

CURRICULUM VITAE

GEORGE RICHARD DUBYAK

1. Personal Data

Home Address 3311 Avalon Road
Shaker Heights, Ohio 44120

Office Address Department of Physiology and Biophysics
Case Western Reserve University
School of Medicine, Robbins Building, Room E520
Cleveland, Ohio 44106
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george.dubyak@case.edu

Date of Birth January 18, 1953
Place of Birth Philadelphia, Pennsylvania
Marital Status Married: Maureen McDevitt Dubyak
Daughters: Meghan (b. 08/11/82); Katherine (b. 11/12/84)
Citizenship USA

Education

1970-74 B.S., Biology, summa cum laude
St. Joseph's University
Philadelphia, Pennsylvania

1974-79 Ph.D., Physiology, Department of Physiology
University of Pennsylvania
Philadelphia, Pennsylvania
Thesis Advisor: Arnost Kleinzeller, M.D., D.Sc.
Thesis: Regulation of Sugar Transport in Adipocytes

1979-82 Post-doctoral Fellow, Department of Biochemistry and Biophysics
University of Pennsylvania
Philadelphia, Pennsylvania
Advisor: Antonio Scarpa, M.D., Ph.D.

2. Professional Appointments

1982-86 Research Assistant Professor
Department of Biochemistry and Biophysics
University of Pennsylvania
School of Medicine
Philadelphia, Pennsylvania

1986-90 Assistant Professor
Department of Physiology and Biophysics
Case Western Reserve University
School of Medicine
Cleveland, Ohio

1990-1998 Associate Professor (Award of Tenure, 1990)
Department of Physiology and Biophysics
Case Western Reserve University
School of Medicine

1998-present Professor
Department of Physiology and Biophysics
Case Western Reserve University
School of Medicine

1987-present Assistant/ Associate/ Full Professor of General Medical Sciences (Oncology)
Secondary Appointment
Division of General Medical Sciences
Case Western Reserve University
School of Medicine

1988-present Assistant/ Associate/ Full Professor of Pharmacology
Secondary Appointment
Department of Pharmacology
Case Western Reserve University
School of Medicine

2004-present Professor of Pathology
Secondary Appointment
Department of Pharmacology
Case Western Reserve University
School of Medicine

3. Licensure and Board Certification: Not applicable

4. Memberships in Professional Societies

American Physiological Society
American Society for Biochemistry and Molecular Biology
American Society for Pharmacology and Experimental Therapeutics
Biophysical Society
American Association of Immunologists

5. Honors

1970-74 Presidential Scholarship
St. Josephs University

1976-79 National Research Council
Cell and Molecular Biology Pre-Doctoral Fellowship

1980-82 Muscular Dystrophy Association Post-Doctoral Fellowship

1986 Mellon Foundation Award Support of New Faculty
Case Western Reserve University

1989-94 Established Investigator, American Heart Association

1990 Outstanding Preclinical Faculty Award
Student Committee on Medical Education
Case Western Reserve University

2000 Faculty Appreciation Award
Biomedical Research Graduate Student Association
Case Western Reserve University

2003 Kaiser-Permanente Award for Outstanding Teaching (Pre-Clinical)
Case Western Reserve University School of Medicine

2007 Alpha Omega Alpha Medical Honor Society, Faculty Member

2008 Designation as 'Master Teacher', Academy of Scholar Educators
Case Western Reserve University School of Medicine

5A. Invited Speaker at Universities, Research Centers, and Conferences

1983 Gordon Research Conference on Excitation-Contraction Coupling
Invited Speaker

1985 Gordon Research Conference on Excitation-Contraction Coupling
Session Chairman

1985 Molecular Pharmacology Group, Smith, Kline, and French Laboratories

1985 Department of Physiology, University of Pennsylvania

1985 Department of Physiology, Temple University

1986 Department of Physiology, Thomas Jefferson Medical College

1986 Department of Pharmacology, Case Western Reserve University

1986 Thrombosis Research Center, Temple University

1987 Department of Heart and Hypertension, Cleveland Clinic Research Foundation

1988 Department of Biochemistry, Case Western Reserve University

1988 Department of Pathology, Case Western Reserve University

1989 New York Academy of Sciences Symposium
"Biological Membranes in Cancer Cells", Torgiano, Italy

1989 Department of Biochemistry, George Washington University

1989 Conference Chairman, Organizer, and Speaker
New York Academy of Sciences Symposium
"The Biological Effects of Extracellular ATP", Philadelphia, PA.

1990 Department of Environmental Health Sciences, Case Western Reserve Univ.

1990 Department of Pathology, University of Michigan

1990 Department of Heart and Hypertension, Cleveland Clinic Research Foundation

1991 Department of Pediatrics, Case Western Reserve University

1991 Lankenau Medical Research Institute, Philadelphia, PA

1991 Conference on Lung Cell Biology

"Signal Transduction in Lung Cells", Woods Hole, MA
 1992 Institute for Environmental Medicine, University of Pennsylvania
 1992 American Red Cross National Center, Rockville, MD
 1993 Hospital for Sick Children, Toronto, Canada
 1993 Department of Cell Biology, Cleveland Clinic Research Foundation
 1995 Symposium on P2 Receptor Structure and Function, Invited Speaker
 ASPET Satellite Colloquium, Atlanta
 1996 Rammelkamp Research Center, MetroHealth Medical Center, Cleveland
 1996 Department of Neuroscience, Case Western Reserve University
 1996 Department of Biomolecular Chemistry, University of Wisconsin
 1996 Department of Physiology, University of Pennsylvania
 1996 Purines '96 Colloquium, Keynote Speaker, Milan, Italy
 1996 Department of Molecular Cardiology, Case Western Reserve University
 1997 Symposium on P2-Nucleotide Receptor Biology, Invited Speaker
 Pharmacology '97, San Diego CA
 1997 Department of Physiology and Biophysics, University of Massachusetts
 1997 Abbott Laboratories, Abbott Park IL
 1997 Department of Physiology and Biophysics, University of Alabama-Birmingham
 1997 Department of Medicine, Case Western Reserve University
 1997 Blood Club, Ireland Cancer Center, Case Western Reserve University
 1998 Department of Pediatrics, Case Western Reserve University
 1998 Cystic Fibrosis Center, University of North Carolina at Chapel Hill
 1998 Department of Physiology, University of Pennsylvania
 1998 Abbott Laboratories, Abbott Park IL
 1998 Gordon Research Conference on Medicinal Chemistry
 Invited Speaker
 1998 Immunology Group, Pfizer Inc, Groton CT
 1999 Western Pharmacology Society Symposium, Invited Speaker, Maui, Hawaii
 1999 Department of Biomolecular Chemistry, University of Wisconsin-Madison
 1999 Department of Pathology, Case Western Reserve University
 2000 Department of Neurosciences, Case Western Reserve University
 2000 Department of Physiology & Biophysics, Case Western Reserve University
 2000 Dept of Cell Biology, Lerner Research Institute of the Cleveland Clinic
 2000 International Society for Autonomic Neuroscience Satellite Symposium on
 "Purines and the Autonomic Nervous System", Invited Speaker
 University College London, England
 2000 1st International Workshop on Nucleotides and Their Receptors
 in the Immune System, Invited Speaker
 University of Ferrara, Italy
 2000 Department of Physiology and Biophysics, Wright State University
 2000 Department of Pharmacological and Physiological Sciences
 University of Saint Louis
 2001 Immunology Seminar Series, Case Western Reserve University
 2001 Rheumatoid Arthritis and Inflammatory Diseases Group, Pfizer Inc., Groton CT
 2001 Aventis Pharmaceuticals, Bridgewater NJ
 2001 Department of Physiology, University of Western Ontario, London, ON, Canada
 2001 Department of Physiology, University of North Carolina at Chapel Hill
 2002 Abbott Laboratories, Abbott Park IL
 2002 Rheumatoid Arthritis and Inflammatory Diseases Group, Pfizer Inc., Groton CT
 2002 Third International Workshop on Ecto-ATPases, Invited Speaker

Woods Hole MA

2002 Department of Biochemistry, University of Missouri- Columbia

2003 NY Academy of Sciences Mini-symposium on “Purinergic Receptors
in Inflammation, Pain, and Beyond, New York, NY

2003 Department of Pharmacology, Dartmouth Medical College

2003 American Society of Nephrology, Minisymposium on Regulation of Renal
Function by Extracellular Nucleotides, Invited Speaker

2004 American Society of Physiology Annual Meeting
Washington, DC

Refresher Course on Cellular Homeostasis

Invited Speaker: Ion Homeostasis: Update on Cellular Mechanisms

2004 Department of Physiology and Pharmacology, Northeast Ohio Universities
College of Medicine

2004 Rheumatoid Arthritis and Inflammatory Diseases Group, Pfizer Global, Ann
Arbor, MI

2004 Purines 2004: 4th International Symposium of Nucleosides and Nucleotides,
Plenary Speaker, Chapel Hill NC

2004 Inflammation Research Association
Minisymposium Session Chair – Novel Inflammatory Mediators
The Sagamore at Lake George, Bolton Landing NY

2004 Abbott Bioresearch Center, Worcester MA

2005 Amgen, Seattle, WA

2005 19th North American Cystic Fibrosis Conference, Baltimore MD

Invited Speaker: Minisymposium on Purinergic Signaling

2006 Department of Pathology, University of Michigan

2006 Department of Biology, John Carroll University

2006 Case Cardiovascular Research Seminar Series, Case Western Reserve Univ

2007 Department of Pathology, Case Western Reserve Univ.

2007 Immunology Seminar Series, Case Western Reserve Univ

2008 Department of Pharmacology, Case Western Reserve Univ

2008 Purines 2008 Conference, Copenhagen, Denmark

Invited Speaker

2008 Department of Physiology & Pharmacology, University of Western Ontario,
London, Ontario Canada

2008 Department of Cell Biology, Cleveland Clinic Foundation, Cleveland, OH

2008 Schepens Eye Institute, Boston MA

2009 Department of Physiology & Biophysics, University of Miami, Miami FL

2009 Cystic Fibrosis Center, University of North Carolina – Chapel Hill, Chapel Hill
NC

2009 Department of Pediatrics-Pulmonary Division, Case Western Reserve Univ,
Cleveland OH

2009 Murdough Family Center for Psoriasis Symposium, Cleveland OH

2009 Department of Neuroscience, Albert Einstein College of Medicine, New York,
NY

2010 Rammelkamp Research Institute. MetroHealth Medical Center, Cleveland, OH

2010 Department of Medicine – Division of Endocrinology, Case Western Reserve
Univ, Cleveland OH

2010 Department of Physiology, University of Pennsylvania, Philadelphia, PA

2010 Department of Pathology, Case Western Reserve Univ, Cleveland OH

2011 Department of Pathobiology, Cleveland Clinic Foundation, Cleveland, OH

2011	Department of Pharmacology, University of Toledo, Toledo OH
2011	Department of Cellular & Molecular Physiology University of North Carolina, Chapel Hill NC
2011	Gordon Research Conference on Phagocytes, Invited Speaker Davidson College, Davidson NC
2012	School of Dental Medicine, University of Pennsylvania, Philadelphia PA
2012	MSTP, The Ohio State University, Columbus OH
2013	Department of Medicine – Division of Nephrology, Case Western Reserve Univ, Cleveland OH
2013	Department of Medicine – Division of Endocrinology, Case Western Reserve Univ, Cleveland OH
2013	CWRU Nobel Prize Summary Symposium, Case Western Reserve Univ, Cleveland OH
2014	Center for AIDS Research/ Center for Global Health, Case Western Reserve Univ, Cleveland OH
2014	Department of Pharmacology, University of Virginia, Charlottesville VA
2014	Rammelkamp Research Institute. MetroHealth Medical Center, Cleveland, OH

6. Professional Service

Editorial Boards and Reviewer Pools:

1987-1993	Archives of Biochemistry and Biophysics
1991-1996	The Journal of Biological Chemistry (Editorial Board) (First Term)
1997- 2002	The Journal of Biological Chemistry (Editorial Board) (Second Term)
1997- 2005	The Journal of Immunology (Primary Reviewer Pool)
2002-2005	Molecular Endocrinology (Editorial Board)
2005-2009	The Journal of Immunology (Editorial Board)
2010-2015	The Journal of Biological Chemistry (Editorial Board) (Third Term)
1998-Present	The American Journal of Physiology – Cell (Editorial Board)
2002-Present	Molecular Pharmacology (Editorial Board)
2006-Present	Purinergic Signalling (Editorial Board)
2010-Present	Science – Signaling (Editorial Board)

Ad Hoc Journal Review:

Blood
European Journal of Physiology (Pflugers' Archiv)
Journal of Pharmacology and Experimental Therapeutics
Biochemistry
Journal of Leukocyte Biology
Biochimica et Biophysica Acta
Journal of Clinical Investigation
Endocrinology
European Journal of Pharmacology
Neuroscience Letters
Proceedings of the National Academy of Science
Journal of Laboratory and Clinical Medicine

Immunopharmacology
 Immunity
 Molecular and Cellular Neurosciences
 Biological Signals
 FASEB Journal
 FEBS Letters
 Biochemical Pharmacology
 Journal of Cellular Physiology
 Science Signaling
 British Journal of Pharmacology
 Circulation Research
 Circulation
 Journal of Cell Science
 Journal of Neuroscience
 Journal of Neurochemistry
 PloSOne
 PloS-Pathogens
 Journal of Clinical Investigation
 Cellular Microbiology
 Cell Death and Differentiation
 Nature Communications

Regular Membership on Grant Review Study Sections or Allocation Councils :

1986-1990	Research Study Section American Heart Association, Northeast Ohio Affiliate
1997-1998	Allocations Committee American Heart Association, Northeast Ohio Affiliate
1998-2002	Research Committee American Heart Association, Ohio Valley Affiliate
1993-1997	CBY 2 (Cellular Biology and Physiology II) Study Section National Institutes of Health
1997-2002	Molecular Signaling I Study Section American Heart Association, National

***Ad Hoc* Service on Study Sections or Program Project Reviews:**

1989	NIH, Special Toxicology Study Section
1990	NIH/ NHLBI: 2 site visits NIH/ NIGMS: 1 site visit
1992	NIH/ Cell Biology and Physiology II (CBY2) Study Section
1995	NIH/ NHLBI: 1 site visit
2005	NIH/ Atherosclerosis and Inflammation in the Cardiovascular Sciences (AICS) Study Section (Feb 24, 2005)
2005	NIH/ NHLBI: 1 PPG Review (Oct 21, 2005)
2005	NIH/ NHLBI: T32 Training Grant Review Panel (Nov 17-18, 2005)
2006	NIH/ NHLBI: 1 PPG Review (May 4, 2006)
2008	NIH/ NHLBI: Atherosclerosis and Inflammation in the Cardiovascular Sciences (AICS) Study Section (June 2008)
2009	NIH/ K00 Reviews

2009	NIH Scientific Meeting Reviews
2011	NIH/NHLBI: 1PPG Review (May 3, 2011)
2013	NIH Ad Hoc Review, CMI-A Study Section (March 12, 2013)
2013	NIH/NHLBI: 1PPG Review (May 23, 2013)
2014	NIH, Immunology IRG Special Emphasis Panel for Immune Mechanism, ZRG1 IMM-N (03) (April 14, 2014)
2014	NIH/NHLBI: 1PPG Review (Jan 29, 2014)
2015	NIH, Immunology Fellowship (F07-T20L) & AREA (IMM-T81A) Review (Oct 22-23, 2015)

7. Service on Departmental/ Medical School/ University Committees:

Department of Physiology and Biophysics

School of Medicine, Case Western Reserve University

1986-1987	Seminar Committee
1987-1993	Student Admissions (Co-chair, 1991-1993)
1988-1990	Common Facilities
1989-pres	Medical Education (Chair)
1992-1993	Internal Review Committee, Chair
1991-1993	Faculty Appointment, Promotion, and Tenure
1994-1996	Steering Committee
1998-2002	Steering Committee
2004-2005	Seminar Committee
2005	Departmental Retreat Organization Committee, Chair
1994-2011	Student Admissions (Co-Chair 94-98)
1993-present	Graduate Studies
2003-present	Committee for Appointment, Promotion, and Tenure
2007-2012	Faculty Search Committee

Department of Pharmacology

School of Medicine, Case Western Reserve University

1991-1995	Preliminary Exam Committee
2005-pres	Molecular Therapeutics Training Program Advisory Committee
2005-pres	Committee for Appointment, Promotion, and Tenure
2006-2012	Student Admissions

Department of Pathology

School of Medicine, Case Western Reserve University

2011-2012	Search Committee, Immunology Program Director
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School of Medicine

Case Western Reserve University

1990-1992	Veterans' Administration Medical Center Research Review Committee
1990-1993	Faculty Council Research, (Chair, 1992-1993)

1992-1993	Two <i>ad hoc</i> Dean's committees for review of authorship disputes and alleged misconduct at VAMC-Wade Park
1990-1995	Committee on Students
1994-1996	Three <i>ad hoc</i> Dean's committees for review of new graduate programs in the School of Medicine
1997-1999	Committee on Medical Education
1996-2001	Faculty Council, Member-at-large
1996-2001	Advisory Council of Cleveland Health Sciences Library
1998-2002	Nominating Committee
1999-2000	Search Committee, Chair of Microbiology and Molecular Biology
2001-2002	Search Committee, Vice-Dean of Medical Education
2002-2004	Cleveland Clinic Lerner College of Medicine Curriculum Steering Committee
1999-2006	Basic Sciences Curriculum Leadership Council
2005-2007	Search Committee, Chair of Physiology and Biophysics
1990-present	Medical Scientist Training Program, Steering Committee
2003-present	Medical Scientist Training Program, Co-Director
2005-present	Medical Curriculum Block Design Planning Committee- Block 2 "Human Blueprint"
2005-present	Medical Curriculum Block Design Planning Committee- Block 4 "Homeostasis"
2011-2012	Climate Survey Task Force, Elected Member
2012-2013	SOM Dean Review Committee, Appointed Member
2013-2014	Medical Education Building Planning Committee; Faculty & Alumni Space subcommittee
2013-2014	Basic Science WR2 Review Task Force
2014-present	Committee on Budget, Finance, and Compensation

Case Western Reserve University

1991-1993	University Radiation Safety Committee
2001-2002	Ad Hoc Inquiry/ Investigation Committee on Scientific Misconduct Case
2002-2005	Institutional Animal Care and Use Committee (IACUC)
2003-2004	Ad Hoc Inquiry/ Investigation Committee on Scientific Misconduct Case, Chair
2011	Ad Hoc Inquiry/ Investigation Committee on Scientific Misconduct Case, Chair
2012	Ad Hoc Inquiry/ Investigation Committee on Scientific Misconduct Case

8. Past and Present Teaching Activities

University of Pennsylvania School of Medicine

1974-79	Laboratory Instructor, Physiology 501
1979-83	Lecturer, Physiology 510
1980-84	Lecturer, Biochemistry 521

Case Western Reserve University School of Medicine

Department of Physiology and Biophysics

1987-1989	PHOL 480, Systems Physiology
1987-1993	PHOL 464, Cell Physiology

1987-1998 PHOL 460, Introductory Molecular Biology
 1995-2001 PHOL 459, Cell Physiology
 2001-2011 PHOL 432, Cell Structure and Function
 2010-present PHOL 532, Introduction of Cardiovascular Physiology
 2011-present PHOL 481-482, Medical Physiology I/II
 2011-present PHOL 483, Translational Physiology I
 1993-present PHOL/PHRM/CLBY/NEUR 466, Cell Signaling (Course Director 1995-present)

Other Departments

1988-1989 PHRM 413, Molecular Pharmacology
 1989-1990 PHRM 515, Endocrine Pharmacology
 1988-1989 BIOE 520, Biochemical Endocrinology
 1997 GENE 511, Specialized Topics in Human Genetics
 2000 CNS Pharmacology
 2011-present IBMS500, On Being a Professional Scientist
 2012-present PATH465, Advanced Immunobiology

Biomedical Sciences Training Program

2013-present C3MB: Course Director
 1987-present C3MB: CBIO 453, Cell Biology
 Course Coordinator 1992-1995
 Section Leader on Signal Transduction, 1992-present

Medical School Core Academic Program

1987-2005 Homeostasis I: Cell Physiology Committee,
 Section Leader of Cell Physiology Committee, 1997-2005
 1987-1994 Gastrointestinal/ Endocrinology-I Committee
 1994-2007 Endocrinology/ Reproductive Biology I and II Committees
 2006-present Block 2, Cell Physiology Coordinator, Lecturer and Medium Group Coordinator
 2007-present Block 4, Cell Physiology Coordinator, Lecturer and Medium Group Coordinator

Medical School Flexible Program

1989-1991 Special Topics in Physiology of Signal Transduction

Ph.D. Thesis Advisor (Case):

1987-1989 Daniel S. Cowen, M.D., Ph.D.
 1987-1989 Theodore Marks, M.D., Ph.D. (co-advisor)
 1989-1992 Mingsheng Xie, Ph.D.
 1990-1994 Louise C. Nuttle, Ph.D.
 1992-1994 David Kusner, M.D., Ph.D.
 1994-1996 Kathleen A. Martin, Ph.D.
 1994-1998 Erin E. Clifford, M.D., Ph.D.
 1995-1998 Benjamin D. Humphreys, M.D., Ph.D.
 1996-2001 Reza D. Beigi, Ph.D.
 1998-2003 Lalitha Gudipaty, Ph.D.

2000-2003	Philip A. Verhoef, M.D., Ph.D.
2002-2004	J. Michelle Kahlenberg, M.D., Ph.D.
1999-2004	Sheldon M. Joseph, Ph.D.
2005-2008	Yan Qu, Ph.D.
2004-2009	Shiyuan Ryan Hong, Ph.D.
2004-2010	Domenick Prosdocimo, Ph.D.
2005-2009	Andrew Blum, M.D., Ph.D.
2009-2011	Katherine E. Trueblood, Ph.D.
2010-2014	Christina Antonopoulos
2011-2015	Michael Katsnelson
2010-2016	Andrea Boyd Tressler
2012-present	Hana Russo
2016-present	Nitish Rana

Post-Doctoral / Junior Faculty Advisor (Case)

1990-1994	Chakib El-Moatassim, Ph.D.
1994-1996	Jeffrey Schelling, M.D.
1999-2001	Karen A. Parker, Ph.D., M.D.
2004-2005	Sheldon M. Joseph, Ph.D.
2015-present	Mausita Kamarkar, Ph.D.

Post-Baccalaureate Research Advisor (Case)

2008-2010	Jason Robinson (CWRU PREP Scholar)
2013-2014	Gwendolyn Quintana (CWRU PREP Scholar)
2015-present	Kristen Lozado-Soto (CWRU PREP Scholar)

Undergraduate Thesis Research Advisor (Case)

2009-2010	B. Corbett Walsh (Physics)
2010-2012	Daniel Chopyk (Biochemistry)

Thesis Committees CWRU School of Medicine

PhD Dissertation Committee Member (including direct advisees): Current- 34 Total

(Including 2 as Thesis Advisor - underlined)

Physiology & Biophysics (7): Drew Nassel; Michelle Jennings (MSTP); Yanlin (Kate) Fu; Stephan Nieuwoudt; Panjanporn Sangwung; Pamela Marcott (MSTP); Michael Glidden (MSTP)

Biochemistry (2): Colin Stomberski (MSTP), Nischay Rege (MSTP)

Molecular Virology (1): Ryan Stultz (MSTP)

Neurosciences (2): Jane Lindborg; Taylor Jay

Pathology (17): Brad Martin (MSTP); James Ignatz-Hoover (MSTP), Jaffre Athman; Hana Russo (MSTP)- Thesis Advisor; Janice Jun; Jessica Perez; Dixon Dorand (MSTP); Alex Tong (MSTP); Anna Henry (MSTP); Alexandra McMillan (MSTP); Heather Clark (MSTP); Bryan Benson (MSTP); Anna Czapar (MSTP), Nelson Hsieh (MSTP); Steven Chirieleison (MSTP); Sirui Jiang (MSTP); Gloria Tavera (MSTP)

Pharmacology (3): Andrea Boyd-Tressler - Thesis Advisor; Olga Gorelenkova; Deoye Tonade

PhD Dissertation Committees CWRU School of Medicine

Previous (1986-2015): 146 Total (NOT including 18 direct thesis advisees)

Physiology and Biophysics (54): R.Christopher Crumrine, J. Zheng, Frederick Racke, Sheila Andreatta-Van Leyen, Bartolomeo Giannattasio, David Gorski, Christopher Vincent, Min Xing, Tauriq Goraya, Jeffrey Overholt, Robert Rossero, W. Zhou, T. Zhu, John Hwa, L. Zhou, D. Suciu, Donald Keenan, Enrique Corroneos, Jean Welter, Tatiana Ruhe, Bradley McConnell, Michael Kolman, Ute Kreibig, J. Xie, Wei Jin, Michael Hobert, Lisa Oleksa-Middleton, Ge Jin, Monica Gradinaru, Michael Murphy, Seong-Jae Kil, Beth Summers, Sidney Sit, Colleen Clancy, Andrea Cserey, Guosheng Huang, Rebecca Falin, Sunita Warriar, Radu Ianacu, Michelle Innocenti-Beidelschies, Mark Breckinridge, Bridget Christopher (MSTP), Obinna Nduibuizu (MSTP), , Corttrel Kinney, Sarah Zilka, Krekwit (Kirk) Shinlapawittayatorn, Jeffrey Lock, Andrew Caprariello, Seong Ki Lee, Sheela Toprani (MSTP); Prattana Samilsilp; Daniel Harris; Candida Desjardins (MSTP); Malcolm Hoshi (MSTP),

Cell Biology (1): G. Thomas Brown (MSTP)

Molecular Medicine (2): Laura Dixon, Sowmya Srikanthan

Nutrition (1): David DeSantis

Neurosciences (11): Brian Block (MSTP), Meredith Albrecht (MSTP), Jessica Koenigsknecht, Xiang Li, Jing Han, Erin Reed, Brent Cameron (MSTP), Sungho Lee (MSTP), Teresa Evans (MSTP); Julie Savage; Joseph Vithayathil (MSTP);

Pharmacology (18): Adisak Wongkajornsilp, Collen Tagliarino, Susan English, Edward Reineks (MSTP); James Bayer, (MSTP), Melissa Landis, Michael Davis (MSTP), Melissa Bentle, Jodi Thompson (MSTP), Krystina Papp, Yiping Rong, Molly Gallogly (MSTP), Ndiya Ogba, Marjorie Montanez-Wiscowitz (MSTP), Brad Casali, Christopher Ryder (MSTP), Debarshi Mustafa (MSTP); Peter Levitt (MSTP)

Pathology (32): M. Yan, D. Liu, David Wald (MSTP), Darrell Rubin (MSTP), Brenda Riviera (MSTP), Meghan Pennini, Kathleen Anderson, Jennifer Franko, Erica Keenan (MS), Austin Schenk (MSTP), Justin Hartupee (MSTP), Joshua Rosenblum (MSTP), Robert Mahon, Oge Ndum (MSTP-MS), Jeffrey Meisch, Colleen Lewis, Jason Molitoris (MSTP); Yi Liu, Sixto Leal (MSTP), Jill Marinis, Pauline Ogolla, Michael Strainic, Jeffrey Tomalka, Robert Koeth (MSTP), Henry Goodnough (MSTP), Joseph Mudd; Chao Fang; Ling Wu (MSTP); Charles Su (MSTP), Steven deJesus Carrion, Mausita Kamarkar, Jenny Johnson, Jackelyn Golden,

Genetics (3): Marc Halushka (MSTP), Kristin Zapp-Brady; Bryan Carroll (MSTP)

Molecular Biology (4): Jason Yustein (MSTP), L. Xia, Anthony Lioi; Marisa Winkler (MSTP)

Biomedical Engineering (9): K. Kader, Brian Lestini (MSTP), Roei Lazebnick (MSTP), Thomas Cowen (MSTP), D. Leventhal (MSTP), Jeffrey Beamish (MSTP); Timothy Mariano (MSTP), Thomas Ladas (MSTP); Jennifer Bastijanac

Biochemistry (3): Aneta Reszko (MSTP), Anrushree Bhatnagar, Katherine Reineke

MS Dissertation Committees CWRU School of Medicine (Total 6)

MS-Physiology & Biophysics - Current (1): Anne Roe

MS- Physiology & Biophysics - Past (5): Alex Gilewski; Maria Sandoval; Kathleen Lundberg; Allison Given, Aaron Brister,

9. Current, Pending, and Past Research Support

Current Support: Case Western Reserve University

2011-2015 National Institutes of Health

R01 GM36387 (22-25)
Regulation of Caspase-1 Signaling and Inflammation by the P2X7 ATP Receptor
G. Dubyak Role: P.I. (35%), \$984,364 (Total Direct Costs)
03/01/2011 – 02/28/2015

- 2013-2015 American Heart Association
AHA 13PRE16860052 (M. Katsnelson, PI)
Regulation of NLRP3 Inflammasome Activation and IL-1 β Release by Loss of Lysosomal Integrity
G. Dubyak Role: (Sponsor and Thesis Advisor)
- 2014-2017 National Multiple Sclerosis Society
NMSS RG 5130A2/1 (PI: X. Li)
Cellular and molecular mechanisms of the inflammasome in CNS inflammation
G. Dubyak Role: Co-investigator (5% effort)
- 2014-2018 National Institutes of Health
5R01EY014362-10-14 (PI: Eric Pearlman)
Innate Immunity in Bacterial Keratitis
G. Dubyak Role: Co-investigator (5% effort)

Past Support: University of Pennsylvania

- 1983-1984 American Cancer Society Institutional Research Grant IN-135
Calcium Homeostasis in Tumor Cells
P.I. (20% Effort); \$6,030

Past Support: Case Western Reserve University

- 1986-1987 American Heart Association, Northeast Ohio Affiliate
Grant-in-Aid
Receptor-mediated Signalling in Cultured Endothelial Cells
P.I. (40% Effort), \$19,027
- 1986-1991 National Institutes of Health
1 RO1 GM36387 (01-05)
Transmembrane Signalling in Smooth Muscle Cell Lines
P.I. (60% Effort), \$487,521 (Total Direct Costs)
- 1988-1993 National Institutes of Health
1 RO1 HL41206
Channel Regulation in Normal and Hypertensive Smooth Muscle
Co-P.I. (15% Effort), \$581,555 (Total Direct Costs)
- 1989-1994 American Heart Association (National)
Established Investigatorship 890201
ATP Receptors in Leukocytes and Endothelial Cells
Career Development (100% Effort); \$175,000 (Total Direct Costs)
- 1991-1994 American Heart Association (National)

Grant-in-Aid 91012060
Phospholipase D Regulation in Phagocytic Leukocytes
P.I. (20% Effort); \$117,500 (Total Direct Costs)

1991-1995 National Institutes of Health
2 RO1 GM36387 (06-09)
Signal Transduction by ATP/UTP Receptors
P.I. (55% Effort); \$469,578 (Total Direct Costs)

1994-1997 American Heart Association (National)
Grant-in-Aid 94017180
Phospholipase D Regulation in Phagocytic Leukocytes
P.I. (20% Effort); \$119,500 (Total Direct Costs)

1996-1998 CWRU Cystic Fibrosis Core Center
Feasibility Project
Sources of Extracellular ATP for Epithelial Regulation
(P.I. (20% Effort); \$80,000 (Total Direct Costs)

1999-2001 Abbott Laboratories
Sponsored Research
Molecular Studies of the P2X7 Nucleotide Receptor
P.I. (5% Effort); \$100,000 (Total Costs)

1999-2001 American Heart Association (National)
Grant-in-Aid 9950305N
Mechanisms of Nucleotide Release from Endothelial Cells
P.I. (20% Effort); \$142,633 (Total Direct Costs)

1997-2001 National Institutes of Health
RO1 GM36387 (10-13)
ATP Receptors in Macrophages and Monocytes
P.I. (50%), \$709,189 (Total Direct Costs)

2001-2005 Pfizer, Inc.
Sponsored Research
Inflammatory Signaling by the P2X7 Nucleotide Receptor
P.I. (5% Effort); \$65,000 (Total Direct Costs)

2002-2006 National Institutes of Health
RO1 GM36387 (14-18)
Protease-Based Signaling by the P2X7 Nucleotide Receptor
P.I. (35%), \$860,000 (Total Direct Costs) – No cost extension through 2007

2008-2009 National Institutes of Health
P01-DE019089. (A. Weinberg, PI)
Epithelial Immunity and Oral Complications in HIV
Total Direct Costs: \$527,520
Project 2 (Weinberg, PI) : “HBD-3-CXCR3: Molecular Mechanisms in Innate Immunity”

- G. Dubyak Role: Project 2 Co-investigator (5% effort)
- 2007-2009 AHA-0715129B Fellowship (Great Rivers Affiliate)
 PI: Shiyuan Hong 07/01/07 – 06/30/09
 Novel Regulation of the Proinflammatory P2X7 Nucleotide Receptor by
 Extracellular NAD
 G. Dubyak Role: Fellowship Sponsor and Mentor
- 2004-2010 National Institutes of Health
 T32-HL07653 (G. Dubyak, PD)
 Cleveland Training Program in Cardiovascular Research
- 2006-2011 National Institutes of Health
 RO1 GM36387 (18-21)
 Regulation of Caspase-1 Signaling and Inflammation by the P2X7 ATP Receptor
 G. Dubyak Role: P.I. (35%), \$920,000 (Total Direct Costs)
 12/01/2006 – 02/28/2011
- 2009-2014 National Institutes of Health
 P01-DE019759 (A. Weinberg, PI)
 Oral Mucosal Immunity in Vulnerable HIV Infected Populations
 Project 2 (Weinberg, PI): HBD-3-CXCR4: Molecular Mechanisms in Innate
 Immunity
 G. Dubyak Role: Project 2 Co-investigator (10% effort)

Current NIH-Funded Training Grant Programs: Case Western Reserve University

- NIH T32-GM007250 “Medical Scientist Training Program” (C. Harding, PD): Co-PD and
 Trainer
- NIH T32-HL105338 “Cardiovascular Research Training Program” (M. Jain, PD): Co-PD and
 Trainer
- NIH T32-AI007024 “Training In Geographic Medicine and Infectious Disease”
 (J. Kazura, PD): Trainer
- NIH T32-AI098474 “Immunology Training Program” (C. Harding, PD): Trainer
- NIH T32-DK007470 “CWRU Nephrology Training Grant” (J. Sedor, PD): Trainer
- NIH T32-HL083823 “Research Training Program in Pulmonary Host Defense, Inflammation,
 and Immunity” (T. Kelley, PD): Trainer
- NIH T32-GM008803 “Predoctoral Training Program in Molecular Therapeutics” (J. Mieyal, PD):
 Trainer
- NIH T32-DK007319 “Metabolism Training Program” (H. Brunegraber, PD): Trainer
- NIH R25-HL03152 “Short-Term HLB Summer Research Opportunities” (P. MacDonald,
 PD): Trainer
- NIH R25-GM075207 “Case Postbaccalaureate Research Education Program” (P. MacDonald, PD):
 Trainer

10. Bibliography

I. PEER-REVIEWED ORIGINAL RESEARCH PAPERS

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