present Microscopy Techniques I: Basic & Advanced Light Microscopy (INDI6790/8790), College of Graduate Studies, Teaching Staff: Lectures on Confocal, multi-photon microscopy and optical super-resolution techniques (graduate students, 2-5 students, lecture & lab, 2 hours).

2007-present Current Problems and Research Approaches in Cell Membranes (BMSP 6360/8360), College of Graduate Studies, Teaching Staff: Lecture on Presynaptic Mechanisms; Advanced Microscopy Methods: FRET, FRAP and FLIM (graduate students, ~17 students, lecture, 4 hours).

2007-present Methods in Biomedical Sciences (BMSP 6380/8380), College of Graduate Studies, Teaching Staff: Lecture on Live Cell Imaging (graduate students, ~17 students, lecture, 2 hours).

2007-present Medical Student Summer Research (INDI 5050) (medical students, 1-2 students, small group & lab, 40 hours).

2007-present Scholarly Project (INDI 6980) (MSBS students, 1-2 students, small group & lab, 32 hours).

2010-present Systems Pathophysiology II (BSMP 6310/8310), College of Graduate Studies, Module Director and Teaching Staff: Lectures on Neural Plasticity (graduate students, 3-6 students, lecture, 4 hours).

2010-present Recent Advances: Neuroscience Journal Review (NSND 6370/8500), College of Graduate Studies, Course Director and Teaching Staff: Discuss recent scientific literature (graduate students, ~9 students, small group & discussion, 28 hours).

2015-present Biomarker Discovery and Individualized Medicine Course (BRIM 6200/8200), College of Medicine, Teaching staff: Lecture on Sjogren's syndrome salivary biomarkers (masters/certificate students, 4 students, lecture, 2 hours).

ADVISING/MENTORING

Visiting Professor – Host Advisor

Riaz Nasim M.D., Ph.D. (09/2009-12/2009)
S. Amjad Hussain Visiting Fellow
Chair of Pharmacology, Khyber Medical School, Peshawar, Pakistan

Post-Doctoral Fellows – Major Advisor

David A. Turner, Ph.D. (2002-2004)
Forensic Toxicologist, Department of Defense, Brooks City-Base, San Antonio, TX

Tetyana Zhelay, Ph.D. (2006-2011)
Post-doctoral Fellow in Department of Neuroscience, Cell Biology and Physiology, Wright State University, Dayton OH.
Christian G. Peters, Ph.D. (2007-2009)
Scientist II at Cerulean Pharma, Cambridge, MA; Research Fellow in Medicine in Division of Hemostasis & Thrombosis, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA.
Sumit Bhattacharya, Ph.D. (2014-2016) Sumit is currently Program Manager, Neuroscience Initiative at the University of Utah.

Doctoral Students – Major Advisor

Past students

Christian G. Peters, Ph.D.
Cellular and Molecular Biology Program (2003-2007)
Currently Scientist II at Cerulean Pharma, Cambridge, MA and a Research Fellow in Division of Hemostasis & Thrombosis, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA.
Christine A. Brink, Ph.D.
Neurosciences and Neurological Diseases Program (2003-2007)
Applications Support Scientist for Bitplane AG, Zurich, Switzerland.
Sasi Arunachalam, Ph.D.
Neurosciences and Neurological Diseases Program (2005-2010)
Research Scientist Caymen Biochemicals, Ann Arbor, MI, (2010-2014), Postdoctoral fellow at Oklahoma Medical Research Foundation, Immunobiology and Cancer Program (2014-present).
Sumit Bhattacharya, Ph.D.
Neurosciences and Neurological Diseases Program (2007-2012)
Postdoctoral Fellow Schepens Eye Research Institute, Harvard Medical School, Boston, MA, (2012-2014), Program Manager, Neuroscience Initiative at the University of Utah (2016-present).

Priyodarshan Goswamee, Ph.D.
Neurosciences and Neurological Diseases Program (2009-2015)
Postdoctoral Fellow in Department of Neurosciences, Medical University of South Carolina, Charleston, SC. (2015-present)

Current students
John Imbery
Neurosciences and Neurological Diseases Program (2014-present)
Joseph Lee
MD-Ph.D. Program, Neurosciences and Neurological Diseases Program (2015-present)

Masters Students – Major Advisor

Hala Al-Jiboury, MSBS (2007-08)
Khetisuda Suvarnasuddhi, MSBS (2008-09)
Jibran Durrani, MSBS (2007-09)
Shadi Zahedi, MS (2007-10)
Douglas Verrill, MSBS (2009-10)
Sai Gadde, MSBS, (2010-11, co-mentored with Dr. Jennifer Hill)

Kristopher Carbone, MSBS (2010-11)
Suhkmit Khan, MSBS(2012-13)
Zachary Sullivan, MSBS(2013-14)
Tamar Pounardjian, MSBS (2014-15)
Keinan Taja (2015-16)
Azwar Iqbal (2015-16)

Graduate Students – Faculty Advisory Committee Member (2002-present**)**

Rebecca Pierson, Neurosciences and Neurological Disorders/MD-Ph.D. Program
David Kennedy, Dept. of Medicine, (**Graduated, Ph.D**.)
Kun Xiang, Cell and Molecular Neuroscience Program (**Graduated, Ph.D.**)
Adriane Sumner, Neurosciences and Neurological Disorders Program (**Graduated, Ph.D.**)
Jiang Tian, Molecular Basis of Disease Program (**Graduated, Ph.D.**)
Xiaodong Xiang, Cell and Molecular Neuroscience Program (**Graduated, Ph.D.**)
Man Liang, Molecular and Cell Biology Program (**Graduated, Ph.D.**)
Jun Song, Cellular and Molecular Neuroscience Program (**Graduated, Ph.D.**)
Aditi Nadkarni, Cancer Biology Program (**Graduated, Ph.D.**)
Guofu Shen, Neurosciences and Neurological Disorders Program (**Graduated, Ph.D.**)
Selwyn Jayakar, Neurosciences and Neurological Disorders Program (**Graduated, Ph.D.**)
Seema Dhindaw, Cardiovascular and Metabolic Disorders Program (**Graduated, MS**)
Jagannath Saikumar, Cardiovascular and Metabolic Disorders Program (**Graduated, MS**)
Josha Vieth, Infection, Immunity and Transplantation Program (**Graduated, Ph.D.**)
Shalini Gupta, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)
Aaron Kellogg, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)
Aymen Shatnawi, Cancer Biology Program (**Graduated, Ph.D.**)
Yiliang Chen, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)
Ying Chen, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)
Liping Wang, Neurosciences and Neurological Disorders Program (**Graduated, Ph.D.**)
Garrett Heinrich, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)
Ramona Ramdath, Cancer Biology Program (**Graduated, Ph.D.**)
Cory Stebal, Cardiovascular and Metabolic Disorders Program (**Graduated, MS**)
Samuel Wu, Neurosciences and Neurological Disorders Program (withdrew from program)
Vipul Shukla, Infection, Immunity, and Transplantation Program (**Graduated, MS**)
Damien Earl, Neurosciences and Neurological Disorders Program/MD-Ph.D. (**Graduated, MD-Ph.D.**)
Tanoya Harris, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)
Edward Toland, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)
Haymanti Bhanot, Cancer Biology Program (**Graduated, Ph.D.**)
Yeshavanth Siddegowda, Cardiovasculat and Metabolic Disorders Program (**Graduated, Ph.D.**)

Kathryn Smedlund, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Jean-Yves Tano, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Sadeesh Ramakrishnan, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Sanjeevani Arora, Cancer Biology Program (**Graduated, Ph.D.**)

Anita Saxena, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Xingjian Jin, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Laura Halpin, Neurosciences and Neurological Disorders Program, MD/PhD Program

Xiaoliang Qui, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Himangi Marathe, Cancer Biology Program (**Graduated, Ph.D.**)

Christopher Trabbic, Pharmacy Program (**Graduated, Ph.D.**)

Robert Lee, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Sumeet Solanki, Cardiovascular and Metabolic Disorders Program

Qiqi Ye, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Latrice Faulkner, Cardiovascular and Metabolic Disorders Program (**Graduated, Ph.D.**)

Branden Stansley, Neurosciences and Neurological Disorders Program (**Graduated, Ph.D.**)

Vishruiti Makani, Neurosciences and Neurological Disorders Program (**Graduated, Ph.D.**)

Eric Starr, Neurosciences and Neurological Disorders Program

Simona Ghanem, Cardiovascular and Metabolic Disorders Program

Prince Ampem, Cardiovascular and Metabolic Disorders Program

Akshada Sawant, Cancer Biology Program (**Graduated, Ph.D.**)

Mengjie Wang, Cardiovascular and Metabolic Disorders Program

Prabhatchandra Ravindranath Dube, Cardiovascular and Metabolic Disorders Program

Xiaoming Fan, Cardiovascular and Metabolic Disorders Program

Erin Semple, Cardiovascular and Metabolic Disorders Program, MD/PhD Program

Cara DeAngelis, Infection, Immunity, and Transplantation Program

Graduate Students – External Advisor

MinJie Tong, University of Toledo College of Engineering, Bioengineering Program (**Graduated, Ph.D.**)

Jian Zhou, University of Toledo College of Engineering, Bioengineering Program (Graduated, **Ph.D.**)

Qu Chao, Biological Sciences, University of Toledo (**Graduated, Ph.D.**)

Ramadan Ali, Medicinal Chemistry, University of Toledo College of Pharmacy (**Graduated, Ph.D.**).

Anish Chakraborty, Medicinal Chemistry, University of Toledo College of Pharmacy

Sujan Chandra Das, Medicinal Chemistry, University of Toledo College of Pharmacy (**Graduated Ph.D.**)

Timnit Asfaha, Medicinal Chemistry, University of Toledo College of Pharmacy (**Graduated Ph.D.**)

Michael Schmidtke, Biological Sciences Program, Department of Biological Sciences, Wayne State University, Detroit, MI

Niraj Gupta, University of Toledo College of Engineering, Bioengineering Program

Medical Students – Faculty Advisor For Summer Research ,

2008 **Kyle Schuyler**
2013 **Xin Chen**
2014 **Daniel Hoffman**
2014 **Sura Khuder**
2016 **Samuel Miller**

Undergraduate Students – Faculty Advisor For Summer Research

2003-04 **Daniel Miller** (Summer Undergraduate Research Fellowship)
2003 **Sonia Hovsepian** (Summer Undergraduate Research Fellowship)
2006-07 **Stefanie Brown** (Summer Undergraduate Research Fellowship)
2008 **Hoangha Dao** (Summer Undergraduate Research Program)
2009 **Cory Schleappi** (Bioengineering Co-op Program)
2010 **Susann Moenchgesang**, Deutscher Akademischer Austauschdienst (DAAD) RISE Program, German Academic Exchange Service
2012 **Saurabh Mehta**, UTMC Shadow Program
2012 **Lauren Eccles**, UTMC Shadow Program
2014 **Amanda Weiss** (Summer Undergraduate Research Fellowship)
2015 **Aryianne Crawford** (Undergraduate Researcher)
2015-16 **Zachary Holtzapple** (Undergraduate Researcher)
2015 **Jasmine Kennedy Bey** (Undergraduate Researcher)

Other – Faculty Advisor For High School Student Summer Research

2003 **Arun Ragothaman**, St. John's High School, Toledo, OH
2010 **Saurabh Mehta**, St. John's High School, Toledo, OH

IV. SCHOLARSHIP

EDITORIAL BOARDS

2010-2014	International Journal of Physiology, Pathophysiology and Pharmacology, Editorial Board
2011-2013	ISRN Neuroendocrinology, Editorial Board

JOURNAL PEER REVIEW (2002-present)

Journal of Neurophysiology

Journal of Neurochemistry

Cell Calcium

Endocrinology

Journal of Cell Biology

Neuroscience

Neurosignals

Journal of Physiology

Investigative Ophthalmology and Visual Science

Journal of Biological Chemistry

Journal of Neuroscience Methods

Gene Expression: International Journal of Cellular Biology & Neuroscience

Journal of Cellular Physiology

Cell and Tissue Research

Journal of Tissue Engineering and Regenerative Medicine

European Journal of Physiology (Pfluger's Archiv)

American Journal of Physiology- Cell Physiology

BMC Endocrine Disorders

AJP: Gastrointestinal and Liver Physiology

STUDY SECTIONS, REVIEW PANELS

2005	MUO Bioinformatics Program Pilot Grant Study Section (Intramural)
2006	External Reviewer Research Incentive Grant Program, Bowling Green State University, OH.
2006-07	American Heart Association Study Section 5C (Ohio Valley/Southern US Affiliate)
2006-07	US Civilian Research and Development Foundation, Cooperative Grants Program
2008	American Heart Association (Region1: Cell Transport, Physiology & Metabolism)
2015	Participant (Invited), External Review of Biological Sciences Program, Wayne

State University, Detroit, MI

2015 External Reviewer, Promotion and Tenure Committee, University of Michigan, Ann Arbor, MI

2016 External Reviewer, Promotion and Tenure Committee, WSU, Detroit, MI

INVITED LECTURES, SEMINARS, SYMPOSIA, VISITING PROFESSORSHIPS

1989 Department of Biology, Purdue University, West Lafayette, IN.

1997 Department of Pharmacology Channel Club, University of Michigan Medical School.

1997 Department of Biological Sciences, Wayne State University, Detroit, MI.

1998 Department of Pharmacology and Physiology, University of Rochester, Rochester, NY.

1998 Department of Physiology, University of Michigan Medical School, Ann Arbor, MI

2000 Department of Neuroscience, University of Rochester, Rochester, NY.

2001 School of Life Sciences (formally Dept. of Biological Sciences), University of Nevada at Las Vegas, Las Vegas, NV.

2001 Department of Pharmacology, SUNY Upstate Medical School, Syracuse, NY.

2001 Department of Pharmacology, University of Virginia, Charlottesville, VA.

2003 Department of Bioengineering, University of Toledo, Toledo, OH.

2003 Department of Pharmacology and Toxicology, Wright State University, Dayton, OH.

2006 Department of Pharmacology, College of Pharmacy, University of Toledo.

2006 Microscopy & Microanalysis Meeting, Chicago, IL (Invited Platform Talk)

2007 Microscopy & Microanalysis Meeting, Ft. Lauderdale, FL.

2008 Departments of Neuroscience and Integrative Medicine, NEOUCOM, Akron, OH.

2010 The North American Neuroendocrine Tumor Society, Santa Fe, NM (Invited)

2011 Microscopy & Microanalysis Meeting, Nashville, TN (Invited)

2011 Salivary Glands & Exocrine Biology, Galveston, TX (Invited)

2011 Carcinoid and Neuroendocrine Tumor Scientific Forum, Boston, MA (Invited)

2012 Department of Medicinal Chemistry, College of Pharmacy, University of Toledo

2013 Alliance for Human Effectiveness and Advancement (AHEAD) Workshop, Dayton, OH. (Invited)

2013 FASEB Conference, NAD Metabolism and Signalling, Chicago, IL. (Invited)

2013 Department of Biology, Oakland University, Rochester Hills, MI

2014 Department of Biology, Wayne State University, Detroit, MI

2014 BRIM Translation Connection Conference, University of Toledo

2014 FASEB Conference, Calcium Signaling, Nassau, Bahamas

2015 Department of Chemistry/Center for Photochemical Studies, Bowling Green State University, Bowling Green Ohio.

INVITED/SPECIAL PRESENTATIONS AT NATIONAL AND INTERNATIONAL

MEETINGS

2005	4th World Congress on Cellular and Molecular Biology, Poitiers, France
2006	Stensen III Symposium: Biology of the Salivary Gland, Okazaki, Japan
2013	International Symposium on Metabolic Research and Disease, Center for Metabolic Function Regulation, Wonkwang University, Iksan, Korea

MAJOR RESEARCH INTERESTS

Work in our lab uses a variety of electrophysiological, optical and biochemical methods to define the cellular and molecular mechanisms that underlie the cytosolic calcium signals that control peptide and protein secretion. The exocytotic secretion of neuropeptide has profound consequences for neuronal function, cardiovascular homeostasis and GI tract regulation in health and disease. Our lab is also advancing the use of biomarkers in saliva and serum as indicators of human performance or pathophysiology. This work has significance for human health concerns neurodegenerative diseases, GI cancer, hypertension and dry mouth. Work in our lab has been supported by government, military and private funding.

PAST RESEARCH SUPPORT

Principal Investigator unless otherwise indicated

Title:	Rab3 and the control of vasopressin secretion at neurohypophysial nerve endings
Agency:	American Heart Association
Dates:	07/01/1995-06/30/1996
Role:	Postdoctoral Fellowship
TDC:	$25,000

Title:	Imaging zymogen granule exocytosis and membrane retrieval with high temporal and spatial resolution
Agency:	University of Michigan Gastrointestinal Peptide Center
Dates:	01/01/1996-12/31/1998
Role:	Principal Investigator
TDC:	$25,000

Title:	Regulatory control of vasopressin secretion by mitochondria at nerve terminals (Scientist Development Grant)
Agency:	American Heart Association (National)
Dates:	01/01/2001-12/31/2005
Role:	Principal Investigator
TDC:	$236,000

Title:	$[Ca^{2+}]_i$ and secretory dynamics in Parotid Acinar Cells (RO1)
Agency:	National Institutes of Health
Dates:	05/01/2002-03/31/2012
Role:	Principal Investigator, subcontract
TDC:	$427,558

Title: Imaging Center (Multi-photon Microscope)
Agency: Department of Health and Human Services
Dates: 9/1/2005-8/31/2007
Role: Principal Investigator/Program Director
TDC: $683,342

Title: Calcium Influx Mechanisms in Neuroendocrine and Carcinoid Tumor Cells
Agency: The Raymond and Beverly Sackler Foundation
Dates: 05/15/2006-05/14/2011 (*including renewal for final two years of award*)
Role: Principal Investigator, Sackler Scholar and Director of the Raymond and Beverly Sackler Laboratory for Neuroendocrine Tumor Research
TDC: $850,000

Title: Post-hypoxic Regulation of GABAA Receptor Function (RO1)
Agency: National Institutes of Health
Dates: 01/01/2005-12/31/2010
Role: Consultant, (PI: Greenfield)
TDC: $1,084,280

Title: Neurosteroid Mechanisms in Catamenial epilepsy (TRSA)
Agency: University of Toledo College of Medicine
Dates: 01/01/2006-12/31/2008
Role: Co-investigator (PI: Greenfield)
TDC: $100,000

Title: Na,K ATPase as an Integrator of the Calcium Signaling Machinery (RO1)
Agency: National Institutes of Health
Dates: 01/01/2007-12/31/2012
Role: Co-investigator, (PI: Xie)
TDC: $750,000

Title: Control of ANP exocytosis from atrial myocytes (GIA)
Agency: American Heart Association
Dates: 07/01/2007-06/31/2009
Role: Principal Investigator
TDC: $110,000

Title: Role of brain L-type voltage-gate calcium channels in benzodiazepine dependence
Agency: National Institutes of Health, Individual MD/PhD Predoctoral Fellowship Award
Dates: 04/01/2009-3/31/2014
Role: Co-Sponsor (Applicant: Damien Earl, Sponsor, E.I. Tietz)
Amount: $23,006 TDC

CURRENT RESEARCH SUPPORT

Title: Chemobiologic Approach to NAADP Signaling
Agency: NIH-Institute of General Medicine

Dates: 06/01/2012 – 05/31/2015
Role: Co-Investigator (PI, Slama)
TDC: $323,828

Title: Salivary Biomarkers of Fatigue
Agency: Air Force Office of Scientific Research
Dates: 07/01/2013 – 06/30/2016
Role: Principal Investigator
TDC: $1,000,000

Title: Novel Calcium Signaling Pathways in Salivary Gland (R21)
Agency: NIH-Institute of Dental and Craniofacial Research
Dates: 12/01/2013 – 11/30/2015
Role: Principal Investigator
TDC: $275,000

Title: High Resolution Mass Spectrometer for Biomarker Discovery
Agency: Department of Defense, DURIP
Dates: 09/19/14-09/18/15
Role: Co-PI (PI, Isailovic)
TDC: $764,586

Title: Resp18 a novel genetic determinant of blood pressure and renal failure
Agency: American Heart Association - Great Rivers Affiliate
Dates: 07/01/2016 -- 06/30/2019
Role: Co-investigator (PI, Kumarasamy)
TDC: $280,000

BIBLIOGRAPHY

BASIC RESEARCH:

Articles Published in Peer-reviewed Scientific Journals

1. **Giovannucci DR** & Stuenkel EL. (1995) Glutamate receptor agonists modulate [Ca2+]i in isolated rat melanotropes. *Neuroendocrinology* 62, 111-122.

2. **Giovannucci DR** & Stuenkel EL. (1995) An NMDA receptor on isolated secretory nerve endings. *Brain Research* 702, 246-250.

3. **Giovannucci DR** & Stuenkel EL. (1997) Regulation of secretory granule recruitment and exocytosis at rat neurohypophysial nerve endings. *Journal of Physiology* 498.3, 735-751.

4. Rusin KI, **Giovannucci DR**, Stuenkel EL & Moises HC. (1997) k-Opioid receptor activation modulates Ca2+ currents and secretion in isolated neuroendocrine nerve terminals. *Journal of Neuroscience* 17(17): 6565-6574.

5. **Giovannucci DR**, Yule, D.I. & Stuenkel EL (1998) Optical measurement of stimulus-evoked membrane turnover in single pancreatic acinar cells. *American Journal of Physiology*. (3 Pt 1):C732-9.

6. **Giovannucci DR** & Stephenson RS. (1999) Identification and distribution of dietary precursors of the Drosophila visual pigment chromophore: analysis of carotenoids in wild type and ninaD mutants by HPLC. *Vision Research* 39(2):219-29.

7. Fletcher AI, Shuang R, **Giovannucci DR**, Zhang L, Bittner M, & Stuenkel EL (1999) Regulation of exocytosis by cyclin-dependent kinase 5 via phosphorylation of Munc18. *Journal of Biological Chemistry* 274(7):4027-35.

8. **Giovannucci DR**, Hlubek MD, & Stuenkel EL. (1999) Mitochondria Regulate the Ca2+-exocytosis Relationship of Bovine Adrenal Chromaffin Cells. *Journal of Neuroscience* 19(21): 9261-9270.

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