Date of Document: March 29, 2024

# **CURRICULUM VITAE**

# John R. Raymond MD

President, CEO, Professor Department of President

#### **OFFICE ADDRESS:**

Hub for Collaborative Medicine 8701 Watertown Plank Road Milwaukee, WI 53226

#### **EDUCATION:**

09/1974 - 06/1978 B.S., The Ohio State University, Columbus, Ohio 07/1978 - 06/1982 M.D., The Ohio State University, Columbus, Ohio

## POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

07/1982 - 06/1983 Internship in Medicine, Duke University Medical Center, Durham, NC

07/1983 - 06/1985 Residency in Medicine, Duke University Medical Center, Durham, NC

07/1985 - 06/1986 Fellowship in Nephrology, Duke University Medical Center, Durham, NC

07/1986 - 06/1987 Chief Medical Residency, Durham VA Medical Center, Durham, NC

07/1987 - 06/1988 Fellowship in Nephrology, Duke University Medical Center, Durham, NC

#### **FACULTY APPOINTMENTS:**

07/1986 - 06/1987 Associate in Medicine, Duke University Medical Center, Durham, NC

07/1989 - 06/1989 Associate in Medicine, Duke University Medical Center, Durham, NC

07/1989 - 06/1994 Assistant Professor of Medicine, Duke University Medical Center, Durham, NC

07/1994 - 06/1996 Associate Professor of Medicine, Duke University Medical Center, Durham, NC

08/1995 Tenure granted, Duke University Medical Center, Durham, NC

07/1996 - 06/2010 Dialysis Clinics Incorporated, Professor of Medicine with tenure, Medical University of South Carolina, Charleston, SC

07/19/2010 - Present Graduate Faculty, MUSC, Charleston, SC

07/2010 - Present Adjunct Professor of Medicine, MUSC, Charleston, SC

### **ADMINISTRATIVE APPOINTMENTS:**

08/1991 - 11/2006 Associate Provost for Research, Medical University of South Carolina, Charleston, SC

07/1998 - 06/2002 Associate Chief of Staff for Research, Ralph H. Johnson VA Medical Ctr., Charleston, SC

07/2002 - 12/2002 Interim Vice President for Academic Affairs, and Provost, MUSC, Charleston, SC

01/2003 - 06/2010 Vice President for Academic Affairs, and Provost, MUSC, Charleston, SC

07/2010 - Present President and CEO, Medical College of Wisconsin, Milwaukee, WI

# EDUCATIONAL ADMINISTRATIVE APPOINTMENTS:

07/1996 - 06/2010 Executive Committee, Nephrology Fellowship Program, MUSC, Charleston, SC

# HOSPITAL AND CLINICAL ADMINISTRATIVE APPOINTMENTS:

07/1991 - 06/1993 Director of Dialysis, Durham VA Medical Center, Durham, NC

07/1991 - 06/1993 Renal Clinic Director, Durham VA Medical Center, Durham, NC

07/1991 - 06/1996 Chief, Nephrology Section, Durham VA Medical Center, Durham, NC

07/1992 - 06/1996 Coordinator, Hypertension Detection and Screening Program, Durham VA Medical Center, Durham, NC

# **HOSPITAL STAFF PRIVILEGES:**

- 07/1986 06/1987 Duke University Medical Center, Durham, NC
- 07/1986 06/1987 Durham VA Medical Center, Durham, NC
- 07/1988 06/1996 Duke University Medical Center, Durham, NC
- 07/1988 06/1996 Durham VA Medical Center, Durham, NC
- 07/1996 06/2010 Ralph H. Johnson VA Medical Ctr., Charleston, SC
- 07/1996 06/2010 Medical University Hospital Authority, Medical University of South Carolina, Charleston, SC
- 07/1996 06/2003 Charleston Memorial Hospital and Specialty Hospital, Charleston, SC
- 07/1996 06/2010 Medical University Hospital Authority, Medical University of South Carolina, Charleston, SC
- 07/1998 06/2004 Hampton Regional Medical Center, Hampton, SC
- 07/2003 06/2010 Kindred Hospital of Charleston, Charleston, SC
- 11/2010 Present Clement J. Zablocki VA Med. Center, Milwaukee, WI

#### SPECIALTY BOARDS AND CERTIFICATION:

Board Certified	<u>Issue Date</u>	<b>Expiration</b>
American Board of Internal	09/10/1986	None
Medicine:Medicine		
ABI: Nephrology	11/01/1988	None
1 ibi. i tepinology	11/01/1700	TTOTIC
American Heart	10/19/2009	11/01/2011

<u>Licensure</u>	<u>Number</u>	<u>Issue Date</u>	<b>Expiration</b>
Ohio License(INACTIVE)	479660	07/01/1982	12/31/1982
North Carolina Training		07/01/1982	06/30/1986
License(INACTIVE)	)		
North Carolina Permanent	30459	07/01/1986	None
License			
South Carolina Permanent	18867	07/01/1996	None
License			

#### **AWARDS AND HONORS:**

Resuscitation

- 1975 Present Phi Kappa Phi Honor Society, Ohio State University
- 1982 Individual Service Award, Ohio Commission on Aging
- 1984 1985 Haskell Schiff Housestaff Award(most outstanding house officer), Duke University Medical Center, Department of Medicine
- 1987 Finalist, Golden Apple Award, Duke University School of Medicine
- 1987 Alpha Omega Alpha Honor Society Duke University School of Medicine
- 1991 Henry Christian Award for Excellence in Research, American Federation for Clinical Research
- 1994 Finalist, Eugene Stead Teaching Award from Medicine Housestaff, Duke University Medical Center, Department of Medicine
- 1995 Henry Christian Award for Excellence in Research, American Federation for Medical Research
- 1996 DCI Endowed Professorship, Medical University of South Carolina
- 1996 2000 Who's Who in Medicine/Healthcare, Marquis Who's Who
- 1996 2000 Who's Who in the World, Marquis Who's Who
- 1998 2002 Who's Who in Science/Engineering, Marquis Who's Who
- 2000 Strathmore's Who's Who, Millenium Edition
- 2000 Marquis Who's Who, Millenium Edition
- 2000 International Who's Who, International Who's Who of Professionals
- 2001 Federal Employee of the Year, Federal Executive Association, Greater Charleston Area
- 2001 2002 Distinguished Alumnus, Archbishop Hoban High School, Akron, Ohio
- 2001 2002 Outstanding Professional, America's Registry of Outstanding Professionals
- 2001 2002 Who's Who, National Registry of Who's Who

- 2001 2002 Strathmore's Who's Who, Strathmore's Who's Who
- 2002 Who's Who in America, Marquis Who's Who in America
- 2004 Diversity Advocate of the Year, South Carolina Commission on Higher Education
- 2005 Henry Middleton Award for Research Excellence, Department of Veterans Affairs, VISN7
- 2007 Presidential Service Citation for Service, South Carolina Dental Association
- 2009 Best Doctors<sup>TM</sup> citation Best Doctors in America-Nephrology
- 2009 Marcy Speer Outstanding Reviewer Award, NIH Center for Scientific Review
- 2010 Citation for Service, College of Nursing, Medical University of South Carolina
- 2010 Citation for Service, University of South Carolina-Columbia School of Medicine
- 2010 Citation for Service, Health Sciences South Carolina
- 2010 Doctor of Medical Science Honoris Causa, Medical University of South Carolina (Honorary degree)
- 2010 John R. Raymond, M.D. Scholarship created, Medical University of South Carolina
- 2010 Annual John R. Raymond Mentorship Award created, Medical University of South Carolina
- 2010 Citation for Service, Office of Student Diversity, Medical University of South Carolina
- 2010 Best Doctors<sup>TM</sup> citation Best Doctors in America-Nephrology
- 2010 Honorary Nurse designation, College of Nursing, Medical University of South Carolina

#### MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:

- 1975 Present Phi Kappa Phi (Member)
- 1981 Present American Medical Association (Member)
- 1986 Present American College of Physicians (Member)
- 1987 Present Alpha Omega Alpha (Member)
- 1988 Present American Society of Nephrology Member
- 1989 Present American Federation for Medical Research (Member)
- 1990 Present American Heart Association (Member)
- 1990 Present National Kidney Foundation (Member)
- 1991 Present American Society of Nephrology (Session Chair)
- 1994 2000 New York Academy of Sciences (Member)
- 1995 1998 Annals of Internal Medicine (Readership Advisory Group)
- 1995 Present American Society for Clinical Investigation (Member)
- 1995 2004 Molecular Medicine Society (Member)
- 1996 Present Hypertension Council of the American Heart Association (Member)
- 1996 2010 Southern Society for Clinical Investigation (Member)
- 1996 2010 Southern Salt, Water and Kidney Club (Member)
- 1996 Present Hypertension Council of the American Heart Association (Fellow)
- 1997 Present American Society of Nephrology (Session Chair)
- 1997 2004 Molecular Medicine Society (Fellow)
- 1998 Present Association of American Physicians (Member)
- 1999 Present American Society of Pharmacology Experimental Therapeutics (Member)
- 2003 2008 American Society for Biochemistry Molecular Biology (Member)
- 2004 Present American Society of Nephrology (Session Chair)
- 2007 Present American Society of Nephrology (Session Chair)
- 2009 Present American Heart Association (Fellow)
- 2009 Present American College of Physicians (Fellow)
- 2009 Present American Society of Nephrology (Fellow)

# EDITORSHIPS/EDITORIAL BOARDS/JOURNAL REVIEWS:

### **Editorial Board**

- 07/2001 06/2010 American Journal of Physiology Renal Physiology
- 07/2003 06/2008 Journal of Biological Chemistry
- 07/2004 Present ASSAY and Drug Development Technology

#### Journal Review

American Journal of PharmacoGenomics

American Journal of Physiology: Cell

American Journal of Physiology: Endocrine

American Journal of Physiology: Integrative

Am. J. Resp. Cell Mol. Biol.

Annals of Internal Medicine

Biochem Biophys Acta

Biochemical Pharmacology

Biochemistry

**Biological Psychiatry** 

Biophysical Journal

Brain Research

British Journal of Pharmacology

Cellular and Molecular Cardiology

Circulation

Circulation Research

**Current Medicinal Chemistry** 

Diabetes

**FASEB Journal** 

**FEBS** Letters

Geriatrics

Tissue and Cell

International Journal of Neuropsychopharmacology

Journal of the Am. Society of Nephrology

Journal of Applied Physiology

Journal of Cell Science

Journal of Clinical Investigation

Journal of Immunology

Journal of Investigative Dermatology

Journal of Molecular and Cellular Cardiology

Journal of Neurochemistry

Journal of Neuroimmunology

Journal of Neuroscience

Journal of Pharmacology & Experimental Therapeutics

Journal of Vascular Research

Kidney International

Life Sciences

Molecular Membrane Biology

Molecular Pharmacology

Nature Molecule Pages

Neuropsychoimmunology

Neuropsychoimmunology

New England Journal of Medicine

New England Journal of Medicine

North Carolina Medical Journal

Pharmacogenomics

Physiological Genomics

Physiological Journal

Proc. Natl. Acad. Sci. U.S.A.

American Journal of Pathology

American Journal of Kidney Diseases

American Heart Journal

Hypertension

# LOCAL/REGIONAL APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

- 1999 2002 Charleston Research Institute, Secretary-Treasurer, Board of Directors, Directors
- 2001 2010 Foundation for Research Development, MUSC, Vice-Chair, Board of Directors
- 2001 2009 Hollings Marine Laboratory, South Carolina, Board of Directors (Chair 2001-2006)
- 2001 2010 University Medical Associates (Affiliated Physicians' Practice of MUSC), Executive Committee, Board of Directors
- 2002 2006 Charleston Research Institute, Member, Board of Directors
- 2002 2010 SC State EPSCOR/IDEA Committee Executive Board(Chair, South Carolina University

- Research and Education Foundation, Member, Board of Trustees, Chair (2005-2006)
- 2002 2010 Lowcountry Graduate Center, Board of Directors, Chair, Executive Committee
- 2003 2010 Governor's School for Science and Mathematics, State of South Carolina, Member, Board of Trustees
- 2003 2010 South Carolina Bio, State of South Carolina, Member, Board of Directors
- 2003 2010 University Center at Greenville, Board of Directors, Executive Committee
- 2004 2010 Health Sciences South Carolina, Member, Scientific Committee (VPs of six partners)
- 2006 2007 Charleston Regional Development Alliance, Member, Board of Directors
- 2007 2010 South Carolina BioEngineering Alliance, Member, Board of Directors
- 2007 2010 South Carolina College of Pharmacy, Member, Board of Trustees
- 2010 Present Greater Milwaukee Committee, Member
- 2010 Present National Kidney Foundation of Wisconsin, Member, Board of Directors
- 2010 Present American Heart Association of Wisconsin, Member, Board of Directors
- 2010 Present Consortium on Community and Public Health, Member, Executive Committee
- 2010 Present Milwaukee Health Care Partnership, Member, Board of Directors
- 2010 Present Milwaukee Regional Medical Center, Member, Board of Directors
- 2011 Present Milwaukee County Research Park Member, Board of Directors
- 2011 Present Milwaukee Academy of Science, Member, Board of Directors, http://milwaukeeacademyofscience.org/
- 2011 Present Center for International Health Milwaukee, Member, Board of Directors, (http://centerforinternationalhealth.org/)
- 2011 United Way of Greater Milwaukee, Member, Campaign Cabinet Co-Chair, Healthcare
- 2011 American Heart Association of Wisconsin, Chair, Heart Walk

#### NATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

- 1989 Medical Research Council of Canada, Ad hoc grant referee
- 1990 Department of Veterans Affairs Gastroenterology Study Section, Ad hoc grant referee
- 1991 Department of Veterans Affairs, Basic Sciences Study Section, Ad hoc grant referee
- 1991 2001 Department of Veterans Affairs Nephrology Study Section, Ad hoc grant referee
- 1992 1995 National Kidney Foundation Young Investigator Grants, Study section member
- 1992 National Institutes of Health Experimental Cardiovascular Sciences Study Section, NHLBI Ad hoc grant referee
- 1992 2001 Wellcome Trust Individual Investigator Awards, Ad hoc grant referee
- 1993 2003 Jewish Foundation of Louisville Biomedical Research Awards, Ad hoc grant referee
- 1993 1996 National Institutes of Health Neurological Sciences 2 Study Section, Ad hoc grant referee
- 1994 1996 National Science Foundation Neural & Glial Mechanisms, Ad hoc grant referee
- 1996 1997 National Institutes of Health Neurological Sciences 1 Study Section, NINDS Ad hoc grant referee
- 1997 National Institutes of Health Mt. Sinai Pharmacology PPG, NIA Special Emphasis Panel
- 1997 National Institutes of Health New York University Neuroscience PPG, NIA Special Emphasis Panel
- 1997 1998 National Institutes of Health Neurological Sciences 1 Study Section, NINDS Study section member (disbanded due to reorganization)
- 1997 National Institutes of Health Signaling Laboratory, NIMH Intramural Review Panel
- 1997 National Science Foundation Signal Transduction and Molecular Biochemistry, Ad hoc grant referee
- 1998 2002 American Heart Association, Cardio-Renal Study Section member; co-Chair, 2000 & 2001
- 1998 1999 National Institutes of Health Molecular Developmental Cellular Neurosciences 5 Study Section (MDCN-5), NINDS Ad hoc grant referee
- 1998 National Institutes of Health Yale Physiology PPG, NIDDK Special Emphasis Panel
- 1998 National Institutes of Health Vanderbilt Nephrology PPG, NIDDK Special Emphasis Panel
- 1998 National Institutes of Health General Medicine B Study Section, NIDDK Ad hoc grant referee
- 1999 National Institutes of Health Physiological Sciences Study Section, Ad hoc grant referee
- 1999 2004 National Institutes of Health MDCN-5, NINDS Study section member
- 1999 Department of Veterans Affairs Central Office, R & D Service, Member, Research Career, Scientist Program Task Force
- 1999 Department of Veterans Affairs Pulmonary, Renal and Gastrointestinal, Adjudicator, Merit Review Appeal
- 1999 Department of Veterans Affairs Pulmonary, Renal and Gastrointestinal, Chair, Research Enhancement

- Area Program, Special Emphasis Panel
- 2000 2001 Department of Veterans Affairs Office of Research Compliance and Assurance, Chair, Animal Welfare Task Force
- 2000 Department of Veterans Affairs Central Office, R & D Service, Chair, San Diego VA/JDFI Diabetes Research Center Site Visit
- 2000 National Institutes of Health, NHLBI Special Emphasis Panel
- 2000 2001 Department of Veterans Affairs Office of Research Compliance and Assurance Multi-Assessment Program, Member, Task Force
- 2000 Department of Veterans Affairs Central Office, R & D Service, Chair, Iowa City VA/JDFI Diabetes Research Center Site Visit
- 2000 Department of Veterans Affairs Central Office, R & D Service, Chair, Nashville VA/JDFI Diabetes Research Center Site Visit
- 2000 Department of Veterans Affairs Central Office, R & D Service, Member, Middleton Award Selection Committee
- 2001 National Institutes of Health Emory University PPG site visit, NIDDK Special Emphasis Panel
- 2001 Department of Veterans Affairs Central Office, R & D Service, Merit Review Advisory Council
- 2001 National Institutes of Health, NINDS Special Emphasis Panel
- 2001 National Institutes of Health NIDDK, NIDDK Special Emphasis Panel, Centers of Excellence in Pediatric Nephrology
- 2001 National Institutes of Health, NIGMS Special Emphasis Panel
- 2001 Medical Research Council, United Kingdom, Ad hoc grant referee
- 2002 National Institutes of Health NIDDK, NIDDK Special Emphasis Panel, Loan Repayment Program
- 2003 National Institutes of Health NIDDK, NIDDK Special Emphasis Panel, Loan Repayment Program
- 2003 Department of Veterans Affairs Central Office, R & D Service, Research Enhancement Award, Program Advisory Council
- 2003 National Institutes of Health, Center for Scientific Review, ZRG1 MDCN-1 Special Emphasis Panel, Functional and Cognitive Neuroscience 1 Study Section (IFCN1)
- 2003 National Institutes of Health, Center for Scientific Review, ZRG1 UROL Special Emphasis Panel, Urology Study Section (NIDDK)
- 2003 National Institutes of Health, Center for Scientific Review, ZRG1 MDCN-1 Special Emphasis Panel (SYN)
- 2003 National Institutes of Health NIDDK, NIDDK Special Emphasis Panel, Loan Repayment Program
- 2003 National Institutes of Health Center for Scientific Review, ZRG1 MDCN-5 Special Emphasis Panel
- 2003 2007 Department of Veterans Affairs Central Office, R & D Service, Renal Study Section member
- 2004 2007 National Institutes of Health NINDS, MNPS Study section member, Chair(2005-2007)
- 2004 National Institutes of Health Center for Scientific Review/NIDDK, ZRG1 RUSD (04) Special Emphasis panel, Calcitropic Hormones & Renal Transport
- 2004 National Institutes of Health Center for Scientific Review/NIDDK, Co-Chair ZRG4 UROL Special Emphasis Panel, Roadmap T-90 Grants
- 2004 National Institutes of Health NIDDK, ZDK GRB-3 Special Emphasis Panel, Loan Repayment Program
- 2004 National Institutes of Health NIDDK, ZDK GRB-3 Special Emphasis Panel, Loan Repayment Program
- 2004 National Institutes of Health NIDDK Emory and Colorado PPGs, ZDK1 GRB-1 (02) Special Emphasis Panel, PPG Review
- 2004 National Institutes of Health NIDDK, Chair, ZDK GRB-R (J1) Special, Emphasis Panel, Training grants
- 2004 National Institutes of Health Center for Scientific Review/NIDDK, ZRG3 UROL Special Emphasis Panel; Emphasis Panel, Novel Technologies
- 2005 National Institutes of Health NIDDK, ZDK GRB-C (M1) Special Emphasis Panel, Neph. Ancillary Clinical Trials
- 2005 National Institutes of Health NIDDK, Chair, ZDK GRB-R (02) Special Emphasis Panel, Nephrology K awards
- 2005 National Institutes of Health NIDDK, ZRG1 ZRG1 F10-H 20L Special Emphasis Panel, F31 and F32 proposals
- 2005 National Institutes of Health NINDS, ZNS1 SRB-G (01) Special Emphasis Panel, High Throughput Screening
- 2005 National Institutes of Health NIDDK, ZRG1 RUS-D (02) (M) Special Emphasis Panel, Collaborative R01 proposals
- 2005 National Institutes of Health NIDDK, ZDK GRB-4 (01) Angiogenesis in Diabetes, Special Emphasis

Panel

- 2006 National Institutes of Health NINDS, ZNS1 SRB-G (01) Special Emphasis Panel, High Throughput Screening Roadmap
- 2006 National Institutes of Health NIDDK, Chair, ZDK1 GRB-R (02) Special Emphasis Panel, Nephrology Ancillary Clinical Trials
- 2006 National Institutes of Health NIDDK, ZRG1 F10-H 21L-2 Special Emphasis Panel, F31 and F32 proposals
- 2006 National Institutes of Health NIDDK, ZRG1 ZRG1 F10-H 21L-1, Special Emphasis Panel, F31 and F32 proposals
- 2006 National Institutes of Health NIDDK, ZDK GRB-5 Special Emphasis Panel, Loan Repayment Program
- 2007 National Institutes of Health NIMH, ZMH1 ERB-Y (06) S, Special Emphasis Panel, Molecular Libraries Screening Assays
- 2007 National Institutes of Health NIMH, Chair, ZMH1 ERB-Y (07) S, Special Emphasis Panel, Molecular Libraries Screening Assays
- 2007 National Institutes of Health NIDDK, ZDK GRB-6 Special Emphasis Panel, Loan Repayment Program
- 2007 National Institutes of Health NIDDK, ZRG1 F10-H 22 Special Emphasis Panel, F31 and F32 proposals
- 2007 National Institutes of Health NIDDK, ZDK GRB- W (M1) Special Emphasis Panel, Research Centers of Excellence in Pediatric Nephrology
- 2007 National Institutes of Health NCRR, 2007/10 ZRR1 CR-1 (01) CTSA Special Emphasis Panel 2007 (#1)
- 2007 National Institutes of Health NIDDK, ZDK GRB-9 M2 1 Special Emphasis Panel, Clinical Research Studies
- 02/2008 National Institutes of Health NIDDK, PBKD Study Section, ad hoc reviewer
- 03/2008 National Institutes of Health NIDDK, ZRG1 F10-H 20L Special Emphasis Panel, F31 and F32 proposals
- 06/2008 National Institutes of Health NIDDK, PBKD Study Section, ad hoc reviewer
- 10/2008 National Institutes of Health NIDDK, Chair, ZRG1 F10-H 20 Special Emphasis Panel, F31 and F32 proposals
- 2008 National Institutes of Health NIDDK, ZDK GRB-7 Special Emphasis Panel, Loan Repayment Program
- 2008 National Institutes of Health NIDDK, Kidney, Urologic and Hematologic Diseases Sub-Committee D, ad hoc
- 2008 Institute of Medicine Workshop on Safety Biomarkers, Member
- 2008 National Institutes of Health NIDDK, Prospective Study of Chronic Kidney Disease (CRIC) Special Emphasis Panel
- 2008 National Institutes of Health NIDDK/NHLBI, Chair, ZDK GRB-6 (J2) 1; Ancillary Studies to Major Ongoing NIDDK and NHLBI Clinical Research Studies Special Emphasis Panel
- 2008 National Institutes of Health NIDDK, RUS-C 02M Special Emphasis Panel, CMBK Member Conflicts
- 2008 National Institutes of Health NIDDK, ZRG1 F10-H 23 Special Emphasis Panel, F31 and F32 proposals
- 2009 Present National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (M1) L KUH F30/32 award Study Section
- 2009 National Institutes of Health Center for Scientific Review, Chair, ZRG1 EMNR-H (52) R ARRA AREA Award Review SEP
- 2009 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (M4) 1 Special Emphasis Panel, CMBK Member, Conflicts Study Section
- 2009 National Institutes of Health NIDDK, ZDK GRB-N (M1) Special Emphasis Panel, Loan Repayment Program
- 2009 National Institutes of Health NIDDK, Chair, ZRG1 DKUS-B02M DKUS (PBKD and UKGD) Member, Conflicts Special Emphasis Panel
- 2009 National Institutes of Health Special Center for Scientific Review, ZRG1 MDCN-A (58) R ARRA Special Emphasis Panel for NIH Challenge Grants Stage 1
- 2009 National Institutes of Health Center for Scientific Review, ZRG1 BST-J (51) S Roadmap HTS Assay Development
- 2009 National Institutes of Health NIDDK, ZDK1 GRB-S (O2) 2 Emory Physiology, PPG Special Emphasis Panel
- 2009 National Institutes of Health Center for Scientific Review, ZRG1 DKUS A 58 (R) ARRA Special Emphasis Panel for NIH Challenge
- 2009 National Institutes of Health Center for Scientific Review, ZRG1 BDAL A 58 (E) ARRA Special Emphasis Panel for NIH Challenge Grants Stage 2

- 2009 2013 National Institutes of Health NIDDK, Member, PBKD Study Section Chair (2011-2013)
- 2009 National Institutes of Health NIDDK, ZDK1 GRB-S (O4) 2 NIDDK-P50 PKD ARRA Supplement review
- 2009 National Institutes of Health Center for Scientific Review, ZRG1 BST-J (50) R Roadmap HTS Assay for MLPCN
- 2009 National Institutes of Health NIDDK, ZDK1 GRB-G (J2) 1 HUKD SEP Training and Mentored Awards
- 2009 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (J1) 1, KUH Fellowship Review Committee
- 2009 National Institutes of Health Center for Scientific Review, ZRG1 BST-J (51) R Roadmap HTS Assay Development
- 02/23/2010 U.S. House of Representatives Committee on Science and Technology. Subcommittee on Research and Science Education. Invited testimony
- 2010 National Institutes of Health Chair NIDDK, ZDK1 GRB-G (M1) 1 KUH Fellowship Review Committee
- 2010 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (M2) 1, K-Award SEP for conflicts
- 2010 2013 National Institutes of Health Center for Scientific Review, Inaugural Cohort, College of Scientific Reviewers
- 2010 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (O1) L, KUH-Fellowship Review
- 2010 National Institutes of Health NIDDK, ZDK1 GRB-9 (O1), Cellular Signaling and Kidney Function
- 2010 National Institutes of Health NIDDK, ZDK1 GRB-N (M3), Loan Repayment Program
- 2010 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (J1), KUH-Fellowship Review
- 2010 National Institutes of Health Center for Scientific Review, Review Committee, Marcy Speer Outstanding Reviewer Award
- 2010 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (J2) 1, KUH-Fellowship Review (conflicts SEP)
- 2010 National Institutes of Health Center for Scientific Review, ZRG1 BST-J (50) R Roadmap HTS Assay for MLPC
- 2010 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (O2) 1, KUH-Fellowship Review (conflicts)
- 2011 National Institutes of Health NIDDK, Chair, ZDK1 GRB-G (M1) 1, KUH-Fellowship Review
- 2011 National Institutes of Health NIDDK, ZRR1 CR-3 (01), CTSA Review
- 2011 2014 American Society of Nephrology, Finance Committee
- 2011 2013 National Institutes of Health Center for Scientific Review, Chair, PBKD Pathobiology of Kidney Disease Study Section
- 2011 National Institutes of Health NIDDK, ZDK1 GRB-N (M6) Loan Repayment Program

#### RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

# Active

**Peer Review** 

Title: G Protein-Regulation of NHE Activity
Source: National Institutes of Health R01

DK52448-11

Role: Principal Investigator (2008-2013)

Dates: 1996 - 2013 Direct Funds: \$1,175,000

Title: G Protein-Regulation of NHE Activity

(ARRA supplement)

Source: National Institutes of Health R01

DK52448-11

Role: Principal Investigator

Dates: 2009 - 2011 Direct Funds: \$100,000

Title: Roles for Cbl and ESCRT Proteins in

5-HT Receptor Function

Source: Veterans Affairs Merit Award

Role: Principal Investigator

2009 - 2013 Dates: Direct Funds: \$623,000 (Transfer to Zablocki VA Medical Center has been requested) **Prior Peer Review** Title: Regulation of Phosphate Transport in Transfected Cells American Heart Association (National) Source: Grant-In-Aid 900767 Role: Principal Investigator Dates: 1990 - 1993 Direct Funds: \$105,000 Title: Cell Biology and Biochemistry of the Human 5-HT1A Receptor Source: Veterans Administration Merit Award Role: Principal Investigator 1990 - 1993 Dates: Direct Funds: \$123,000 Title: Electron Paramagnetic Spin Resonance Facility Source: Shared Equipment Grant NIH S10 RR13656 Principal Investigator Role: Dates: 1991 Direct Funds: \$306,000 Title: Regulation of Signaling of the Human 5-HT1A Receptor Source: National Institutes of Health R01 NS30927 Role: Principal Investigator Dates: 1992 - 1995 Direct Funds: \$351,000 Title: Heterologous Expression, Purification and Reconstitution of the 5-HT1A Receptor Source: Veterans Administration Merit Award Role: Principal Investigator Dates: 1993 - 1998 Direct Funds: \$367,000 Title: Characterization of Novel Derivatives of (S) UH-301 for the Study of the 5-HT1A Receptor Source: National Institutes of Health SBIR Grant Role: Co-investigator (subcontract) PI: Yigong Gao, Research Biochemicals International Dates: 1994 - 1995

\$12,000

Determinants of Polarity in Type IIIb

Direct Funds:

Title:

Membrane Proteins

Source: American Heart Association (National)

Grant-In-Aid 940507

Role: Principal Investigator

Dates: 1994 - 1997 Direct Funds: \$120,000

Title: Cytosensor® Microphysiometer
Source: Department of Veterans Affairs

**Equipment Grants Program** 

Role: Ombudsman
Dates: 1995
Direct Funds: \$50,000

Title: Cytosensor® Microphysiometer

Academic Grant

Source: Molecular Devices Corporation

Role: Ombudsman

Dates: 1995 Direct Funds: \$47,500

Title: Gi Regulation of NHE Activity in Renal

and Fibroblast Cells

Source: National Institutes of Health R01

DK52448

Role: Principal Investigator

Dates: 1996 - 2001 Direct Funds: \$650,000

Title: Role of Aldosterone in Renal

Glomerular Cell Growth and Matrix

Production

Source: Mentored NIH K01 HL96012

Role: Sponsor
PI: Eddie L. Greene
Dates: 1997 - 2002
Direct Funds: \$450,000

Title: Charleston Inflammatory Mediators of

Glomerular Diseases REAP Award

Source: Veterans Affairs Research Enhancement

Award Program

Role: Program Director (Relinquished to new

PI Dr.Gary Gilkeson upon move to

MCW 7/1/2010 1998 - 2010

Dates: 1998 - 2010 Direct Funds: \$3,100,000

Title: Differential Signaling of Serotonin

Receptors

Source: Veterans Administration Merit Award

Role: Principal Invest
Dates: 1998 - 2003
Direct Funds: \$533,000

Title: MUSC Multidisciplinary Training Grant

in Glomerular Function and Disease

Source: Training Grant in Glomerular Function

and Disease NIH T32 DK07752-11

Role: Program Director (Relinquished to new

PI Dr.P.Darwin Bell upon move to

MCW 7/1/2010)

Dates: 1998 - 2014 Direct Funds: \$1,880,000

Title: Pathways of Hypertonic Activation of

Sodium-Proton Exchange

Source: Mentored Department of Veterans

Affairs Merit Award (MREP)

Role: Sponsor

PI: Maria N. Garnovskaya PhD

Dates: 1998 - 2001 Direct Funds: \$300,000

Title: Live Cell Fluorescence Microscopy

Facility

Source: Department of Veterans Affairs

Equipment Grants Program

Role: Principal Investigator

Dates: 1998 Direct Funds: \$209,000

Title: MUSC Integrated Cellular Fluorescence

Facility

Source: Shared Equipment Grant NIH S10

RR13005

Role: Principal Investigator (effort N/A)

Dates: 1998 Direct Funds: \$281,000

Title: Minority Faculty Development Award Source: Mentored Robert Wood Johnson

Minority Faculty Development Award

Role: Sponsor

 PI:
 Eddie L. Greene

 Dates:
 1998 - 2002

 Direct Funds:
 \$325,000

Title: NAD(P)H Oxidase & Mesangial Cell

Proliferation and Fibrosis

Source: National Institutes of Health R01

DK54720-04

Role: Principal Investigator

Dates: 2000 - 2005 Direct Funds: \$700,000

Title: Bradykinin Regulation of Inner

Medullary Collecting Duct Proton Flux

Source: Mentored NIH K01 DK02694-02

Role: Sponsor

PI: Yurii V. Mukhin PhD

Dates: 2000 - 2003 Direct Funds: \$210,000 Title: Cellular Actions of Indoxyl Sulfate - a

Uremic Toxin

Source: Mentored NIH K25 DK59950-05

Role: Sponsor

PI: Andrew Gelasco PhD

Dates: 2001 - 2007 Direct Funds: \$675,000

Title: Down-regulation of EGF Receptors by

**GPCR** Activation

Source: National Institutes of Health R01

GM-63909-04

Role: Principal Investigator

Dates: 2001 - 2007 Direct Funds: \$700,000

Title: Homocysteinemia in Chronic Renal

Failure- Cooperative Trial

Source: CSP #453 Department of Veterans

Affairs

Role: Local Principal Investigator

Dates: 2001 - 2005 Direct Funds: \$250,000

Title: Gi Regulation of NHE Activity in Renal

and Fibroblast Cells

Source: Supplement National Institutes of Health

R01 DK52448-06

Role: Principal Investigator

Dates: 2001 - 2002 Direct Funds: \$25,000

Title: Research Security Enhancement Award

Source: Veterans Affairs RFA Role: Program Director

Dates: 2002 Direct Funds: \$20,000

Title: Angiotensin Receptor Interacting

**Proteins** 

Source: Mentored K01 DK063252-02

 Role:
 Sponsor

 PI:
 Qing Yang MD

 Dates:
 2002 - 2006

 Direct Funds:
 \$250,000

Title: Human Subjects Research Enhancement

Program at MUSC

Source: National Institutes of Health 1 S07

RR018244

Role: Principal Investigator

Dates: 2002 - 2004 Direct Funds: \$300,000

Title: Sensory Neuroscience Facility

Renovation

Source: NIH/NCRR 1C06RR014516

Role:	Principal Investigator (as institutional official)
Dates:	2002 - 2003
Direct Funds:	\$1,000,000
Title:	NHE-1 Interacting Proteins
Source:	Mentored Minority supplement to NIH
Source.	R01 DK52448-07
Role:	Sponsor
PI:	Henry Ayiku MD
Dates:	2002 - 2005
Direct Funds:	\$200,000
Title:	Proteomics of NHE-1 Activation
Source:	Mentored Minority supplement to NIH
2001001	R01 DK52448-07
Role:	Sponsor
PI:	Sonya Coaxum PhD
Dates:	2003 - 2005
Direct Funds:	\$115,000
Title:	Children's Research Institute Animal
Title.	Facility
Source:	NIH/NCRR 1C06 RR015455-01A1
Role:	Principal Investigator (as institutional
	official)
Dates:	2003 - 2005
Direct Funds:	\$2,000,000
Title:	Children's Research Institute
	Developmental Neurogenetics And
	Cardiovascular Biology Floors
Source:	NIH/NCRR 1C06 RR018823
Role:	Principal Investigator (as institutional
	official)
Dates:	2003 - 2005
Direct Funds:	\$2,854,000
Title:	Role of Calmodulin in 5-HT Receptor
	Function
Source:	NIH R01 NS049515
Role:	Principal Investigator (Declined in lieu of VA Merit Award)
Dates:	2004 - 2009
Direct Funds:	\$1,125,000
Title:	Novel 5-HT Receptor-interacting
1100.	Proteins
Source:	Veterans Affairs Merit Award
D.1	Delevier 1 In anti-set

Role: Principal Investigator

2004 - 2009 Dates: Direct Funds: \$715,000

MUSC Multidisciplinary Training Grant Title:

in Glomerular Function and Disease Minority Training Supplement for

Keidre Corbett, M.D.

Source: Training Grant in Glomerular Function

and Disease NIH T32 DK07752-07S1

Role: Program Director
Dates: 2005 - 2007
Direct Funds: \$125,000

Title: Crosstalk Among Growth Factors,

**ADAMs** and Integrins

Source: Mentored NIH 1 K01 DK070054

Role: Sponsor

PI: Monika Gooz MD PhD

Dates: 2005 - 2010 Direct Funds: \$520,000

Title: G Protein-Regulation of NHE Activity
Source: National Institutes of Health R56

DK052448-10A1 (Shannon Award)

Role: Principal Investigator

Dates: 2007 - 2008 Direct Funds: \$283,500

Title: MUSC Multidisciplinary Training Grant

in Glomerular Function and Disease Minority Training Supplement for

Evelyn Lewis M.D.

Source: Training Grant in Glomerular Function

and Disease NIH T32 DK07752-09S1

Role: Program Director
Dates: 2007 - 2009
Direct Funds: \$126,000

Title: Role of c-Cbl in Trafficking and

Signaling of EGF Receptors Induced by

Various Growth Factors

Source: American Heart Association Mid-

Atlantic Affiliate 0725358U

Role: Mentor

PI: Alex Baldys PhD(Fellowship)

Dates: 2007 - 2010 Direct Funds: \$105,000

Title: Implications in Glomerular Injury
Source: Mentored NIH 1 K08 DK080944-01
Role: Sponsor (relinquished to Dr.P.Darwin
Bell upon move to MCW 7/1/2010-Dr.

Raymond remains member of mentorship committee)

PI: Juan Carlos Velez MD

Dates: 2008 - 2013 Direct Funds: \$646,920

Title: Renal Biomarkers Center of Excellence Source: South Carolina Centers of Economic

Development

Role: Principal Investigator (Relinquished to

Dr. John M. Arthur upon move to MCW

7/1/2010)

Dates:	2008 - 2013	
Direct Funds:	\$5,000,000	
Title:	Role of Ceramide in Aging-related	
	Diseases	
Source:	Mentored VA Career Development-2	
	Award	
Role:	Co-sponsor (relinquished upon move to	
	MCW 7/1/2010-Dr. Raymond remains	
	member of mentorship committee-Lina	
	Obeid is primary sponsor)	
PI:	Leah Siskind, PhD	
Dates:	2008 - 2011	
Direct Funds:	\$400,000 (\$35,000 first year)	
Title:	Regulation of 5-HT1A Receptor by	
_	Calmodulin	
Source:	Mentored NIH 1 K01 HL	
Role:	Sponsor (relinquished to Dr.Louis	
	Luttrell upon move to MCW	
	7/1/2010-Dr. Raymond remains member	
DI.	of mentorship committee)	
PI:	Sonya Coaxum PhD	
Dates:	2008 - 2013	
Direct Funds:	\$567,867	
Title:	Discovery of Urine Biomarkers in	
Title.	Patients with Glomerular Disease	
Source:	Mentored VA Career Development-2	
Bouree.	Award	
Role:	Sponsor (relinquished to Dr.John	
Role.	M.Arthur upon move to MCW	
	7/1/2010-Dr. Raymond remains member	
	of mentorship committee)	
PI:	Michael Janech PhD	
Dates:	2008 - 2011	
Direct Funds:	\$350,000	
	. ,	
Title:	Basic Science Building	
Source:	NIH/NCRR 1C06 RR020609	
Role:	Principal Investigator	
Dates:	2010 - 2012	
Direct Funds:	\$6,616,774	
Non-Peer Review		
Title:	National Kidney Foundation Fellowship,	
	Frank J. Albers MD	
Dates:	1991 - 1993	
Direct Funds:	\$50,000	
T:41	Madagal IZ 1	
Title:	National Kidney Foundation Fellowship,	
Datasi	John M. Arthur MD PhD	
Dates:	1995 - 1996	

Title: American Heart Association(SC

Direct Funds:

\$25,000

Affiliate) Yurii Mukhin PhD

Dates: 1997 - 1999 Direct Funds: \$40,000

Title: National Kidney Foundation

Fellowship(SC Affiliate), John C. Andy

MD

Dates: 1998 - 1999 Direct Funds: \$25,000

Title: National Kidney Foundation

Fellowship(National), John C. Andy MD

Dates: 1998 - 1999 Direct Funds: \$12,500

Title: American Heart Association(SC

Affiliate), Jasjit Grewal PhD

Dates: 1998 - 2000 Direct Funds: \$50,000

Title: Department of Veterans Affairs

Associate Investigator, Andrew Gelasco

PhD

Dates: 2000 - 2001 Direct Funds: \$60,000

Title: Department of Veterans Affairs

Associate Investigator, David Lefler DO

Dates: 2000 - 2001 Direct Funds: \$50,000

Title: American Heart Association Pre-

doctoral fellowship, Justin Turner(MSTP

student)

Dates: 2002 - 2004 Direct Funds: \$17,000

Title: NIH Minority Supplement for post-

doctoral fellowship, Henry Ayiku MD

Dates: 2003 - 2005 Direct Funds: \$100,000

Title: NIH Minority Supplement for post-

doctoral fellowship, Sonya Coaxum PhD

Dates: 2004 - 2006 Direct Funds: \$110,000

Title: American Heart Association Mid-

Atlantic Affiliate Post-doctoral fellowship, Aleksander Baldys PhD

Dates: 2005 - 2010 Direct Funds: \$120,000

Title: NIH Minority Supplement for post-

doctoral fellowship, Keidre Jenkins

Corbett MD

Dates: 2005 - 2007 Direct Funds: \$105,000 Title: Department of Veterans Affairs

Associate Investigator, Juan Carlos

Velez MD

Dates: 2005 - 2007 Direct Funds: \$120,000

Title: NIH Minority Supplement for post-

doctoral fellowship, Evelyn Lewis MD

Dates: 2005 - 2007 Direct Funds: \$62,000

#### INVITED LECTURES/WORKSHOPS/PRESENTATIONS:

#### **National**

Pathways of Signal Initiation and Termination through a Prototypical Gi-linked Receptor. Research Conference, University of Florida Division of Nephrology, Hypertension and Transplantation, Gainesville, Florida, 1994

Acquired and Genetic Diseases of G proteins and their Receptors. Clinical Conference, University of Florida Division of Nephrology, Hypertension and Transplantation, Gainesville, Florida, 1994

Promiscuous Signal Initiation and Termination through a Prototypical Gi-linked Receptor. University of Cincinnati Division of Pulmonary Medicine, Cincinnati, OH, 1994

Microphysiometry as a Tool to Study Receptors and Sodium-Proton Antiporters. Satellite Conference, FASEB Meeting, Atlanta, Georgia, 1994

Multiple Pathways of Signal Initiation and Termination through a Prototypical Gi-linked Receptor. Research Conference, University of Louisville Kidney Disease Program, 1994

Acquired and Genetic Diseases of G proteins and their Receptors. Clinical Conference, University of Louisville Kidney Disease Program, 1994

Microphysiometry, a New Tool for the Study of Signal Transduction. University of Florida Division of Nephrology, Hypertension and Transplantation, and Department of Pharmacology, Gainesville, Florida, 1995

Strategies to Slow the Progression of Diabetic Renal Disease. Medical Grand Rounds, Marshall University, Huntington, W.Va, 1995

Acquired and Hereditary Diseases of G Proteins and their Receptors. Medical Grand Rounds, Duke University Medical Center, 1995

Microphysiometry, a New Tool for the Study of Signal Transduction. The Society for Neuroscience Annual Meeting, San Diego, CA, 1995

Microphysiometry to Study Orphan Receptors and Signal Transduction. Pathways Satellite Symposium, Society for Neuroscience Annual Meeting, San Diego, CA, 1995

Strategies to Slow the Progression of Diabetic Renal Disease. Medical Grand Rounds, Duke University Medical Center, 1995

Chair, Signal Transduction Session. American Society of Nephrology Meeting, San Antonio, Texas, 1997 Signal Transduction Session (Session Chair) 2nd International Symposium on Microphysiometry and FLIPR Technology, Hilton Head, SC, 1998

The Study of Sodium-Proton Exchange using Microphysiometry. 2nd International Symposium on Microphysiometry and FLIPR Technology, Hilton Head, SC, 1998

Probing Cellular Metabolic Pathways with Noninvasive Methods. 3rd International Symposium on Microphysiometry and FLIPR Technology, Monterey, California, 1999

Molecular and Clinical Aspects of Diabetes Insipidus. Clinical Conference, University of Louisville Kidney Disease Program, 1999

Signal Transduction Session (Session Chair) 3rd International Symposium on Microphysiometry and FLIPR Technology, Monterey, California, 1999

Reactive Oxygen Species as Second Messengers in the Kidney. Case Western Reserve University-Metro Health Medical Center, Division of Nephrology and Department of Physiology, 1999

G protein Signaling in Polarized Epithelial Cells. Invited Speaker, American Society of Nephrology Meeting, Miami Beach, Fla, 1999

Redox Signaling in the Kidney. University of Pittsburgh, Departments of Medicine and Physiology, 1999

- Redox Signaling in the Kidney. Research Conference, The University of Louisville Kidney Disease Program, 1999
- Role of Glomerular Mesangial Cells in Chronic Renal Failure. Invited Speaker, American Society of Nephrology Meeting, Montreal, Canada, 2000
- Molecular and Clinical Aspects of Diabetes Insipidus. Case Western Reserve University-University Hospital Medical Center, Division of Nephrology and Department of Physiology, 2000
- Role of Reactive Oxygen Species as Second Messengers. Symposium Organizer, American Society of Pharmacology and Experimental Therapeutics Meeting, Orlando, Florida, 2001
- Unusual Signal Transduction Linkages of Serotonin Receptors. Vanderbilt University Department of Pharmacology, 2001
- A Novel Pathway of Activation for Type I Sodium-Proton Exchangers. University of Minnesota Departments of Pharmacology and Psychiatry, 2002
- CaM is a Modulator of GPCR Function. Case Western Reserve University Department of Biochemistry, 2005 Unexpected Roles for ESCRT Proteins in Receptor Recycling. Northwestern University Department of Pathology, 2011

#### **International**

- The Study of Orphan Receptors Using Microphysiometry. British Pharmacological Society Symposium on Microphysiometry, London, England, 1995
- Signal Transduction Session (Session Chair) 1st International Symposium on Microphysiometry and FLIPR Technology, Paris, France, 1997
- The Study of G Protein Function using Microphysiometry. 1st International Symposium on Microphysiometry and FLIPR Technology, Paris, France, 1997
- Unusual Signal Transduction Pathways of Serotonin Receptors. Invited Symposium Speaker and Session Chair, International Union of Pharmacologists Meeting, Rotterdam, the Netherlands, 1998
- Free Radicals as Second Messengers in Chronic Renal Failure. Invited Speaker, International Society of Free Radical Biologists, Kyoto, Japan, 2000
- Free Radical Scavengers as Possible Therapeutics for Chronic Renal Failure. Invited Speaker, Nippon Zoki Pharma, Osaka, Japan, 2000
- Proteomic Methods in Signal Transduction. Invited Speaker, P. Universidad Católica de Chile, Santiago, Chile, 2001
- Reactive Oxygen Intermediates as Signals in Kidney Cells. Invited Speaker, FONDAP Center for Cell Regulation and Physiology, Pucón, Chile, 2001
- Regulation of 5-HT Function by Receptor Accessory Proteins. Serotonin Club Meeting, Kyoto, Japan, 2006

# PEER REVIEWED WORKSHOPS/PRESENTATIONS:

# **National**

- RAYMOND, J.R., Regan, J.W., Beach, R.E., et al. (1987) Enrichment of alpha2-adrenergic receptors of rabbit proximal tubule basolateral membranes. Presented at the 19th Annual Meeting of the American Society of Nephrology, Kidney Int. 31:160, 12/1986
- Beach, R.E., RAYMOND, J.R., Dennis V.W. (1987)., Mechanisms for adrenergic receptor stimulation of Na+-K+-ATPase activity in renal basolateral membranes. Presented at the 19th Annual Meeting of the American Society of Nephrology, Kidney Int. 31:178., 12/1986
- RAYMOND, J.R., Saeed, M., Schwab, S.J. (1988) Enhancement of hemodialysis fistula patency: role of elective transluminal angioplasty. Proceedings of the 17th Scientific Session of the National Kidney Foundation, Washington D.C., 13A, 12/1987
- RAYMOND, J.R., Saeed, M, Schwab, S.J. (1988), Prospective detection and early treatment of venous stenoses in hemodialysis fistulas: a method of improving fistula patency., Proceedings of the 18th Scientific Session of the National Kidney Foundation, Washington D.C., 18A, 12/1987
- O'Connor, C.M., RAYMOND, J.R. (1988) Whipple's disease presenting as pulmonary hypertension: resolution of echocardiographic abnormalities with antibiotic therapy. Winning Clinical Vignette, Session of the American College of Physicians, New York, NY, 03/1988
- RAYMOND, J.R., Fargin, A., Lohse, M., et al. (1989) The genomic clone G-21 encodes the human 5-HTlA receptor. Presented at the 21st Annual Meeting of the American Society of Nephrology, Dec. 1988. Kidney Int. 35:163, 12/1988
- RAYMOND, J.R., Fargin, A.F., Caron, M.G., et al. (1989) Human 5-HTlA receptor stimulates Na+-PO4

- transport in transfected HeLa cells. Presented at the Annual Meeting of the American Society for Clinical Investigation, Washington, D.C. Clin. Res. 37:584A, 04/1989
- Fargin, A., RAYMOND, J.R., Regan, J.W., et al. (1989) Effector coupling mechanisms of the serotonin (5-HTlA) receptor. Presented at the Annual Meeting of the Association of American Physicians, Washington, D.C. Clin. Res. 37:586A, 04/1989
- Dennis, V.W., Albers, F.J., Middleton, J.P., RAYMOND, J.R., (1990) PKA and PKC have opposite effects on phosphate transport in HeLa cells. Presented at the 22nd Annual Meeting of the American Society of Nephrology, Washington D.C., Kidney Int. 37:456, 12/1989
- Albers, F.J., Dennis, V.W., Middelton, J.P, RAYMOND J.R. (1990), Histamine H1 and serotonin 5-HTlA receptors expressed in HeLa cells stimulate phosphatidylinositol hydrolysis and phosphate uptake through distinct G proteins., Presented at the 22nd Annual Meeting of the American Society of Nephrology, Washington D.C., Kidney Int. 37:453, 12/1989
- Middleton, J.P., RAYMOND, J.R., Fargin, A., et al. (1990) Recombinant 5-HTlAreceptors stimulate Na+/K+-ATPase by a Ca2+-dependent pathway in HeLa cells. Presented at the 22nd Annual Meeting of the American Society of Nephrology, Washington D.C., Kidney Int. 37:567, 12/1989
- RAYMOND, J.R., Fargin, A., Middleton, J.P. et al. (1990), The cloned human 5-HTlA receptor expressed in HeLa cells stimulates sodium-dependent phosphate transport via protein kinase C. Presented at 22nd Annual Meeting of the American Society of Nephrology, Washington D.C., Kidney Int. 37:202, 12/1989
- Albers, F.J., Middleton, J.P., Dennis, V.W., RAYMOND, J.R. (1990), Somatostatin stimulates sodium-dependent phosphate uptake in HeLa cells: Evidence for a regulatory pathway independent of the inhibition of adenylate cyclase., Presented at the Annual meeting of the American Federation for Clinical Research, Washington, D.C. Clin. Res. 38:370A, 05/1990
- RAYMOND, J.R., Middleton, J.P., Albers, F.J., Dennis, V.W. (1990) Thapsigargin stimulates sodium-dependent phosphate uptake in HeLa cells: evidence for a role of Ca2+, which is independent of PKC. Presented at the Annual meeting of the American Federation for Clinical Research, Washington, D.C. Clin. Res. 38:244A, 05/1990
- Middleton, J.P., RAYMOND, J.R., Whorton, A.R., Dennis V.W. (1990), The cloned human 5-HTlA receptor stimulates Na+/K+-ATPase via activation of voltage sensitive calcium channels. Presented at the Annual meeting of the American Federation for Clinical Research, Washington, D.C. Clin. Res. 38:442A, 05/1990
- Bates, M.D., Caron, M.G., RAYMOND, J.R. (1990), Characterization and regulation of DA1 dopamine receptors in opossum kidney (OK) cells., Presented at the 20th Annual Meeting of the Society for Neuroscience, St. Louis. Proceedings of the Society for Neuroscience 20:1., 11/1990
- Albers, F.J., RAYMOND, J.R. (1990), Serotonin "5-HTID-like" Receptors inhibit cAMP generation in MDCK cells through a pertussis toxin-sensitive G protein. Presented at the 23rd Annual Meeting of the American Society of Nephrology, Washington D.C., J. Am. Soc. Nephrol. 1:465A, 12/1990
- Bates, M.D., Caron, M.G., RAYMOND, J.R. (1990) Dynamic regulation of adenylyl cyclase-linked DA1 dopamine receptors in OK cells. Presented at the 23rd Annual Meeting of the American Society of Nephrology, Washington D.C., J. Am. Soc. Nephrol. 1:435, 12/1990
- RAYMOND, J.R., Tisher, C.C. (1990), Antipeptide antibodies to the human (serotonin) 5-HTlA receptor recognize renal receptors in thick ascending limb and distal convoluted tubule cells of rat and human kidney., Presented at the 23rd Annual Meeting of the Amer-ican Society of Nephrology, Washington D.C., J. Am. Soc. Nephrol. 1:729, 12/1990
- Dennis, V.W., Albers, F.J., Collinsworth, G.G., Cotecchia, S., RAYMOND, J.R., Middleton, J.P. (1990), Recombinant alphalB adrenergic receptors increase Na+-PO4 co-transport by PKC- dependent & -independent pathways in HeLa cells., Presented at the 23rd Annual Meeting of the American Society of Nephrology, Washington D.C., J. Am. Soc. Nephrol. 1:468, 12/1990
- RAYMOND, J.R., Middleton, J.P. (1991) Recombinant human 5-HTlA receptors in CHO cells couple to multiple signal transduction pathways. Presented at the Annual meeting of the American Federation for Clinical Research, Seattle, Washington, Clin. Res 39:358, 05/1991
- RAYMOND, J.R. (1990) Phorbol 12-myristate, 13-acatate induces rapid phosphorylation and desensitization of recombinant 5-HTlA receptors expressed in CHO cells. Presented at the Annual meeting of the American Federation for Clinical Research, Seattle, Washington, Clin. Res 39:343. Winner of Henry Christian Award for Research Excellence, 05/1991
- Liggett, S.B., RAYMOND, J.R., Chesnut, L.C., Caron, M.G., Lefkowitz, R.J. (1991) Role of the betaadrenergic receptor kinase in desensitization of the a2-adrenoceptor. Presented at the Annual meeting

- of the American Federation for Clinical Research, Seattle, Washington, Clin.Res 39:342A, 05/1991
- Albers, F.J., RAYMOND, J.R., Dennis, V.W., Middleton, J.P. (1991) Amplification of cAMP signaling cascade in opossum kidney cells. Presented at the Annual meeting of the American Federation for Clinical Research, Seattle, Washington, Clin. Res 39:180A, 05/1991
- Nash, S.R., Fornaretto, M.G., Bates, M.D., RAYMOND, J.R., Caron, M.G. (1991), Cloning and sequence of a dopamine receptor from opossum kidney cells that is expressed in kidney and brain. Presented at 21st Annual meeting of Society for Neuroscience, New Orleans., Proceedings of the Society for Neuroscience 21:551A., 11/1991
- Liu, J., RAYMOND, J.R., Tamir, H., Millhorn, D., Lauder, J.M. (1991), Embryonic glial cells express 5-HT receptors and exhibit regional differences in neuronotrophic activity in response to 5-HT. Presented at 21st Annual meeting of Society for Neuroscience, New Orleans, 11/1991
- Mangell, A., RAYMOND, J.R., Fitz, J.G. (1991) Recombinant 5-HTlA receptor provides evidence for Gi modulation of Gs-stimulated large-conductance Cl- current in CHO cells: A regulatory system analogous to adenylyl cyclase., Presented at the 24th Annual Meeting of the American Society of Nephrology, Baltimore, MD, J. Am. Soc. Nephrol. 2:458A, 11/1991
- Becker, B.N., Lee, S.-J., Fanburg, B.L. RAYMOND, J.R. (1992), Bovine pulmonary artery smooth muscle cells express 5-HT4 receptors which stimulate adenylyl cyclase., Presented at the Annual Meeting of the Southern Section of the American Federation for Clinical Research, New Orleans. Clin. Res 39:831A., 01/1992
- RAYMOND, J.R., Albers, F.J., Middleton, J.P., Becker, B.N., Bates, M.D. (1992), Stable functional expression of rat phosphodiesterase type 3 cDNA in OK cells does not alter short-term homologous desensitization of native DA1 dopamine receptors., Presented at the Annual meeting of the American Federation for Clinical Research, Baltimore, Maryland, Clin. Res 40:217A., 05/1992
- RAYMOND, J.R., Albers, F.J., Middleton, J.P., Becker, B.N., Bates, M.D. (1992) Stable expression of rat phosphodiesterase 3 cDNA in OK cells does not alter short-term homologous desensitization of DA1 dopamine receptors., Presented at the Annual meeting of the American Federation for Clinical Research, Baltimore, Maryland, Clin. Res 40:217A, 05/1992
- Becker, B.N., Mulheron, J., Gettys, T.W., Lee, S.-L., Fanburg, B.L., RAYMOND, J.R. (1992) Differential phenotypic expression of 5-HT-coupled adenylylcyclase activity in vascular smooth muscle cells. Presented at 23rd Annual Meeting of American Society of Nephrology, Baltimore, J. Am. Soc. Nephrol. 3:485A, 11/1992
- RAYMOND, J.R., Olsen, C.L., Gettys, T.W. (1992) Physical & functional coupling of recombinant human 5-HT1A receptors to multiple subtypes of Gi in mammalian cells. Presented at 25th Annual Meeting of the American Society of Nephrology, Baltimore, J. Am. Soc. Nephrol. 3:485A, 11/1992
- Becker, B.N., Lee, S.-L., Fanburg, B.L., Raymond, J.R. (1992) Becker, B.N., Lee, S.-L., Fanburg, B.L., RAYMOND, J.R. (1992) Gs Coupled vascular smooth muscle 5-HT4-like receptors rapidly desensitize. Presented at 23rd Annual Meeting of American Society of Nephrology, Baltimore, J. Am. Soc. Nephrol. 3:485A, 11/1992
- Gettys, T.W., Fields, T.A., RAYMOND, J.R. (1993), Partial agonists of the human 5-HT1A receptor selectively activate Gia-2 and Gia-3 with less efficacy than full agonists., Presented at the 23rd Annual Meeting of the American Society for Biochemistry and Molecular Biology, San Diego, FASEB J. 7:A1138, 06/1993
- Kirchgessner, A.L., Liu, M.-T., RAYMOND, J.R., Gershon, M.D. (1993)., Immunohistochemical detection of 5-HT1A receptors in rat bowel and pancreas. Presented at 23rd Annual meeting of Society for Neuroscience, New Orleans., Proceedings of the Society for Neuroscience 23:523A., 11/1993
- RAYMOND, J.R., Casañas, S.J., Mulheron, J.G., Garnovskaya, M.N., Arthur, J.M. Gettys, T.W. (1993), Human Serotonin 5-HT1A receptors activate endogenous Go-like GTP binding protein(s) when heterologously expressed in insect cells., Presented at 26th Annual Meeting of American Society of Nephrology, Boston, J.Am.Soc. Nephrol. 4:497A, 11/1993
- Arthur, J.M., Gettys, T.W., RAYMOND, J.R. (1994) Cell specific partial agonism of a 5-HT1A receptor ligand. Presented at the Annual FASEB meeting, San Diego, Cal. FASEB J.:A87 1994, 03/1994
- Nebigil, C., RAYMOND, J.R., Spurney, R.F., Garnovskaya, M.N. (1994) Molecular cloning and multiple second messenger pathways of a 5-HT2 receptor expressed in rat mesangial cells. Presented at the Annual FASEB Meeting, San Diego, Cal. FASEB J. 8:A87, 03/1994
- RAYMOND, J.R., Nebigil, C.G., Gettys, T.W., Arthur, J.M., Garnovskaya, M.N. (1994) Interaction of an endogenous receptor kinase with human 5-HT1A receptors in insect cells. Presented at the Annual Meeting of the American Federation for Clinical Research, Baltimore, Maryland, Clin. Res, 05/1994

- Gettys, T.W., Arthur, J., RAYMOND, J.R., Taylor, I.L., Olah, M. (1994) Physical and functional coupling of transfected A1-adenosine receptors to inhibitory G proteins in Chinese hamster ovary cells. Presented at the 5th Annual Adenosine Symposium, Washington, D.C., 05/1994
- Arthur, J.M., Collinsworth, G.P., Quarles, L.D., Raymond, J.R.(1995) MDCK cells possess a polycation receptor that activates G proteins from the Gi-alpha & Gq-alpha families. Presented at Annual Meeting of the American Federation for Clinical Research, San Diego, J. Invest. Med. 43:263A, 1995. Winner of Henry Christian Award for Research Excellence, 05/06/1995
- Liu, X., Gao, Y., Garnovskaya, M.N., RAYMOND, J.R., Kebabian, J.W. (1995) Novel molecular probes for the 5-HT1A receptor. Presented at the 210th Annual Meeting of the American Chemical Society, Chicago, IL, 08/1995
- Prpic, V., Garnovskaya, M.N., Fitz, J.G., Gettys, T.W., Collinsworth, G.P, RAYMOND, J.R., Liddle, R.A. (1995) Bombesin stimulates proton efflux and CCK secretion in STC-1 cells. Presented at 9th International Conference on Second Messengers and Phosphoproteins, Nashville, Tennessee. Abstract 371, page 132 of Conference Proceedings, 10/1995
- Gao, Y., Liu, X., RAYMOND, J.R., Garnovskaya, M.N., Kebabian, J.W. (1995) Interactions of (S)-UH-301 derivatives with recombinant 5-HT1A receptors. Presented at the Annual Meeting of the Society for Neuroscience, San Diego, 11/1995
- Arthur, J.M., Collinsworth, G.P., Ramos, S.J.C., Gettys, T.W., RAYMOND, J.R. (1995) Bradykinin causes translocation of G-alpha-q from membrane to cytosol in Madin-Darby canine kidney cells. Presented at 68th Annual Scientific Sessions of the American Heart Association, Anaheim, Circulation 92(suppl 1):I-573 1995, 11/1995
- Arthur, J.M., Collinsworth, G.P., Ramos, S.J.C., Gettys, T.W., RAYMOND, J.R. (1995) ., Stimulation of a polycation sensing receptor in MDCK cells causes translocation from the membrane of G-alpha-q but not G proteins of the Gi-alpha family., Presented at the 28th Annual Meeting of the American Society of Nephrology, San Diego, J. Am. Soc. Nephrol. 6:783 1995, 11/1995
- Mannon, R.B., Mannon, P.J., Lindman, B., RAYMOND, J.R., Platt, J.L., Coffman, T.M. (1995)

  Thromboxane receptor expression and signaling in thymus. Presented at the 28th Annual Meeting of the American Society of Nephrology, San Diego, J. Am. Soc. Nephrol. 6:841, 11/1995
- Garnovskaya, MN, van Biesen, T., Hawes, B., Lefkowitz, R.J., RAYMOND, J.R. (1996) Specific alpha subunits derived from the Gi/o/z family mediate acute agonist-induced activation of NHE. Presented at the 29th Annual Meeting of the American Society of Nephrology, New Orle, 11/1996
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- Garnovskaya, M.N., Mukhin, Y., RAYMOND, J.R. (1997), Shrinkage induced activation of Na+/H+ exchange: in search of signaling intermediates involved in regulatory volume increases in fibroblasts., Presented at the Annual Meeting of the International Union of Physical Scientists, St. Petersburg, Russia, 07/1997
- Mukhin Y.V., Bell J., Collinsworth G.P., RAYMOND J.R., Ploth, D.W., Garnovskaya M.N. (1999)

  Bradykinin B2 receptor activation induces multiple cellular responses in M-1 cortical collecting duct cells. Presented at the International Society of Nephrology Meeting, Buenos Aires, Argentina, Kidney Int., 05/1999
- Foster, S. Fitzgibbon, W. Hazen-Martin, D. Gore, E. Grotendorst, G. Trojanowska, M., RAYMOND, J.R., Greene, E.L.(2000) Angiotensin II antagonism reduces CTGF immunostaining in the UUO model of chronic nephropathy. Presented at 33rd annual meeting of the American Society of Nephrology, Toronto, Canada, JASN 11:618A (A3260), 10/10/2000 10/16/2000
- Gooz, M., RAYMOND, J.R, Garnovskaya, M.N.(2003), Cross talk between serotonin(5HT2A)and epidermal growth factor receptors (EGFR) involves heparin-binding EGF-like growth factor(HB-EGF)and

- activation of metalloproteinase-like enzyme(s), in rat mesangial cells. Presented at the World Congress of Nephrology, Berlin, Germany., 06/2003
- Garnovskaya, M.N., Mukhin, Y.V., Gooz, M., RAYMOND, J.R. (2003) Matrix metalloproteinases are involved in bradykinin B2 receptor-induced epidermal growth factor receptor transactivation in kidney cells. Presented at the HUPO 2nd Annual&IUBMB XIX Joint World Congress, Montreal, Canada; Mol & Cell Proteomics 2, #9, p.910 (87.10), 10/2003
- Göoz, M., RAYMOND, J.R, Garnovskaya, M.N.(2004) Cross-talk between Gq-coupled 5-HT2A and EGF receptor involves HB-EGF, ADAM17 and integrin activation in human mesangial cells. 12th International Conference on Second Messengers and Phosphoproteins, Montreal, Canada, 08/03/2004 -08/07/2004
- Turner, J.H., RAYMOND, J.R.(2004) G protein regulation of NHE-1 through Jak2 and calmodulin. 12th International Conference on Second Messengers and Phosphoproteins, Montreal, Canada, 08/03/2004 -08/07/2004
- Garnovskaya, M.N., Mukhin, Y.V., Gooz, M., RAYMOND, J.R.(2004), Matrix metalloproteinases 8 and 13 mediate epidermal growth factor receptor transactivation by bradykinin B2 receptor in kidney cells., Presented at 12th International Conference on Second Messengers and Phosphoproteins, Montreal, Canada; Book of Abstracts 2004, p.128 (THP037), 08/2004
- Göoz, M., Göoz, P., RAYMOND, J.R.(2005) Serotonin-induced ERK phosphorylation involves ADAM-17(TACE) activation in mesangial cells. 30th FEBS Congress- 9th IUBMB Conference, Budapest, Hungary, 07/02/2005 07/07/2005
- Baldys, A., Göoz, M., Raymond, J.R. Jr., RAYMOND, J.R.(2007), Role of c-Cbl in trafficking and signaling of epidermal growth factor receptor (EGFR) induced by various EGFR ligands., Presented at the 58th Mosbacher Kolloqium on Protein and Lipid Sorting in Health and Disease. Mosbach/Baden Germany, 03/29/2007 03/31/2007
- Idkowiak-Baldys, J., Baldys, A., RAYMOND, J.R., Hannun, Y.A.(2007), Agonist-induced G protein-coupled receptors (GPCRs) trafficking and signaling is regulated by PKC-dependent sequestration of recycling components., Presented at 58th Mosbacher Kolloqium on Protein and Lipid Sorting in Health and Disease. Mosbach/Baden Germany, 03/29/2007 - 03/31/2007
- Visconti, R., LaRue, A., Gooz, RAYMOND, J.R., Gooz, M.(2008) Bone marrow cells develop into podocyte in unilateral ureteral obstruction model of kidney fibrosis. Presented at the International Podocyte Meeting, Toronto, 06/04/2008 - 06/06/2008
- Coaxum, S.D., Garnovskaya, M.N., Gooz, M., Baldys, A., RAYMOND, J.R.(2008) Epidermal growth factor activates Na+/H+ exchange in podocytes through a mechanism that involves janus kinase and calmodulin. Presented at the International Podocyte Meeting, Toronto, 06/04/2008 06/06/2008
- Gooz, M., Baldys, A., Morinelli, T.A, Gooz, P, RAYMOND, J.R.(2008) Bradykinin induces permeability changes possibly through matrix metalloenzyme activation and EGFR crosstalk in glomerular podocytes. Presented at the International Podocyte Meeting, Toronto, 06/04/2008 06/06/2008

# **COMMITTEE SERVICE:**

#### **Medical College of Wisconsin**

- 1996 2010 Medical University of South Carolina, Nephrology Fellowship Training Committee
- 1996 1997 MUSC Search Committee for Chairman of Physiology
- 1997 1998 MUSC University Planning Committee, Working Group for Research Issues
- 1997 1998 MUSC Search Committee for University, Chief Information Officer
- 1997 2003 MUSC Medical Student Training Program, Steering Committee
- 1997 1998 MUSC, Cost Accounting Standards Working Group on Indirect Costs
- 1997 1999 MUSC University Research Committee
- 1998 1999 MUSC Provost's Office Review Committee on the Dean of College of Dental Medicine
- 1998 Present MUSC Member, Oversight Committee, Monoclonal Antibody Facility
- 1998 Present MUSC Member, Oversight Committee, Flow Cytometry Facility
- 1999 2002 MUSC University Research Council
- 1999 2002 MUSC Interim Funding Committee
- 1999 2006 MUSC College of Health Professions Member, Diversity Advisory Board
- 1999 2000 MUSC Department of Medicine, Chairman, Committee to Draft Strategic Research Plan, 2001-2006
- 1999 2002 MUSC Department of Biochemistry Member, Faculty Search Committee

2000 MUSC College of Medicine, Member, Search Committee for the Chair, Department of Pharmacology

2000 - 2010 MUSC Hollings Cancer Center, Member, Scientific Advisory Committee

2000 - 2001 MUSC, Member, Search Committee for the Dean, College of Medicine

2000 MUSC College of Medicine, Member, Search Committee for the Chair, Department of Microbiology and Immunology

2001 MUSC Department of Medicine, Chairman, Search Committee for the Director, Division of Cardiology

2001 MUSC College of Graduate Studies Member, Strategic Planning Committee

2001 - 2010 MUSC, Member, Steering Committee, Children's Research Institute

2001 - 2010 MUSC, Chair, Executive Research Council

2001 - 2010 MUSC, Chair, Executive Research Council

2001 - 2003 MUSC, Member, CIO Search Committee

2001 - 2010 MUSC College of Dental Medicine, Member, Steering Committee for Training grant titled "Comprehensive Training in Oral and Craniofacial Research"

2001 - Present MUSC Department of Biochemistry, Member, Oversight Committee for PPG

2001 - 2003 MUSC, Member, Information Management Council

2001 - 2003 MUSC, Member, Clinical Information Management Committee

2002 - 2010 MUSC, Member, Steering Committee, James B. Edwards College of Dental Medicine Dental School Planning and Construction project

2002 - 2010 MUSC, Member, Academic Compliance Assurance Council

2002 - 2010 MUSC, Member, University Medical Associates, Board of Directors

2002 - 2010 MUSC, Member, Internal Advisory Committee for NIH PPG titled "Molecular Mechanisms of Cardiac Hypertrophy"

#### **Hospital**

1996 - 2004 Veterans Affairs Medical Center, Research and Development Committee, Charleston, S.C.

1998 - Present Department of Veterans Affairs Research Space Committee

1999 - 2000 Department of Veterans Affairs, Laboratory Panic Values Committee

1999 - 2010 Dept. of Veterans Affairs and MUSC, Academic Partnership Council

2000 Ralph H. Johnson VA Medical Center Chairman, Search Committee for Chief of Staff

2000 - 2002 Ralph H. Johnson VA Medical Center, Member, Foreign Travel Subcommittee of the Education Committee

2000 - 2005 Ralph H. Johnson VA Medical Center, Chairman, Advisory Committee for the Charleston Heart Failure Research Enhancement Award Program

2001 Ralph H. Johnson VA Medical Center Member, Search Committee for the Chief, Specialty Services

2001 - 2008 Ralph H. Johnson VA Medical Center, Member, Resource Allocation Board

#### **EXTRAMURAL TEACHING:**

# Community/Lay Public

1996 - 2010 University of South Carolina College of Medicine

1996 - 2001 The South Carolina Bioengineering Alliance

1996 - 2001 Charleston School of Law

1996 - 2010 Governor's School for Science and Mathematics

1996 - 2010 College of Charleston

1996 - 2010 Clemson-MUSC Bioengneering Program

# **Medical Student Education**

1996 - 2010 MUSC, Teaching: College of Pharmacy, College of Health Professions, College of Dental Medicine

05/1997 - 08/1997 MUSC, Supervised Medical Students

05/1998 - 2004 MSTP, Superv: Ronald Feldman, Justin Turner

1998 - 2007 MUSC, Pharmacology Departmental Research Conferences

1998 - 2007 MUSC, Medicine Chair rounds at VAMC several times per month

1998 - 2007 MUSC, Endocrinology and Medical Genetics Seminars

1998 - 2007 MUSC, Medical Grand Rounds

1998 - 2007 MUSC, Miscellaneous divisional research conferences, clinical conferences and journal clubs

- 1998 2007 MUSC, Nephrology Ward Lectures-every other month
- 1998 2007 MUSC, Wednesday VA Nephrology Clinic- every week for 7 years
- 1998 2007 MUSC, Digestive Diseases Center Grand Rounds
- 1998 2007 MUSC, Biochemistry Seminars
- 1998 2007 MUSC, Molecular And Cellular Biology Program Seminars
- 1998 1999 Wake Forest University, Suprv. Pregraduate Scholar Preston Wendell
- 05/1999 06/2001 MUSC, Suprv: Anthony Joseph

#### **Resident and Fellow Education**

1996 - 2000 MUSC, Suprv. Pre-Doctoral Fellows:Mark Reploeg,DeKisha Pendergrass, Oddette Houghton, Steven Pinckney

#### **Continuing Medical Education**

- 1996 2010 South Carolina College of Pharmacy
- 1996 2005 MUSC, Fluid and Electrolyte and/or Acid Base Lecture(s)
- 1997 2002 MUSC, One lecture per term in the Research Instrumentation Graduate Course (Department of Cell Biology)
- 1997 1999 MUSC, 1997-1999 Two lectures per term in the Advanced Signal Transduction (Department of Pharmacology)
- 1998 2006 MUSC, Chairman's teaching rounds. Round with long-call team at VA on Mondays for didactic teaching

#### **Graduate Student Education**

05/1998 - 06/2001 MUSC, Suprv Pharmacology Grad Student Tobiah Pettus

#### **Postdoctoral Fellow Education**

- 1991 2010 MUSC, Suprv Nephrology fellows:Frank J. Albers, Bryan N. Becker, John M. Arthur, Jasjit Grewal, Jack Andy, David Lefler, S. Steven Foster, Khurram Nazeer, Henry Ayiku, Sanju Varghese, Sonya Coaxum, Jeffrey Smith
- 1991 2010 MUSC, Suprv. Biochemistry Fellows: Maria N. Garnovskaya, Aleksander Baldys
- 1991 2010 MUSC, Suprv.Biophysics Fellow: Yurii Mukhin
- 1991 2010 MUSC, Suprv. Pharmacology Fellows: Kurt Chuprun, Canan Nebigil, Monika Gööz

# MCW STUDENTS, FACULTY, RESIDENTS AND CLINICAL/RESEARCH FELLOWS MENTORED: Faculty

Dr. Frank Park, MCW, 2010 - Present Mentorship Committee

Dr. Kevin Regner, MCW, 2010 - Present Mentorship Committee

# EXTRAMURAL STUDENTS, FACULTY, RESIDENTS, AND CLINICAL/RESEARCH FELLOWS MENTORED:

## **Graduate Students**

#### PhD Committees

Margaret Eason, Duke University Medical Center, 1992 - 1994

Russell Nash, Duke University Medical Center, 1992 - 1995

Padla M.C. Lembo, McGill University, 1996 - 1997

Kenda L. Jameson Evans, University of Texas, San Antonio, 1997 - 1999

Ben Pender, MUSC, 1997 - 1999

John Yordy, MUSC, 1998 - 2005

Scott Commins, MUSC, 1998 - 2000

John Cleator, MUSC, 1998 - 2000

Lauren Ball, MUSC, 1999 - 2003

Steven Jones, MUSC, 1999 - 2006

Jeannie Chapman, Structural Biology Program of the Ernest Hollings Cancer Center, 1999 - 2005

Justin Turner, MUSC, 2000 - 2004 Committee Chair

Vijay Rao, MUSC, 2000 - 2003

Kevin Becker, MUSC, 2001 - 2003

Committees

Scott Commins, MUSC, 1997 - 1998 Masters Degree

**MS** Committees

Tobiah Pettus, MUSC, 1998 - 2000

#### **Faculty**

Bryan N. Becker, M.D.; Professor of Medicine and Associate Dean, College of Medicine at UIC. Dr. Becker is former Director for the Division of Nephrology at the University of Wisconsin., Mentor

Juan Carlos Q. Velez, M.D.; Associate Professor of Medicine at MUSC., Mentor

Monika Gooz, M.D., Ph.D.: Associate Professor of Medicine at MUSC., Mentor

Maria Garnovskaya, Ph.D.; Associate Professor of Medicine at MUSC., Mentor

Michael Janech, Ph.D.; Associate Professor of Medicine at MUSC., Mentor

Eddie L. Greene, M.D.; Associate Professor of Medicine and Director of the Office of Diversity, Mayo Clinic Rochester., Mentor

John M. Arthur, MD, PhD; DCI Professor of Medicine and Director of the South Carolina Center of Excellence in Renal Biomarkers at MUSC., Mentor

Sonya D. Coaxum, Ph.D.; Assistant Professor of Medicine at MUSC., Mentor

Canan Nebigil Desaubry, Ph.D.; Director of Research, CRNS - University of Strasbourg, France, Mentor Hirendra Nath Banerjee, MBBS, PhD.; Associate Professor of Biology, Elizabeth City State University., Mentor

Odette Houghton, M.D.; Assistant Professor of Ophthalmology, UNC-Chapel Hill., Mentor

# PROGRAMMATIC DEVELOPMENTS:

# **Educational Programs**

Student

2003 - 2010 MUSC Provost and Deans' Scholarship Program

Faculty

2002 - 2010 MUSC Women Scholars Initiative

2005 - 2010 MUSC Trustee Leadership Academy

# Research Programs

1998 - 2010 NIH T32 Training Grant and VA REAP Award

2002 - 2010 SC Centers of Economic Excellence Program

2005 - 2010 Research Project Grant Retreats

## **COMMUNITY SERVICE ACTIVITIES:**

Dr. Raymond is a 6-gallon blood donor

# **BIBLIOGRAPHY**

#### Refereed Journal Publications/Original Papers

- 1. RAYMOND, J.R. (1984) Nephrotoxicities of antineoplastic and immunosuppressive agents. Current Problems in Cancer 8:2-32.
- 2. Regan, J.W., RAYMOND, J.R., Lefkowitz, R.J., DeMarinis, R.M. (1986) Photoaffinity labeling of human platelet and rabbit kidney ?2-adrenergic receptors with [3H]-SKF 102229. Biochem. Biophys. Res. Comm. 137:606-613.
- 3. RAYMOND, J.R. (1988) Amphotericin B nephrotoxicity. Am. Family Physician 38: 199-203.
- 4. RAYMOND, J.R., Raymond, P.A. (1988) Post-lumbar puncture headache. West. J. Med. 148: 551-554.
- RAYMOND, J.R., Yarger, W.E. (1988) Abnormal urine color; differential diagnosis. South. Med. J. 81:837-841
- 6. RAYMOND, J.R., van den Berg, E.K. Jr., Knapp, M. (1988) Nontraumatic prehospital sudden death in young

- adults. Arch. Intern. Med. 148:303-308.
- 7. Fargin, A., RAYMOND, J.R., Lohse, M., Kobilka, B.K., Caron, M.G., Lefkowitz, R.J. (1988) A genomic clone which resembles a \( \mathcal{B}\)-adrenergic receptor encodes the 5-HTlA receptor. Nature 335:358-360.
- 8. Schwab, S.J., RAYMOND, J.R., Saeed, M., Dennis, P., Bollinger, R. (1989) Prevention of hemodialysis fistula thrombosis; early detection and elective treatment of venous stenoses. Kidney Int. 36:707-711.
- 9. RAYMOND, J.R., Fargin, A., Lohse, M.J., Regan, J.W., Senogles, S., Lefkowitz, R.J., Caron, M.G. (1989) Identification of the ligand binding subunit of the 5-HT1A receptor with a radioiodinated probe. Mol. Pharmacol. 36:15-21.
- 10. Fargin, A., RAYMOND, J.R., Regan, J.W., Cotecchia, S., Lefkowitz, R.J., Caron, M.G. (1989) Effector coupling mechanisms of the cloned 5-HT1A receptor. J. Biol. Chem. 264:14848-14852.
- 11. RAYMOND, J.R., Fargin, A., Middleton, J.P., Graff, J.M., Haupt, D.M., Caron, M.G., Lefkowitz, R.J., Dennis, V.W. (1989) The human 5-HT1A receptor expressed in HeLa cells stimulates sodium-dependent phosphate transport via protein kinase C. J. Biol. Chem. 264:21943-21950.
- 12. Thevaniau, M., RAYMOND, J.R., Rougon, G.N. (1989) Antipeptide antibodies to the beta2-adrenergic receptor confirm the extracellular orientation of the amino terminus and the putative first extracellular loop. J. Membr. Biol. 111:141-153.
- 13. RAYMOND, J.R., Hnatowich, M.R., Lefkowitz, R.J., Caron, M.G. (1990) Adrenergic receptors: proto-types for the study of structure and function of G-protein-coupled receptors. Hypertension 15:119-131.
- 14. RAYMOND, J.R., Middleton, J.P., Dennis, V.W. (1990) HeLa cells express cAMP-inhibitable sodium-dependent phosphate uptake. Am. J. Physiol 258: (Renal Fluid Electrolyte Physiol. 27) F433-F437.
- 15. Middleton, J.P., Albers, F.J., Dennis, V.W., RAYMOND, J.R. (1990) Thapsigargin provides evidence for Ca2+-mediated increases in sodium-dependent phosphate uptake in HeLa cells. Am. J. Physiol 259: (Renal Fluid Electrolyte Physiol. 28) F727-F731.
- 16. Middleton, J.P., RAYMOND, J.R., Whorton, A.R., Dennis, V.W. (1990) Recombinant 5-HTlA receptors stimulate Na+/K+-ATPase by a Ca2+-dependent pathway in HeLa cells. J. Clin. Invest. 86:1799-1805.
- 17. RAYMOND, J.R., Albers, F.J., Middleton, J.P., Caron, M.G., Lefkowitz, R.J., Dennis, V.W. (1991) Serotonin 5-HTlA and histamine Hl receptors expressed in HeLa cells stimulate phosphatidylinositol hydrolysis and phosphate uptake through distinct G protein pools. J. Biol. Chem. 266:372-379.
- 18. Bates, M.D., Caron, M.G., RAYMOND, J.R. (1991) Desensitization of DAI dopamine receptors coupled to adenylate cyclase in opossum kidney (OK) cells. Am. J. Physiol 260: (Renal Fluid Electrolyte Physiol. 29) F937-F945.
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- 21. Jose, P.A., RAYMOND, J.R., Bates, M.D., Aperia, A., Felder, R.A., Carey, R.M. (1992) The renal dopamine receptors. J. Am. Soc. Nephrol. 2:1265-1278.
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- 29. RAYMOND, J.R., Kim, J.L., Beach, R.E., and Tisher, C.C. (1993) Immunohistochemical mapping of the cellular & subcellular distribution of 5-HT1A receptors in rat and human kidney. Am. J. Physiol. 264:

- (Renal Fluid Electrolyte Physiol. 33) F9-F19.
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- 35. Gettys, T.W., Fields, T.A., RAYMOND, J.R. (1994) Selective activation of inhibitory G protein alphasubunits by partial agonists of the human 5-HTlA receptor. Biochemistry 33:4283-4290.
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- 41. RAYMOND, J.R., Olsen, C.L. (1994) PKA induces phosphorylation of the human 5-HT1A receptor and augments its desensitization by protein kinase C in CHO-K1 cells. Biochemistry 33:11264-11269.
- 42. RAYMOND, J.R., Arthur, J.M., Mannon, R. (1994) Practical management of hypertensive urgencies and emergencies. N. Carolina Med. J. 55:295-303.
- 43. RAYMOND, J.R., Arthur, J.M., Kovalik, E. (1994) Strategies for preventing diabetic nephropathy. N. Carolina Med. J. 55:362-369.
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- 45. RAYMOND, J.R. (1995) Multiple mechanisms of receptor/G protein signaling specificity. Am. J. Physiol. 268: (Renal Fluid Electrolyte Physiol. 37) F141-F158.
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- 47. Garnovskaya, M.N., Nebigil C.G., Arthur, J.M., Spurney, R.F., RAYMOND, J.R. (1995) 5-HT2A receptors expressed in rat mesangial cells inhibit cAMP accumulation. Mol. Pharmacol. 48:230-237.
- 48. Nebigil, C.G., Garnovskaya, M.N., Casañas, S.J., Mulheron, J.G., Parker, E.M., Gettys, T.W., RAYMOND, J.R. (1995) Agonist-induced phosphorylation and desensitization of 5-HT1A receptor expressed in Sf9 insect cells. Biochemistry 34:11954-11962.
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- 271:18107-18113.
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- 56. Wang, Y., Roman, R., Hannun, Y., RAYMOND, J.R., Fitz, J.G. (1997) Activation of protein kinase C-alpha couples cellular metabolism to membrane K+ in a human biliary cell line. J. Clin. Invest. 99:2890-2897.
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# **Abstracts**

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