

CURRICULUM VITAE

David R. Cool, Ph.D.

Professor

Director, Proteome Analysis Laboratory

Wright State University
Boonshoft School of Medicine
Department of Pharmacology & Toxicology
Department of Obstetrics & Gynecology (Joint Appointment)
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EDUCATION

1991- Ph.D. Biochemistry- Department of Biochemistry & Molecular Biology
The Medical College of Georgia, Augusta, Georgia

Dissertation: *Human Placental Serotonin Transporter: Characteristics and Regulation.*

Advisors: Dr. Frederick H. Leibach & Dr. Vadivel Ganapathy

1988- M.S. Cell Biology- Department of Biology
Wright State University, Dayton, Ohio

Thesis: *Replacement of Heat-Damaged, Murine Skin with a Skin Equivalent.*

Advisor: Dr. Barbara Hull

1985- B.S. Biology- Department of Biology
Wright State University, Dayton, Ohio

Senior Project: *Use of a Continuous Culture Chamber for Electron Microscopic Analysis of Monocentric Fungi.*

Advisor: Dr. James Amon

1974 -1976 Ohio University
Athens, Ohio

POSTGRADUATE EDUCATION

2013-present Department of Music- Classical Guitar
Wright State University, Dayton, OH

1991-1997 Postdoctoral Fellow- NIH/NICHD/ADAMHA- Bethesda, MD

Project: *Identification of Prohormone Sorting Signals and Receptors*

Mentor: Dr. Y. Peng Loh

1991 (March-July) Postdoctoral Fellow- The Medical College of Georgia, Augusta, GA

Project: Regulation of Placental, Kidney and Intestinal Membrane Transporters.

Mentor: Dr. V. Ganapathy

Workshops & Training Sessions

R-programming for statistics	Workshop WSU- Statistics Center	Feb 23, 2018
Dealing with Difficult People	Workshop WSU HR	Feb 8, 2017
Grant Writers Workshop		Jan 25, 2017
Master Class Classical Guitar	- Martha Masters	Nov 21, 2016
Master Class Classical Guitar	- Frank Wallace	Nov 17, 2016
Grant Writers Workshop		Jan 27, 2016
STREME Innovative Peer Instruction Teaching		Oct. 5, 2015
Master Class Classical Guitar	- Fareed Haque	Sept 28, 2015
Teaching for Student Success		August 25, 2015
Leading by Example: Empowering our people	(Human Resources)	March 9, 2015
FAES Bio-Trac Trac-25 Proteomics: Principles and Methods		Sept 29-Oct3-2014
The Hiring Process: Diversity & Equity		August 13, 2014
MCQ Workshop – BSOM		May 15, 2014
RSP Sponsored Grant Writing Workshop-		April, 2014
BSOM Leadership Academy	Oct 2013-May 2014	Graduated May 14, 2014
Pfizer Clinical Training Research Alliance Investigator Training Workshop		Nov 1-2, 2013
The Hiring Process: Training for hiring faculty & staff.		April 17, 2013
Sexual Misconduct: <i>How to Handle Incidents of Sexual Misconduct</i>		March 27, 2013
Setting Performance Expectations II: Providing Direction and Influence		March 15, 2013
Sexual Harassment Awareness Human Resources Core Program		Feb 27, 2013
Setting Performance Expectations: Providing Direction and Influence		Sept 12, 2012
iBook Author/iBooks Workshop- Teaching Enhancement Certificate		May 16, 2012
Bruker-Daltonics Flex Series MALDI-TOF MS Operation Course		Jan. 28 2008.
The Joys & Responsibility of Teaching Well- BSOM Teaching Workshop		Nov 13, 2007
Test Design for Medical Students- BSOM Teaching Workshop		October 8, 2007
Writing Flawless Tests for Medical Students- BSOM Teaching Workshop		Sept 27, 2007
Bruker-Daltonics IonTrap Mass Spectrometry Factory Training		March 5-8, 2007
Team Based Learning Workshop- BSOM Workshop		June 16, 2005
Sexual Harassment: Staff training- NIH		October 1996

AWARDS & FELLOWSHIPS

2007 Faculty Development Award- BSOM November 13, 2007

1996 NIH- Fellows Award for Research Excellence.

Identification of a Receptor Mediating the Sorting of Pro-opiomelanocortin to the Regulated Secretory Pathway.

1995 - 1997- Intramural Research Training Award (IRTA) NIH/NICHD-LDN

1990 Sigma Xi Annual Outstanding Research Paper Award- Honorable Mention

1989 Outstanding Paper Presented by a Graduate Student - Georgia Academy of Science.

PROFESSIONAL EXPERIENCE

- 2018-** present Adjunct Instructor- Sinclair Community College, Dayton, OH- Biotechnology.
- 2012-**present Professor- Wright State University Boonshoft School of Medicine Department of Obstetrics & Gynecology- Joint Appointment
- 2012-**present Professor- Wright State University Boonshoft School of Medicine Department of Pharmacology & Toxicology
- 2004- 2012** Associate Professor- Wright State University Boonshoft School of Medicine Department of Pharmacology & Toxicology
- 2004-** present Director, Proteome Analysis Laboratory, Boonshoft School of Medicine
- 1997- 2004** Director, Molecular Core Facility, WSU School of Medicine Department of Pharmacology & Toxicology.
- 1997- 2004** Assistant Professor- Wright State University, Department of Pharmacology & Toxicology.
- 1994- 1997** IRTA Postdoctoral Research Fellow, NIH/NICHD-LDN, Bethesda, Maryland
- 1991- 1994** Guest Researcher, (NRC Postdoctoral Fellow) NIH/NICHD/ADAMHA-LDN, Bethesda, Maryland
- 1991** March-July, 1991- Postdoctoral Research Fellow, Biochemistry & Molecular Biology, The Medical College of Georgia, Augusta, Georgia
- 1987- 1991** Graduate Teaching Assistant, Biochemistry & Molecular Biology
- 1985-1987** Graduate Teaching Assistant, Biology Dept Wright State University, Dayton, Ohio
- 1976-1986** Engineer/Fireman Detroit, Toledo and Ironton Railroad, Springfield, Ohio

PROFESSIONAL MEMBERSHIP

- 2007-present** American Society for Mass Spectrometry
- 2012- 2019** Association of Biomolecular Research Facilities (ABRF)
- 2004- 2019** Am. Society of Pharmacology & Experimental Therapeutics
- 1999- 2003** American Heart Association
- 1987- 2000** The American Society for Cell Biology
- 1986- 1988** The American Burn Association

Grants & Consultants (Funded & Pending) (\$-InDirect + Direct Costs)

- **VA Travers (PI)** Funded Consultant 2020-2024
Oxidized Lipids and UV Immunosuppression
- **NIH-R01** Chen/Travers (PI) Funded Cool (Co-I) 2020-2024
Microvesicles as UVB Effectors
- **NIH-R21** Bihl (PI) Funded Cool (Consultant) 2018-2020
Microvesicles as a novel transmitter for UV-induced bioactive products.

- **NIH- R01 Travers (PI)** Funded Cool-Co-I 2016-2021
Platelet Activating Factor and Epidermal Cytotoxicity
- **NIH R21 AR070010 Sulentic/Travers (PI)** Funded Consultant 2016-2018
Photodynamic Therapy-Induced Immune Modulation: Mechanisms and Influence on Therapeutic Efficacy
- **VA Travers (PI)** Funded Letter of Support 2015-2019
UV-mediated systemic immunosuppression
- **NIH Arlian (PI)** Funded Consultant 2011-2016
Scabies: Biology, Culture, Host Specificity and Antigens
- **DAGMEC Boivin (PI)** Funded (Co-I) \$2500 2012-2013
N-Linked Glycation in Tendons of diabetic mice
- **DAGMEC Retzke (PI)** Funded (Co-I) \$2500 2011-2012
Corticosteroid dosing regimens and lamellar body count in an in vitro cell line model
- **NSF Hennessy (PI)** Funded Consultant 2011-2014
Mechanisms mediating social buffering of hypothalamic-pituitary-adrenal responses
- **NIH- R21NS072103-01** Funded (PI) \$720,000 2010-2012
Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor
- **NIH-1P20MD003350-01** Funded (subcontract) \$80,000 2008-2012
CADRE- Center for Allaying Health Disparities Through Research and Education Studies on effects of snake venom and their components on prostate cancer cell growth.
- **Wake Forest University** Funded (I) \$24,364 2007-2011
US-Brazil Consortia for Biomedical Sciences Exchange
- **Kettering Foundation** Funded (PI) \$500,000 2006-2007
Proteomics Analysis Laboratory Funding
- **NIH-1R01 DK58111-01** Funded (PI) \$1,232,500 2001-2007
Molecular Mechanisms of Vasopressin Cytotoxicity in Inherited Diabetes Insipidus
- **DOD- DAMD17-00-C-0020** Funded (Co-I) \$4,200,000 2000-2006
Low level chemical toxicity: relevance to chemical agent defense
- **Kettering Alpha Grant-** Funded (Co-I) \$125,000 1999-2001
Angiotensinergic Modulation of Neuronal Function: Use of Gene Deletion Models
- **National Alliance for Autism Research** Funded (PI) \$60,000 1999-2002
Neuro-endocrine Peptide Hormones are Implicated in Social Behavior Development: Oxytocin Involvement in Autism
- **Burrough's Wellcome Professor (Sponsor)** Funded (PI) \$5,000 1998
Peter Arvan- Visitng Professor
- **AHA (National)-Scientist Dev. Grant** Funded (PI) \$260,000 1998-2001
Regulation of vasopressin neurosecretion: a study of intracellular molecular sorting signals.
- **National Research Council** Research Associateship Award, ADAMHA- 1992-1994
Molecular Sorting of Neuropeptides- (Renewal Funded)
- **National Research Council** Research Associateship Award- ADAMHA- 1991-1992
Molecular Sorting of Neuropeptides- Funded

Internal Funding

- **WSU Translational Research Grant- LOI Rejected Peterson (PI)** \$250,000 2016-2018
Bodyweight Supported Treadmill Training in Mobility Impaired Older Adults.
- **WSU Translational Research Grant- LOI Funded Olson / Cool (Co-PI)** 2016-2018
Developing biomarkers of Ischemic Stroke
- **WSU Translational Research Grant-** Lindheim/Cool (Co-PI) 2014-2016
Non-Invasive Bio-Markers Using Proteomic, Glycomic, And Metabolomic Analysis In Diagnosing Women With Endometriosis
- **WSU Translational Research Grant-LOI** Bini/Cool (Co-PI) 2014-2016
Aerosolized Antibiotics in the Treatment of Ventilator Associated Pneumonia: A Pilot Study
- **WSU Translational Research Grant- LOI Rejected Burdette/Reiter (Co-PI)** 2014-2015
Sepsis study in rats – Wright State Research Institute
- **BSOM Proteomic Seed Grant-** Funded Wrenshall/Cool (PI)\$4,500 2013-2014
Investigation of IL2 dimerization by mass spectrometry
- **BSOM Proteomic Seed Grant-** Funded Sulentic/Cool (PI)\$4,500 2012-2013
Identification of I-KappaB-alpha 20 kDa cleaved peptide by mass spectrometry
- **BSOM Proteomic Seed Grant-** Funded Olson/Cool (PI)\$2,500 2012-2013
Identification of TauT phosphorylation by mass spectrometry
- **BSOM Proteomic Seed Grant** Funded Lee/Cool (PI) \$2,500 2012-2013
Fels Longitudinal Study: Health Outcomes of Weight Loss
- **BSOM Seed Grant** Funded Lehrer (PI)/Reo/Cool \$8000 2008
Protein and Metabolite Biomarkers of antipsychotic drug response in schizophrenia
- **Boonshoft Innovation Fund** Funded (PI) \$300,000 2007
Development of the Boonshoft School of Medicine Proteomics Facility
- **SOM Seed Grant** Funded (PI) \$10,000 2007
Effect of Organophosphates on Prohormone Processing Enzymes
- **WSU-Major Collaboration Grant-** Funded (Co-PI) \$48,000 2003-2004
Center for Chemical-Induced Skin Inflammation
- **WSU Research Challenge:** Funded (PI) \$14,000 2003
Analysis of Drug-Induced Changes in the Hypothalamic-Pituitary Axis Proteome
- **WSU-Seed Grant- GeneChip Project-** Funded (PI) \$10,000 2001 (1yr)
Alterations in Gene Expression in the Oxytocin Knockout Mouse.
- **Research Challenge Grant (Early Start) Funded** (PI) \$20,000 2000
Molecular Mechanisms of Vasopressin Cytotoxicity in Inherited Diabetes Insipidus

Grants Submitted – Not Funded or in Revision

- **Abbvie Lindheim PI Cool Co-I** NF \$220,000 2015-2017
Non-Invasive Bio-Marker Paneling Using Proteomic, Glycomic, And Metabolomic Analysis In Diagnosing Women With Endometriosis

- **NIH-R01** Bahado-Singh (PI) NF Cool (Co-I) 2018-2023
Longitudinal Metabolomic Signatures of Cognitive Function in Aging.
- **NIH-R21** Peterson (PI) NF Cool (Co-I) 2018-2020
Metabolomic analysis of Pregnancy Hypertension.
- **NIH 1R01AGO53492** (Peterson-PI) Scored (46) Cool-Co-I 2017-2022
Longitudinal biologic and physical performance makers of function in aging.
- **NIH- R21** Elased (PI) In revision Cool (Co-I) 2018-2020
Effect of hyperglycemia and ADAM 17 on urinary RAS shedding.
- **Bayer** Lindheim (PI) In revision Cool (Co-I) 2016-2018
Non-Invasive Bio-Marker Paneling Using Proteomic, Glycomic, And Metabolomic Analysis In Diagnosing And Evaluating Treatment In Women With Endometriosis
- **NIH R211939073** Lindheim (PI) In revision Cool (Co-I) \$370,000 2016-2018
Impact of Dietary Xenoglycan-Induced Inflammation on transcriptomic, proteomic, glycomic and cytokine markers in the uterine environment of infertile women.
- **EMD Serono** Lindheim (PI) In revision Cool-Co-I 2016-2018
Impact of Dietary Xenoglycan-Induced Inflammation on Transcriptomic, Proteomic, Glycomic, and Cytokine Markers in the Uterine Endometrium of Infertile Women
- **Nat Vulvodynia Research** Yaklic PI In revision Cool- Co-I 2016-2018
Validation of Proteomic Biomarkers in the Diagnosis and Treatment of Vulvodynia.
- **NIH R21 Peterson (PI)** NF \$250,000 2015-2017
Treadmill Weight and Exercise
- **CDMRP Bowman/Reiter (PIs)** NF Cool (Co-I) 2017-2021
Precision Electroaccupuncture fpr warfighter low back pain.
- **DARPA** Reiter (PI) NF Cool Co-I 2015-2019
ElectRX for Wound Infections
- **NIH 1R01ES025889-01 Cool (PI)** NF \$1,850,000 2015-2020
Chlorpyrifos-induced endocrine disruption and metabolic disease.
- **NIH 1R01 CA194168-01** Lauf (PI) NF Cool CO-I \$1,825,000 2015-2020
Role of Bcl-2-Canonical Motifs of the Na/K ATPase in Cancer Biology
- **NIH** Engisch (PI) NF Co-PI 2014-2018
Planning Grant for the NIH Building Infrastructure Leading to Diversity (BUILD) Initiative
- **EPA** Chattopadhyay LOI-NF Co-I 2014-2016
Collaborative project with TetraTech, Inc to analyze tissues & run experiments on CBRN projects in response to RFA from EPA.
- **DARPA** Reiter (PI)- Leidos NF Co-I 2014-2016
Development of a Training Adaptive Response Detection System
- **NIH** Adragna NF Co-I 2012-2016
Jellyfish toxin components, mechanisms of cytotoxicity and tissue response
- **NIH** Olson (PI) not funded Co-I \$1,000,000 2012-2016
Traumatic Brain Injury: Role of Taurine Regulation in Edema.

- **NIH R01 HD072939-01 Ventolini (PI)** not funded Co-I \$750,000 2012-2015
Vulvodynia: A Novel Diagnostic Approach
- **CDMRP-DOD Cool** not funded PI \$600,000 2012-2015
Role of neuro-inflammation in delayed and long-term changes observed in specific brain neuronal signaling pathways following low-dose sarin exposure in mice.
- **GGAPPS Cool (PI)** LOI-not funded \$1,795,000 2012-2016
Multidisciplinary Approach to Identify First Trimester Biomarkers of Preterm Birth
- **National Vulvodynia Research** not funded (Ventolini-PI) Cool-Co-I 2011-2012
Vulvodynia: A Comprehensive Proteomic Diagnostic Approach
- **1RC1HD063515-01** not funded (PI) \$500,000 2009-2011
A Multidisciplinary Approach to First Trimester Prediction of Preterm Birth
- **1RC1HD** not funded (Co-PI) \$500,000 2009-2011
Vulvodynia: A Comprehensive Diagnostic and Therapeutic Approach
- **NIH 1S10RR026971-01** not funded (PI) \$220,000 2010-2011
Labcyte Portrait 630 Spotter for MALDI-Imaging in a Proteomic Facility
- **1R01ES018037-01** not funded (PI) \$250,000 2009-2014
Effect of Chlorpyrifos on Liver and Pancreatic Enzyme and Signaling Proteomes
- **1U01NS063554-01** Not Funded (PI) \$330,000 2008-2010
Neuroprotection by the caspase inhibitor QVD-OPH following acute OP-exposure
- **1R21MH083156-01** Not Funded (co-PI) \$175,000 2007-2009
Protein & Metabolite Biomarkers of antipsychotic drug response in schizophrenia.
- **NIH-1R01ES015338-01** (re-submitted) (PI) \$225,000 2006-2010
Chlorpyrifos Effect on Endocrine Systems and Development in Rats
- **NIH-1R01DK072385-01-** Not Funded (PI) \$250,000 2005-2010
Antiapoptotic effects on diabetic mouse proteome.
- **NIH- S01** Not Funded (PI) \$498,788 2006-2007
Autoflex II MALDI-TOF/TOF Mass Spectrometer for a Proteomic Analysis Laboratory-
- **NIH- S01** Not Funded **Score 201** (PI) \$498,788 2005-2006
Autoflex II MALDI-TOF/TOF Mass Spectrometer for a Proteomic Analysis Laboratory
- **DOD-BAA-** Not Funded (PI) \$1,000,000 2004-2006
Proteomic Analysis of Host Response to Low-Level Sarin Exposure for Agent-Specific Biomarker Profile Development

TEACHING

Workshops

08/02/2016- 08/05/2016 Proteomic Workshop- I developed and taught a 5 day proteomic workshop to train students, staff, faculty on proteomic techniques, i.e., sample preparation, 1D and 2D gels, mass spectrometry, MS sequencing of proteins.

Proteomic Workshops		
Student	Program	Year
April Daubenspeck	BMS-PhD	2016
Ali Yilmaz	PhD Beaumont Health Center, Michigan	
Adaku Ume	BSOM- MD/Ph.D.	Summer 2018
Chris McCoy	BSOM- MD	
Katherine Cross	BSOM- MD	
Fatima Bensabur	BSOM- MD/Ph.D.	
Katherine Barton	Volunteer	

FELLOWSHIP PROGRAMS & SUMMER PROGRAMS

Miami Valley Hospital- Translational Research Training

OB/GYN Miami Valley Hospital Maternal Fetal Medicine Fellowship Program 2008-2014

In partnership with the OB/GYN MFM Dept at MVH (Dr. David McKenna), I work with the MFM Fellows to develop a research project based on proteomic analysis of patient tissue/fluid samples, train them in my laboratory at WSU Dept of Pharmacology & Toxicology on the equipment needed, protocols, and in data analysis. As part of this training, I have arranged for them to take the PTX700 Research Techniques class that I teach each fall quarter to the MS students in our dept. This training provides a framework for their future as clinical research scientists in translational medicine. Each MFM Fellow submits a proposal, IRB applications, and if possible, grants to WSU, NIH or other extramural funding agencies.

Maternal Fetal Medicine Fellows and Projects:

Melanie Glover, M.D., Proteomic Research Project- Identifying Biomarkers of Pre-term Labor
OB/GYN Miami Valley Hospital Resident Research Fellowship Program 2009 -2011

Ming Zhou, M.D., Proteomic Research Project. OB/GYN Miami Valley Hospital Resident Research Fellowship Program 2009-2012. Ming helped TA the PTX700 Research Techniques Class that I teach each fall quarter. She is currently collecting samples for her project on pre-eclampsia.

Jason Retzke, M.D., Proteomic Research Project- Jason took the PTX700 Research Techniques course taught by me, Fall Quarter 2010. He is working on a project using lung cell lines to study fetal lung lamellar body production. **Funded in 2011 by DAGMEC.**

Kari Rudinsky, M.D., Pravastatin transport across the human placenta.

Ziad Hadar, M.D., Effect of tocolytics on surfactant production and secretion from NCI-HC441 lung cells. 1 Publication (see Peer Reviewed Publications)

Amol Molshe, M.D., AVP in Placenta: Effects on pre-eclampsia.

Boonshoft School of Medicine

Preceptor for Jessica Hoying- Summer Project at UC. **(2007)**

Preceptor for Laura Preville- Summer Project **(2008)**

COURSE PARTICIPATION

BSOM

WrightQ	Year 2 (August- January)	48 hrs	2018- present
WrightQ	Year 1 (April- June)	48 hrs	2018- 2019
SMD 535	Hypersensitivity Lecture 2 nd Year SOM	1 hr	2001-2015
SMD 521	CATO (MCTB) Hormone Synthesis 1 ST Year SOM	2 hrs	2000-2017
SMD 561	Reproduction-Teratogens in Pregnancy 2 nd Year SOM	1 hr	1999-2015
SOM-TBL	Team Learning- GI/Endocrine SOM	3 hrs	2005
SOM-TBL	Team Learning- Hypersensitivity/Immune	3 hrs	2013-2015

Graduate

PTX7020-A90	Online Course- Course Director Lab Management (MD/MS)		2019- present
PTX7020-2	Online Course- Course Director Lab Management		2015- present
PTX7021	Effective Scientific Writing I&II		2016- 2018
PTX898	Neuropharmacology- Guest Lecturer (1 lecture)		2010
NCBP863	Principles of Biomedical Res. Guest Lecturer (2 lectures)		2010
PTX7010	Course Director Research Techniques (P/T MS Program)		2001- present
PTX7020-1	Course Director- Laboratory Management		2010- present
PTX990	Course Director Spring J. Club- Preparing the Proposal		2008-2012
BMS 805	Intercellular Communication- Receptor Theory (4 lectures)		2005-2009
PTX751	Molecular Toxicology- Enzyme Inactivation (1 lecture)		2005
PTX 751	Molecular Toxicology- Xenobiotics Lecture (1 lecture)		2002-2005
PTX 750	Principles of Biodynamics Rep.Tox. (1 lecture)		2002- 2006
PHA990	Topics in Pharmacology (1 lecture)		1999- present
BMS 898	Neuropharmacology- Neuropeptides (1 lecture)		2000-2001
BMS 805	Intercellular Communication- Neuronal Hormones (1 lecture)		1999- present
BMS 701	Cell Biology– Secretory Pathway- ER, Golgi, Vesicles (2 lectures)		1998 & 1999

Undergraduate-

CL 462	Med Tech Program- Mass Spectrometry Lecture		2001
BIO 401	Research Techniques (USABRIO) Course Director		2001-present
CLSC3640	MCG- PA & MT Class- Biochemistry- Protein Structure		1989-1991
Bio 410	WSU Molecular Biology Lab Graduate GTA Spring Quarter		1985-1987
Bio 420	WSU Histology Lab-Graduate GTA Winter/Summer Quarter		1985-1987
BMS 700	WSU Electron Microscopy Lab- GTA- Fall Quarter		1985 & 1986

Undergraduate- Sinclair Community College

Bio1100	Biotechniques – Protein Purification – Class and Lab		2018- present
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GRADUATE STUDENT COMMITTEES

MS Student Committees

Student	Degree	Role	Dept	Graduated
Steve Jackson	M.S.	Advisor	Anatomy	DNF (DO School)
†Sam Ropp	M.S.	Committee Member	Anatomy	Grad- 1999
Mark Chhoa	M.S.	Committee Member	Biology	Grad- 2000
Wei-Chih Yei	M.S.	Committee Member	Biology	Grad- 2000
Kerri Kendrick	M.S.	Committee Member	Biology	Grad- 2001
Brett Kockentiet	M.S.	Committee Member	Anatomy	Grad- 2001
Archana Deshpande	M.S.	Committee Member	Biology	Grad- 2001
Clint Coleman	M.S.	Committee Member	Biology	Grad- 2002
Dan Sejas	M.S.	Committee Member	Biology	Grad- 2003
*Atira Hardiman	M.S.	Advisor	P&T	Grad- 2004
Erin Kelly	M.S.	Advisor	P&T	Grad- 2004
†Anthony Polito	M.S.	Co-Advisor	P&T	Grad- 2004
Theresa Baker	M.S.	Committee Member	P&T	Grad- 2004
Sheryl D'Silva	M.S.	Committee Member	P&T	Grad-2005
Carol Amato	M.S.	Committee Member	P&T	Grad- 2006
Faizad Tatateaban	M.S.	Committee Member	Anatomy	Grad- 2006
Jessica Hoying	M.S.	Committee Member	P&T	Grad- 2006
Jordan Bohinc	M.S.	Committee Member	P&T	Grad- 2006
Cataleya Carlson	M.S.	Committee Member	P&T	Grad- 2006
Molly Burns	M.S.	Advisor	P&T	Grad- 2007
†Keerthy Kanakemedala	M.S.	Committee Member	P&T	Grad- 2007
Jennifer Edwards	M.S.	Advisor	P&T	Grad- 2007
Kevin Dougherty	M.S.	Committee Member	NCBP	Grad- 2007
**Amanda Javorina	M.S.	Advisor	P&T	DNF
John Pyles	M.S.	Committee member	P&T	Grad- 2009
†Sean Harshman	M.S.	Advisor	P&T	Grad- 2009
Scott Kerns	M.S.	Co-Advisor	P&T	Grad- 2009
Chris Woolard	M.S.	Co-Advisor	P&T	Grad- 2009
Darren Morris	M.S.	Advisor	P&T	DNF
†Dawahl Oswal	M.S.	Committee Member	P&T	Grad- 2009
†Tharu Fernandez	M.S.	Committee Member	P&T	Grad- 2009
Alicia Castle	M.S.	Committee Member	P&T	Grad- 2009
†Kaushal Joshi	M.S.	Committee Member	P&T	Grad- 2009
Drew Nedderman	M.S.	Committee Member	P&T	Grad- 2010
Jordan Williamson	M.S.	Co-Advisor	P&T	Grad- 2013
†Sesha Lakshmi Paluri	M.S.	Committee Member	P&T	Grad- 2011
Shingirisa Dossa	M.S.	Advisor- Leadership	P&T	Grad- 2010

Doug Chmura	M.S.	Advisor	P&T	Grad- 2011
Jason Lipiec	M.S.	Committee Member	P&T	DNF
Mike Lepera	M.S.	Committee Member	P&T	Grad- 2011
Amod Joshi	M.S.	Advisor	P&T	Grad- 2011
Richard Chou	M.S.	Committee Member	P&T	Grad- 2012
Basma Elsellabi	M.S.	Committee Member	P&T	Grad- 2011
†Pavani Beesetty	M.S.	Committee Member	P&T	Grad- 2013
Venus Ebrahimian	M.S.	Advisor	P&T	Grad- 2013
†Kathryn Ibbotson	M.S.	Advisor	P&T	DNF
†Mackenzie Newman	M.S.	Advisor	P&T	Grad- 2013
†Dan Yi	M.S.	Committee Member	P&T	Grad- 2013
Bradley Williams	M.S.	Co-Advisor	P&T	Grad- 2013
Hala Mustafa Ammar	M.S.	Committee Member	P&T	Grad- 2014
†Xiang Xiao	M.S.	Committee Member	P&T	Grad- 2013
†Ekta Shah	M.S.	Advisor	P&T	Grad- 2014
†Shams Kurzan	M.S.	Committee Member	P&T	Grad- 2014
Mohammed Altuuri	M.S.	Committee Member	P&T	Grad- 2014
Shamili Sammohi	M.S.	Advisor	P&T	Grad- 2015
†Ashvin Iyer	M.S.	Advisor	P&T	Grad- 2015
†Mahesh C. Kodali	M.S.	Advisor	P&T	Grad- 2015
†Kaulini Burra	M.S.	Committee Member	P&T	Grad- 2015
Pankaj Patyal	M.S.	Committee Member	P&T	Grad- 2015
Abdelfateh Abou Issa	M.S.	Committee Member	P&T	Grad- 2016
Walid Mari	M.S.	Committee Member	P&T	Grad- 2017
†Ravina Ashtapure	M.S.	Advisor	P&T	Grad- 2016
Siham Abdul	M.S.	Committee Member	P&T	Grad- 2017
Katey Fahey	M.S.	Committee Member	P&T	Grad- 2017
†Faten Bin Dayel	M.S.	Advisor- Leadership	P&T	Grad- 2018
Anas Sergiwa	M.S.	Advisor- Leadership	P&T	Grad- 2018
Ariel Molnar	M.S.	Advisor- Leadership	P&T	Grad- 2018
Gousia Begum	M.S.	Committee Member	P&T	Grad- 2018
Raisa Siddique	M.S.	Committee Member	P&T	Grad- 2019
Hima Priya Yenuga	M.S.	Advisor	P&T	Grad- 2020
Shreepa Chauhan	M.S.	Committee Member	P&T	Grad- 2020

* Atira Hardiman received the honor of Graduate Excellence Award in 2003.

** Amanda Javorina received the honor of Graduate Excellence Award in 2005.

DNF- Did Not Finish

M.S.-NT- Non-Thesis Option

† Student went on to a PhD program after MS.

Ph.D. Student Committees

Student	Degree	Role	Dept	Graduated
Elissa Kelly	Ph.D.	BMS Rep	BMS	Grad- 2002

James Rogers	Ph.D.	Committee Member	BMS (Bio)	Grad- 2000
Paul Kiere	M.S.	Committee Member	BMS	DNF- Failed Prelims
Lisa Bircher	Ph.D.	Committee Member	BMS (BMB)	Grad- 2002
Hao Chen	Ph.D.	Committee Member	BMS (P&T)	Grad- 2005
Jing Zhang	Ph.D.	Committee Member	BMS (P&T)	Grad- 2003
Brena Mauck	Ph.D.	Committee Member	BMS (P&T)	Grad- 2003
Andrea Hoffmann	Ph.D.	Advisor	BMS (P&T)	Grad- 2004
Sam Ropp	Ph.D.	Advisor	BMS (P&T)	Grad- 2004
John Casper	Ph.D.	Committee Member	BMS (BMB)	Grad- 2004
Julie Ngola	Ph.D.	Committee Member	BMS (P&T)	Grad- 2006
Chris Rutherford	Ph.D.	Advisor	BMS (P&T)	Grad- 2006
Pat Sonner	Ph.D.	Committee Member	BMS (P&T)	Grad- 2007
Jason Lehman	Ph.D.	Committee Member	BMS (BMB)	Grad- 2008
Zhongyu Yan	Ph.D.	Advisor	BMS (P&T)	Grad- 2010
Valerie Sembieb	Ph.D.	Committee Member	BMS (NCBP)	Grad- 2009
Amit Sharma	Ph.D.	BMS Rep	BMS (Biology)	Grad- 2009
Deborah Maken	Ph.D.	BMS Rep	BMS (Psych)	Grad- 2009
Kashmira Kulkani	Ph.D.	BMS Rep	BMS (NCBP)	Grad- 2009
Joy Deng	Ph.D.	BMS Rep	BMS (NCBP)	Grad- 2009
Richard Salisbury	Ph.D.	Committee Member	ES (P&T)	Grad- 2014
Jennifer West	Ph.D.	Committee Member	BMS (Biology)	DNF
Alok Sharma	Ph.D.	Co-Advisor	BMS (Biology)	Grad- 2011
†Curt Grigbsy	Ph.D.	Advisor	BMS (P&T)	Grad- 2013
Heidi Jordan	Ph.D.	BMS Rep	BMS (NCBP)	Grad- 2012
Sapna Varia	Ph.D.	Committee Member	BMS (Biology)	Grad- 2012
Amanda Freeman	MD/PhD	Co-Advisor	P&T	Grad- 2013
Ryan Yoakum	Ph.D.	Committee Member	BMS (BMB)	Grad- 2016
David Ellis	Ph.D.	Committee Member	BMS	Grad- 2015
Eric Romer	Ph.D.	Committee Member	BMS	Grad- 2014
Dawahl Oswal	Ph.D.	BMS Rep	BMS	Grad- 2014
Neelima Sharma	Ph.D.	BMS Rep	BMS (P&T)	Grad- 2014
Prakash Arumagam	MD/PhD	Co-Advisor	BMS (NCBP)	Grad- 2016
Jinju Wang	Ph.D.	Co-Advisor	BMS (P&T)	Grad- 2016
Anthony Polito	Ph.D.	Co-Advisor	BMS (P&T)	Grad- 2015
Brian Stodgill	Ph.D.	Committee Member	BMS (Bio)	DNF
Mahmoud Alghamri	Ph.D.	Committee Member	BMS (Bio)	Grad- 2016
April Daubenspeck	Ph.D.	Co-Advisor	BMS (NCBP)	Grad- 2017
Yirong Zhou	Ph.D.	Committee Member	BMS (P&T)	Grad- 2018
Jenny Jurcsisin	Ph.D.	Committee Member	BMS (P&T)	Grad- 2019
Raji Santhanakrishnan	Ph.D.	BMS Rep	BMS (Bio)	Grad- 2019
Prithy Martis	Ph.D.	BMS Rep	BMS (BMB)	Grad- 2020
Todd Lewis	Ph.D.	Committee Member	BMS (BMB)	Grad- 2017
Soham Parikh	Ph.D.	BMS Rep	BMS (ENG)	Proj- 2021

Jananie Rockwood	Ph.D.	BMS Rep	BMS (NCBP)	Proj- 2022
Adaku Ume	MD/PhD	Committee Member	BMS (NCBP)	Proj- 2022
Phillip Walker	MD/PhD	Committee Member	BMS (NCBP)	Proj- 2021
Xiu Huan Yap	Ph.D.	Committee Member	BMS (Comp)	Proj- 2022
Hannah Shows	Ph.D.	Committee Member	BMS (Comp)	Proj- 2022
Ben Schmitt	Ph.D.	Committee Member	BMS (BIO)	Grad- 2020
Kristen Rehl	Ph.D.	BMS Rep	BMS (NCBP)	Proj- 2022
Christina Davidson	Ph.D.	Committee Member	BMS (Comp)	Proj- 2023

† Received the Graduate Student Excellence in Research Award from the Graduate School for 2014.

Undergraduate Students:

STREAMS- (Summer Training Research Enrichment and Minority Students)

Kirsten Autrey	Summer 1999	at WSU
Tamara Taylor	Summer 2002	at WSU
Anthony Clemons, Ph.D.	Summer 2003	at WSU (Grad. PhD 04/03/14 Notre Dame)
Theresa Dorsey	Summer 2004	at WSU

Science Apprenticeship Program 2000

American Heart Association Summer Research Fellowship-
Ben Alter (Washington University) 2000

Undergraduate Student Research		
Student	Type	Year
Andrea Rush	WSU- Work/Study	1998-1999
Marcus Washington	CSU Student on Snake Venom Project	Summer 2010
Crystal Stewart		
Roviere Colson		
Diante Markey-Moore		
Larry Shelton	CSU Student on Snake Venom Project	Summer 2011
Krystina Stallworth		
Rachel Smith	CSU Student on Snake Venom Project	2012-2013
Katherine Barton	Vassar	2018 summer

MS Student Research		
Student	Type	Year
Bishal Marasini	MS semester research project	2016/2017
Aiman Khan	Enzyme/MS assays Summer Project	Summer 2017

Medical Student Research (MD/MS)			
Student	Type/Advisor	Year	Role
Jaree Raza Naqvi	Wound Healing – Dr. J. Travers	2017	Com.

International Programs-

USABRIO	Molecular Research Techniques (Bio401)	2002- 2006
USABRIO	Biomedical Sciences Exchange	2006- 2010

SERVICE

Miami Valley Hospital OB/GYN

OB/GYN Research Faculty Search Committee	2014
OB/GYN Translational Reproductive Health Research Grant Committee	2014- present
Judge- MVH Resident Research Day- OB/GYN	2005-present

COMMITTEES

Boonshoft School of Medicine

Faculty Promotion and Advancement (FPAC) Committee	2014-2017
Pediatric Dept Chair Search Committee	2014-2015
FPAC Representative- Mike Leffak, Ph.D. Continuing Review	2014
Translational Research Grant Reviewer- ad hoc	2014
Judge- Medical Student Research Symposium (April 2014)	2014-2017
Promotion Committee Ad Hoc Member	2013
5 Year Review Committee- Mariana Morris, Ph.D.	2013
Research Challenge Proteomic Seed Grant Committee	2012-present
LCME Accreditation Committee	2008
Chair- Bylaws Committee	2007-2011
PB&T Steering Committee	2007
Comprehensive Neuroscience Center- Steering Committee	2006-2011
Research Committee	2006-2010
8 Year Review Committee - Mariana Morris, Ph.D.	2006
Chair- Faculty Affairs- BSOM	2005-2007
CATO (MCTB) Reorganizing Committee	2004
Research Challenge Review Committee (ad hoc)	2004
Research Committee	2002-2004
LCME Accreditation Committee	2000
Kettering Beta Grant Review Committee	1999

BioMedical Sciences Program (BMS)

Curriculum Committee	2019-2021
Academic Policies Committee (appointed)	2017-2018
Admissions Committee	2015- 2017
Integrative Toxicology Track	2015- present
Nominating Committee	2013-2015
Recruiting Committee	2013
Academic Policies Committee	2011-2015
Curriculum Committee	2005-2012
Steering Committee	2005
Admissions Committee	2005
Admissions Committee	2001

Nominating Committee	2001-2002
Admissions Committee- Chair	2001-2002
Curriculum Committee	1998-1999
Admissions Committee	1997-1999

Pharmacology & Toxicology

Workload Equity & Merit Committee	2015- 2017
Comprehensive MS Program Review Committee	2015
Chair- MS Program Policies Committee	2014- present
Co-Chair- MS Program Self-Review Questionnaire & Retreat	12/2013
Chair- Faculty Affairs and Development Committee	5/2013-2015
Acting Chair when Dr. Adragna is traveling	4/19/13-2015
Chair- Assistant Professor Search Committee	2013
Strategic Planning Committee P&T Dept	2013
Advisory Committee for Ms Terry Oroszi M.S. Director	2009- 2011
Incentive Fund Committee	2008- 2009
Chair Office Assistant Search Committee	2006
Director- Proteome Analysis Laboratory	2004- present
Faculty Affairs Development Committee	2005- present
Acting Chair when Dr. Morris is traveling	2005- 2013
Faculty Recruitment Committee	2005
MS Admissions Committee	2001-2009
Faculty Recruitment Committee	1999-2001
Chair Seminar Series	1999- 2002
Chair Burrough's Wellcome Seminar/Committee	1999
Promotion Standards Committee	1999-2000
Director- Molecular Biology & Imaging Core Facility (P&T Dept).	1997-2004

Wright State University

Parking Appeals Subcommittee	2017-2019
Building and Grounds Committee	2017-2020
Faculty Senate Prerequisite Check Committee	2015-2016
Faculty Senate Information Technology Committee	2012-2014
Graduate Council	2011-2014
IBC (BioSafety) Committee	2007- 2010
LAR Veterinarian Lab Director Search Committee Interviewer	2007
Research Sponsored Programs Asst Director Candidate Interviewer	2005
Chair Finance Committee- Mol Biology Retreat- Organizing Committee-	2003 & 2004
Molecular Biology Retreat- Organizing Committee	2001

Advisory Committees

Director- Proteome Analysis Laboratory	2004-present
Advisory Committee- Comprehensive Neuroscience Center	2006-2010

COMMUNITY SERVICE

Dayton Guitar Society Board of Directors	2016- present
Fairborn High School Play- Head of Stage Crew - 12 th Night -	2010
C-Rec Golf Scramble- WSU Scholarship Fund	2005- present
BSOM Drive for a Difference Golf Scramble	2005- present

Digg's Biological Sciences Scholarship Fund	2007- 2008
Letters to Editor- Fairborn Herald	August 2004
Jury Duty- Greene County Petit Jury	October 2003
Advisory Board- Mini-University	2001-2005
Team Co-Captain- Am. Cancer Society- 24 hr Relay Challenge	2001
Team Captain- Health Angels Heart Run- NIH	1992-1994
Science Fair Judge- Columbia County Schools, Augusta, GA	1989-1990

SCHOLARLY ACTIVITY AND RESEARCH

SCIENTIFIC GRANT REVIEW COMMITTEES

Summary: 15 NIH; 5 CDMRP; 2 NSF; 3 State

- 2020 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. R21 Study Section Reviewer (11/3-4/2020).
- 2020 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U54/U01 Study Section Reviewer (03/05-06/20).
- 2019 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U54/U01 Study Section Reviewer (03/21-22/19).
- 2018 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U54/U01 Study Section Reviewer (03/08-09/18).
- 2017 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U54/U01 Study Section Reviewer (03/16-17/17).
- 2016 Bankhead-Coley Cancer Research Program** and the James and Esther King Biomedical Research Program - ORAU Reviewer
- 2016 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. R21 Study Section Reviewer (07/08/16)
- 2016 CDMRP-DOD Gulf War Illness Epidemiology & Biomarkers Grant Review Panel** (1/6-8/16)
- 2015 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U01 Study Section Reviewer (03/12/2015).
- 2014 NIH Small Business Endocrinology, Metabolism, Nutrition, and Reproductive Sciences special emphasis panel (ZRG1 EMNR-S 10)** Study Section Reviewer (11/06/2014).
- 2014 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. R21 Study Section Reviewer (07/11/2014).
- 2014 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U01 Study Section Reviewer (03/28/2014).
- 2013 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. R21 Study Section Reviewer (06/09/2013).
- 2012 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. R21 Study Section Reviewer (07/09/2012).
- 2012 NIH CounterAct Study Section Member** Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U54 Study Section Reviewer (03/22/2012).

- 2012 CDMRP-DOD** Autism Research Program (ARP) Pilot Award Peer Review Panel (01/11/12)
- 2011 NIH CounterAct Special Emphasis Meeting-** Research for Countermeasures Against Chemical Threats- U01 Study Section Reviewer (July 14, 2011)
- 2010 CDMRP-DOD** Gulf War Illness Grant Review Panel IA (September 26 & 27 2010)
- 2010 CDMRP-DOD** Gulf War Illness Grant Review Panel IA – Teleconference Review (April 6, 2010)
- 2009 CDMRP-DOD** (Congressionally Directed Medical Research Program- Dept of Defense) Gulf War Illness Grant Review Panel IA (October 28-30, 2009)
- 2009 NIH Stage 1 Challenge Grant Application Review** – Subject Matter Expert- Proteomics (June 2009)
- 2008-present Oak Ridge Associated University** Peer Review Reviewer
- 2006 Indiana 21st Century Fund/Indiana Economic Development Corporation.**
Proteomic Proposal Review
- 2004 National Science Foundation (NSF)-** ad hoc Grant Reviewer
- 2003 National Science Foundation (NSF)-** ad hoc Grant Reviewer
- 1999** Beta Award Review Committee- WSU Kettering Award Committee
- 1996** Fellows Award for Research Excellence- (NIH) Biochemistry II Study Section Head

SCIENTIFIC JOURNAL REVIEW

- 2017- Plos One** – One manuscript.
- 2014- Present- Editorial Board** Interdisciplinary Toxicology
- 2012- Present- Editorial Board** Journal of Environmental Immunological Toxicology
- 2015-** Peer Reviewer for 1 manuscript to J. Med. Res. Archives
- 2015-** Peer Reviewer for 1 manuscript to: Life Sciences
- 2012-** F1000 -1 manuscript
- 2012-** J. Env. Immun. Tox. – 1 manuscript
- 2012-** The Open Neuroendocrine Journal- 1 manuscript
- 2011-** Toxicological Sciences Reviewer- 1 manuscript
- 2010-** Elsevier/Academic Press reviewer of Kastin's *Handbook of Biologically Active Peptides*
- 2008-** Brain Research- 1 manuscript
- 2007-** Hypertension- 1 manuscript
- 2006-** Am. J. Physiology- Endocrinology & Metabolism 1 manuscript
- 2005-** J. Mol. Endocrinology 3 manuscripts
- 2004-** Hypertension- 2 manuscripts
- 2003-** Journal of Neuroendocrinology- 1 manuscript
- 2002-** Experimental Neurology- 1 manuscript
- 2001-** Hypertension- 2 manuscripts
- 2001-** Am. J. Physiology- Regulatory, Integrative and Comparative Physiology- 2 manuscripts

1997- J. Biological Chemistry- 1 manuscript

1996- Proceedings of the National Academy of Sciences- 1 manuscript

1994- Biochimica et Biophysica Acta- 1 manuscript

COLLABORATIONS & CONSULTANTS

- Dr. Ravi Sahu-** P&T Dept- Cytokines and PAF-Ah in pneumonia **2018- present**
- Dr James Olson/Dr Bryan Ludwig** (Emerg. Med & Neurology) Identification of taurine transporter in brain swelling. **2010- present**
- Dr. Jiri Sonek-** OB/GYN -MVH Biomarkers of Preterm labor **2008- present**
- Dr. Oleg Paliy-** BMB- HPLC Analysis of Small Bacterial Metabolic Molecules **2018- present**
- Dr. Ray Bahado-Singh, Beaumont Health Research Center, MI.** **2016- present**
- Dr. Steven Lindheim** OB/GYN Neu(5)GC in Infertility **2015- present**
- Dr. Ali Reiter & Dr. Tim Broderick** ElectRx Infection Control **2015**
- Dr. John Bini & Dr. Steve Burdette, MVH,** Dept.Surgery, Aerosolized Antibiotics in the Treatment of Ventilator Associated Pneumonia **2014- present**
- Dr. Richard Simman,** P&T Dept, Comparison of wound healing using OASIS. **2014-present**
- Dr. Steven Lindheim** OB/GYN Polycystic Ovary Syndrome **2014- present**
<http://clinicaltrials.gov/ct2/show/study/NCT01487486>
- Dr. Steve Burdette & Dr. Chad Reiter,** Dept. Infectious Diseases & WSRI, Sepsis study in rats **2014- 2016**
- Dr. Greg Boivin,** WSU-LAR, Analysis of tendon for collagen repair **2014- 2017**
- Dr. Jerry Yaklic,** OB/GYN, Translational research of OB/GYN diseases **2013-present**
- Dr. Larry Arlian & Dr. Marge Morgan** WSU Biology Dept Scabies: Biology, Culture, Host Specificity and Antigens **2011- present**
- Dr. Matthew Peterson** (Lifespan) Aging, Exercise and diet. **2015- present**
- Dr James Olson-** (Emerg. Med) Biomarkers of Stroke damage.
- Dr Miryoung Lee-** (Lifespan) Analysis of biomarkers of dieting
- Dr. Gary Onady,** Pre-clinical Treatment Study for Cystic Fibrosis **2011-present**
- Dr. John Miller & Dr. Lucy Wrenshall-** NCBP & Dept of Surgery- Purification of IL-2 and analysis of dimerization **2011-present**
- Dr. James Olson-** Emergency Medicine & NCBP Osmotic Regulation of the Neuronal Taurine Transporter. **Ongoing Research Project-** **2003- present**
- Dr. Norma Adragna,** Proteomics in Membrane Transport P&T Dept- WSU **2004- present**
- Dr. Norma Adragna & Dr. Peter Lauf,** Proteomics of Jellyfish Toxin P&T Dept-WSU **2011-present**

- Dr. Mike Hennesy**- Dept of Psychology, Wright State University- **NSF Grant Application**
"Mechanisms mediating social buffering of hypothalamic-pituitary-adrenal responses" **2010-present**
- Dr. Gary Ventolini**, Biomarkers of Vulvodynia – MVH Dept of OB/GYN MFM **2008- present**
- Dr. Courtney Sulentic**, Analysis of Drug Exposure- P&T Dept- WSU **2005- 2007**
- Dr. Donald F. Steiner**, Proteomics of Prohormone Convertase Knockout Mice- University of Chicago, Chicago, IL **2004-2010**
- Dr. Chinnaswamy Tiruppathi**- Caveolin-1 regulation of Ca²⁺ influx in Endothelial Cells University of Illinois at Chicago, Chicago, IL. **Ongoing Research Project-** **2006-2012**
- Dr. Thomas Brown**, WSU- Control of Apoptosis in Type 1 Diabetes. **Ongoing Research Project-** **2004-2006**
- Dr. James Lucot**- WSU- New surrogate model for novel treatments of chemical attack- **Ongoing Research Project-** **2006-present.**
- Dr. Sharath Krishna**, Central State University- Snake Venom Proteomics and Use as Potential Cancer Treatment- **2008- 2014**
- Dr. Anthony Arment, Central State University**- Symbiosis in Venomous Snake Venom. Research Project- **2007- 2008.**
- Dr. Karen Parker, Stanford University**- Unique neuropeptides in CSF of Squirrel Monkey, **2009-2011**
- Dr. Francoise Muscatelli**, Institut de Neurobiologie de la Méditerranée (INMED) **INSERM U901, Marseille, France**- Neuropeptides in MAGEL2 KO Mouse Neonatal Pituitaries. **2009**
- Dr. Julian Gomez-Cambronero**- WSU BMB Dept- Myloid Cell Differentiation **2007-2010**
- Dr. Theodore C. Friedman**, Genes and proteins involved in the switch leading to addiction, Charles R. Drew University of Medicine and Science, Los Angeles, CA- **2003-2010**
- Dr. Nigel Birch**, Technical Consultant on Nigel's Marsden Grant, New Zealand- **1999-2001**

CONSULTANT & COMPANIES

- **Ohio Peptide**- Dr. Sharad Rawale- Peptide QC by Mass Spectrometry **2010-present**
- **Proctor & Gamble**- Technical Consultant on SELDI-TOF Mass Spectrometry- **2001-2002**
- **Ronin IT**- IT (Information Technology) Panel Member **2005-2014**
- **Network of Advisors**- Academic and clinical advisors to the financial industry **2006-present**
- **APOPTROL**, LLC Small Biotech Startup Company- VP-Proteomics **2006-present**
- **Dr. Nina Joshi, COO UES, Inc.**- AFRL Phase I SBIR titled Identifying Critical Physicochemical Characteristics of Nano-Particles that Elicit Toxic Affects on ESH. **2007-2011**
- **BioRad**- Beta test site for ProteoMiner protein extraction kit. **2007**
- **Science Advisory Board** Online board of scientific advisors picked to share and discuss important questions in science. **2008-present**

OB/GYN Resident Translational Research

I have been working since 2013 to develop translational research projects with the OB/GYN chair, Dr. Jerry Yaklic, the residents and other faculty. Projects have been outlined in Interstitial Cystitis, Endometriosis, vulvadynia (with former Chair, G. Ventolini), and pre-eclampsia. IRBs are being written for the various projects and have been approved for one. Many of these projects will involve examining body fluids or tissue for cytokines and developing protein and lipid biomarkers for these diseases that will allow a better, faster, or more evidence based diagnosis of disease. One of the goals of this collaboration is to develop a framework for translational research that basic science and clinical departments can use to get started without encountering many of the hurdles that become roadblocks to initiating quality research between these two groups.

PRESENTATIONS & INVITED TALKS

Symposia

- 6th Annual CounterACT Network Research Symposium- Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor. June 25-27, 2012.** San Francisco, CA.
- 5th Annual CounterACT Network Research Symposium- Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor. June 21-23, 2011.** Washington D.C.
- Earl H. Morris Symposium- Wright State University Boonshoft School of Medicine- Mass Spectrometry Analysis of Neuropeptides. October 31, 2008**

Grand Rounds

- Miami Valley Hospital OB/GYN Grand Rounds- Translational Research- September 10, 2014**
- Miami Valley Hospital OB/GYN Grand Rounds- Teratogens in Pregnancy- February 5, 2003**

International Meetings

- RegPep Meeting Proteomic Analysis of Pituitary Peptides in Knockout Mice. - Toulouse, France- September 20-22, 2004.**
- Conference Jacques Monod on "*Protein Processing Mechanisms in Cellular Regulation*" Identification of a signal for sorting pro-opiomelanocortin to the regulated secretory pathway in the *Neuro 2a* cell line. La Londe-les-Maures, France. November, 1993**

National Meetings

- Society of Toxicology- Panelist- Poster Discussion Session: Toxicologic Application of Proteomics: SELDI-TOF Mass Spectrometry Proteomic Analysis of Pyridostigmine Bromide and Stress on the HP-Axis. (Abstract #1086, see below) Nashville, TN, 2002**
- American Heart Association- Retention of Mutant Vasopressin in the ER: Effects on BiP and Apoptosis. Dallas, TX May 2001.**
- Gordon Research Conference on "*Hormonal and Neural Peptides*" Invited Discussant: Receptor-mediated sorting of prohormones to the regulated secretory pathway. (July 1996).**

Invited Seminars at Outside Institutions

- Kettering College of Medical Arts-** Kettering, OH- *Peptide Hormones in Disease* **March 24, 2011.**
- WPAFB- Naval Health Research Center Detachment-** Cholinergic and Non-Cholinergic Effects of Cholinesterase Inhibitors and Organophosphates on the NeuroEndocrine System. **June 12, 2008**
- Proctor & Gamble-** *Proteomic Analysis of Stress Proteins Using SELDI-TOF Mass Spectrometry.* Consultant on purchase of SELDI-TOF Mass Spectrometer (**May 2001**).
- University of Louisville, School of Dentistry- Department of Biological and Biophysical Sciences-** *“Carboxypeptidase E: a Molecular Chaperone for Prohormone Sorting.* (**May 1999**).
- National Institute of Neurological Diseases and Stroke Seminar-** *Evidence for a receptor-mediated mechanism for sorting pro-opiomelanocortin to the regulated secretory pathway.* (**February, 1996**).
- Catholic University of America,** Department of Biology Invited Seminar, *Evidence for a receptor-mediated mechanism for sorting pro-opiomelanocortin to the regulated secretory pathway.* (**October, 1995**).
- Harvard School of Public Health- Seminar** *Human Placental Serotonin Transport: Characterization and Regulation.* (**March, 1991**).
- NIH/NICHD Laboratory of Developmental Neurobiology Seminar,** *Human Placental Serotonin Transport: Characterization and Regulation.* (**February, 1991**).

Regional & Local Meetings & WSU Presentations

- CADRE** Central State University Research Update Presentations. **March/October 2009- 2011.**
- University of Cincinnati Dept of Engineering-** *Purification and Analysis of Snake Venom.* **December 14, 2010**
- Biochemistry & Molecular Biology Dept Brown Bag Lunch Seminar-** Using prohormone processing enzyme knockout animals to analyze prohormone processing pathways. **April 17, 2007.**
- Wright State University- Mini-Med School 2004-**Proteomics: Beyond the Gene. **October 19, 2004**
- Molecular Biology Retreat- 2004-** Proteomics Analysis Laboratory Presentation **September 2004.**
- Wright State University- Biochemistry and Molecular Biology Department Seminar-** *Molecular Mechanisms in Inherited Diabetes Insipidus* (**April 4, 2003**).
- Wright State University- Pharmacology & Toxicology Department Seminar-** *Proteomic characterization of neuroendocrine systems in Cell and Animal Models* (**December 20, 2002**)
- Ohio Physiological Society-** *Mutations in Vasopressin Disrupt the ER-Golgi Secretory Pathway.* **Ohio University** (**November 9, 2001**)
- WSU Biology Dept. Seminar** *“Molecular Sorting of Prohormones”.* (**October 1997**).
- WSU Biochemistry Dept. Seminar** *“Molecular Sorting of Prohormones”.* (**September 1997**).
- Molecular Biology Retreat- WSU Biochemistry Dept. Keynote Speaker-** *“Molecular Sorting of Prohormones”.* (**September 1997**).
- NIH Annual Research Festival, Workshop #23 Protein Trafficking,** *Identification of an amphipathic loop signal for sorting the prohormone, pro-opiomelanocortin, to the regulated secretory pathway.* (**September, 1995**).

NIH Seminar, *Identification of the sorting signal motif within pro-opiomelanocortin for the regulated secretory pathway* (**December, 1993**).

NIH Annual Research Festival, Workshop #19, *The intracellular sorting of pro-opiomelanocortin to the regulated secretory pathway*. (**September, 1992**).

First Annual University System of Georgia Research Symposium, Medical College of Georgia, *Expression and cAMP-Dependent Regulation of Serotonin Transport in the Human Placental Choriocarcinoma Cell Line, JAR*. (**May, 1991**).

Georgia Academy of Science, *Effects of Ions on Human Placental Serotonin Transport* (**March, 1989**).

Wright State University- Department of Biology- MS Graduate Research Project “Spring Sing” *Replacement of Heat-Damaged Murine Skin with a Bilayered Skin Equivalent* (**May 1987**).

Wright State University- Department of Biology- Undergraduate Research Project “Spring Sing” *Growth of Marine Fungi in a Closed Perfusion Chamber for Electron Microscopy*. (**May 1985**).

GENEBANK SEQUENCE:

Grunwald, W.C. and **Cool, D.R.**, *Lack of Sequence Polymorphism in the Oxytocin Gene of Autistic Patients*. (2002) Accession #: **AY082910**.

Patents & Inventions

2015- Protein Gel Band Slicer
with WSU patent office and attorneys.

Declaration of Invention Filed

2018 – Serum Protein Panel for Stroke Diagnosis.

Patent filed via WSU.

REVIEW ARTICLES & BOOK CHAPTERS

Haverman, L.M., **Cool, D. R.**, Gagneux, P., Yaklic, J.L., Maxwell, R., Lindheim, S.R., *A review of Vulvodynia: What we know and where we should be going*. **J. Lower Genital Tract Disease/ 21 (2): p 150-156, 2017**.

Adragna, N.C., Ferrell, C., Zhang, J., Di Fulvio, M., Temprana, C., Sharma, A., Fyffe, R. E. W., **Cool, D.R.** and Peter K. Lauf. *Signal Transduction Mechanisms of K-Cl Cotransport Regulation and Their Relationship to Disease*. *Acta Physiol (Oxford)*. **2006** May-Jun; 187(1-2):125-139

Friedman, T.C. and **Cool, D.R.**, *Prohormones*, in the **Encyclopedia of Endocrinology and Endocrine Diseases**. Martini, L. (ed.) Academic Press – pp91-98 (**2004**).

Cawley, N.X., **Cool, D.R.**, Normant, E., Shen, F., Olsen, V. and Loh, Y.P., *The mechanism of sorting pro-opiomelanocortin to secretory granules and its processing by aspartic and PC enzymes*. in **Proteolytic and Cellular Mechanisms in Prohormone and Proprotein Processing**, V. Hook. (ed); R.G. Landes Co., Georgetown, TX. **1998**.

Loh, Y.P., Snell, C.R. and **Cool, D.R.** *Receptor-mediated targeting of hormones to secretory granules: role of carboxypeptidase E*. **Trends in Endocrinology and Metabolism 1997**.

Loh, Y.P., Snell, C.R. and **Cool, D.R.**, *Evidence for a receptor mediated mechanism for sorting pro-opiomelanocortin to the regulated secretory pathway*. in **The Peptidergic Neuron**, B. Krisch and R. Mentlien (eds); Birkhauser Verlag Basel/Switzerland, pages 47-54, **1996**.

Amon, J.P., Jennings, D. and **Cool, D.R.** *Use of a continuous culture chamber for physiological, ecological and morphological studies of monocentric fungi*. In **Zoosporic Fungi in Teaching and Research**. Eds. Melvin S. Fuller and Alan Jaworski. Southeastern Publishing Corporation, Athens, GA. p132-136. **1987**.

Manuscripts in Preparation

1. Daubenspeck, A., **Cool, D.R.**, Ludwig, B., Olson, J, Utilizing Mechanical Thrombectomy as a Research Tool to Analyze Blood Proteins form the Ischemic Brain of Stroke Patients. **2019- Submitting to Stroke**
2. Yan, Z. Grunwald, Jr., W.C., **Cool, D.R.**, Characterization of Chlorpyrifos Toxicity in Pancreatic RIN-m5f Cells. **Manuscript in Preparation (2019).**
3. Javorina, A.K., Grunwald, Jr., W.C., Lucot, J.B., **Cool, D.R.**, Sarin inhibition of hypothalamic and anterior pituitary AChE activity. **Manuscript in Preparation (2019).**
4. Shah, E.J., Grunwald, Jr., W.C., Brown, Garrett, T., T.L., Lucot, J.B., **Cool, D.R.**, *The Broad Spectrum Caspase Inhibitor Q-VD-OPh Protects Brains from Sarin-Induced Neurodegeneration.* **Manuscript in Preparation (2019).**
5. Newman, M., Krishna, S., Grunwald Jr, W.C., **Cool, D.R.**, Simman R., *Red Diamondback Rattlesnake Venom Reduces Keloid Scar Disease Characteristics in Dermal Fibroblasts In Vitro.* **Manuscript in Preparation (2019).**
6. Newman, M., Ebrahimian, V. Krishna, S., Grunwald Jr, W.C., Simman R., **Cool, D.R.**, Serial Filtration And Identification of Proteins in Crotalus Ruber Ruber Venom **Manuscript in Preparation (2019).**

PEER-REVIEWED PUBLICATIONS (h-Index 21)

Indicates Graduate student in my lab

1. Shah, E.J., Grunwald, Jr., W.C., Garrett, T., Brown, T.L., Lucot, J.B., **Cool, D.R.**, *The Broad Spectrum Caspase Inhibitor Q-VD-OPh Protects Brains from Sarin-Induced Neuroinflammation.* **Manuscript in Preparation (2020).**
2. Ashtaputre, R.M., Sonek, J., McKenna, D., Elased, K., **Cool, D.R.**, *Enzyme activity in amniotic fluid from preterm and term patients.* **Manuscript in preparation** for Am. J. OB-GYN, (2020).
3. T.A. Sensing, C.E. Hardman, **D.R. Cool**, J.R. Lynde, J.S. Bruun, R. Armstrong, A.S. Shoen, and J.K. Bini. A pilot study of cytokine profiles in patients who develop ventilator-associated pneumonia. **Submitted 2019.**
4. Liu, L., Fahey, K., Cool, D.R., Travers, J.B., *Thermal burn injury generates bioactive microvesicles: evidence for a novel transport mechanism for the lipid mediator Platelet-activating factor that involves subcellular particles and the Platelet-activating factor receptor.* J. Immunol. 2020, **Accepted for Publication.**
5. Grunwald, Jr., W.C., **Cool, D.R.** *Proteomic and Genomic Endocrine Responses in Oxytocin Knockout Mice.* **Med Res Archives 7: 11 1-16 (2019).**
6. M. Smith; J.R. Ho; L. Ma; M. Lee, S.A. Czerwinski; T. Glenn; **D. R. Cool**; P. Gagneux; F. Stanczyk; Steven R. Lindheim, *Does anti-mullerian hormone (amh) predict biochemical hyperandrogenism, oligo-anovulation, metabolic dysfunction, and metabolic syndrome?: results from a longitudinal study.* **2019 Fertility and Sterility Dialog 111(4):e37**
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41. Key, M., Wirick, B., **Cool, D.R.** and Morris, M., Quantitative *in situ* hybridization for peptide mRNAs in mouse brain. **Brain Res. Protocols** 8: 9-15 (2001). (Journal Cover)
42. **Cool, D.R.** and Loh, Y.P., *Parameters of binding of the regulated secretory pathway sorting signal of Pro-opiomelanocortin to the receptor, carboxypeptidase E in secretory granule membranes.* **Mol. Cell. Endocrinol.** 139: 7-13 (1998)
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51. Ramamoorthy, S., **Cool, D.R.**, Leibach, F. H., Mahesh, V.B. and Ganapathy, V.. *Reconstitution of the human placental 5-hydroxytryptamine transporter in a catalytically active form after detergent solubilization.* **Biochem. J.** 286: 89-95 (1992).

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52. **Cool, D.R.**, Leibach, F. H., Bhalla, V.K. Mahesh, V.B. and Ganapathy, V.. *Expression and cyclic AMP-dependent regulation of a high affinity serotonin transporter in the human placental choriocarcinoma cell line (JAR).* **J. Biol. Chem.** 266: 15750-15757 (1991).

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55. **Cool, D.R., Leibach, F. H. and Ganapathy, V.** *High-affinity paroxetine binding to the human placental serotonin transporter.* **Amer. J. Physiology 259:** C196-C204 (1990)
56. **Cool, D.R., Leibach, F. H. and Ganapathy, V..** *Modulation of serotonin uptake kinetics by ions and ion gradients in human placental brush-border membrane vesicles.* **Biochemistry 29:** 1818-1822. (1990)
57. Hull, B.E. and **Cool, D.R.,** *Replacement of heat-damaged murine skin with a skin equivalent.* **J. Burn Care and Rehabilitation 11:** 14-17. (1990). <https://doi.org/10.1097/00004630-199001000-00004>

* Indicates that the first and second authors were equal contributors to these papers.

NEWS RELEASES, MEDIA PRESENTATIONS, and CITATIONS

Zappia- The Career Experts- Experts Weigh-In On Current Job Market Trends
November 30, 2020.

Three news releases have been published for the following paper:

Lee, A.G, **Cool, D.R.,** Grunwald, Jr., W.C, Neal, D.E., Buckmaster, C.L, Cheng, M.Y., Hyde, S., Lyons, D.M., and Parker, K.J., A novel oxytocin peptide in New World monkeys. (**Biology Letters, 2011**)
doi: 10.1098/rsbl.2011.0107

News in a nutshell

Scientist - [Megan Scudellari](#) - Mar 17, 2011

“But this week in *Biology Letters*, a team at Stanford University reports that multiple New World **monkey** species possess a novel form of **oxytocin**, which contains a single amino acid difference from the **oxytocin** in other mammals.” Citation abbreviated but available.

Scientists find hormone in love with the monkey

News Daily - Mar 16, 2011 by Marahesi <http://www.usdailyinsights.info/scientists-find-hormone-in-love-with-the-monkey/1616/>
Scientists find hormone in love with the monkey

“They experienced difficulties when trying to measure the levels of **oxytocin**. After performing genetic analysis, they know that the gene responsible for the production of **oxytocin** in different **monkeys**. This research has been published in the journal **Biology Letters...**” Citation abbreviated but available.

Odd Form of 'Love' Hormone Found in Some Monkeys

LiveScience.com - [Jennifer Welsh](#) - Mar 15, 2011

“The so-called "love and trust" hormone called **oxytocin**, originally discovered in the monogamous prairie vole, has been found in an odd form in a **monkey** species. "This is the first time **oxytocin** has been ...” Citation abbreviated but available.

The following article was cited in an online library of latest developments in the field of mass spectrometry.

Current Awareness (wileyonlinelibrary.com) DOI: 10.1002/jms. 1663

Current Awareness in Mass Spectrometry- 2) Instrumental Techniques & Methods.

- Grigsby CC, Rizki MM, Tamburino LA, Pitsch RL, Shiyonov PA, **Cool DR**. Metabolite Differentiation and Discovery Lab (MeDDL): A new tool for biomarker discovery and mass spectral visualization. *Anal Chem* **2010**; **82**: 4386.

Faculty of 1000 (F1000) identifies and evaluates the most important articles in biology and medical research publications. Articles are selected by a peer-nominated global 'Faculty' of the world's leading scientists and clinicians who then rate them and explain their importance.

FACULTY of 1000 Technical Advance: **F1000 Factor 3.0** F1000 Biology Reports Ltd.,

Faculty Member: Richard L Stevens: Faculty of 1000, 18 Feb 2004

<http://f1000biology.com/article/14740479/evaluation>

Faculty of 1000: evaluations for **Cool, D.R.**, & Hardiman, A., *Biotechniques* 2004 Jan 36(1): 32-4.

Comments:

“The study reports a new technical advance, namely an improved, more direct and highly sensitive mass spectrometry (MS) dependent approach to identify unknown proteins in samples, which should have an impact on the proteomics field.”

Focus- WSU SOM Magazine- **Cover Photo-** May 2003. (Judi Engle- Interviewer)

Dayton Daily News- Gulf War Syndrome Research- Newspaper article quote and picture- (Jim DeBrosse- Interviewer)

Channel 22- American Heart Association- Heart Disease- Interviewed as an AHA-Funded Researcher for the Local AHA Fundraiser- 2001. (Marsha Bonhart- Interviewer)

MUSICAL PRESENTATION – Music & Medicine

Fifth Annual Music & Medicine Concert- Boonshoft School of Medicine- Lead Guitar- Day is Done (Peter Dinklage- Cover) **October 29, 2013.**

Fourth Annual Music and Medicine Concert- Boonshoft School of Medicine- Guitar Duet- ‘Leopard Skin Pill-Box Hat’ (Bob Dylan- Cover) **September 11, 2012.**

Third Annual Music and Medicine Concert- Boonshoft School of Medicine- Guitar Solo ‘In My Life’ (Lennon & McCartney/L. Juber- Cover) **January 25, 2011.**

ABSTRACTS

- 1) **Cool, D.R.** and Barbara E. Hull. *Effects of heat on the cells and extracellular matrix of skin.* The **American Society for Cell Biology** 26th Annual Meeting. Washington, D.C. Abstract no. 932 (1986)
- 2) **Cool, D.R.** and Barbara E. Hull. *Replacement of burned skin on mice with skin equivalents.* The **American Society for Cell Biology** 27th Annual Meeting. St. Louis, Missouri. Abstract no. 904 (1987)
- 3) **Cool, D.R.**, Abney, T.O., Johnson R.D. and Carter, A.L. *Source and turnover of carnitine in the male reproductive tract.* **American Society for Cell Biology** 28th Annual Meeting. San Francisco, California. Abstract no. 955 (1989)

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- 6) **Cool, D.R.**, Mahesh, V.B., Leibach, F. H. and Ganapathy, V.. Expression of a paroxetine-sensitive serotonin transporter in a human placental choriocarcinoma cell line (JAR). **American Society for Cell Biology 30th Annual Meeting**, San Diego, CA. Abstract no. 1892 (1990).
- 7) **Cool, D.R.**, Mahesh, V.B., Leibach, F. H. and Ganapathy, V.. Expression and cAMP-dependent regulation of a high-affinity serotonin transporter in the human placental choriocarcinoma cell line (JAR). **FASEB 75th Annual Meeting**, Atlanta, GA Abstract no. 4984 (1991)
- 8) Miyamoto, Y. Leibach, J.W., Cool, D.R., Leibach, F., Ganapathy, V., Properties of taurine transport in a human retinal-pigment epithelial (HRPE) cell line. *Inv. Opth. Vis. Sci.* 34: 4: 982 March 1993.
- 9) **Cool, D.R.**, Fenger, M., Hwang, V.K. and Loh, Y.P.. Expression and intracellular targeting of pro-opiomelanocortin in the neuroblastoma cell line, *Neuro 2a*. **American Society for Cell Biology 32nd Annual Meeting**, Denver, CO. Abstract no. 324 (1992).
- 10) **Cool, D.R.**, Fenger, M. and Loh, Y.P.. Identification of a signal for sorting pro-opiomelanocortin to the regulated secretory pathway in the *Neuro 2a* cell line. **NIH Annual Research Festival 1993**.
- 11) **Cool, D.R.**, Fenger, M. and Loh, Y.P.. Identification of a signal for sorting pro-opiomelanocortin to the regulated secretory pathway in the *Neuro 2a* cell line. **American Society for Cell Biology 33rd Annual Meeting**, New Orleans, LA Abstract no. 2357, 1993.
- 12) **Cool, D.R.**, Louie, D. and Loh, Y.P.. Processing of pro-opiomelanocortin by the yeast aspartic protease, *YAP3*, in *PC12* cells. **Endocrine Society 76th Annual Meeting**, Anaheim, CA., Abstract no. 1001, 1994
- 13) Bamberger, A.M., **Cool, D.R.**, Snell, C.R. and Loh, Y.P.. Identification of a common amphipathic loop motif in the N-terminal region of POMC and pro-enkephalin as a sorting signal for the regulated secretory pathway. **American Society for Cell Biology 34th Annual Meeting**, San Francisco, CA, Abstract no. 2598, 1994.
- 14) **Cool, D.R.**, Snell, C.R., Fenger, M. and Loh, Y.P.. Identification of an amphipathic loop signal for sorting the prohormone, pro-opiomelanocortin, to the regulated secretory pathway. **Endocrine Society, 1995**
- 15) **Cool, D.R.**, Louie, D.Y. and Loh, Y.P.. Processing of pro-opiomelanocortin by the yeast aspartic protease, *YAP3*, in *PC12* cells. **Endocrine Society, 1995**
- 16) Loh, Y.P., Snell, C.R., Fenger, M. and **Cool, D.R.**, Identification of an amphipathic loop signal for sorting the prohormone, pro-opiomelanocortin, to the regulated secretory pathway. **12th International Symposium on Neurosecretion**, Kiel, Germany, 1995.
- 17) **Cool, D.R.**, Zhang, Y, Zhang, C.F. and Loh, Y.P.. Identification of a specific binding protein for the regulated secretory pathway sorting signal of pro-opiomelanocortin in Golgi and secretory granule membranes. **American Society for Cell Biology 35th Annual Meeting**, Washington, D.C., 1995.
- 18) Normant, E., **Cool, D.R.** and Loh, Y.P., Aggregation and binding of the sorting signal to a receptor for the regulated secretory pathway. **Gordon Research Conference. Hormonal and Neural Peptides. July 1996**.

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- 21) Waddell, K.S., Jackson, S. and **Cool, D.R.**, *GFP coupled to pro-vasopressin is sorted to the regulated secretory pathway in Neuro-2a cells.* **American Society for Cell Biology** 38th Annual Meeting, San Francisco **1998**.
- 22) Waddell, K.S. and **Cool, D.R.**, *Intracellular molecular sorting signals and regulation of prohormone neuro-endocrine secretion.* *WSU-SOM Spring Central Research Forum.* **1998**.
- 23) Waddell, K.S., Jackson, S. and **Cool, D.R.**, *Investigation of intracellular targeting of diabetes insipidus mutations to vasopressin using GFP as a marker.* **American Society for Cell Biology** 39th Annual Meeting, Washington, D.C. **1999**.
- 24) Hoffmann, A. and **Cool, D.R.**, *Mouse vasopressin promoter controlled expression of bovine vasopressin coupled to yellow fluorescent protein.* **American Society for Cell Biology** 39th Annual Meeting, Washington, D.C. **1999**.
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