

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
216-368-5523
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', 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)
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)
2010-Present	The Journal of Biological Chemistry (Editorial Board) (Third Term)

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

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)

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	BIOC 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
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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
2010-present	Andrea Boyd Tressler
2011-present	Michael Katsnelson
2012-present	Hana Russo

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)

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- 40 Total

(Including 4 as Thesis Advisor - underlined)

Physiology & Biophysics (10): Daniel Harris; Drew Nassel; Michelle Jennings (MSTP); Candida Desjardins (MSTP); Yanlin (Kate) Fu; Stephan Nieuwoudt; Panjanporn Sangwung; Malcolm Hoshi (MSTP), Pamela Marcott (MSTP); Michael Glidden (MSTP)

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

Biomedical Engineering (1): Jennifer Bastjanic

Molecular Biology (1): Marisa Winkler (MSTP)

Molecular Virology (1): Ryan Stultz (MSTP)

Neurosciences (3): Julie Savage; Joseph Vithayathil (MSTP); Jane Lindborg; Taylor Jay

Nutrition (1): David DeSantis

Pathology (19): Brad Martin (MSTP); Michael Katsnelson (MSTP) - Thesis Advisor; James Ignatz-Hoover (MSTP), Jackelyn Golden, 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 (2): Andrea Boyd-Tressler - Thesis Advisor; Olga Gorelenkova

Thesis Committees CWRU School of Medicine

Previous (1986-2015): 145 Total (NOT including 18 direct thesis advisees)

Physiology and Biophysics (55): R.Christopher Crumrine, J. Zheng, Frederick Racke, Sheila Andreatta-Van Leyen, Bartolomeo Giannattassio, David Gorski, Christopher Vincent, Min Xing, Tauriq Goraya, Jeffrey Overholt, Robert Rossero, W. Zhou, T. Zhu, John Hwa, L. Zhou, D. Suci, Donald Keenan, Enrique Corroneos, Jean Welter, Tatiana Ruhe, Bradley McConnell, Michael Kolman, Ute Kreibitz, 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, Kathleen Lundberg (MS); Allison Given (MS), Aaron Brister (MS), Rebecca Falin, Sunita Warriar, Radu Ianacu, Michelle Innocenti-Beidelschies, Mark Breckinridge, Bridget Christopher (MSTP), Obinna Nduibizu (MSTP), , Corttrell Kinney, Sarah Zilka, Krekwit (Kirk) Shinlapawittayatorn, Jeffrey Lock, Andrew Caprariello, Seong Ki Lee, Sheela Toprani (MSTP); Prattana Samilsilp;

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

Molecular Medicine (2): Laura Dixon, Sowmya Srikanthan

Neurosciences (9): Brian Block (MSTP), Meredith Albrecht (MSTP), Jessica Koenigsknecht, Xiang Li, Jing Han, Erin Reed, Brent Cameron (MSTP), Sungho Lee (MSTP), Teresa Evans (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 (33): 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 Hartup (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

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

Molecular Biology (3): Jason Yustein (MSTP), L. Xia, Anthony Lioi;

Biomedical Engineering (8): K. Kader, Brian Lestini (MSTP), Roei Lazebnick (MSTP), Thomas Cowen (MSTP), D. Leventhal (MSTP), Jeffrey Beamish (MSTP); Timothy Mariano (MSTP), Thomas Ladas (MSTP)

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

MS- Physiology & Biophysics (2): Alex Gilewski; Maria Sandoval

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)

2015-2018 National Institutes of Health

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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