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CURRICULUM VITAE

Hershel Raff PhD

Professor
Department of Academic Affairs
Division of Medical Education

OFFICE ADDRESS:
Health Research Center
8701 Watertown Plank Rd
Milwaukee, WI 53226

EDUCATION:

1975 BA, Union College, Schenectady, NY
1981 PhD, Johns Hopkins University, Baltimore, MD

POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:

1980 - 1983 NRSA Post Doctoral Fellow, Department of Physiology, University of California- San Francisco, San Francisco, CA

FACULTY APPOINTMENTS:

1983 - 1987 Assistant Professor of Medicine, Assistant Professor of Physiology, Medical College of Wisconsin, Milwaukee, WI
1987 - 1991 Associate Professor of Medicine, Associate Professor of Physiology, Medical College of Wisconsin.
1988 - 1991 Adjunct (Visiting) Associate Professor of Physiology, University of Florida College of Medicine, Gainesville, FL
1989 - Present Graduate Faculty of the College, Medical College of Wisconsin
1991 - 1998 Adjunct (Honorary Visiting) Professor of Physiology, University of Florida College of Medicine.
1991 - Present Professor of Medicine (with Tenure), Professor of Physiology, Medical College of Wisconsin
1999 - 2001 Clinical Professor, Department of Health Sciences, School of Allied Health Professionals, University of Wisconsin-Milwaukee, WI.
2000 - Present Adjunct Professor, Department of Biomedical Sciences, Marquette University College of Health Science, Milwaukee, WI
2011 - Present Professor of Surgery, Medical College of Wisconsin
2017 - Present Professor, School of Pharmacy, Medical College of Wisconsin, Milwaukee, WI

HOSPITAL AND CLINICAL ADMINISTRATIVE APPOINTMENTS:

1983 - 2022 Scientific Director and Clinical Supervisor, CAP #17782-04 CLIA ID# 52D0881919 Maryland Permit #1647, Endocrine Research Laboratory, Aurora St. Luke's Medical Center, Milwaukee, WI

AWARDS AND HONORS:

1975 cum laude with Distinction in the Arts, Union College
1981 Delta Omega Honorary Public Health Society
1990 Society of Teaching Scholars, Medical College of Wisconsin (Inaugural Inductee)
1993 The Harry Beckman Basic Science Teaching Award presented by the Senior Class of the Medical College of Wisconsin
2001 The Harry Beckman Basic Science Teaching Award presented by the Senior Class of the Medical College of Wisconsin
2001 Graduate School of Biomedical Sciences Student Award for Outstanding Teacher, Medical College of Wisconsin

2004 Louis D'Agrosa Memorial Lecture, St. Louis University School of Medicine (October)
2005 Fellow of the American Association for the Advancement of Science, February
2005 Elected to Alpha Omega Alpha (AOA), Medical College of Wisconsin (April)
2006 Outstanding Reviewer Recognition Award, Journal of Clinical Endocrinology and Metabolism
2008 MCW's Outstanding Medical Student Teacher for 2007-2008
2009 MCW's Outstanding Medical Student Teacher for 2008-2009
2010 Collaborative Research Award, Aurora Health Care
2010 MCW's Outstanding Medical Student Teacher for 2009-2010
2011 The Harry Beckman Basic Science Teaching Award presented by the Senior Class of the Medical College of Wisconsin
2011 MCW Outstanding Medical Student Teacher for 2010-2011, MCW
2012 Outstanding Faculty Service Award from the MCW Faculty Council, MCW
2013 MCW Outstanding Medical Student Teacher for 2012-2013
2015 MCW Outstanding Medical Student Teacher for 2014-2015
2015 APSselect Article - Am J Physiol Regul Integr Comp Physiol 308: R73–R77, 2015
2015 Endocrinology 2014 Best Reviewer
2015 Fellow of the American Physiological Society (Inaugural Class).
2015 T. Michael Bolger Standing Ovation Award presented by the Student Assembly of the Medical College of Wisconsin
2016 The Harry Beckman Basic Science Teaching Award presented by the Senior Class of the Medical College of Wisconsin
2016 MCW Outstanding Medical Student Teacher for 2015-2016
2017 MCW Outstanding Medical Student Teacher for 2016-2017
2017 APSselect Article - Am J Physiol Regul Integr Comp Physiol 314:R12-R21, 2018
2017 Distinguished Service Award from the Association of Chairs of Departments of Physiology (ACDP)
2018 MCW Outstanding Faculty Service Award from the MCW Faculty Council
2020 First Place Oral Presentation, Aurora Research Institute Scientific Day.
2020 MCW Outstanding Medical Student Teacher for 2019-2020
2020 The Harry Beckman Basic Science Teaching Award presented by the Senior Class of the Medical College of Wisconsin
2020 MCW Outstanding Faculty Service Award from the MCW Faculty Council
2021 MCW Outstanding Medical Student Teacher for 2020-2021
2021 Gabrilove Lecturer – Mt Sinai Icahn Medical School, New York
2021 First Place Oral Presentation, Advocate Aurora Research Institute Scientific Day
2021 Distinguished Lecturer - Indonesian Physiological Society.
2022 First Place Oral Presentation, Advocate Aurora Research Institute Scientific Day
2022 MCW Outstanding Medical Student Teacher for 2021-2022

MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:

2001 - 2007 American Physiological Society: Finance Committee, Nominating Committee (Council (Ex officio))
2003 - 2007 The Endocrine Society (Council (Ex-officio 2003-2004; Voting 2004-2007))
2012 The Endocrine Society (ENDO2013 Abstract Reviewer)
2012 - 2017 American Physiological Society (Physiology Joint Management Board)
2012 - 2015 The Endocrine Society (Committee on Governance Affairs)
2012 - 2014 American Physiological Society (Physiological Reports Joint Management Board)
2012 - 2015 American Physiology Society (APS Representative to the FASEB Journal Editorial Board)
2013 - 2015 American Physiological Society (Water and Electrolyte Homeostasis Steering Committee)
2014 The Endocrine Society (ENDO2015 Abstract Reviewer)
2015 - 2016 American Physiology Society (Vice-Chair for Publication Ethics, Publications Committee)
2015 The Endocrine Society (ENDO2015 Presidential Poster Competition Judge)
2015 American Physiological Society (Fellow of the American Physiological Society)
2015 - 2018 American Physiological Society (FASEB Publications and Communications Committee)
2016 The Endocrine Society (ENDO2016 Presidential Poster Competition Judge)
2018 - 2021 American Physiological Society (Membership and FAPS Committee)
2018 The Endocrine Society (ENDO2018 Abstract Reviewer)
2019 The endocrine Society (ENDO2019 Abstract Reviewer)

2020 The Endocrine Society (ENDO2020 Abstract Reviewer)
2021 The Pituitary Society (Position Statement Committee – Effects of Opioids on Pituitary Function)
2022 The Endocrine Society (ENDO2022 Late Breaking Abstract Reviewer)
2023 The Endocrine Society (ENDO2023 Abstract Reviewer)
Endocrine Society: Secretary-Treasurer (2004-2007)
Endocrine Society Secretary-Treasurer: Chair (Androgen Assay Working Group (2005-2006))
Endocrine Society: Publications Core Committee (2007-2010)
Endocrine Society Publications Core Committee: Educational Publications Task Force (2007-2010) (Chair (2008))
Endocrine Society: Trainee and Career Development Core Committee (2010-2011)
Endocrine Society: ENDO2011 Abstract Reviewer (2011)
Sigma Xi
Council for High Blood Pressure Research (American Heart Association)
American Association for the Advancement of Science, AAAS APS Representative to the Section on Biological Sciences (1999-2001)
American Association for the Advancement of Science, AAAS Fellow in Biological Sciences (2005)
American Association for Laboratory Animal Science (National Silver Member)
Alpha Omega Alpha - Honor Medical Society (Elected 2005)
American Association for Laboratory Animal Science (National Silver Member)
Endocrine Society: Hormone Foundation Committee (Ex-Officio 2004-2007)
Endocrine Society: Corporate Liaison Board (Ex-Officio 2003-2006)
Endocrine Society Publications Oversight Committee: Publications Strategic Analysis Task Force (2005-2006)
Endocrine Society Publications Oversight Committee: Journals Operations Subcommittee (Ex-Officio 2004-2007)
Endocrine Society Publications Oversight Committee: Journals Management Subcommittee (Ex-Officio 2004-2007)
Endocrine Society Publications Oversight Committee: New Initiatives Subcommittee (Ex-Officio 2004-2007)
Endocrine Society Publications Oversight Committee (Ex-Officio 2004-2007)
Endocrine Society: Performance and Compensation Steering Committee (2003-2007 (Chair 2004-2007))
Endocrine Society: Executive Committee (2003-2007)
Endocrine Society: Council (Ex-officio 2003-2004; Voting 2004-2007)
Endocrine Society: Secretary-Treasurer Elect (2003-2004)
Endocrine Society: ENDO2003 Task Force on Cardiovascular Endocrinology Theme
Endocrine Society: Finance Committee (Ex-Officio 2001-2007)
Endocrine Society: Development Committee (2000-2003); Chair - (2001-2003) (Ex officio (2003-2005))
Endocrine Society: Associate Editor (Endocrine News (1994-1998))
Endocrine Society: Advisory Panel (Endocrine News (1993))
American Physiological Society: Chair (Publications Committee (2011-2014) Book Committee, Finance Committee, Nominating Committee, Council (Ex officio))
American Physiological Society: Chair (Task Force on Classic Papers (2002-2006))
American Physiological Society: Publications Committee (2000-2003)
American Physiological Society: Long-Range Planning Committee (1996-1998)
American Physiological Society: Program Advisory Committee (1989-1992)
American Physiological Society: Steering Committee 1991 Fall Meeting

EDITORSHIPS/EDITORIAL BOARDS/JOURNAL REVIEWS:

Editorship

1993 - 1995 American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology
1994 - 1998 Associate Editor, Endocrine News (a publication of the Endocrine Society)
2004 - Present Faculty of 1000, Physiology, Head of the Endocrinology Section
2005 - 2011 Advances in Physiology Education
2012 - 2019 Topic Editor, Comprehensive Physiology – Adrenal Gland and Stress
2018 - Present Editor, Clinical Laboratory Testing: UpToDate – Hypothalamic-Pituitary Adrenal Function
2020 - Present Associate Editor, Endocrinology

Editorial Board

1986 - 1992 American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology
1988 - 1994 American Journal of Physiology: Endocrinology and Metabolism
1993 - 1996 American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology
2005 - 2008 Endocrinology
2007 - 2011 American Journal of Physiology: Regulatory, Integrative and Comparative Physiology
2008 - Present UpToDate Peer Reviewer for Endocrinology
2011 - 2014 Endocrine
2012 - 2015 FASEB Journal
2014 - Present International Editorial Board, IBIMA Publishing - International Journal of Case Reports in Medicine
2015 - 2018 Endocrinolgy
2018 - 2020 Physiological Reviews
2018 - 2021 FASEB BioAdvances
2018 - Present American Journal of Physiology: Regulatory, Integrative and Comparative Physiology
2021 - 2022 Journal of the Endocrine Society

Journal Review

Frontiers in Endocrinology
Stress
Journal of the Endocrine Society
Journal of Clinical Medicine
Clinical Obesity
Translational Research
Intensive Care Medicine
Endocrine Research
Pituitary
PLOS ONE
Endocrine Connections
Clinical Endocrinology
FASEB Journal
BMJ Case Reports
Journal of Vascular Diagnostics
Hormones and Cancer
Comprehensive Physiology
Journal of Endocrinology
Pediatrics
Neuroendocrinology
Nature Endocrine Reviews
International Journal of Chronic Disease
Journal of Thermal Biology
Endocrine Practice
JCI Insight
Journal of Pharmacology and Experimental Therapeutics
Advances in Physiology Education
European Journal of Neuroscience
Lancet
Journal of Clinical Investigation
New England Journal of Medicine
Annals of Internal Medicine
American Heart Journal
Regulatory Peptides
Chest
Hypertension
Acta Endocrinologica
American Journal of Physiology
Circulation Research
Journal of Applied Physiology
Neuroendocrinology

Endocrinology
Peptides
Southern Medical Journal
American Review of Respiratory Disease
Domestic Animal Endocrinology
Prostaglandins
American Journal of Medical Sciences
Life Sciences
Journal of Physiology (London)
Alcoholism: Clinical and Experimental Research
Clinical Chemistry
Clinical Endocrinology
Journal of Clinical Endocrinology and Metabolism
Biology of Reproduction
Central European Journal of Medicine
Medicine and Science in Sports and Exercise
Neuropeptides, Research in Veterinary Science
Proceedings of the Society for Experimental Biology and Medicine Experimental Neurology
Molecular and Cellular Neurosciences
Metabolism, Neuroscience
Neuroscience Letters
Canadian Journal of Physiology and Pharmacology
Molecular and Cellular Endocrinology
Calcified Tissue International
European Journal of Endocrinology
Developmental Brain Research
Journal of Endocrinological Investigation
Methods and Findings in Experimental and Clinical Pharmacology
Clinical Chemistry and Laboratory Medicine
Physiological Genomics
Archives Italiennes de Biologie
International Journal of Endocrinology
Expert Review of Endocrinology and Metabolism
Postgraduate Medical Journal
Proceedings of the National Academy of Sciences (PNAS)
Steroids
Rapid Communications in Mass Spectrometry
British Journal of Anesthesia
Hormone and Metabolic Research
Journal of Clinical Pathology
Current Neuropharmacology
Journal of Pediatric Endocrinology and Metabolism
Molecular Neurobiology
BMC Endocrine Disorders
International Journal of Endocrinology
Expert Review of Endocrinology and Metabolism,
Endocrine
Journal of Patient-Centered Research and Reviews
AACE Journals: Clinical Case Reports
Scientific Reports
Hypertension

LOCAL/REGIONAL APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

1989 - 1993 American Heart Association Wisconsin Affiliate Research Peer Review Committee
1990 - 2000 Vince Lombardi Cancer Center Education/Control Committee
Founder, Milwaukee Neuroendocrine Group (merged with Milwaukee Neuroscience Group)
Badger State Science and Engineering Fair Judge, 2007

Milwaukee Neuroscience Group
Milwaukee Alumni Representative, Union College
Badger State Science and Engineering Fair Judge, 2008

NATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:

02/1992 Louisiana Education Quality Support Fund Research Competitiveness Subprogram Out of state Expert
02/1992 National Institutes of Health, Endocrinology Study Section Special Reviewer
03/1992 American Institute of Biological Sciences (AIBS) Space Physiology and Countermeasures Peer Review to NASA
1993 - 1997 Member, International and Cooperative Projects (ICP) Study Section, National Institutes of Health
1995 National Science Foundation, Reviewer, Integrative Animal Biology Grant
02/1998 National Institutes of Health, International and Cooperative Projects (ICP) Study Section - Special Reviewer
07/1998 National Institutes of Health, International and Cooperative Projects (ICP) Study Section - Special Reviewer
10/1998 National Institutes of Health, International and Cooperative Projects (ICP) Study Section - Special Reviewer
10/1999 National Institutes of Health, International and Cooperative Projects (ICP) Study Section - Special Reviewer
1999 - 2001 American Heart Association Great America 3B Affiliate Study Group
06/2002 National Institutes of Health, National Institute of Child Health and Human Development, Extramural Reviewer
08/2002 National Institutes of Health, Global Health Research Initiative Program (GRIP) Special Emphasis Panel
10/2002 National Institutes of Health, Human Embryology and Development 1 (HED1) Study Section, Special Reviewer
02/2003 National Institutes of Health, International and Cooperative Projects (ICP) Study Section - Special Reviewer
04/2003 National Institutes of Health, Experimental Therapeutics Study Section (ET-2) Special Emphasis Panel on Hypoxia
07/2003 Special Emphasis Panel ZRG1 ICP-2, Global Health Research Initiative Program (GRIP), National Institutes of Health
12/2003 - Present Health Research Council of New Zealand, Referee
02/2004 National Institutes of Health, International and Cooperative Projects (ICP) Study Section - Special Reviewer
08/2004 National Institutes of Health, National Institute of Child Health and Human Development, Extramural Reviewer
11/2004 National Institutes of Health, Endocrinology, Metabolism, Nutrition, and Reproductive Sciences Integrated Review Group, Special Emphasis Panel, ZRG1 EMNR-F 02
12/2004 National Institutes of Health, Global Health Research Initiative Program (GRIP) Special Emphasis Panel ZRG1 ICP-2
2004 - Present Head of the Endocrinology Section, Faculty of 1000, Physiology
07/2005 National Institutes of Health, International and Cooperative Projects (ICP) Study Section - Mail Reviewer
11/2005 National Institutes of Health, Endocrinology, Metabolism, Nutrition and Reproductive Sciences Integrated Review Group, Ad Hoc Study Section, ZRG1 EMNR F(02)
07/2008 Cancer Research UK - Translational Research in Clinical Trials Committee, Ad Hoc Reviewer
07/2008 National Institutes of Health, Global Health Research Initiative Program (GRIP) Special Emphasis Panel ZRG1 ICP-2
09/2008 American Institute of Biological Sciences, Investigator-Initiated Research Awards PRMRP, Reviewer - Integrated Tissue Hypoxia Research Panel
07/2011 Ad hoc reviewer of report, National Research Council Committee on Guidelines for Scientific Publications Involving Animal Studies, Institute for Laboratory Animal Research, ILAR
2013 Elected Member, Partnership for the Accurate Testing of Hormones (PATH)
04/2016 Ad hoc reviewer, University of Michigan Geriatrics Center Pilot Grants Program, Claude Pepper

Older Americans Independence Center
04/2016 Ad hoc reviewer, Research Grants Council (RGC) of Hong Kong
09/2016 Grant Reviewer, National Science Center, Poland
11/2016 Barts Charity Clinical Research Training Fellowship
12/2016 Clinical and Translational Institute (CTSI) of Southeastern Wisconsin Pilot Scientific Review Committee
02/2018 Grant Reviewer, Medical Research Council of the United Kingdom
06/2018 Oncology & Cardio-Oncology Scientific Review Committee, Aurora Research Institute
01/2019 Cardiac Research Award Scientific Review Committee, Aurora Research Institute
05/2020 Seed Grant Review Committee, Advocate Aurora Research Institute
07/2020 Grant Reviewer, Developmental Pathway Funding Scheme, Medical Research Council (United Kingdom)
2020 Neuroscience Intramural Research Award Executive Council., Advocate Aurora Research Institute
2021 - 2022 Merit Reviewer, Advancing a Healthier Wisconsin Endowment (AHW)
02/2022 Advocate Aurora Research Institute, Intramural Scientific Review Committee, Advocate Aurora Health
06/2022 We Care Fund Scientific Review Committee, Department of Surgery, Medical College of Wisconsin
Veterans Administration Merit Review ad hoc reviewer

RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

Active

Peer Review

Title:	"Deconstructing sleep disruption as a major risk factor for relapse in opioid use"
Source:	NIH/NHLBI (NIH HEAL Initiative: Opiate Use Disorder, Treatment, and Sleep.).
Dates:	2019 - 2023
Direct Funds:	$1,025,785 (Co-Principal Investigator (CA Everson –Multiple PI [MPI] grant).)
Title:	Program Project Formation Award. Obesity exacerbates chronic pain: A translational examination of underlying mechanisms and therapeutic options.
Source:	Advancing a Healthier Wisconsin Endowment Research and Education Program (9520504
Role:	Principal investigator
Dates:	2021 - 2023
Direct Funds:	$250,000
Title:	Soluble Urokinase-type plasminogen activator as a biomarker of Stage 3 Acute Kidney Injury in patients undergoing Allogeneic Hematopoietic Cell Transplantation (HCT).
Source:	Medical College of Wisconsin Cancer Center. Clinical Concept and Clinical Project Pilot Grant.
Role:	Co-Investigator
Dates:	2022 - 2024
Direct Funds:	$50,000
Title:	Wright – Patterson: Neck and back pain

in military rotary wing pilots/aircrew: characterization, MRI identification of structural/physiological changes, and functional impairments.

Source: Department of Defense (DOD) - Joint Warfighter Medical Research Program - Air Force Research Lab
Role: Co-Investigator
PI: N Yoganandan
Dates: 2023 - 2025
Direct Funds: $3,554,413

Prior

Peer Review

Title: "HPA Axis Testing"
Source: ARI2018 Aurora Research Institute (Extramural Sponsored Master Services Agreement [Contract])
Dates: 2017 - 2019
Direct Funds: $100,000

Title: "Obesity Driven Dysregulation of the Endocannabinoid System in Pain"
Source: Advancing a Healthier Wisconsin Endowment
Role: C-Investigaor
PI: K. Hainsworth
Dates: 2018 - 2019
Direct Funds: $200,000

Title: "Neurophysiological Effects of Mild Traumatic Brain Injury (mTBI)"
Source: AWH REP Advancing a Healthier Wisconsin Endowment
Dates: 2019 - 2021
Direct Funds: $200,000 (Co-Investigator (L. Nelson, PI))

Title: "Chronic pain and obesity in adolescence: lipid metabolites as potential mediators"
Source: UWCDC-CSPA-20-12 UW-Madison Comprehensive Diabetes Center Core Services Pilot Award and the University of Wisconsin - Madison Office of the Vice Chancellor for Research and Graduate Education with funding from the Wisconsin Alumni Research Foundation
Role: Principal Investigator
Dates: 2021 - 2022
Direct Funds: $4,760

Title: A model of neonatal hypoxia and pain: mitigation by probiotics
Source: Advocate Aurora Health (AARI). Live

	Well Intramural Pilot Grant Program.
Role:	Principal Investigator
Dates:	2022
Direct Funds:	$24,990

Non-Peer Review

Title:	N.I.H. Predoctoral Fellow, Johns Hopkins Pulmonary Training Grant
Source:	HL07199
Dates:	1976 - 1980
Title:	"Neuroendocrine Reflexes During Hypoxemia"
Source:	AM06419, National Research Service Award Individual Postdoctoral Fellowship in Neuroendocrinology
Role:	100% Effort; Principal Investigator
Dates:	1980 - 1983
Direct Funds:	$55,000
Title:	"The Renin Angiotensin Aldosterone System during Hypoxia"
Source:	85 GA 44
Role:	30% effort PI
Dates:	1984 - 1985
Direct Funds:	$15,140
Title:	"Human Endocrine Control in Cardiopulmonary Disease"
Source:	SLF, Siebert Lutheran Foundation, St. Luke's Hospital, Milwaukee, WI
Dates:	1984 - 1986
Direct Funds:	$150,000
Title:	"Pituitary Adrenal Control in Neurohypophysectomized Dogs
Source:	RR05434
Dates:	1984 - 1985
Direct Funds:	$5,000
Title:	"The Renin Angiotensin Aldosterone System during Hypoxia"
Source:	85 GA 44
Role:	30% Effort; Principal Investigator
Dates:	1986
Direct Funds:	$12,518 (Total Funds 1986)
Title:	"Vasopressin CRF ACTH Interactions"
Source:	HL36681
PI:	50% Effort; Principal Investigator
Dates:	1986 - 1987
Direct Funds:	$35,120
Title:	"Vasopressin CRF ACTH Interactions"
Source:	HL39103
Role:	55% Effort; Principal Investigator
Dates:	1987 - 1996

Direct Funds:	$65,611 (over 1987-1996)
Title:	"Fetal Chemoreceptor Control of Renin Secretion"
Source:	HL36289, University of Florida College of Medicine
PI:	20% Effort; Co Investigator
Dates:	1987 - 1990
Direct Funds:	$186,906 (1987 1990)
Title:	"Adrenocortical Control in Patients with HIV Infection"
Source:	DK41015
Role:	5% Effort; Co Principal Investigator and Study Coordinator
Dates:	1989 - 1991
Direct Funds:	$110,687
Title:	"Dynamic Studies of Pituitary Adrenal Function with the Use of a New Nichols Institute ACTH IRMA Assay"
Source:	Nichols
Dates:	1989
Direct Funds:	$5,000
Title:	"Role of Oxygen in Aldosteronogenesis"
Source:	DK43577
PI:	25% Effort; Principal Investigator
Dates:	1990 - 1993
Direct Funds:	$173,783
Title:	"Perinatal Hypoxia: Adrenocortical-Metabolic Adaptations"
Source:	DK54685-1
Role:	35% Effort; Principal Investigator
Dates:	1999 - 2002
Direct Funds:	$578,552 (Direct Funds 1999-2002)
Title:	“Nitric Oxide Regulation of Adrenal Steroidogenesis”
Source:	DK58145
Role:	5% Effort; Collaborating Investigator, (WB Campbell, PI)
Dates:	2001 - 2005
Direct Funds:	$596,050 (Direct Funds 2001-2005)
Title:	"Perinatal Hypoxia: Adrenocortical-Metabolic Adaptations".
Source:	DK54685-5
Role:	35% Effort; Principal Investigator
Dates:	2003 - 2007
Direct Funds:	$704,000 (Direct Funds 2003-2007)
Title:	“Effect of a Pain Protocol on Discomfort in Dementia”
Source:	NR07765-01
Role:	Consultant.

PI:	C. Kovach
Dates:	2007 - 2010
Direct Funds:	$2,009,093 (Direct Funds 2007-2010)
Title:	“The Effect of Low Oxygen on Lipid Profiles in the Immature and Mature Heart”
Source:	Rao Fund
Role:	Principal Investigator
Dates:	2008
Direct Funds:	$10,000 (Direct Funds 2008)
Title:	"Bone mineral density in MS: Endogenous and exogenous factors"
Source:	PP1509, National Multiple Sclerosis Society
Role:	Consultant (A. Ng, PI)
Dates:	2008 - 2010
Direct Funds:	$40,000 (Direct Funds 2008-2010)
Title:	“Aldosterone: dual role in radiation nephropathy”
Source:	AI067734-04, NIH/NIAID
Role:	Co-Investigator
PI:	E. Cohen, PI; J Moulder, U19 PI
Dates:	2008 - 2010
Direct Funds:	$196,805 (Direct Funds 2008-2010)
Title:	“Serum Endocannabinoid Concentration and Salivary Cortisol in Patients with Cyclic Vomiting Syndrome”
Source:	RR031973, NIH UL1/Clinical and Translational Science Institute of Southeast Wisconsin (CTSI)
Role:	Co-Investigator
PI:	T. Venkatesan
Dates:	2012 - 2014
Direct Funds:	$50,000 (Direct Funds 2012-2014)
Title:	“Fetal Cardiovascular and Endocrine Reflex Responses”
Source:	HD033053-15, NIH/NICHHD
Role:	Consultant
PI:	CE Wood
Dates:	2012 - 2016
Direct Funds:	$1,037,500 (2012-2016)
Title:	“Physician-Directed, Goal-Oriented Exercise Designed to Improve Quality of Life and Modulate Inflammation after Breast Cancer Treatment”. Aurora Cancer Care Research Award
Source:	ACCRA
Role:	Co-Investigator
PI:	J Tjoe
Dates:	2013 - 2015
Direct Funds:	$25,000 (2013-2015)

Title:	“Inflammatory biomarkers, pain and functioning: disentangling the contribution of weight in youth with co-occurring chronic pain and obesity”. Children’s Research Institute Pilot Innovative Research Awards
Source:	CRIPIRA
Role:	Co-Investigator
PI:	K. Hainsworth
Dates:	2015
Direct Funds:	$48,745

INVITED LECTURES/WORKSHOPS/PRESENTATIONS:

Local

Wisconsin Association of Respiratory Therapists, Milwaukee, WI, 1986

University of Wisconsin Medical School Milwaukee Clinical Campus, Medical Research Seminar. "Role of Oxygen in Adrenal Steroidogenesis", 09/1992

Update on Clinical Endocrinology. Speaker, "How Hormones Work: What Primary Care Physicians Should Know", Hyatt Regency, Milwaukee, 10/1992

Wisconsin Association for Biomedical Research, Milwaukee, WI. "Discovery of Ovine CRH", 11/1993

Wisconsin Psychiatric Association, Milwaukee, WI. "Update on the Differential Diagnosis of Cushing's Disease.", 1993

Midwest Neurobiologists 18th Annual Meeting, Presenter, UWM, 04/1995

Speaker, Midwest Physiological Society, Milwaukee, WI, 06/1996

Pediatric Update Pre-teleconference, The Female Athlete Triad, "Physiology of Calcium and Bone Metabolism - The Calciotropic Hormones, Children's Hospital of Wisconsin, Milwaukee, WI, 06/1996

Update on Clinical Endocrinology, Milwaukee, WI. "Effects of inhaled corticosteroids on the pituitary-adrenal axis and the skeleton", 10/1998

Integrated Neuroscience Research Center Seminar, "Hypothalamic-Pituitary-Adrenal Adaptation to Neonatal Hypoxia", Marquette University, 02/2005

Milwaukee ENT Society. Update on Thyroid Physiology, 02/2008

Pediatric Critical Care Research Conference, Children's Hospital of Wisconsin, "Use of Salivary Cortisol in Clinical Medicine and Stress Research", Milwaukee, 02/2010

2010 Marquette Stress Symposium, Integrative Neuroscience Research Center, "The Hypothalamic-Pituitary-Adrenal Adaptation to Acute Neonatal Hypoxia", Milwaukee, 03/2010

Departments of Clinical Laboratory Science and Exercise Science, Marquette University, "Vitamin D", Milwaukee, 04/2010

“Publishing 101: Dos and Don’ts of Publishing in APS Journals. Chair and Speaker, “Preparing Your Work for Publication in APS Journals”, Experimental Biology 2011, 04/2011

“Hypothalamic-Pituitary Adrenal Axis Assessment: The Stress Response in Human Subjects”, Marquette University College of Health Sciences, 02/2012

Chair and Speaker, “Preparing Your Work for Publication in APS Journals: Choosing a Journal, Authorship, and Peer Review”, Experimental Biology 2012“Publishing 101: How to Get Your Work Published in APS Journals and Avoid Minefields Along the Way”, 04/2012

“Vitamin D”, Wisconsin Seminar Day, ACL Labs, 10/2012

Chair and Speaker, “Preparing Your Work for Publication in APS Journals: Choosing a Journal, Authorship, and Peer Review”, Experimental Biology 2013. “Publishing 101: How to Get Your Work Published in APS Journals and Avoid Minefields Along the Way”, 04/2013

Chair and Speaker, “Choosing a journal authorship and peer review.”, Experimental Biology 2014. “Publishing 101: How to Get Your Work Published and Avoid Ethical Minefields”., 04/2014

“Vitamin D”, Wisconsin (ASCLS-WI) State Convention, American Society for Clinical Laboratory Science-Wisconsin, 04/2014

“Hypogonadotrophic Hypogonadism in Diabesity”, MCW Seventh Annual Diabetes Symposium of Wisconsin, Milwaukee, WI, 05/2014

Regional

Northwestern University Medical School, Department of Physiology. Chicago, IL, 1986

University of Wisconsin Medical School. Gas Club, Madison, WI, 1990

Chicago Chapter, Society for Neuroscience, 1991 Fall Scientific Meeting. Speaker, Neuroendocrine/Neuropeptide Workshop, "Role of glucocorticoids in the secretion of vasopressin", University of Illinois at Chicago, 12/1991

University of Wisconsin School of Medicine, Endocrine Section, Endocrine Grand Rounds, "Use of petrosal sinus sampling and the new ACTH IRMA in the differential diagnosis of Cushing's syndrome". Madison, WI, 05/1992

Chicago Medical School, Department of Physiology, "Interactions between the Neurohypophysis and the Hypothalamic pituitary adrenal axis", 11/1992

Middleton Veterans Administration Hospital, Madison, Wisconsin. "Role of Oxygen in Adrenal Steroidogenesis", 07/1993

Cincinnati Allergy and Asthma Society, Cincinnati, OH. "Systemic effects and HPA axis suppression with inhaled corticosteroids.", 04/1997

Burns Clinic/North Michigan Hospital, Petoskey, MI. "Systemic effects and HPA axis suppression with inhaled corticosteroids.", 05/1997

23rd International Aldosterone Conference, Minneapolis, MN. "Aldosterone synthase (P450c11AS) activity and mRNA expression in adrenal cells from neonatal rats exposed to hypoxia from birth.", 06/1997

Co-Chair, Clinical: Adrenal Session: Endo '97 (79th Annual Endocrine Society Meeting), Minneapolis, MN., 06/1997

Endocrinology and Metabolism Section, Department of Medicine, Indiana University School of Medicine, "Effect of Hypoxia on the Adrenal Cortex", 07/1997

Gundersen Clinic, LaCrosse, WI. "Systemic effects and HPA axis suppression with inhaled corticosteroids.", 08/1997

1997 Division of Allergy and Clinical Immunology, Mayo Clinic, Rochester, MI. "Systemic effects and HPA axis suppression with inhaled corticosteroids"., 10/1997

Division of Endocrinology, Mayo Clinic, Rochester, MI. "Systemic effects and HPA axis suppression with inhaled corticosteroids", 10/1997

Physician's Grand Rounds, Marquette General Hospital, Marquette, MI. "Systemic effects and HPA axis suppression with inhaled corticosteroids", 01/1998

Pulmonary Conference OH, Cleveland Clinic Foundation, Cleveland OH, "Systemic effects and HPA axis suppression with inhaled corticosteroids", 01/1998

Endocrinology and Metabolism Section, Department of Medicine, Indiana University School of Medicine, "Update on the Diagnosis of Cushing's Syndrome", 03/1998

Medical Grand Rounds, Methodist Hospital, Indianapolis, IN, "Systemic effects and HPA axis suppression with inhaled corticosteroids"., 03/1998

Department of Physiology and Biophysics, University of Illinois at Chicago, "Neonatal hypoxia: metabolic-adrenal adaptations", 10/1999

Seminars in Endocrinology, Metabolism, and Molecular Medicine, Feinberg School of Medicine, Northwestern University, "The Diagnosis and Differential Diagnosis of Cushing's Syndrome", 09/2004

Endocrine Grand Rounds, University of Wisconsin, Madison, WI. "The Diagnosis and Differential Diagnosis of Cushing's Syndrome", 11/2004

Department of Physiology Seminary, University of Kentucky, The Hypothalamic-Pituitary Adrenal Adaptation to Neonatal Hypoxia", 05/2007

Dept. of Internal Medicine Seminar, University of Kentucky: "The Diagnosis and Differential Diagnosis of Cushing's Syndrome", 05/2007

Medical Scientist Training Program (MSTP) Annual Retreat (MCW), "Research in a Clinical Setting", Sheboygan, WI, 10/2009

Visiting Professor, Carthage College. "Use of Salivary Cortisol in Clinical Medicine and Stress Research", Kenosha, 04/2010

Ohio State University College of Nursing. "Use of Salivary Cortisol in Clinical Medicine and Stress Research, Columbus, 05/2010

Ohio State University Division of Diabetes and Endocrinology. "A Physiology Approach to the Diagnosis of Cushing's Syndrome", Columbus, 05/2010

American Society for Clinical Laboratory Science-Wisconsin (ASCLS-WI) State Convention. "Vitamin D", 04/2011

"Intermittent, Acute, and Chronic Neonatal Hypoxia: Endocrine and Metabolic Responses", University of Chicago Institution for Integrative Physiology and Center for Systems Biology, 10/2011

"The Use of Salivary Cortisol in Clinical Research and Diagnosis", University of Chicago Section of Adult and Pediatric Endocrinology, Diabetes and Metabolism, Department of Medicine, 10/2011

"A Physiological Approach to the Diagnosis of Cushing's Syndrome and Evaluation of Adrenal Incidentalomas", Indiana University School of Medicine (IUPUI) Endocrine Grand Rounds, 01/2013

"Publishing Ethics 101: The Good, The Bad, and The Ugly", Indiana University School of Medicine (IUPUI) IUSM Graduate Division, 01/2013

"Short and Long-Term Effects of Neonatal Hypoxia", Indiana University School of Medicine (IUPUI) Department of Physiology, 01/2013

"HPA Axis Dynamics in Humans During Chronic (and Critical) Illness", Adrenal 2014: The XVIth Conference on the Adrenal Cortex, Chicago, 06/2014

"A Physiological Approach to the Diagnosis and Differential Diagnosis of Cushing's Syndrome", Northwestern University Feinberg School of Medicine, Division of Endocrinology, Metabolism, and Molecular Medicine, 01/2016

Speaker "Use of Salivary Cortisol as a Screening Tool for Cushing's Syndrome", Summer Clinical Symposium – Neurology, Centegra Health System, Crystal Lake, IL, 07/2016

"Medical School Admissions", The Word on Medicine (Radio Show – WISN 1130AM), 03/2021

"Physiology of the Endocrine Pancreas and Insulin Sensitivity", 14th Annual Diabetes Symposium of Wisconsin, 05/2021

"The HPA axis and stress: implications in alcoholism and depression.", Rogers Behavioral Health (Wisconsin). Psychiatric Nurse Practitioners., Wisconsin, 10/2021

National

Johns Hopkins Medical Institutions, School of Hygiene and Public Health, Department of Environmental Health Sciences, Baltimore, MD, 1982

Loma Linda University, Department of Physiology, Division of Perinatal Biology, Loma Linda, CA, 1983

University of San Francisco, Department of Biology, San Francisco, CA, 1983

UMDNJ Robert Wood Johnson Medical School (Rutgers), Department of Medicine, Pulmonary Division, New Brunswick, NJ, 1984

Johns Hopkins Hospital, Department of Anesthesiology, Baltimore, MD, 1984

University of Tennessee, School of Medicine, Department of Physiology and Biophysics, Memphis, TN, 1985

University of California, Davis. Department of Animal Physiology. Davis, CA, 1986

State University of New York, Buffalo. School of Medicine and Dentistry, Department of Physiology, Buffalo, NY, 1987

Second International Vasopressin Conference. "Interaction of the Vasopressin and CRF ACTH adrenocortical Control Systems". Vermont, 1987

FASEB Symposium Organizer American Physiological Society Centential Symposium: Cardiopulmonary Neuroendocrine Interactions and Speaker "Neuroendocrine Responses to Hypoxia and Hypercapnia", Washington, D.C., 1987

University of Florida, College of Medicine. Department of Medicine Division of Nephrology. Gainesville, FL., 1988

American Thoracic Society Annual Meeting. Clinical Topics In Pulmonary Medicine: Fluid Balance in Acute and Chronic Lung Disease. "The pituitary adrenal response to hypoxemia and hypercapnic acidosis", Las Vegas, NV., 1988

Co chairman, Vasopressin Session. FASEB Annual Meeting (American Physiological Society Section), Las Vegas, NV., 1988

University of Florida, College of Medicine. Department of Physiology. Gainesville, FL., 1988

Third Conference on the Adrenal Cortex. "The effect of hypoxia (low PO2) on aldosterone secretion in vitro." New Orleans, LA, 1989

University of Florida, College of Medicine. Department of Physiology. Gainesville, FL., 1989

University of Florida, College of Medicine. Department of Medicine Division of Nephrology. Gainesville, FL., 1989

University of Florida, College of Pharmacy. Department of Pharmacodynamics. Gainesville, FL, 1990

University of Florida, College of Medicine. Department of Physiology. Gainesville, FL., 1990

Boston University Department of Biology, Boston, MA, 1990

FASEB/APS Meeting Session Chairman (Aldosterone). Washington, D.C., 1990

University of Tennessee College of Medicine, Department of Physiology Biophysics, Memphis, TN, 01/1991
FASEB '91 Symposium Organizer: Endocrine Adaptation to Hypoxia; and Speaker: "Effect of hypoxia on the renin angiotensin aldosterone system". Atlanta, Georgia, 04/1991
FASEB '91 Meeting Session Chairman (Hypoxia, Altitude, Gravitational Biology I), Atlanta, Georgia, 04/1991
Johns Hopkins Medical Institutions, Department of Anesthesia and Critical Care Medicine, Baltimore, MD, 06/1991
APS Specialty Meeting: Interactions of the Endocrine and Cardiovascular Systems in Health and Disease; Steering Committee and Symposia Organizer: Mechanisms of Endocrine Hypertension; and Methods of Hormone Measurement, San Antonio, TX, 09/1991 - 10/1991
FASEB/APS Workshop on Careers in Physiology. Speaker, "Career opportunities in a Department of Medicine, and as a director of a Clinical Laboratory". Anaheim, CA, 04/1992
New York Academy of Science Conference: The Neurohypophysis: A Window on Brain Function. Speaker: "Interactions between Neurohypophyseal Hormones and the ACTH adrenocortical Axis. Dartmouth College, 07/1992
Chairman, Vasopressin Session, Experimental Biology 1994, Anaheim, CA., 1994
Midwest Neurobiologists 18th Annual Meeting, Presenter, UWM, 04/1995
Chairman, Vasopressin Session, Experimental Biology 1995, Atlanta, GA., 1995
Division of Endocrinology, Diabetes, and Clinical Nutrition. Oregon Health Sciences University, Portland, OR. "Use of immunometric assays in the diagnosis and treatment of Cushing's syndrome and hyperparathyroidism", 09/1996
Department of Physiology and Pharmacology, Oregon Health Sciences University, Portland, "Regulation of adrenal steroidogenic enzyme function and expression during hypoxia". September., 09/1996
Dupont Merck Pharmaceutical Company, Stine-Haskell Research Center, Newark DE. "Interactions between vasopressin and the CRH-ACTH-adrenocortical control system, 03/1997
Kansas City Allergy and Asthma Association, Kansas City, MO. "Systemic effects and HPA axis suppression with inhaled corticosteroids", 04/1997
Pediatric Grand Rounds and Endocrine Grand Rounds, Massachusetts General Hospital, Boston, MA. "Systemic effects of inhaled corticosteroids", 06/1999
Pediatric Endocrine Conference, Massachusetts General Hospital, Boston, MA. "Neonatal hypoxia: endocrine metabolic interactions", 06/1999
Next Steps in Pediatric Asthma. A CME Satellite Symposium of the American Academy of Pediatrics, "Evaluating Systemic Effects and HPA Axis Suppression with Inhaled Corticosteroids, A Pediatric Focus.", 10/2000
Clinical Endocrine Conference, Albany Medical College, Albany, NY. "A Physiological Approach to the Diagnosis of Cushing's Syndrome.", 04/2003
Endocrine Grand Rounds, Beth Israel Medical Center, New York, NY. "The Diagnosis of Cushing's Syndrome: Is Salivary Cortisol the Answer?", 09/2003
Louis D'Agrosa Memorial Lecture. St. Louis University School of Medicine. "The Endocrinology of Stress in the Neonate", 10/2004
Alachua County Endocrine Society Meeting, Gainesville, FL. "The Diagnosis and Differential Diagnosis of Cushing's Syndrome", 11/2004
Department of Physiology and Functional Genomics Seminar Series, University of Florida, "Hypothalamic-Pituitary-Adrenal Adaptation to Neonatal Hypoxia", 11/2004
Invited Speaker: "Endocrine and metabolic adaptations to neonatal hypoxia". Symposium on Oxygen sensing and hypoxia: development, adaptation and disease. XXXV International Congress of Physiological Sciences. San Diego, 04/2005
Obstetrics and Gynecology Grand Rounds, Loma Linda University School of Medicine, "The Diagnosis and Differential Diagnosis of Cushing's Syndrome", 05/2005
Biomedical Sciences Seminar, Loma Linda University School of Medicine, "Hypothalamic-Pituitary-Adrenal Adaptation to Neonatal Hypoxia", 05/2005
Perinatal Biology Research Seminar, Loma Linda University School of Medicine, "Metabolic Adaptations During Neonatal Hypoxia", 05/2005
Chair, Oral Session - "Clinical Glucocorticoids" ENDO05, 06/2005
The Endocrine Society's 89th Annual Meeting. Workshop Speaker: "Standardization of Testosterone Assays for Clinical Practice: What's the Problem?", 06/2007
“Performance of Testosterone and Estradiol Assays – A Review”, CDC Workshop on Improving Steroid

Hormone Measurements in Patient Care and Research Translation,, CDC Chamblee Campus, 03/2008

The Endocrine Society 90th Annual Meeting, Symposium Organizer and Chair. "Stress & the Central Programming of Behavior", 2008

Seattle Pituitary Symposium. Advances in Cushing's Syndrome (Session for Physicians) and A Patient's Road Map to the World of Cushing's Syndrome (Session for Patients). "A Physiological Approach to the Diagnosis and Differential Diagnosis of Cushing's Syndrome, 05/2009

Endocrine Days, "A Physiological Approach to the Diagnosis of Cushing's Syndrome and Evaluation of Adrenal Incidentalomas", Seattle, WA, 01/2010

Experimental Biology 2011. "Publishing 101: Dos and Don'ts of Publishing in APS Journals. Chair and Speaker, "Preparing Your Work for Publication in APS Journals", 04/2011

12th International Pituitary Congress. "Salivary Cortisol Assays, Boston, 06/2011

“Intermittent, Acute, and Chronic Neonatal Hypoxia: Endocrine and Metabolic Responses”, University of Nebraska Medical Center, Department of Physiology, 12/2011

“Cushing’s Syndrome: A Physiological Approach to Diagnosis and Surveillance”, University of Nebraska Medical Center, Division of Endocrinology, 12/2011

“Cushing’s Diagnosis – New Options (Meet the Professor)”, 3th International Pituitary Congress, San Francisco, 06/2013

“Diagnosing Diabetes: Benefits and Drawbacks of Glucose vs Hemoglobin A1C", Endocrine Society’s 95th Annual Meeting – ENDO2013 – Symposium Chair, San Francisco, 06/2013

Publishing Ethics 101: The Good, The Bad, and The Ugly, Louisiana State University Health Sciences Center, Department of Physiology, 11/2013

Gregory J. Bagby Post-Doctoral Fellows Distinguished Lecturer. Short and Long-Term Effects of Neonatal Hypoxia, Louisiana State University Health Sciences Center, Department of Physiology, 2013

Symposium Organizer and Chair, “Diagnosing Thyroid Disease: Evaluation of TSH Measurements”, 16th International Congress of Endocrinology/Endocrine Society’s 96th Annual Meeting, Chicago, IL, 06/2014

“Publishing Ethics 101: The Good, the Bad, and the Ugly”, Georgia Regents University/Medical College of Georgia College of Graduate Studies, 06/2014

“A Physiological Approach to the Diagnosis of Cushing’s Syndrome”, Georgia Regents University/Medical College of Georgia, Department of Medicine, 06/2014

Symposium Organizer and Moderator, “Diagnosing Thyroid Disease: Evaluation of TSH Measurements”, AACC 2014 Annual Meeting and Clinical Lab Expo, Chicago, IL, 07/2014

“Publishing Ethics 101: The Good, the Bad, and the Ugly”, University of Minnesota Department of Integrative Biology and Physiology, 09/2014

“The Short and Long-Term Effects of Neonatal Hypoxia”, University of Minnesota Department of Integrative Biology and Physiology, 09/2014

Symposium Organizer and Chair, “AACC Joint Session: Urine Free Cortisol: Pros and Cons”, Endocrine Society’s 97th Annual Meeting & Expo, San Diego, San Diego, CA, 03/2015

Symposium Organizer & Chair, “Free Hormone Measurements in Blood: What Clinicians Should Know”,, ENDO2016: Endocrine Society’s 98th Annual Meeting & Expo, Boston, MA, 03/2016

ymposium, Speaker, “Laboratory Diagnosis of Cushing Disease: Advances and Pitfalls”, ENDO2016: Endocrine Society’s 98th Annual Meeting & Expo, Boston, MA, 03/2016

Symposium Organizer & Chair, “Clinical Assay Issues: What Clinicians Should Know”, ENDO2017: Endocrine Society’s 99th Annual Meeting & Expo, Orlando, FL, 04/2017

“Clinical Assay Issues: What Clinicians Should Know”, ENDO2018: Endocrine Society’s 100th Annual Meeting & Expo, Orlando, 03/2018

“Patterns of Cortisol Secretion: Do We Blame Parents, Genes, or Diet?”, ENDO2019: Endocrine Society’s 101st Annual Meeting & Expo, New Orleans, 03/2019

“Clinical Assay Issues: What Clinicians Should Know”,, ENDO2019: Endocrine Society’s 101st Annual Meeting & Expo,, New Orleans, 03/2019

“Updates in Adrenal Steroidogenesis, Therapeutics, and Cancer”,, ENDO2019: Endocrine Society’s 101st Annual Meeting & Expo, New Orleans, Oral Session Co-Chair, New Orleans, 03/2019

“Salivary Hormone Testing: Validity and Interpretation”, California Chapter of AACE; 19th Annual Meeting & Symposium., San Francisco, 09/2019

“Late Night Salivary Cortisol, including role in Diagnosis of Cyclic Cushing’s”, Pituitary Society Cushing’s Disease Workshop, Update on Diagnosis, Complication Management, and Treatments, 10/2020

“Clinical Assay Issues: What Clinicians Should Know”,, ENDO2020: Endocrine Society’s 102nd Annual

Meeting & Expo, San Francisco, Symposium Organizer & Chair, San Francisco, 03/2021

"Updates on ACTH and cortisol measurement in Clinical Practice", Endocrine Society Webinar - Hormone Measurements: An Update for the Clinical Endocrinologist, 07/2021

. "Clinical Update on the Diagnosis of Adrenal Insufficiency and Cushing's Syndrome", Hilda & J. Lester Gabrilove Lecture (Diabetes and Endocrinology Grand Rounds), Icahn School of Medicine at Mount Sinai, New York. Division of Endocrinology, Diabetes, and Bone Disease. The Page and William Black Post-Graduate School, New York, 10/2021

"Update on the Laboratory Diagnosis of Adrenal Insufficiency and Cushing's Syndrome", Cedars-Sinai Endocrinology & Metabolism ~ Diabetes & Obesity Research Institute Research Seminar Series, Department of Medicine, Division of Endocrinology, Diabetes and Metabolism, and Department of Biomedical Sciences / Diabetes and Obesity Research Institute, 11/2021

"ACTH Stimulation Testing: Update on Cortisol Cutoffs",, UCLA-Greater Los Angeles VA Joint Endocrinology Grand Rounds, Los Angeles, California, 05/2022

"What should the serum cortisol cutoffs be for ACTH stimulation tests?", AACC Annual Scientific Meeting & Clinical Lab Expo. Symposium: Clinical Assay Issues: What Endocrinologists Will Ask You, 07/2022

International

Sixth International Hypoxia Symposium. Poster Symposium: "Adrenal glomerulosa cells are oxygen sensitive: low PO2 inhibits aldosteronogenesis in vitro." Lake Louise, Canada, 1989

Seventh International Hypoxia Symposium Organizer: Hormonal Control of Fluid and Electrolyte Balance in Hypoxic States, and Speaker: "The renin angiotensin aldosterone system: is the adrenal an oxygen sensor? Lake Louise, Canada, 02/1991

"Basic and Clinical Physiology: A Team Approach", Association of Chairs of Departments of Physiology (ACDP): Distinguished Service Award Lecture, Jamaica, 12/2017

"Endocrinology: Physiology and Pathophysiology",, Indonesian Physiological Society – Distinguished Lecturer. Guest Lecture Series for Medical Students. Federation of Asian and Oceanic Physiological Societies (FAOPS) and International Union of Physiology Sciences (IUPS)., 11/2021

COMMITTEE SERVICE:

Medical College of Wisconsin

1987 - 1992 Animal Care Committee Chairman
1987 - 1993 Animal Care Committee
1987 - 1989 Admissions Interviewer
1989 - 1992 Faculty Senate
1989 - 1992 Laboratory Safety Committee
1989 - 1992 Animal Care Committee Budget Subcommittee
1990 - Present Society of Teaching Scholars (Inaugural Inductee)
1990 - 1994 The Ad Hoc Committee on Problem Based Learning
1993 - 1999 Nominating Committee
1994 - 1996 LCME Self-Study Task Force Subcommittee on Governance/Administration
1994 - 1996 LCME Self-Study Task Force
1996 Orientation to Medical Education for New Faculty Members
1996 M1-M2 Curriculum Retreat, Lake Geneva, Wisconsin
1997 - 2002 Continuing Medical Education Committee
1997 - 2001 Digestive Diseases Research Center Research Committee
1999 - 2001 Graduate School of Biomedical Sciences Faculty Credentials Committee
2002 LCME Task Force
2003 - 2005 Search Committee, Chief of the Division of Endocrinology, Dept of Medicine
2004 M1/M2 Curriculum Retreat, Wauwatosa, Wisconsin
2005 - 2008 Rank and Tenure Committee
2006 - 2008 Advancing a Healthier Wisconsin Initiative Grant Review Committee
2008 - 2009 Vice-President, Faculty Council
2009 - 2010 Senior Vice President (President-Elect), Faculty Council
2010 - 2011 LCME Accreditation Self-Study Task Force
2010 - 2011 President, Faculty Council

2010 - 2011 LCME Accreditation Institutional Self-Study Subcommittee
2011 - Present Honors in Research Committee
2011 Search Committee-President's Chief of Staff, Faculty Council
2011 - 2012 Module Director, M2 Endocrinology, Pilot Integrated Curriculum, M2 Endocrinology, Pilot Integrated Curriculum
2012 - Present Faculty Advisor, Student Assembly (Elected)
2012 - 2015 Community Medical Education Program Steering Committee
2012 - Present Unit Director, Discovery M2 Endocrinology/Reproduction Curriculum
2017 - 2020 Graduate Studies Council Awards Committee
2017 - 2023 Nominating Committee (Elected)
2018 - 2019 LCME Self-Study Committee on Education
2018 Curriculum and Evaluation Committee M1-M2 Grading Taskforce
2019 - 2022 Graduate Studies Council Course Evaluation Committee
2019 - Present Clinical and Translation Science Institute of Southeast Wisconsin (CTSI), CTSI Scientific Review Oversight Committee
2020 Association of American Medical Colleges AAMC 2020 Virtual Medical School Fair, Faculty Representative
2020 - 2022 Curriculum Task Force – Principle 1 Committee
2020 - 2023 School of Medicine Curriculum and Evaluation Committee
2021 - 2024 Graduate School of Biomedical Sciences Council - Rank Committee (Elected)
2022 - Present Phase 3 (Clinical/Foundational Science Electives) Co-Director – MCWFusion Curriculum
2022 - Present M2 Curriculum Exam Workgroup
2023 - Present Primary Member, Cardiovascular Center (CVC)

Hospital

1984 - 1994 Institutional Review Board (Human Research Review Committee), St. Luke's Medical Center/Aurora Health Care
1986 - 1988 Allied Health Committee, St. Luke's Medical Center/Aurora Health Care
1990 - 1999 Vince Lombardi Cancer Education/Control Committee, St. Luke's Medical Center/Aurora Health Care
1996 - Present Continuing Medical Education (CME) Subcommittee, St. Luke's Medical Center/Aurora Health Care
1999 - 2000 Research and Development Committee - Aurora Consolidated Laboratories, St. Luke's Medical Center/Aurora Health Care
2000 - Present Institutional Animal Care and Use Committee (IACUC)St. Luke's Medical Center/Aurora Health Care
2000 - 2022 Chairman of IACUC, St. Luke's Medical Center/Aurora Health Care
2001 - 2022 Radiation Safety Committee, St. Luke's Medical Center/Aurora Health Care
2003 - 2017 Schroeder Fellows Program Committee, St. Luke's Medical Center/Aurora Health Care
2003 - 2006 Cardiac Research Fund Award Committee, St. Luke's Medical Center/Aurora Health Care

MEDICAL COLLEGE TEACHING ACTIVITIES:

Community/Lay Public

1997 - 2007 Apprenticeship in Medicine (AIM) Program for Minority High School Students. "Understanding Diabetes","Normal Female Reproduction"

Medical Student Education

1984 - 2012 Medical Physiology – M1 Students Endocrinology Lectures/Clinical Case Conferences
1989 - 2007 Otolaryngology Basic Science Course, Review of Pituitary, Thyroid, and Parathyroid Physiology (biannually)
1989 - 1992 National Board Part I Review Course,Endocrinology Review
1989 - 1991 Division of Pulmonary and Critical Care Medicine, Department of Medicine Lecture Series on Pulmonary Physiology and Pathophysiology, "Pathogenesis of Hypoxia"
1991 - 2000 Physiology 271, Graduate Course in Endocrinology and Metabolism
1992 Department of Biostatistics and Clinical Epidemiology and the Center for the Study of Bioethics and Health Policy, Concepts and Clinical Practice in Medicine, Lectures in Endocrinology

1993 Neurobehavioral Science, Department of Neurology "Hypothalamus/Neuroendocrinology"
1994 Preceptor, Minority Summer Research Training Program
1995 Neurobehavioral Science, Department of Neurology "Hypothalamus/Neuroendocrinology"
1996 - 2007 Integrated Neuroscience Course, Hypothalamus/Neuroendocrinology Lectures (annually)
1997 Mini-Medical School ,"Diabetes"
1999 Mini-Medical School ,"Diabetes"
2001 - 2007 Advanced Systems Physiology, Endocrine Physiology and Pathophysiology Blocks. (annually)
2004 - 2012 Medical Pharmacology – M2 Students, Hypothalamic and Pituitary Hormones (annually)
2007 - Present Bioethics 10444A – Research Ethics Discussion Series
2008 - 2018 Physiology 08210 – Endocrine Regulation (Course Director – 2009)
2011 - 2012 Module Director, M2 Endocrinology
2011 PIC M1 – Diabetes Module; Reproductive Medicine Module
2012 - 2015 M2 Endocrinology-Reproduction Unit Director Lecturer, M1 Physiology – Endocrinology (10 lecture hours, annually) M2 Symptoms Unit (Fatigue)
2013 - 2015 Instructor - Diabetic ketoacidosis Foundations of Clinical Medicine (M1 Curriculum)
2014 - Present Instructor, The Art of Medicine Through the Humanities – Course #520-M4150 (M4 Clerkship)
2016 - 2022 Aurora GI and Advanced GI Fellowship Programs, Journal Club Co-Director
2017 - Present Anatomy and Physiology (PHAR 512), School of Pharmacy – Endocrinology and Reproduction, Instructor
2018 - 2021 KINETICS3 – Kern Institute – Elective “Writing Multiple Choice Questions”.
2019 - Present Endocrine Core Conferences for Clinical Endocrinology Fellows. Endocrine and Reproductive Physiology, Pathophysiology, and Clinical Chemistry sessions (10 contact hours, annually).
2019 General Internal Medicine CME Conference: Clinical Cases, Basic Science, November
2020 - Present Introduction to Organ Systems Physiology – Course 16265, Graduate School of Biomedical Sciences, Course Director (2020-2022) and Instructor (2020-present)
2020 - Present Spotlight on Science/RCR Refresher Training – Speaker and Discussion Leader: Authorship Ethics
2022 - Present Phase 1 Endocrinology-Reproductive Unit, Course Director and Instructor, School of Medicine Fusion Curriculum
2022 - Present M2 Symptoms Course, Instructor, Endocrinology Step 1 Board Review Session, School of Medicine

Graduate Student Education

1993 Physiology 275, Graduate Course in Statistical Problems in Physiology

EXTRAMURAL TEACHING:

Medical Student Education

1995 - 1997 Marquette University , Program in Physical Therapy, Pathophysiology, Acute Care in Medicine and Surgery "Physiology of Metabolic Bone Disease and Osteoporosis"
1995 - 1998 Marquette University , Program in Physical Therapy, Pathophysiology, Acute Care in Medicine and Surgery
1996 University of Wisconsin - Milwaukee, Biological Sciences 630 (Endocrinology), "Adrenal Cortex"
08/27/1997 - 08/28/1997 National Medical School Review, Endocrine Physiology, Newport Beach, CA, Supplemental Basic Science Review
1998 Marquette University, Program in Physical Therapy, Pathophysiology, Acute Care in Medicine and Surgery "Physiology of Diabetes Mellitus"
2003 University of Wisconsin - Milwaukee, Biological Sciences 630 (Endocrinology), "Adrenal Cortex"
12/2011 University of Nebraska Medical Center, Department of Physiology, Scientific Writing Course, “Publishing Ethics 101: The Good, The Bad, and The Ugly”
2011 - Present Marquette University College of Health Science “Calcium-Phosphate; Glucose Regulation; HPA Axis lectures”, CTRH 6001 – Applied and Rehabilitative Systems Physiology
2012 - 2022 M1 Medical Physiology, Instructor, School of Medicine, General Principles of Physiology; Endocrinology/Reproduction, Acid-Base Balance (12 contact hours, annually)

2017 - Present Medical Students as Teachers – Course MEDI4151 (M4 Clerkship); Instructor, School of Medicine
12/2020 General Internal Medicine CME Conference: Cushing's Syndrome for Primary Care Physicians

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

Medical Students

Timothy P. Roarty, Research Trainee, MCW
Maryam Ivanoff, Research Trainee, MCW
Steven C. Griffen, Research Trainee, MCW
Saeid Kohandarvish, Research Trainee, MCW
Mark H. Rossing, Research Trainee, MCW
Sandra K. Doepker, Research Trainee, MCW
Pedro Lucero, Research Trainee, MCW
Anne Nagler, Research Trainee, MCW
Jody VanHoof, Research Trainee, MCW
Karl Johnson, Research Trainee, MCW
Maryam Ivanoff, MCW
Nasha Nensey (Physician Scientist – Molecular and Cellular Research Pathway Advisor, 2014-2017), MCW
Adam Goldenberg (Physician Scientist – Molecular and Cellular Research Pathway); Advisor, 2016-2019; T35 Training Grant from the National Heart, Lung, Blood institute (NHLBI), MCW
Christine Huyhn (Quality Improvement and Patient Safety Pathway); Research Advisor 2017, Dr. Michael J. Dunn Medical Student Summer Research Training Fellowship), MCW
Mark H. Rossing, MCW
Jonathan Bodager (Clinical Scientist Pathway Advisor, 2013-2016), MCW
Santiago Rolon (Physician Scientist Pathway Advisor and Research Mentor; 2017-present), MCW
Kyle Welhouse (Physician Scientist – Research Advisor 2019; National Heart, Lung and Blood Institute (NHLBI) T35 Training Grant), MCW
Molly Murray (Pathway Advisor – 2019-present), MCW

Graduate Students

PhD Committees

Daniel Brown, MCW
Christopher Roberts, MCW
Suzanne Greenberg, MCW
Ogugua Anene-Maidoh, MCW
Craig Hanke, MCW
Melissa Morse, MCW
Domagoj Mladinov, MCW
Russell Wilke, MCW
Mary Pat Kunert, MCW

MS Committees

Kristin Anne Koch, MCW
Andrew Piering, MCW
Sribidya Kidambi, MCW
Eric D. Bruder, MCW

Postdoctoral Students

Gopika SenthilKumar, MCW, MD PhD Candidate, Medical Scientist Training Program

Clinical/Research Fellows

Santo J. Diaz, M.D., MCW
Pennapa Chan, MD, MCW
Scott Brock, MD, MCW
Sandra L. Ettema M.D., Ph.D, MCW
Victor O. Waters, M.D., MCW

Robert C. Brickner, M.D., MCW
Manoj H. Majmudar, M.D., MCW
Thomas P. Segerson, M.D, MCW
Vidya Kidambi, MD, MCW
Ty Carroll, MD, MCW
Jay Mepani, MD, MCW
Michael Einstein, MD, MCW
Giovanna Caprirolo, MD, MCW
Mohamed Tahsin Jouhari, MD, MCW

Faculty
Ryan Adam PhD, MCW

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

High School Students
Garrett Werner, University School of Milwaukee, Science Fair Student

Undergraduate Students
Edward Stauber (1997 Endocrine Society Student Research Fellow), University of Wisconsin, Summer Trainee
Judson Werner, University of Wisconsin, Summer Trainee
Jonathan Klinger, Marquette University, Summer Trainee
John P. Tucker, University of Wisconsin, Summer Trainee
Seth Auger, University of Dayton, Summer Trainee
Jennifer Taylor, Northwestern University, Summer Trainee
Michael Nord, University of Minnesota, Summer Trainee
Kimberli Kamer, University of Wisconsin, Summer Trainee
Michael Patrick Kehoe, University of Wisconsin, Summer Trainee
A. Joseph Tector, III, Indiana University, Summer Trainee
Genevieve Schmitt, College of the Holy Cross, Summer Trainee
Mitchell Guenther, Lawrence University, Summer Trainee
Christopher Wean, Renssalaer Polytechnic Institute, Summer Trainee
Matthew Schulgit – University of Wisconsin
Maya Guenther – Lawrence University
Cole Leonovicz - University of Miami
Minhal Gardezi – Wellesley College
Kristin Prewitt – University of Wisconsin
Kathan Chintamaneni - Washington University of St. Louis
Hana Siddiqui – University of Wisconsin
Emily Waples – Duke University
Thomas Gessert – University of Wisconsin
Mack Jablonski - Lawrence University

Medical Students
Katerini Tori (Kern Project Co-Advisor – 2020-present)

Graduate Students
PhD
Walter Bialkowski, Marquette university, PhD Candidate in Clinical and Translational Rehabilitation Health, CTSI

Eric D. Bruder, M.S., University of Wisconsin, Milwaukee

Postdoctoral Students
Paula. E. Papanek, Ph.D.

Clinical/Research Fellows

Neil Reisinger, MD – Chief Medical Resident
Julia Leo MD – GI Fellow
Joshua Kannankeril MD – Endocrinology and Molecular Medicine Fellow
Veena Kumaravel MD – GI Fellow
Jonathan Fahler MD – GI Fellow
Nebiyu Biru, MD – Chief Medical Resident
Satyanisth Agrawal MD – GI Fellow
Brian Rajca MD – GI Fellow
Rituparna Medda DO – GI Fellow

Faculty

Jenna Sarvaideo, DO, MCW – Division of Endocrinology, Department of Medicine, 2019 - Present
David Gazeley, MD, MCW Kern Institute Kinetics3 Teaching Academy, 2021 - Present
Joshua Timpe MD, Department of Emergency Medicine Kern Institute Kinetics3 Teaching Academy
Panayotis Fasseas MD, FACC and Sowmya Palam MD
Thangam Venkatesen, MD, MCW Division of Gastroenterology, Department of Medicine, Committee

COMMUNITY SERVICE ACTIVITIES:

1989 - 1993 American Heart Association Wisconsin Affiliate Research Peer Review Committee
1990 - 2000 Vince Lombardi Cancer Center Education/Control Committee
2007 Badger State Science and Engineering Fair Judge
2008 Badger State Science and Engineering Fair Judge
Milwaukee Alumni Representative, Union College
Milwaukee Neuroscience Group
Founder, Milwaukee Neuroendocrine Group (merged with Milwaukee Neuroscience Group)

BIBLIOGRAPHY

Refereed Journal Publications/Original Papers

1. Raff H, Tzankoff SP, and Fitzgerald RS. ACTH and cortisol responses to hypoxia in dogs. J. Appl. Physiol. (Respirat. Environ. Exercise Physiol.) 51:1257 1260, 1981
2. Raff H, Tzankoff SP, and Fitzgerald RS. Chemoreceptor involvement in cortisol responses to hypoxia in ventilated dogs. J. Appl. Physiol. (Respirat. Environ. Exercise Physiol.) 52:1092 1096, 1982
3. Raff H, Shinsako J, and Dallman MF. Surgery potentiates adrenocortical responses to hypoxia. Proc. Soc. Exp. Biol. Med. 172:400 406, 1983.
4. Raff H, Shinsako J, Keil LC, and Dallman MF. Vasopressin, ACTH, and corticosteroids during hypercapnia and graded hypoxia in dogs. Am. J. Physiol. (Endocrinol. Metab.) 244:E453 E458, 1983
5. Fitzgerald RS, Garger P, Hauer MC, Raff H, and Fechter L. The effect of hypoxia and hypercapnea on catecholamine content in the cat carotid body. J. Appl. Physiol. (Respirat. Environ. Exercise Physiol.) 54:1408 1413, 1983
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