

## CURRICULUM VITAE

**DATE UPDATED:** November 2017

**NAME:** **Bonnie Ann Avery, Ph.D.**

**DATE, PLACE OF BIRTH:** August 3, 1959 Garrison, North Dakota

**WORK ADDRESS:** Clinical Professor Department of Pharmaceutics  
Director, UF Translational Drug Development Core  
Laboratory  
Department of Pharmaceutics  
College of Pharmacy  
University of Florida  
1345 Center Drive, P1-27  
PO Box 100494  
Gainesville, FL  
Phone: (352)294-8690  
Fax: (352)273-7854  
email: [bavery@cop.ufl.edu](mailto:bavery@cop.ufl.edu)

## **EDUCATION**

<u>Institution</u>	<u>Degree</u>	<u>Year</u>
The University of North Dakota Department of Chemistry Grand Forks, North Dakota 58202 Dissertation Advisor: Dr. David C. Tilotta; Dissertation Title: "Analytical Applications of Near Infrared Molecular Emission Spectroscopy"	Ph.D. Analytical Chemistry	1994
Minot State University Minot, North Dakota 58707	B.A. Chemistry	1990
Minot State University Minot, North Dakota 58707	B.S. Medical Technology	1982

## **LICENSURE/CERTIFICATIONS**

SCUBA, 1988 – present  
Scientific Research Diver, 2002 – present  
Emergency Oxygen Provider, 2008 – present  
Rescue Diver, 2003  
Nitrox, 2003  
Advanced Diver, 2002  
First Aid/CPR, 1980 – present  
Registered Medical Technologist, 1982 – 1990

## ACADEMIC APPOINTMENTS

01/17 – Present	Clinical Professor Pharmaceutics, College of Pharmacy, University of Florida, Gainesville, FL
07/14 – 12/16	Curriculum Transformation Subcommittee, School of Pharmacy, The University of Mississippi, University, MS
11/12 – 12/16	Chair IACUC Committee, The University of Mississippi, University, MS
10/12 – 10/14	Chair Curriculum Committee, School of Pharmacy, The University of Mississippi, University, MS
05/09 – 05/13	Graduate Program Coordinator Department of Pharmaceutics and Drug Development, School of Pharmacy, The University of Mississippi, University, MS
02/09 – 05/13	Advisory Board Member Center for Writing and Rhetoric, The University of Mississippi, University, MS
05/06 – 05/13	Pre-pharmacy Advisor, School of Pharmacy, The University of Mississippi, University, MS
05/05 – 05/07	Member of the School of Pharmacy Board of Directors for Continuing Education, School of Pharmacy, Jackson, MS
07/04 – 12/16	Associate Professor of Pharmaceutics and Drug Delivery, Department of Pharmaceutics and Drug Delivery, School of Pharmacy, The University of Mississippi, University, MS
08/00-12/16	Associate Professor of Environmental Toxicology, Department of BioMolecular Sciences, Environmental Toxicology Division, School of Pharmacy, University of Mississippi, University, MS
04/95 – 07/04	Assistant Professor of Pharmaceutics, Department of Pharmaceutics, School of Pharmacy, University of Mississippi, University, MS
08/90 – 05/91	Graduate Teaching Assistant, Department of Chemistry, University of North Dakota, Grand Forks, ND
08/88 – 05/90	Teaching Assistant, Department of Chemistry, Minot State University, Minot, ND

## SCIENTIFIC APPOINTMENTS/EXPERIENCE

01/17 – Present	Director, University of Florida Translational Drug Development Core Laboratory, Gainesville, FL
07/12 – Present	International Journal of Clinical Pharmacology & Toxicology (IJCP)
06/11 – Present	Editorial Board, Pharmaceutica Analytica Acta
06/11 – Present	Editorial Board, Journal of Bioequivalence & Bioavailability
09/11 – 12/16	Co-Director, NIH-COBRE Center of Research Excellence in Natural Products Neuroscience (CORE-B), University of Mississippi, University, MS
01/09 – Present	Editorial Advisory Board Panel Member of Bioanalysis Journal, Future Science Group

04/05 – 12/09	Board of Directors Averta Pharmaceuticals, Oxford, MS
07/04 – 12/14	Board of Directors Lifecyte, Memphis, TN
07/04 – Present	Research Associate Professor, Research Institute for Pharmaceutical Sciences, The University of Mississippi, University, MS
04/95 – 07/04	Research Assistant Professor, Research Institute for Pharmaceutical Sciences, The University of Mississippi, University, MS
08/00-Present	Faculty in the Environmental Toxicology Research Program, School of Pharmacy, The University of Mississippi, University, MS
08/91 – 06/94	Patricia Roberts Harris Graduate Fellow, University of North Dakota, Grand Forks, ND
08/91 – 06/94	Coordinator of the GC and LC/MS/MS facilities, Department of Chemistry, University of North Dakota, Grand Forks, ND
05/90 – 09/90	Research Assistant, Department of Chemistry, University of North Dakota, Grand Forks, ND. Advisor: Professor Vergil Stenberg
09/88 – 05/90	Research Assistant, Department of Chemistry, Minot State University, Minot, ND. Advisor: Professors Randolph Rodewald and Robert Crackel

#### **PROFESSIONAL APPOINTMENTS/EXPERIENCE**

05/87 – 08/88	Medical Technologist, Fairchild Air Force Hospital, Spokane Washington. Department Supervisor, Clinical Chemistry
05/86 – 05/87	Medical Technologist, Valley Medical Associates, Spokane, Washington. Laboratory Director
06/84 – 01/86	Medical Technologist, Wiesbaden Regional Medical Center, Wiesbaden, Germany. Department Supervisor Special Chemistry
09/83 – 06/84	Medical Technologist, Wiesbaden Regional Medical Center, Wiesbaden, Germany. Department Supervisor Clinical Chemistry
03/83 – 09/83	Medical Technologist, Wiesbaden Regional Medical Center, Wiesbaden, Germany. Department Supervisor Hematology
08/81 – 05/82	Medical Technology Student, Trinity Medical Center, Minot, North Dakota

#### **STUDENT AND TECHNICIAN SUPERVISION, PRECEPTING AND ADVISING Dissertation/Thesis Committee Director**

##### Doctor of Philosophy

University of Florida, College of Pharmacy, Department of Pharmaceutics, Gainesville, Florida

-Tamara King, 1-17 – Present

The University of Mississippi, Department of Pharmaceutics and Drug Delivery,  
University, Mississippi

- Tamara King, 1/15 – 12/16
- Swetha Ainamodu, 6/12 – 12/12
- Seshulatha Jamalapuram, 8/08 – 11/12 (Ph.D. defense November, 2012)
- Pradeep Vuppala, 8/08 – 4/12 (Ph.D. defense April, 2012)
- Sai Boddu, 1/06 – 11/11 (Ph.D. defense November, 2011)
- HarshaVinnakota, 8/06 – 4/11 (Ph.D. defense April, 2011)
- Deepthi Pabbisetty, 8/05 – 9/10 (Ph.D. defense September, 2010)
- Venkata Tumuluri, 8/00 – 3/07 (Ph.D. defense March, 2007)
- Shilpa Kandhari, 8/99 – 5/03 (Ph.D. defense May, 2003)
- Ke Zhao, 8/96 – 9/01 (Ph. D. defense September, 2001)

Master of Science

The University of Mississippi, Department of Pharmaceutics, University, Mississippi

- Tarsha Bond, 5/04 – 8/06
- Shirisha Moola, (M.S. defense February, 2001)
- Nehal Vyas, (M.S. defense December, 1999)
- Krishna Venkatesh (M.S. defense February, 1998)

Senior Thesis

The University of Mississippi, Department of Forensic Science, University, Mississippi

- Teresa Reese, 10/15 – Present

The University of Mississippi, Department of Pharmaceutics, University, Mississippi

- Sandy Goss, 9/96 – 5/97

Advisory Committee Member

Doctor of Philosophy

University of Florida, Department of Pharmaceutics, Gainesville, Florida

- Da Sillva, Lais, 6/17 – present

Doctor of Philosophy

University of Florida, Department of Medicinal Chemistry, Gainesville, Florida

- Agha, Hebaalla, 10/17 – present

Doctor of Philosophy

University of Mississippi, Department of Pharmaceutics, University, Mississippi

- Naresh Modepalli, (Ph.D. defense April, 2015)
- Sunil Battu, (Ph.D. defense April, 2010)
- Nina Pavuluri, (Ph.D. defense May, 2007)
- Dutta, Asish, (Ph.D. defense April, 2006)
- Amit Shaw, (Ph.D. defense November, 2005)
- Ashok Illapakurthy, (Ph.D. defense July, 2003)
- Steven Stodghill, (Ph.D. defense December, 2000)

University of Mississippi, Department of BioMolecular Sciences, University, Mississippi

- Vedanjale Gogineni, 09/14 – 12/16
- Kelsey Luecke, 05/14 – 12/16
- Walid Alsharif, (Ph. D. defense 12/15)
- Brian Morgan, (Ph.D. defense 01/15)
- Edward “Sonny” B. Furr, 10/06 – 08/12

University of Mississippi, Department of Medicinal Chemistry, University, Mississippi

- Jessica Erin Adkins, (Ph.D. defense October, 2008)

University of Mississippi, Department of Pharmacognosy, University, Mississippi

- Cheryl Frankfather, (Ph.D. defense September, 2004)
- Haidy Kamel, (Ph.D. defense May, 2004)
- Jeanne M. Kuhajek, (Ph.D. defense March, 2001)

University of Mississippi, Department of Pharmacology, University, Mississippi

- Shiqian Zhu (Ph.D. defense November, 2007)

University of Mississippi, Department of Chemistry, University, Mississippi

- Nagamani Vunnam (Ph.D. defense April, 2010)

University of Mississippi, National Center for Physical Acoustics, University of Mississippi

- Logan Marcus, (Ph.D. defense July, 2012)

#### Doctor of Arts

University of Mississippi, Department of Chemistry, University, Mississippi

- Laura Boyd, 2008 – 2012
- Kerri Scott, (Ph.A. defense May, 2007)

Master of Science

University of Mississippi, Department of Pharmaceutics, University, Mississippi

- Amit Shaw, (M.S. defense May, 2006)
- Anjan Nan, 8/00 – 5/01
- Mampreet Kaur, (M.S. defense August, 2000)
- Subbarao V. Addaganti, (M.S. defense August, 1999)
- Kedar Gokhale (M.S. defense December, 1998)
- Ravindra Tejwani, (M.S. defense December, 1996)
- Sridhar Venkatesan (M.S. defense December, 1996)
- Rajeshwar Motheram (M.S. defense December, 1995)

University of Mississippi, Department of Chemical Engineering, University, Mississippi

- Chun Haw See, (M.S. defense May, 2001)

University of Mississippi, Environmental Toxicology Research Program

- Meghan Dailey, (M.S. defense June, 2012)

**Sally McDonnell Barksdale Honor's College Senior Thesis**

Research Advisor

- Sydney Harrison 5/16 – 12/16

Second Reader

- Mary Virginia Portera, (Defense 4/16)
- Jason Tang, (Defense 5/15)
- Jonathan Shih (Defense 5/14)

**Research Supervisor**

University of Florida, College of Pharmacy, Gainesville, Florida

Postdoctoral Fellow

- Abhisheak Sharma, 1/17 – Present

Ph.D. Candidate

- Tamara King, 1/17 – Present

Summer Research Technician

-Sydney Harrison, 6/17 – Present

Summer Research Elective

-Meena Manepalli, 6/17 – Present

University of Mississippi, School of Pharmacy, University, Mississippi

Postdoctoral Fellow

-Dr. Abhisheak Sharma, 4/15 – 12/17  
-Dr. Murugesh Kandasamy, 4/13 – 1/14  
-Dr. Shuang-Quing Zhang, 1/07 – 5/09  
-Dr. Lie Li, 8/06 – 3/09

Ph.D. Candidate

-Tamara King, 1/15 – 12/17  
-Swetha Ainampudi, 6/12 – 12/12  
-Seshulatha Jamalapuram, 8/08 – 11/12  
-Pradeep Vuppala, 8/08 – 4/12  
-Harsha Vinnakota, 8/06 – 4/11  
-Sai Boddu, 1/06 – 10/10  
-Deepthi Pabbisetty, 8/05 – 8/10  
-Sampada Upadhye, 8/05 – 5/06  
-Venkata Tumuluri, 8/00 – 3/078  
-Shilpa Kandhari, 8/99 – 5/03  
-Ke Zhao, 8/96 – 9/01  
-Henry Irving, 5/96 – 8/96

Master of Science Candidate

-Sridhar Thumma, 8/03 – 5/05  
-Tarsha Bond, 8/02 – 5/05  
-Shirisha Moola, 8/97 – 2/01  
-Nehal Vyas, 8/97 – 12/00  
-Krishna Venkatesh 5/95 – 2/98  
-Sutaria Vunnam, 1/97 – 5/97  
-Subraro Addaganti, 8/96 – 12/96

Visiting Graduate students

-Toufigh Gordi, 5/95 – 12/95 (Division of Pharmacokinetics and Pharmacotherapy at Uppsala University in Sweden)

-Natalia Valadares de Moraes, 8/08 – 12/08 (University of Sao Paulo, Brazil)

#### Senior Thesis

The University of Mississippi, Department of Forensic Science, University, Mississippi

-Teresa Reese, 10/15 – 5/16

University of Mississippi, Department of Pharmaceutics, University, Mississippi

-Sandy Goss 9/96 – 5/97

#### Undergraduate students

-Sydney Harrison, 5/16 – 1/17

-James Sharp, 5/16 – 8/16

-Jamie Stone, 5/16 – 8/16

-Lillie Rutherford, 6/15 – 12/16

-Abraham Kim, 6/14 – 8/14

-Vanessa Fraissat Pricoli Pinheiro, 6/14 – 8/14

-Chet Patel, 8/03 – 5/05

-Jartiat Oyetunji, 5/03 – 8/03

-Candy Jackson, 5/03 – 8/03

-Crystal Jordan, 5/01 – 8/02, 5/02 – 8/03

-Derek Johnson, 8/01 – 5/02

-Benjamin Tucker, 8/01 – 5/03

-Jennifer Good, 8/01 – 5/02

-Shanika Ward, 5/97 – 8/97

-Robin Jackson, 1/96 – 5/96

#### **Pharmacy Undergraduate Student Faculty Mentoring/Advising University of Mississippi**

(Fall 2006 formal mentoring program ended by School of Pharmacy)

08/05 – 05/06	16 professional pharmacy students
08/04 – 05/05	18 professional pharmacy students
08/03 – 05/04	18 professional pharmacy students
08/02 – 05/03	16 professional pharmacy students
08/00 – 08/01	17 professional pharmacy students
08/99 – 05/00	13 professional pharmacy students
08/98 – 05/99	14 professional pharmacy students
08/97 – 05/98	12 professional pharmacy students
08/96 – 05/97	14 professional pharmacy students

#### **Pre-pharmacy advising (Major Advisor)**

2016	2 pre-pharmacy students
2015	5 pre-pharmacy students



2014	11 pre-pharmacy students
2013	27 pre-pharmacy students
2012	87 pre-pharmacy students
2011	63 pre-pharmacy students
2010	28 pre-pharmacy students
2009	19 pre-pharmacy students
2008	17 pre-pharmacy students
2007	15 pre-pharmacy students
2006	28 pre-pharmacy students

## SCIENTIFIC/PROFESSIONAL ASSOCIATIONS

### Scientific Associations

Center for Addition Research and Addiction (CARE) 2017 – present  
American Foundation for Pharmaceutical Education, AFPE, Board of Directors 2016 – present  
International Narcotics Research, Member, 2009 – present  
Controlled Released Society, 2004 – 2013  
American Chemical Society, 1988 – 2013  
    Analytical Chemistry Division Member, 1990 – 2013  
    University of North Dakota Section Member, 1990 – 1995  
    Ole Miss Local Section Member, 1995 – 2013  
        Chair-Elect, 1999  
        Chair, 2000 – 2002  
        Past-Chair, 2003  
American Association of Colleges of Pharmacy, 1995 – 2013  
Coblentz Society, 1990 – 1994  
Society For Applied Spectroscopy, 1990 – 1994  
Sigma Xi, The Scientific Research Society, Member, 1996 – 2014  
    Ole Miss Local Section  
        President-Elect, 2004 – 2006  
        President, 2006 – 2008  
        Past-President, 2009  
        Secretary/Treasurer, 2010 – 2012  
Rho Chi, 1996 – present  
Southern Regional Discussion Group, 2003 – 2017  
    Chair 2008 – 2009  
American Association of Pharmaceutical Scientists, Member, 1996 – present  
    Student Postdoc Outreach and Development (SPOD)  
        Chair-Elect, 2012 – 2013  
        Chair 2013 – 2014  
        Past-Chair 2014 – 2015  
        Academic workshop Subcommittee Chair 2010 – 2014  
    Analysis and Pharmaceutical Quality (APQ) Section,  
        SPOD Committee representative, 2009 – 2012  
        Secretary/Treasurer, 2015 – 2016  
        Vice Chair, 2016 – 2017  
        Chair-Elect 2017 - present  
    Career Services Advisory Committee  
        Chair 2014 – 2015  
        Past-Chair 2015 – 2016  
    Foundation Executive Committee, 2014 – present

**Professional Associations**

National

American Foundation for Pharmacy Education, Board of Directors 2016 – present  
American Association of Colleges of Pharmacy, Member 1995 – 2014  
Kappa Epsilon 2005 – Present

Local

Kappa Epsilon, Alpha Gamma Chapter, University of Mississippi, Member, 2005  
– 2016  
Faculty Advisor 2005 – 2013  
University of Mississippi AAPS Student Chapter Advisor 2008 - 2009

**AWARDS AND HONORS:**

- Appointed to the Board of Directors of the American Foundation for Pharmaceutical Education, 2016 – present
- Chair-Elect of the Analysis and Pharmaceutical Quality (APQ) Section of the American Association of Pharmaceutical Scientists (AAPS) organization, 2017 – present
- Vice Chair of the Analysis and Pharmaceutical Quality (APQ) Section of the American Association of Pharmaceutical Scientists (AAPS) organization, 2016 – 2017
- Elected the Secretary/Treasurer of the Analysis and Pharmaceutical Quality (APQ) Section of the American Association of Pharmaceutical Scientists (AAPS) organization, 2015 – 2016
- Selected for American Association of Pharmaceutical Scientists Interview, 2014
- Moderator Student Postdoc Outreach and Development roundtable at the American Association of Pharmaceutical Scientists Annual Meeting, 2014
- Webinar Moderator “How to balance work and life”, 2014
- Appointed to the Career Center Advisory Committee of the American Associations of Pharmaceutical Sciences, Chair 2014 – 2015, Past-chair 2015 – 2016
- Appointed to the Foundation Executive Committee of the American Association of Pharmaceutical Scientists, 2014 – present
- Awarded sabbatical fall 2013
- Appointed to the Student and Post-Doc Outreach and Development Committee (SPOD) of the American Association of Pharmaceutical Scientists Chair-elect 2012-2013, Chair 2013-2014, Past-Chair 2014-2015
- Phi Lambda Sigma (Pharmacy Leadership Society), 2012
- Elected to the Student and Post-Doc Outreach and Development Committee (SPOD) representative for the Analysis and Pharmaceutical Quality (APQ) section of the American Association of Pharmaceutical Scientists organization, 2009
- Alumni of the Year, University of North Dakota, Department of Chemistry, Grand Forks, ND, 2007
- Faculty Service Award, School of Pharmacy, University of Mississippi, 2006
- Sigma Xi Research Society, 1996
- Rho Chi Society (Pharmacy Honor Society), 1996
- Patricia Roberts Harris Fellowship 1991 – 1994
- Rodger Dennison Award, 1990
- American Society of Clinical Pathologists (ASCP) 1982 – 1994

## **SERVICE**

### **SERVICE AS SCIENTIFIC REFEREE**

#### **Invited Journal Referee**

- Journal of Pharmaceutical Compounding
- The Society for Biomolecular Screening
- Pharmaceutical Biology
- International Journal of Pharmaceutics
- European Journal of Pharmaceutics
- Journal of Pharmaceutical Sciences
- Analytical and Bioanalytical Chemistry
- Drug Development and Industrial Pharmacy
- Pharmaceutical Development and Technology
- Bioanalysis
- Pharmaceutica Analytica Acta
- Journal of Bioequivalence & Bioavailability
- American Chemical Science Journal
- International Journal of Molecular Science

#### **Editorial Appointments**

- Editorial Board, Bioanalysis, 2009 – present
- Editorial Board, Pharmaceutica Analytica Acta, 2011 - present
- Editorial Board, Journal of Bioequivalence & Bioavailability, 2011 – present
- International Journal of Clinical Pharmacology & Toxicology (IJCPT) 2012 - present

### **CONSULTING**

- Lifecyte
- Osteotech
- Tapestry
- ChromaDex
- IronStone Separations
- Receptor Life Science

### **PROFESSIONAL/COMMUNITY SERVICE**

#### **Professional Service**

- American Foundation for Pharmaceutical Education Board of Directors 2016 - present

- Faculty Advisor, Drug Discovery and Development Colloquium meeting July 2015, The University of Mississippi
- Averta, Board of Directors, 2005 - 2009
- Lifecyte, Board of Directors, 2004 – 2013
- Kappa Epsilon, Alpha Gamma Chapter, University of Mississippi, Member, 2005 – Present
  - Faculty Advisor, 2005 – 2013
- American Association of Pharmaceutical Scientists (AAPS) Southern Regional Discussion Group (SRDG), 1998 – present
  - Chair, 2009 – 2010
  - Past Chair, 2010 – 2011
- American Association of Pharmaceutical Scientists (AAPS), 1996 – present
  - Career Services Advisory Committee
    - Chair, 2014 – 2015
    - Past-chair, 2015 – 2017
  - Foundation Executive Board Member 2013 – present
  - Student Postdoc Outreach and Development
    - Chair-elect, 2012 – 2013
    - Chair, 2013 – 2014
    - Past-chair, 2014 – 2015
  - Analysis and Pharmaceutical Quality (APQ) Section, 1996 – present
    - Secretary/Treasurer, 2015 – 2016
    - Vice Chair, 2016 – 2017
    - Chair-Elect, 2017 – present
  - SPOD Representative 2009 – 2012
    - Chair, Academic Workshop subcommittee 2010 – 2012
    - Webinar moderator “The other side of the desk, a career in academics”
  - Drug Discovery and Development Interface Section, 2008 – present
  - Pharmacokinetics Pharmacodynamics and Drug Metabolism Section 2005 - present
    - Open forum Committee, 2009
    - Abstract reviewer 2009 - present
- American Association of Colleges of Pharmacy, 1995 – 2013
- Rho Chi Honor Society for Pharmacy, 1995 – present
- Sigma Xi, Ole Miss Chapter, 1995 – 2016
  - President Elect, 2004 – 2006
  - President, 2006 – 2008
  - Past President, 2009 - 2011
  - Secretary/ Treasurer, 2008 – 2010
  - Chair Annual Poster Session, 2006 – 2008
- Society for Applied Spectroscopy, 1991 – 1994
- American Chemical Society, 1988 – present
  - National Chemistry week, Chair, Ole Miss Section, 1997 – 2002
  - Ole Miss Section, Chair - Elect, 1999 – 2000
  - Ole Miss Section, Chair, 2000 – 2002

Ole Miss Section, Past -Chair, 2003 – 2004  
Career Program Coordinator, Ole Miss Section, 2000 – 2011  
Ole Miss Section, Alternate Delegate, 2002 – 2011

### **Community Service**

- Oxford Middle School Career Day – Speaker 2010
- State Science Fair Judge, 2005
- Science for Children, Quitman County High School, Coordinator, 2001
- ACS Teachers Workshop, Coordinator, New Orleans, 2000, 2003
- Science for Children, Mississippi Interactive TV, Tupelo MS, 2000
- Science Fair Scientific Review Committee, 1997
- Sigma Xi Research Poster competition Judge, 1995 – 2008
- Ole Miss Freshman move in, 1995 – 2000
- University School Science Fair Judge, 1995
- ACS High School Chemistry Day, Coordinator, 1995
- Regional Science Fair Judge, 1995 – 2017
- National Chemistry Week, 1995 – 2017

### **UNIVERSITY ADMINISTRATION, COMMITTEES AND SERVICE**

#### University of Mississippi

- University IACUC Committee 2008 – 2017, Chair 2012 – 2017
- University Taylor Medal Committee 2011 – 2012
- Advisory Board Member for the Center for Writing and Rhetoric 2008 – 2013
- Sigma Xi Ole Miss Chapter, Secretary/Treasurer, 2008 - 2012
- Sigma Xi, Ole Miss Chapter, Past President, 2008 – 2010
- University Radiation Safety Committee 2008 – 2017
- University Research Conduct Hearing Committee, 2008
- University Academic Appeals Committee (Graduate Student), Chair 2007
- Sigma Xi, Ole Miss Chapter, President, 2006 – 2008
- Academic Freedom & Faculty Responsibility, 2006 – 2012
- University Vivarium Committee 2005 – present
- Sigma Xi, Ole Miss Chapter, President Elect, 2004 – 2006
- Vivarium Task Force, 2004
- University Admissions Appeals Committee, 1999 – 2002
- University Faculty Senate 1999 – 2002
- University Academic Support Committee, 1999 – 2004
- University Committee on Student Financial Aid, 1997 – 2000
- Museum Sesquicentennial Exhibit Planning Committee 1996

#### University of Mississippi, School of Pharmacy

- BioMolecular Faculty (Pharmacology) Search Committee 2015-2016
- APhA Institute on Alcoholism and other Drug Dependencies Faculty Advisor 2015

- Pharmaceutics and Drug Delivery Faculty Search Committee 2015 – 2016
- BioMolecular Faculty Search Committee 2014 – 2015
- Curriculum Transformation Committee 2014 – 2017
- Professional Development Advising Team Committee 2012 – 2014
- Curriculum Committee Chair 2012 – 2014
- Curriculum critical issues team 2012
- Student critical issues team 2012
- Tenure and Promotion Committee 2012
  - Seongbong Jo, Ph. D.
- Tenure and Promotion Committee 2011
  - Soumyajet Majumdar, Ph. D.
  - S.Narasimha Murthy, Ph. D.
- Re-accreditation Curriculum Subcommittee (self-study) 2010 – 2012
- Faculty Misconduct Committee 2010 – 2014
- Undergraduate council alternate, 2009 – 2011
- Department of Pharmaceutics and Drug Delivery Graduate Program Coordinator 2003 – 2005, 2009 – 2013
- Honor Code Violation Committee, 2008, 2013, 2014
- White Coat Committee, 2007
- School of Pharmacy Faculty Service Award Committee, 2007 – 2011
- Skills Laboratory fact finding trips
  - Ohio Northern College of pharmacy, 2009
  - Baltimore College of Pharmacy, 2006
  - Chapel Hill College of Pharmacy, 2006
- Attended the AACP Institute, 2006, 2007, 2008, 2010
- Meetings with Radiological Services in Tupelo to set up an elective course, 2006
- Faculty Service Award Committee, 2006 – 2011
- Pharmaceutics Senior Secretary search, Chair, 2006
- Curriculum Subcommittee of Strategic Planning Committee, Chair, 2006 – 2007
- Pharmaceutics Search Committee, Chair, 2005 – 2006
- Member of the School of Pharmacy Board of Directors for Continuing Education, Jackson, 2005 – 2007
- Laboratory for the Advancement of Pharmaceutics (Director) 2004 – 2006
- Curriculum Subcommittee, Chair, ACPE accreditation team, 2004 – 2006
- Diversity Committee, Chair 2004 – 2006
- Pre-Pharmacy Advisor 2004 – 2016
- Curriculum Implementation Committee 2004 – 2011
- Curriculum Planning Committee, 2004 – 2009
- Skills Lab Planning/implementation committee, 2004 – 2010
- Committee on Committee 2003 – 2005
- Pharmaceutics Chair Search Committee, 2003 – 2005
- Research and Graduate Affairs, 2003 – 2005
- Pharmaceutics Faculty Search Committee, Chair, 2003
- Graduate Coordinator 2003 – 2005, 2009 – 2013
- Drug abuse advisory council, and Utah school advisor 2002, 2015
- Assessment Subcommittee of Strategic Planning Committee, 2002 – 2003



- Curriculum Committee, 2001 – 2016  
Chair, 2003 – 2009,
- Instructional Technology Committee 2000 – 2006
- Two day DIONEX training session for the School of Pharmacy and the National Center for the Development of Natural Products, Coordinator, 2000
- Faculty Council, 1999 – 2001  
Vice-Chair 1999
- Scholastic Standards Committee, 1999 – 2001
- Policy Committee LC-MS, 1999 – 2000
- School of Pharmacy Orientation, 1997 – 2013
- Pharm. D. Program Interviewer, 1997 – 2000
- Faculty-Student Affairs Committee, 1996 – 2001
- Honors and Awards Committee, 1996 – 2016
- Pharmaceutics Faculty Search Committee, 1996, 1997, 1999, 2000, 2001,
- Early-Entry Program Interviewer, 1996 – 2016
- Natural Products Center Analytical Group for Drug Development, 1995 – 2010
- Elections Committee, 1995 – 2000
- Computer Committee, 1995 – 2000
- Equipment Committee, 1995 – 2000

## **PRESENTATIONS**

### **INVITED PRESENTATIONS**

#### **International Invited Presentations**

- 04/17      **Avery, B.A.** “*Detection of Adulterants of Ketum Products*” International Symposium on Ketum, Penang, Malaysia.
- 01/11      **Avery, B.A.** “*Translational Research, A Case Study of Kratom*” Department of Pharmaceutical Sciences, Beni-Suef University, Egypt.
- 02/00      **Avery, B.A.** “*Partitioning of Artemisinin into Red Blood Cells*” Sao Paulo, Brazil.

#### **National Presentations**

- 05/16      **Avery, B.A.** “*Mitragyna Speciosa: From the Gas Station to the Bench*” School of Pharmacy, The University of Florida, Gainesville, Florida.
- 08/12      **Avery, B.A.** “*The Role of Translational Research in Pharmacokinetics*” School of Pharmacy, University of Georgia, Athens Georgia.
- 11/10      **Avery, B.A.** “*Translational Research, A Case Study of Kratom*” Department of Pharmacology, University of Mississippi, University, Mississippi.
- 10/10      **Avery, B.A.** “*Pharmacokinetics in Translational Research*” Department of Science and Mathematics, Minot State University, Minot, North Dakota.
- 10/07      **Avery, B.A.** “*The Role of Chemistry in the Pharmaceutical World*” Department of Chemistry, University of North Dakota, Grand Forks, North Dakota.
- 09/07      **Avery, B.A.** “*NIRS in Natural Products Research*”. The National Center for Natural Products Research, University of Mississippi, University, Mississippi.
- 10/06      **Avery, B.A.** “*Intravenous PK of Novel Antimalarials: The Emerging Role of PK in Optimizing Drug Discovery and Design*” Center for Disease Control Project Meeting, Oxford, Mississippi.
- 10/03      **Avery, B.A.** “*NIRS in Pharmaceutics*” Department of Pharmaceutics, University of Mississippi.

- 04/02 **Avery, B.A.** “*The use of Near Infrared Analysis in Pharmacognacy*” University of Mississippi, Department of Pharmacognacy, University, Mississippi.
- 06/01 **Avery, B.A.** “*The Role of Near Infrared Spectroscopy in Natural Products Research*”. The National Center for Natural Products Research, University of Mississippi, University, Mississippi.
- 02/99 **Avery, B.A.** “*Remote Sensing Technology*”, Department of Chemical Engineering, University of Mississippi.
- 10/97 **Avery, B.A.** “*An Introduction to Fiber-Optic Sensors*”, University of Mississippi, Department of Chemical Engineering, University, Mississippi.
- 03/97 **Avery, B.A.** “*An HPLC Evaporative Light Scattering Detection Method for the Determination of the Antimalarial Drug Artemisinin*” The Pittsburgh Conference, Atlanta, Georgia.

## **PRESENTATIONS (Not published as abstracts)**

### **National/International Presentations**

- 11/17 Sharma, A.; King, T.I.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** Preclinical Pharmacokinetics of a Selective Sigma-2 Receptor Antagonist, CM398, in Rats. *American Association of Pharmaceutical Scientists Annual Meeting and Exposition 2017*, San Diego, CA.
- 11/17 Intagliata, S.; Kopajtic, T.; Katz, J.; Ganno, M.; Sharma, A.; **Avery, B.**; Eans, S.; McLaughlin, J.; McCurdy, C. M7047 – Investigation of Structure Activity Relationship in the Optimization of a Highly Selective Sigma-1 Receptor Antagonist. *American Association of Pharmaceutical Scientists Annual Meeting and Exposition 2017*, San Diego, CA.
- 11/16 Sharma, A.; Rimoldi, J.M.; **Avery, B.A.**; DMPK Services of the Chemistry/DMPK Core in the Center of Research Excellence in Natural Product Neuroscience at the University of Mississippi. *National IDeA Symposium of Biomedical Research Excellence 2016*, Washington DC.
- 10/16 King, T.I.; Sharma, A.; Mottinelli, M.; Kapanda, C.N.; Rutherford, L.; Stocks, M.E.; Lambert, J.A.; Medina, J.M.; Eans, S.O.; Cirino, T.J.; McLaughlin, J.P.; Cutler, S.J.; McCurdy, C.R.; **Avery, B.A.** LC-MS/MS Method Development and Validation for Quantification of CNK404, a

Putative NPPF Antagonist. *American Association of Pharmaceutical Scientists Annual Meeting and Exposition 2016*, Denver CO.

- 10/16 King, T.I.; Sharma, A.; Rutherford, L.; Dellinger, R.; **Avery, B.A.** Gender related pharmacokinetics of nicotinamide in rats. *American Association of Pharmaceutical Scientists Annual Meeting and Exposition 2016*, Denver CO.
- 10/16 Sharma, A.; King, T.; Rutherford, L.; Dellinger, R., **Avery, B.A.**; Pharmacokinetic Evaluation of Nicotinamide Riboside in Rats. *American Association of Pharmaceutical Scientists Annual Meeting and Exposition 2016*, Denver CO.
- 04/14 Katz, J.K.; Hiranita, T.; Lopez, J.; Brellenthin, A.; Mesangeau, C.; Alsharif, W.; Kopajtic, T.; Coggiano, M.; Jamalapuram, S.; Tsai, S-Y.; **Avery, B.A.**; Su, T-P.; Tanda, G.; McCurdy, C.R. Preclinical Efficacy of the Dual Sigma Receptor Antagonist Dopamine Uptake Inhibitor, CM699, as a Medication for Stimulant Abuse. *Experimental Biology 2014*, San Diego, CA, April 26-30, 2014.
- 11/13 **Avery, B.A.**; Jamalapuram, S.; Mesangeau, C.; Alsharif, W.; McCurdy, C.R. Determination of CM699, a Sigma Receptor Ligand, in Rat Plasma by Ultra Performance Liquid Chromatography Mass Spectrometry and its Application to a Pharmacokinetic Study. *2013 Annual Meeting of the American Association of Pharmaceutical Scientists*, San Antonio, TX, November 10-14, 2013. W4298
- 10/12 **Avery, B.A.**; Vuppala, P.K.; Jamalapuram, S.; Furr, E.B.; McCurdy, C.R. Determination of 7-hydroxymitragynine, a  $\mu$ -opioid Receptor Agonist, in Rat Plasma by UPLC/MS/MS and its Application to a Pharmacokinetic Study, *AAPS Annual Meeting and Exposition 2012*, Chicago, IL.
- 10/12 **Avery, B.A.**; Vuppala, P.K.; Jamalapuram, S.; Furr, E.B.; McCurdy, C.R. Pharmacokinetics of 7-Hydroxymitragynine, a  $\mu$ -opioid Receptor Agonist, in Male Sprague Dawley Rats, *AAPS Annual Meeting and Exposition 2012*, Chicago, IL.
- 07/12 **Avery, B.A.**; Vuppala, P.K.; Jamalapuram, S.; Furr, E.B.; McCurdy, C.R. Pharmacokinetics of 7-hydroxymitragynine, a  $\mu$ -opioid receptor agonist, in male Sprague Dawley rats, *International Narcotics Research Conference INRC* Kansas City MO.
- 10/11 Jamalapuram, S.; Vuppala, P.K.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** In Vitro Metabolic Stability and Pharmacokinetics in Lead Optimization of Novel Sigma Receptor Ligands, *AAPS Annual Meeting and Exposition 2011*, Washington, DC.

- 10/11 Jamalapuram, S.; Vuppala, P.K.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** Determination of AZ66, a Metabolically Stable Sigma Receptor Ligand, in Rat Plasma by Ultra-Performance Liquid Chromatography Mass Spectrometry and its Application to Pharmacokinetic Study, *AAPS Annual Meeting and Exposition 2011*, Washington, DC. **APQ Travel Award Winner.**
- 10/11 Vuppala, P.K.; Jamalapuram, S.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** Preclinical Characterization of CM304, a Novel and High Affinity Sigma-1 Receptor Ligand with Potent Anti-Cocaine Actions, *AAPS Annual Meeting and Exposition 2011*, Washington, DC.
- 10/11 Vuppala, P.K.; Jamalapuram, S.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** Metabolism of CM304, a Novel Highly Selective Sigma-1 Receptor Antagonist with Potent Anti-Cocaine Actions, in Mouse, Rat and Human Liver Microsomes and Characterization of Metabolites by UPLC/MS/MS, *AAPS Annual Meeting and Exposition 2011*, Washington, DC.
- 11/10 Jamalapuram, S.; Vuppala, P.; McCurdy, C.R.; **Avery, B.A.** Determination of CM156, a Highly Selective Mixed-Affinity Sigma Receptor Ligand, in Rat Plasma by Ultra Performance Liquid Chromatography Mass Spectrometry and its Application to a Pharmacokinetic Study, *AAPS Annual Meeting and Exposition 2010*, New Orleans LA. **APQ Travel Award Winner.**
- 11/10 Boddu, S.; Vuppala, P.; Furr, E.; Cutler, S. McCurdy, C.R.; **Avery, B.A.** Pharmacokinetics of Kratom Tea Extract and Mitragynine In Sprague Dawley Rats, *AAPS Annual Meeting and Exposition 2010*, New Orleans LA.
- 11/10 Vinnakota, H.; C.R. McCurdy, C.R.; **Avery, B.A.** Method development and Validation of SN79 in rat plasma by UPLC/MS/MS and its application to pharmacokinetics in rats, *AAPS Annual Meeting and Exposition 2010*, New Orleans LA.
- 11/10 Vinnakota, H.; Mesangeau, C; McCurdy, C.R.; **Avery, B.A.** Pharmacokinetics and tissue distribution studies SN79, a Sigma-2 receptor antagonist, in rats using UPLC/MS/MS, *AAPS Annual Meeting and Exposition*, New Orleans LA.
- 07/10 Boddu, S.; Vuppala, P.; Furr, E.; Cutler, S. McCurdy, C.R.; **Avery, B.A.** Pharmacokinetics of Kratom Tea Extract and Mitragynine in Sprague Dawley Rats, *INRC*, Malmo Sweden.
- 07/10 El-Alfy, A.; Wilson, L.; Furr, E.; Song, Y.; Cutler, S.J.; Boddu, S.P.;

**Avery, B.A.**; Boyer, E.W.; McCurdy, C.R. Blockade of opioid withdrawal syndrome by orally administered lyophilized Kratom (*Mitragyna speciosa*) tea and mitragynine in mice, *INRC*, Malmo Sweden.

- 11/09 Pabbisetty, D.; Boddu, S.; Chittiboyina, A.; Avery, M.; **Avery, B.A.** Pharmacokinetic and metabolism studies of artemisinin triazole in rats using UPLC/MS/MS, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 11/09 Pabbisetty, D.; Boddu, S.; Kumar, M.; Chittiboyina, A.; Avery, M.; **Avery, B.A.** Comparison between pharmacokinetic parameters between novel artemisinin analogs in rats using UPLC/MS/MS, *AAPS Annual Meeting and exposition*, Los Angeles, CA. **APQ Travel Award Winner, Best Poster Award Winner.**
- 11/09 Pabbisetty, D.; Boddu, S.; Chittiboyina, A.; Avery, M.; **Avery, B.A.** Method development and intravenous pharmacokinetics of artemisinin based triazole in rats by UPLC/MS/MS, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 11/09 Pabbisetty, D.; Boddu, S.; McChesney, J.; Chander, M.; Venkataraman, S.; Foster, J.; **Avery, B.A.** Determination of docetaxel and deuterated docetaxel pharmacokinetics after iv bolus administration to rats by UPLC/MS/MS, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 11/09 Pabbisetty, D.; Boddu, S.; Kumar, M.; Chittiboyina, A.; Avery, M.; **Avery, B.A.** Pharmacokinetics, Metabolism, Tissue Distribution And Excretion Of Artemisinin Based Carbamate, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 11/09 Vinnakota, H.; Vuppala, P.; Leon, J.; Furr, E.B.; Adkins, J.E.; Cutler, S.J. McCurdy, C.R.; **Avery, B.A.** Pharmacokinetic and tissue distribution studies of Mitragynine, A naturally occurring opioid agonist in rats using UPLC/MS/MS, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 11/09 Vuppala, P.; Gannu, R.; Jamalapuram, S.; Yamsani, M.; **Avery, B.A.** Formulation and evaluation of buspirone hydrochloride transdermal patches, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 11/09 Vuppala, P.; Gannu, R.; Jamalapuram, S.; Yamsani, M.; **Avery, B.A.** Formulation and in vitro evaluation of celecoxib transdermal gels, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 11/09 Jamalapuram, S.; Vuppala, P.; Dubey, R.; Yamsani, M.; **Avery, B.A.** Formulation and evaluation of reconstitutable polymeric Micelles of Ramipril, *AAPS Annual Meeting and exposition*, Los Angeles, CA.

- 11/09 Jamalapuram, S.; Vuppala, P.; Dubey, R.; Yamsani, M.; **Avery, B.A.** Formulation and evaluation of intravenously injectable micellar solution of carvedilol, *AAPS Annual Meeting and exposition*, Los Angeles, CA.
- 07/09 **Avery, B.A.**; Vinnikota, H.; Leon, J.F.; Furr, E.B.; Adkins, J.E.; Cutler, S.J.; McCurdy, C.R. Pharmacokinetic and tissue distribution studies of mitragynine, a naturally occurring opioid agonist, in rats using UPLC/MS/MS. *40<sup>th</sup> International Narcotics Research Conference (INRC)*, Portland, OR.
- 11/08 Pabbisetty, D.; Boddu, S.; Kumar, M.; Avery, M.A.; **Avery, B.A.** Determination of oral bioavailability and metabolism of GMK-95 compound, a novel artemisinin dimer in rats, *AAPS Annual Meeting and Exposition*, Atlanta, GA.
- 11/08 Song, W.; Pabbisetty, D.; Groeber, B.; Steenwyk, R.; **Avery, B.A.** Improving Bioanalytical Productivity using Fused core LC-MS/MS, *AAPS Annual Meeting and Exposition*, Atlanta, GA.
- 11/08 Boddu, S.; Pabbisetty, D.; Kumar, M.; Avery, M.A.; **Avery, B.A.** Method Development and Intravenous Pharmacokinetics Of GMK-V-15, A Novel Artemisinin Dimer, In Rat Serum By UPLC/MS/MS, *AAPS Annual Meeting and Exposition*, Atlanta, GA.
- 11/08 Boddu, S.; Pabbisetty, D.; Chittiboyina, A.; Kulkarni, S.; Zhang, S.; Avery, M.A.; **Avery, B.A.** Method Development and Intravenous Pharmacokinetic Study of a Novel Synthetic Thiazolidinedione (BP-1107) In Rats, *AAPS Annual Meeting and Exposition*, Atlanta, GA.
- 11/07 Li, L.; Pabbisetty, D.; Carvalho, P.; Avery, M.A.; **Avery, B.A.** Determination of pKa, protein binding and plasma stability of ARB189, a novel antimalarial drug using UPLC/MS/MS, *AAPS Annual Meeting and Exposition*, San Diego, CA.
- 11/07 Li, L.; Pabbisetty, D.; Carvalho, P.; Avery, M.A.; **Avery, B.A.** Quantitative determination of CoQ<sub>10</sub> in rat serum using UPLC/MS/MS, *AAPS Annual Meeting and Exposition*, San Diego, CA.
- 11/07 Li, L.; Pabbisetty, D.; Carvalho, P.; Avery, M.A.; **Avery, B.A.** Urinary excretion study of Coenzyme Q<sub>10</sub> in rat by ultra performance liquid chromatography-mass spectrometry, *AAPS Annual Meeting and Exposition*, San Diego, CA.
- 11/07 Li, L.; Pabbisetty, D.; Carvalho, P.; Avery, M.A.; **Avery, B.A.** Determination of ARB189 (7-hydroxy-artemisinin carbonate dimer) a

novel antimalarial drug in rat serum by UPLC/MS/MS and its application in pharmacokinetics, *AAPS Annual Meeting and Exposition*, San Diego, CA.

- 11/07 Boddu, S.; Varanasi, V.; Potharaju, S.; Rajak, S.; Veera, S.; Raghavan, S.; Swaroop, V.; Rao, Y.M.; and **Avery, B.A.** Influence of Grapefruit Juice on the Pharmacokinetics of Diltiazem in Male Wistar Rats upon Single dose and Multiple dose Regimen, *AAPS Annual Meeting and Exposition*, San Diego, CA.
- 11/07 Zhang, S.Q.; Vinnakota, H.; Jung, J.C.; Carvalho, P.; Chittiboyina, A.G.; Avery, M.A.; **Avery, B.A.** Determination of a novel epothilone D analog (AV-EPO-106) in human plasma using ultra-performance liquid chromatography-tandem mass spectrometry, *AAPS Annual Meeting & Exposition*, San Diego, CA.
- 01/05 Kemper, M.S.; Lewis, I.R.; Tumuluri, S.V.S.; Avery, M.A.; Sheri, A.; Choi, S.R.; and **Avery, B.A.** The Use of Raman Spectroscopy to Characterize Hydrogenation, *International Forum on Process Analytical Chemistry (IFPAC)* Arlington, VA.
- 11/04 Kemper, M.S.; Lewis, I.R.; Prodduturi, S.; Tumuluri, S.V.S.; Crowley, M.M.; Repka, M.A.; and **Avery, B.A.** The use of off-line and on-line raman spectroscopy to quantify ketoprofen and clotrimazole in hot-melt extruded film formulations *Eastern Analytical Symposium (EAS)* Somerset, NJ.
- 11/04 Kemper, M.S.; Lewis, I.R.; Tumuluri, S.V.S.; Avery, M.A.; Sheri, A.; Choi, S.R.; and **Avery, B.A.** The Use of Raman Spectroscopy to Characterize Hydrogenation, *Eastern Analytical Symposium (EAS)* Somerset, NJ.
- 11/04 Kemper, M.S.; Lewis, I.R.; Tumuluri, S.V.S.; Avery, M.A.; Sheri, A.; Choi, S.R.; and **Avery, B.A.** The Use of Raman Spectroscopy to Characterize Hydrogenation, *American Association of Pharmaceutical Scientists (AAPS)* Baltimore, MD.
- 11/04 Prodduturi, S.; Shah, A.K.; Thumma, S.; **Avery, B.A.**; Repka, M.A. Stability-indicating HPLC Method Development and Validation for Determination of Clotrimazole in Hot-melt Extruded Polymeric Matrices, *American Association of Pharmaceutical Scientists (AAPS)* Baltimore, MD.
- 04/04 Kemper, M.S.; Lewis, I.R.; Prodduturi, S.; Tumuluri, V.S.; Crowley, M.M.; **Avery, B.A.**; and Repka, M.A. The use of off-line and on-line



Raman spectroscopy to quantify ketoprofen and clotrimazole in hot-melt extruded film formulations, *The Pittsburgh Conference*, Chicago IL.

- 03/04 Kemper, M.S.; Lewis, I.R.; Tumuluri, V.; Avery, M.A.; Sheri, A.; Choi, S.O.; and **Avery, B.A.** The Use of Raman Spectroscopy to Characterize Hydrogenation Reactions *Federation of Analytical Chemistry and Spectroscopy Societies (FACCS)* Portland, OR.
- 01/04 Kemper, M.S.; Lewis, I.R.; Prodduturi, S.; Tumuluri, V.S.; Crowley, M.M; **Avery, B.A.**; and Repka, M.A. The use of off-line and on-line Raman spectroscopy to quantify ketoprofen and clotrimazole in hot-melt extruded film formulations. *International Forum on Process Analytical Chemistry (IFPAC)* Arlington, VA.
- 10/03 Kemper, M.S.; Lewis, I.R.; Prodduturi, S.; Tumuluri, V.S.; Crowley, M.M; **Avery, B.A.**; and Repka, M.A. The use of off-line and on-line Raman spectroscopy to quantify ketoprofen and clotrimazole in hot-melt extruded film formulations. *American Association of Pharmaceutical Scientists (AAPS)*, Salt Lake City, UT.
- 10/03 Tumuluri, V.S.; Prodduturi, S.; Crowley, M.; Repka, M.; **Avery, B.A.** The use of near-infrared spectroscopy for the quantitation of an active in a hot-melt extruded film *American Association of Pharmaceutical Scientists (AAPS)* Salt Lake City, UT.
- 10/03 Budukh, P.P.; **Avery, B.A.** and Wyandt, C.M. Short term stability testing of selected commercial black cohosh formulations, *American Association of Pharmaceutical Scientists (AAPS)*, Salt Lake City, UT.
- 11/02 Dutta, A.K.; **Avery, B.A.** and Wyandt, C.M. Evaluation of selected commercial preparations of St. John's Wort, *American Association of Pharmaceutical Scientists (AAPS)*, Toronto.
- 11/02 Dutta, A.K.; **Avery, B.A.** and Wyandt, C.M. Preformulation evaluation of a novel antimalarial drug, *American Association of Pharmaceutical Scientists (AAPS)*, Toronto.
- 10/02 Gochfeld, D.J.; Hamann, M.T.; **Avery, B.A.**; Marsh, K.E.; Thacker, R. W.; and Slattery, M. Chemical variability and ecological activity of compounds from the Caribbean sponge *plakortis sp.* *International Sponge Conference*, Italy.
- 11/01 **Avery, B.A.**; Zhao, K. Characterization of the dissolution behavior and surface of bicomponent tablets, *American Association of Pharmaceutical Science (AAPS)*, Denver, CO.

- 11/01 Kandahari, S.P.; Avery, M.A.; **Avery, B.A.** Development and validation of an LC-MS method to quantitate the uptake of an antimalarial drug, artemisinin into erythrocytes, *American Association of Pharmaceutical Science*, Denver CO.
- 11/01 Illapakurthy, A.C.; Wyandt, C.M; Y.A. Sabnis, Y.A.; **Avery, B.A.** and M.A. Avery, Computational and experimental complexation studies of various artemisinin related antimalarials with hydroxypropyl beta-cyclodextrin, *American Association of Pharmaceutical Scientists Meeting*, Denver, CO.
- 07/01 Gochfeld, D.J.; Hamann, M.T.; **Avery, B.A.** and Slattery, M. Environment-specific variability in bioactivity and chemistry of the Caribbean sponge *Plakortis sp.* *American Society of Pharmacognosy Meeting*, Oaxaca, Mexico.
- 03/01 **Avery, B.A.**; Zhao, K.; Wyandt, C.M. Study of the Dissolution Behavior of a Bicomponent tablet using Diffuse Reflectance NIRS, *The Pittsburgh Conference*, New Orleans, LA.
- 10/00 Moola, S.; **Avery, B.A.**; Wyandt, C.M. The Characterization of Anthocyanosides in Vaccinium Myrtillus (Bilberry) Tablet Formulations, *American Association of Pharmaceutical Science*, Indianapolis IN.
- 10/00 Kemper, M.; Zhao, K.; **Avery, B.A.**; Wyandt, C.; Longmire, M.; McMcCarthy, W.; Magnuson, and Luchetta, L. Comparison of FT-NIR and Raman Spectroscopic Methods to Study Phase Changes at the Tablet Surface. *American Association of Pharmaceutical Science*, Indianapolis IN.
- 10/00 Kandahari, S.; **Avery, B.A.** Solid phase extraction and LC-MS quantitation of artemisinin and its analogs in human erythrocytes, *American Association of Pharmaceutical Science*, Indianapolis IN.
- 10/00 Gochfeld, D.J.; Slattery, M.; **Avery, B.A.** and Hamann, M.T. Site- and depth-specific variability in the chemistry of the Caribbean sponge *Plakortis sp.* *Ninth International Coral Reef Symposium*, Bali, Indonesia.
- 03/00 Gochfeld, D.J.; **Avery, B.A.** and Hamann, M.T. Chemical deterrence in hard corals of the *Genus Porites*, *Benthic Ecology Meeting*, Wilmington, NC.
- 03/00 **Avery, B.A.**; Zhao, K.; Wyandt, C.M. Utility of using NIRS to Characterize a Dynamic Tablet Surface, *The Pittsburgh Conference*, New Orleans, LA.

- 03/00 Wu, B.; **Avery, B.A.**; Avery, M.A., Triethylborane mediated conjugate radical addition of primary iodide to a,b-unsaturated acids, *American Chemical Society*, San Francisco, CA.
- 11/99 **Avery, B.A.**, Zhao, K., Wyandt, C.M., The Recrystallization of Glucose Monohydrate on an Anhydrous D-Glucose Tablet surface in an Aqueous Medium, *American Association of Pharmaceutical Science*, New Orleans, LA.
- 11/99 **Avery, B.A.**; Vyas, N.; Wyandt, C.M.; Avery, M.A., Development of a radioactive Method to Monitor the Uptake of Artemisinin in Erythrocytes, *American Association of Pharmaceutical Sciences*, New Orleans LA.
- 11/99 **Avery, B.A.**; Moola, S.; Kandahari, S., Determination of the amount of creatine in select over the counter products, *American Association of Pharmaceutical Sciences*, New Orleans LA.
- 03/99 **Avery, B.A.**, Zhao, K., Wyandt, C.M. The utility of using Near Infrared Spectroscopy to Characterize a Dynamic Tablet Surface, *The Pittsburgh Conference*, Orlando FL.
- 03/97 **Avery, B.A.**, Avery, M.A. Development of an evaporative light scattering method for the detection of antimalarial drug artemisinin, *The Pittsburgh Conference*, Atlanta GA.
- 03/94 **Nelson-Avery, B.A.**; Tilotta, D.C. Near-Infrared Molecular Emission of Gas-Phase Samples, *American Chemical Society Spring Meeting*, San Diego CA.
- 03/94 **Nelson-Avery, B.A.**; Tilotta, D.C. Near Infrared Molecular Emission Spectroscopy of Liquid Samples: Development and Applications, *The Pittsburgh Conference*, Chicago IL.
- 03/93 **Nelson-Avery, B.A.**; Tilotta, D.C. Analysis of Gas-Phase Samples by Near-Infrared Molecular Emission Spectroscopy, *The Pittsburgh Conference*, Atlanta GA.

#### **Local and Regional Presentations**

- 11/16 King, T.I.; Sharma, A.; Mottinelli, M; Kapanda, C.N; Rutherford, L.; Stocks, M.E.; Lambert, L.A.; Medina, J.M.; Eans, S.O.; Cirino, T.J.; McLaughlin, J.P.; Cutler, S,J.; McCurdy, C.R.; **Avery, B.A.** LC-MS/MS Method Development and Validation for Quantification of CNK404, a Putative NPF Antagonist. *Research Day, University of Mississippi*, Oxford, MS.

- 06/16 King, T.; Sharma, A.; Alsharif, W.; McCurdy, C.R.; **Avery, B.A.** Bioanalytical Method Development and in vitro metabolic Stability Studies of Potential Sigma Receptor Ligands. *DDDC 2016*, Birmingham, AL.
- 04/16 Sharma, A.; Pabbisetty, D.; Boddu, S.;<sup>1</sup>, Kumar, G.; Chittiboyina, A.; Avery, M.; **Avery, B.A.**; Comparative Preclinical Pharmacokinetics of Artemisinin Analogues. *Malaria Symposium 2016*, The University of Mississippi, Oxford MS.
- 04/16 Sharma, A.; Boddu, S.P.; King, T.; McCurdy, C.R.; **Avery, B.A.** Functional Role of P-Glycoprotein Mediated Transport on the Pharmacokinetics of Mitragynine. *UMMC Neuroscience Day 2016*, The University of Mississippi Medical Center, Jackson, MS.
- 04/16 King, T.; Sharma, A.; Alsharif, W.; McCurdy, C.R.; **Avery, B.A.** Bioanalytical Method Development and in vitro metabolic Stability Studies of Potential Sigma Receptor Ligands. *UMMC Neuroscience Day 2016*, The University of Mississippi Medical Center, Jackson, MS.
- 09/11 El-Alfy, A.; Wilson, L.L.; Furr, E.B.; Boddu, S.P.; **Avery, B.A.**; Cutler, S.J.; Boyer, E.W.; McCurdy, C.R. Blockage of opioid withdrawal syndrome by orally administered lyophilized Kratom (*Mitragyna speciosa*) tea and mitragynine in mice. NS19. 2011 *South East Regional IDeA Meeting*, September 22-24, 2011, New Orleans, LA (Poster and selected for invited **ORAL PODIUM** Presentation).
- 09/11 **Avery, B.A.**; Boddu, S.P.; Furr, E.B.; Cutler, S.J.; McCurdy, C.R. Pharmacokinetics of Kratom tea (*Mitragyna speciosa*) extracts in Sprague Dawley rats. NS3. 2011 *South East Regional IDeA Meeting*, September 22-24, 2011, New Orleans, LA.
- 05/11 Jamalapuram, S.; Vuppala, P.K.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** Rapid Identification of Metabolites of CM156, a Highly Selective Mixed Affinity Sigma Receptor Ligand using Tandem Mass Spectrometry, *Southern Regional Discussion Group, PharmForum*, 2011, University of Tennessee, Memphis, TN. **Best Poster Presentation.**
- 05/11 Vuppala, P.K.; Jamalapuram, S.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** Determination of CM304, a Novel and Highly Selective  $\sigma$ -1 Receptor Antagonist, in Rat Plasma by UPLC/MS/MS and its Application to a Pharmacokinetic Study, *Southern Regional Discussion Group, PharmForum*, 2011, University of Tennessee, Memphis, TN.
- 05/10 **Avery, B.A.**; Vinnikota, H.; Leon, J.F.; Furr, E.B.; Adkins, J.E.; Cutler, S.J.; McCurdy, C.R. Pharmacokinetic and tissue distribution studies of

mitragynine, a naturally occurring opioid agonist, in rats using UPLC/MS/MS. *SRDG Pharm Forum and MALTO joint meeting 2010*, University of Mississippi, University, MS.

- 05/09 Boddu, S.; Pabbisetty, D.; Chittiboyina, A.; Kulkarni, S.; Zhang, S.; Avery, M.A.; **Avery, B.A.** Method development and intravenous pharmacokinetic study of a novel synthetic thiazolidinedione (BP-1107) In Rats, *SRDG Pharm Forum 2009*, University of Mississippi, University, MS.
- 05/09 Vuppala, P.; Gannu, R.; Jamalapuram, S.; Yamsani, M.; **Avery, B.A.** Formulation and evaluation of buspirone hydrochloride transdermal patches, *SRDG Pharm Forum 2009*, University of Mississippi, University, MS.
- 05/09 Jamalapuram, S.; Vuppala, P.; Dubey, R.; Yamsani, M.; **Avery, B.A.** Formulation and evaluation of reconstitutable polymeric Micelles of Ramipril, *SRDG Pharm Forum 2009*, University of Mississippi, University, MS.
- 05/09 Pabbisetty, P.; Boddu, S.; Kumar, G.M.; Avery, M.A.; **Avery, B.A.** Determination of oral bioavailability and metabolism of GMK-95 compound, a novel artemisinin dimer in rats, *SRDG Pharm Forum 2009*, University of Mississippi, University, MS.
- 10/08 Pabbisetty, D.; Li, L.; Carvalho, P.; Avery, M.A.; **Avery, B.A.** Quantitative determination of CoQ10 in rat serum after oral administration by UPLC/MS/MS, *NCNPR University of Mississippi*, University, MS.
- 05/08 Boddu, S.; Pabbisetty, D.; Kumar, G.M. Avery, M.A.; **Avery, B.A.** Method Development and Intravenous Pharmacokinetics Of GMK-V-15, A Novel Artemisinin Dimer, In Rat Serum By UPLC/MS/MS, *SRDG, Pharm Forum 2008*, University of Arkansas for Medical Sciences, Little Rock, AR.
- 05/08 Zhang, S.Q.; Vinnakota, H.; Jung, J.C.; Carvalho, P.; A.G. Chittiboyina, A.G.; Avery, M.A.; **Avery, B.A.** Determination of a novel epothilone D analog (AV-EPO-106) in human plasma using ultra-performance liquid chromatography-tandem mass spectrometry, *Pharm Forum 2008*, University of Arkansas for Medical Sciences, Little Rock, AR. **Best Poster Presentation.**
- 05/03 Tumuluri, V.S.; Prodduturi, S.; Crowley, M.; Repka, M.; **Avery, B.A.** The use of near-infrared spectroscopy for the quantitation of an active in a hot-melt extruded film, *Southern Regional Discussion Group Meeting*, Little Rock, AK.

- 05/03 Budukh, P.P; **Avery, B.A.** and Wyandt, C.M. Short term stability testing of selected commercial black cohosh formulations, *Southern Regional Discussion Group Meeting*, Little Rock, AK.
- 05/03 Shah, A.K.; **Avery, B.A.** and Wyandt, C.M. Evaluation of selected commercial preparations of St. John's Wort, *Southern Regional Discussion Group Meeting*, Little Rock, AK.
- 05/99 **Avery, B.A.**, Zhao, K., Wyandt, C.M. The Recrystallization of Glucose Monohydrate on an Anhydrous D-Glucose Tablet surface in an Aqueous Medium, *Southern Regional Discussion Group Meeting*, Monroe, LA.
- 05/99 **Avery, B.A.**; Moola, S. An HPLC Method for the Quantization of Creatine in Tablet Formulations, *Southern Regional Discussion Group Meeting*, Monroe, LA.
- 05/99 **Avery, B.A.**, Zhao, K., Wyandt, C.M. The utility of using Near Infrared Spectroscopy to Characterize a Dynamic Tablet Surface, *Mississippi Academy of Science*, Tupelo, MS.
- 04/98 Vyas, N., Venkatesh, K.K., **Avery, B.A.**, Avery, M.A., and Jones, A.B. Development of an HPLC Method for the Analysis of Artemisinin using an Evaporative Light Scattering Detector. *Sigma Xi*. **Best Poster Presentation.**
- 05/98 Vyas, N., Venkatesh, K.K., **Avery, B.A.**, Avery, M.A., and Jones, A.B. Development of an HPLC Method for the Analysis of Artemisinin using an Evaporative Light Scattering Detector, *The AAPS Southern Regional Discussion Group; Advances in Pharmaceutical Sciences*, Monroe LA.

## LECTURES AND TEACHING EXPERIENCE

### University of Florida, College of Pharmacy, Gainesville, FL.

06/17 – present PHA6935 Life Cycle of a Drug. Required first year graduate student course for all College of Pharmacy graduate students. (1 semester hour, Summer).

### University of Mississippi, School of Pharmacy, University, MS.

08/15 – 12/17 PRCT 353: Skills Lab I. PY1 Taught the physical pharmacy labs. (1 semester hour, fall semesters)

01/11 – 12/17 PHAR 335: Clinical Laboratory Data Analysis. PY1/PY2 Professional Pharmacy Elective course (1 semester hour, spring semesters).

01/05 – 12/17 PHAR 334: Clinical Pharmacokinetics and Biopharmaceutics. Undergraduate Level Professional Pharmacy Program. New course format in 2005 – 2006 to pharmacy program (3 semester hours, spring semesters).

02/05 – 12/17 PHAR 332: Dosage forms. Undergraduate Level Professional Pharmacy Program. (Taught 1 lecture Radiopharmaceuticals)

01/04 – 05/07 MEDC 541: Special Topics in Medicinal Chemistry: Drugs, Society, and Human Behavior. Undergraduate/Graduate pharmacy elective (Taught 2 lectures).

01/04 - 05/07 PHAR 544: Current topics in Pharmaceutics. Graduate level. Redesigned and taught course. (1 semester hour, spring semesters).

08/03 - 12/06 PHAR 543: Current topics in Pharmaceutics. Graduate level. Redesigned and taught course. (1 semester hour, fall semesters).

09/02 - 05/05 LIBA 102: History of Science. Undergraduate Level, Developed and taught course, new course developed each semester. (3 semester hours, taught both fall and spring semesters).

09/00 – 12/05 PHAR 332: Dosage forms. Undergraduate Level Professional Pharmacy Program (4 semester hours, spring semesters) Team-taught.

08/99 - 01/05 PHAR 331: Physical Pharmacy. Undergraduate Level Professional Pharmacy Program. New course format in 1999 – 2000 (4 semester hours, fall semesters).

08/06 – 12/06 PHAR 541: Special Problems in Pharmaceutics: GLP Guidelines and writing of SOP's. Graduate Level. Developed (3 semester hours).

01/99 – 12/17 PHAR 542: HPLC Method Development. Graduate level. Developed and currently teaching the course. (3 semester hour, spring semesters)

01/98 - 05/00 PHAR 544: Current topics in Pharmaceutics. Graduate level. Redesigned and taught course. (1 semester hour, spring semesters).

08/97 - 12/99 PHAR 543: Current topics in Pharmaceutics. Graduate level. Redesigned and taught course. (1 semester hour, fall semesters).

08/96 – 12/17	PHAR 735: Analytical Pharmaceutics. Graduate level. (3 semester hours, fall semesters).
01/96 – 05/98	PHAR 332: Physical Pharmacy II. Undergraduate Level Professional Pharmacy Program (4 semester hours, spring semesters) Team-taught.
08/95 – 12/95	PHAR 330: Pharmaceutical Calculations. Undergraduate Level Professional Pharmacy Program (2 semester hours, fall semesters) Team-taught.

University of North Dakota, Department of Chemistry, Grand Forks, ND.

04/93	CHEM 205: Organic Chemistry for Nurses. I gave 6 lectures.
08/90-05/91	Laboratory Instructor: CHEM 100: General Chemistry Laboratory. Undergraduate students.

Minot State University, Department of Chemistry, Minot, ND.

08/89 – 05/90	Laboratory Instructor: CHEM 121 and 122 General Chemistry Laboratory. Undergraduate students
---------------	--

## **RESEARCH FIELD WORK**

### **Marine organisms**

- Perry Institute of Marine Science, Bahamas, one week September 2011
- Utila Island, Bay Islands, Honduras, two weeks December 2009
- Utila Island, Bay Islands, Honduras, two weeks December 2008
- Utila Island, Bay Islands, Honduras, two weeks December 2006
- Utila Island, Bay Islands, Honduras, two weeks May 2005
- Utila Island, Bay Islands, Honduras, two weeks July 2004
- Utila Island, Bay Islands, Honduras, two weeks June 2003
- Utila Island, Bay Islands, Honduras, two weeks July 2002
- Lee Stalking Island, Bahamas, two weeks Jan-Feb 2002
- Utila Island Honduras two weeks July 2001
- Utila Island Honduras 10 days November 2001
- Lee Stalking Island Bahamas two weeks Jan-Feb 2001
- Utila Island Honduras one week December 2000



## **FUNDING ACTIVITY**

### **Grants pending**

NIH R-21 “Development of Novel Antimalarial Agents from the Ring Distortion of Yohimbine and Vincamine” Rob Huigens PI. TDD Core.

SBIR (NIDA) ImmuNova, LLC. “Alkyl(alkenyl)-Isopropylamino Porpanol” Stan Svetlov PI. TDD Core.

SBIR ImmuNova, LLC. “Composite Fatty acid amides for topical non-melanoma skin cancer therapy” Artem Svetlvo PI. TDD Core.

Bankhead-Coley Cancer Research Program “Novel peptide based therapeutics for treating breast cancer” Daiqing Liao, PI. TDD Core.

DoD Prostate Cancer Research Program “Novel HDAC inhibitor for treating advanced prostate cancer” Daiqing Liao, PI. TDD Core.

James and Esther King Biomedical Research Program, Florida Department of Health “Novel HDAC inhibitor for treating advanced breast cancer” Daiqing Liao, PI. TDD Core.

NIH R01 “Advancing health equity by preferentially enhancing tobacco carcinogen detoxification and reducing tobacco usage in African Americans with a dietary supplement kava” Chenggou Xing, PI. Bonnie Avery Co-PI

James and Esther King Biomedical Research Program, Florida Department of Health “Advancing health equity by preferentially enhancing tobacco carcinogen detoxification and reducing tobacco usage in African Americans with a dietary supplement kava” Chenggou Xing, PI. Bonnie Avery Co-PI

### **Grants active**

**DoD PR161310** “Sigma receptor ligands as non-opioid based pain management”. Christopher McCurdy(UF) – Principal Investigator (20% effort, 2.4 calendar months), Mechanism/Announcement: CDMRP W81XWH-16-PRMRP-IIRA. Partnering PI, Jay McLaughlin, UF. **Bonnie Avery UF – Co-Principal Investigator**. Total cost .

**NIH-NIDA R01 DA034777** “Optimization of Non-peptide Probes for the NPFF Receptor System. **(FUNDED)** Project Period September 2014 – August 2017.

Christopher McCurdy – Principal Investigator. **Bonnie Avery – Co-Principal Investigator.** Stephen Cutler – Co-Principal Investigator. Total cost \$2,109,199.

**Grants completed**

**NIH P20 GM104932-06, NIGMS**, “Center for Research Excellence in Natural Products Neuroscience” **Bonnie Avery Co-Director CORE B** (McCurdy, PI) September 24, 2012 – August 31, 2017. Total costs year 6; \$1,871,576. Total costs year 7; \$2,099,508. Total costs year 8; \$2,063,370. Total costs year 9; \$2,045,714. Total costs year 10; \$2,006,361. **COMPLETED**

**ChromaDex**, “Analysis of MeNam and Nam in Rat Plasma Samples”, Project period October 2015 – September 2016. **Bonnie Avery – Principal Investigator.** Requested Amount: \$24,000 total cost. **COMPLETED**

**ChromaDex**, “Method Development and Validation of NR and metabolites in plasma”, **(Funded)** Project period August 2015 – July 2016. **Bonnie Avery – Principal Investigator.** \$20,000, total cost. **COMPLETED.**

**CDC**, “Development and Testing of New Antimalarial Drugs”, Investigator (15% time, 1.8 cal. mo) (M. Avery, PI UM). 3,000,000 total costs. Budget period August 08-July 09. **COMPLETED.**

**CDC**, “Development and Testing of New Antimalarial Drugs”, Investigator (15% time, 1.8 cal mo) 3,000,000 total costs (M. Avery, PI UM). Budget period August 07-July 08. **COMPLETED.**

**CDC**, “Development and Testing of New Antimalarial Drugs”, Investigator (15% time, 1.8 cal mo) (M. Avery, PI UM) 3,000,000 total costs. Budget period August 06-July 07. **COMPLETED.**

**Tapestry Pharmaceuticals**, “Synthesis of Epothalones and Related Analogs” Investigator (M. Avery PI, UM) Budget Period May 05 – April 07. Total costs 495,368. **COMPLETED.**

**CDC**, “Development and Testing of New Antimalarial Drugs”, Co-principal Investigator (15% time, 1.8 cal mo) 3,000,000 (M. Avery PI UM) total costs. Budget period August 05-July 06. **COMPLETED.**

**CDC, grant U01 CI000211** “Development and Testing of New Antimalarial Drugs”, Co-principal Investigator (15% time, 1.8 cal mo) 3,000,000 total costs (M. Avery PI). Budget period August 04-July 05. **COMPLETED.**

**Novartis**, “Quantitation of moisture in solids”, Principal Investigator, \$15,500 total costs. June 2004. **COMPLETED.**

**University of Mississippi's Instructional Equipment Proposal**, "Pharmaceutics and Pharmacy Skills Laboratory, Phase II", Co-principal Investigator, \$18,000 total costs. September 2004. **COMPLETED.**

**University of Mississippi's Instructional Equipment Proposal**, "Pharmaceutics and Pharmacy Skills Laboratory, Phase I", Co-principal Investigator, \$46,240 total costs. September 2003. **COMPLETED.**

**NIH/NIAD** grant, "Preclinical development of a new drug for PCP and malaria." Co-Investigator (MA ElSohly, PI). \$250,00 (Direct Cost) **COMPLETED.**

**CDC** grant, "Botanical dietary supplements: Assessment and analysis of drug interaction risks-project 5." Co-Investigator (L. Walker, PI). October 2000 – September 2002. \$187,126 (Direct Cost) **COMPLETED.**

**Caribbean Marine Research Center**, "Marine Biotechnology: Antimicrobial Natural Products from Cave Sponges (year 2)". Co-Investigator (M. Stattery, PI). March 15, 2001 – March 14, 2002. Total costs \$40,000 **COMPLETED.**

**Caribbean Marine Research Center**, "Marine Biotechnology: Antimicrobial Natural Products from Cave Sponges (year 1)". Co-Investigator (M. Stattery, PI). March 15, 2000 – March 14, 2001. Total costs \$40,000 **COMPLETED.**

**NIH** grant "Rational Design of Novel, Non-neurotoxic Antimalarials." Co-Investigator (M. Avery, PI). August 1997 – July 2000. Total costs \$527,366. **COMPLETED.**

**Schering-Plough HealthCare Products** "Project to Evaluate Analytical Procedures to be utilized for the Analysis of Senna Containing Products" Principle Investigator, April 1996 – September 1996. Total costs \$5,000 **COMPLETED.**

**Thad Cochran Center for the Development of Natural Products.** "Near Infrared Analysis and Remote Sensing" Principal Investigator. April 16, 2002-April 16, 2003. **\$25,000. COMPLETED.**

**University of Mississippi, Faculty small grant award.** "Development of an Evaporative Light Scattering Detection Method for Molecules Lacking Specific Spectrophotometric Characteristics" Principal Investigator. April 16, 2000-April 16, 2001. **\$3,000. COMPLETED.**

**University of Mississippi, Faculty small grant award.** "Characterizing Bilberry Tablets from Various Manufacturers: The Effect of Formulation on Tablet Properties" Principal Investigator. April 16, 1999-April 16, 2000. **\$2,500. COMPLETED.**

**University of Mississippi, Faculty small grant award.** "Development of a Near Infrared Fiber Optic Method as a Tool to Study Multicomponent Tablet Dissolution" Principal Investigator. April 16, 1998-April 16, 1999. **\$3,000. COMPLETED.**

**Grants not funded**

**NIH R01 NIDA** “Novel Pharmacotherapy for Peripheral pain with Significantly Reduced Liabilities” Project period April 2016 – March 2021. Bonnie Avery Co-PI (PI McCurdy). Not funded

**Elysium Health**, (Method Development and Validation of NAD in Red Blood Cells”, Pending) Project period October 2015 – September 2016. Bonnie Avery – Principal Investigator. (not Funded)

**NIH R21/R33**, “Adjunctive Antibacterial Combination Therapies using Natural Products”, Bonnie Avery - Co-Investigator (P.I. M. Jacob) Requested Amount: \$1,672,992, total cost. (not funded)

**NIH R01, NIDA** “Rational Design and Testing of Novel Cannabinoid Ligands”, Investigator, Submitted 2014 (P.I. R Doerkson). (not funded)

**NIH R01, NIDA**, “Hit to Lead Optimization Studies of Cannabinoid Receptor 2 Agonists Discovered Through In-Silico virtual Screening”, Co-Investigator (P.I. R. Doerkson) Submitted 2014. (not funded)

**NIH R01 DA034777-01, NIDA**, "Optimization of non-peptide probes for the Neuropeptide FF receptor system", Investigator, submitted February 7, 2012 in response to PAR-12-060 (McCurdy, PI) (not funded)

**NIH R01 DA030971-01, NIDA**, “Development of Sigma Ligands as Antipsychostimulant Drugs”, Investigator, RFA-DA-10-018. Submitted April 29, 2010 (McCurdy, PI) (not funded)

**Susan Komen Foundation** “The study combinations of carnosic acid and curcumin on triple negative breast cancer” Co-Principal Investigator (PI: Redenti, S; (Lehman College) Einbond, L.(Columbia)) (not funded).

**SDG** “The Role of Prostaglandin Synthase Inhibition in Preventing Pressure Overload Induced Ventricular Remodeling”, Consultant, subcontractor (D. Murray, PI), resubmission (not funded).

**NIH COBRE, P20 RR021929-06, NCCR**, “Center for Research Excellence in Natural Products Neuroscience” DMPK Core Co-PI (S. Cutler, PI), (not funded).

**SDG**, “The Role of Prostaglandin Synthase Inhibition in Preventing Pressure Overload Induced Ventricular Remodeling”, Consultant, subcontractor (D. Murray PI), (not funded).

**NIH R01** “Cysteine Protease Inhibitors for Infectious Diseases”, Co-Investigator (25% time, 3cal mo), (M. Avery PI, UM) Submitted February 4, 2011. \$2,188,020 total costs. (not funded).

**Department of Homeland Security**, “Identification, Lead Optimization of Novel MCH-R1 Antagonists for Obesity Treatment”, Co-Investigator (25% time, 3cal mo), (A. Chittiboyina, PI, M. Avery Co-PI, UM) Submitted June 29, 2010. \$420,221 total costs. (not funded).

**NIH R01 DA030971-01, NIDA**, “Development of Sigma Ligands as Antispsychostimulant Drugs”, Co-principal Investigator (34% time, 4 cal mo), RFA-DA-10-018 \$4,887,984 total costs. Submitted April 29, 2010 (not funded).

**Dept. of Health and Human Services/Nat'l Institutes of Health**, “Thermally and Pharmacokinetically Stable Triazoles Based on Artemisinin”, Co-Investigator (25% time, 3cal mo), (A. Chittiboyina, PI, M. Avery Co-PI, UM) Submitted October 15, 2009. \$420,221 total costs. (not funded).

**NIH RC1 GM091443, NIGM**, “Selective Sigma-2 Receptor Probes”, Co-Investigator (25% time, 3 cal mo), (C. McCurdy PI, UM) Submitted April 24, 2009. \$986,219 total costs. Broad Challenge Area (06) Enabling Technologies and Specific Challenge Topic. 06-GM-102: Chemist/biologist collaborations facilitating tool development. RFA-OD-09-003 (not funded)

**NIH, R01 DA023205-03S1** competitive revision to DA023205, NIDA, “Lead Optimization of Anti-psychostimulants”, Co-Investigator (25% time, 3 cal mo), (C. McCurdy PI, UM), Submitted April 21, 2009. \$1,028,858 total costs. NOT-OD-09-058 (not funded)

**NIH “Center of Research Excellence in Natural Products Neuroscience (CORE-NPN) -(NCCR Admin. Supplement C. McCurdy)”** Co-PI (S. Cuttler PI, UM) Submitted April 2009, \$873,628 (not funded)

**Susan Komen Foundation**, “Chemopreventive and anticancer potential of vitamin D and rosemary on breast cancer” Co-PI (Columbia University) Submitted October 2009. \$600,000 (not funded)

**Dept. of Health and Human Services/Nat'l Institutes of Health**, “Enhanced Delivery of THC Medications by Novel Prodrugs” Co-PI (M. Repka PI, UM) Submitted March 2009. \$1,784,001 (not funded)

**Susan Komen Foundation**, “Chemopreventive and anticancer potential of vitamin D and rosemary on breast cancer” Co-PI (Columbia University) Submitted October 2008. \$600,000 (not funded)

**Dept. of Health and Human Services/Nat'l Institutes of Health**, “Center for Thermal Pharmaceutical Processing (CTP2)” Co-PI (M. Repka PI, UM) Submitted May 2008. \$292,000 (not funded)

**NIH** “Enhanced Delivery of THC Medications by Novel Prodrugs” Co-PI (M. Repka PI, UM) Submitted July 2008 \$1,784,001 (not funded)

**NIH** “Enhanced Delivery of THC Medications by Novel Prodrugs” Co-PI (M. Repka PI, UM) Submitted October 2007 \$1,784,001 (not funded)

**Competitiveness Proposal to Mississippi Space Commerce Initiative (MSCI) for Joint Applications Research** July 2003 “Hyperspectral Radar System for Agriculture” Co-PI (Atef Elsherbeni, UM, PI). Submitted July 2003. \$100,000 (not funded)

**March of Dimes**, “Determination of Fetal Lung Maturity using a Modified L/S Ratio” Co-PI (Kevin McGinnis UM, PI) Submitted July 2003. \$150,000 (not funded)

**NIH** “The use of PET imaging in studying the effect of Ginkgo biloba on the memory center of the brain” Co-PI (L. Ponto, Ph. D. University of Iowa) Submitted 2002. \$498,142 (not funded)

**SBIR** “Triamcinolone Acetonide and Lidocaine assay in a Non-Aqueous Gel” University entity: LAP, Principal Investigator. Submitted September 16, 2002. 1,400,000 (not funded)

**NSF** “Inactivation of Channel Catfish Virus by Singlet Oxygen” Co-PI (J. Zjawiony PI) Submitted January 2002. 299,990 (not funded)

**NSF** “The effects of nitrogen availability on indol-3-acetic acid production by wetland rhizobacteria” Co-PI (L Halda-Alija, UM PI) Submitted June 2001. 439,090. (not funded)

**AACP 1999-00 New Investigators Program** “Development of a Near Infrared Fiber Optic Method as a Tool to Study Multicomponent Tablet Dissolution” Submitted May 1999. \$12,000 (not funded)

**AACP 1998-99 New Investigators Program** “Development of a Near Infrared Fiber Optic Method as a Tool to Study Multicomponent Tablet Dissolution” Submitted: June 1989. \$12,500 (not funded)

**Department of the Army** “Development of an *In-Vivo* Method for the detection of HIV” Submitted September 1997. \$200,000. (not funded)

**Arnold and Mable Beckmann Foundation** “A Novel Fiber-Optic Immunosensor for the Detection of Bioactive Compounds” Principal Investigator Submitted September 1997. \$200,000. (not funded)

**Department of the Army** “Field Detection of Sulfur Mustard Via Fiber Optic Immunosensing” Principal Investigator Submitted August 1997. 235,856. (not funded)

**Sea Grant** “Optimization of Marine Microbial Culture Conditions and Biomedical Compound Yield: Monitoring Fermentation by NIR-Spectroscopy” Co-PI (M. Slattery PI, UM) Submitted June 1997. \$274,284. (not funded)

**NRICGP** Improving Animal Growth and Development “Enhanced Aquaculture Production via Marine Invertebrate-Microbial Chemical Interactions” Co-PI (M. Slattery PI, UM) Submitted February 1998. \$188,467. (not funded)

**NCRR**; Innovative Approaches to Developing New Technologies “Enhancing Fermentation Techniques Using NIR Optical Sensing” Co-PI (J. Williamson PI, UM) Submitted February 1997. \$197,039. (not funded)

**NCRR** Innovative Approaches to Developing New Technologies “Development and Validation of a Novel Immunosensor” Principal Investigator. Submitted February 1997. \$211,500. (not funded)

**Arnold and Mable Beckmann Foundation** “A Novel Fiber-Optic Immunosensor for the Detection of Bioactive Compounds” Principal Investigator. Submitted September 1996. \$200,000. (not funded)

**NIH** “Rational Design of Novel, Non-neurotoxic Antimalarials” Co-PI (M. Avery PI, UM) Submitted September 1996. \$657,365. (not funded)

**American Association of Colleges of Pharmacy New Investigator Program** “Development of a Near Infrared Fiber Optic Method as a Tool to Study Multicomponent Tablet Dissolution” Principal Investigator. Submitted June 1996. \$10,000. (not funded)

**NIH IDeA** “Detection of Bioactive Compounds using a Novel Fiber-Optic Immunosensor” Co-PI (A Clark PI, UM) Submitted: February 1996. \$683,597. (not funded)

**NIH** “Rational Design of Novel, Non-neurotoxic Antimalarials” Co-PI (M. Avery PI, UM) Submitted: February 1996. \$458,701. (not funded)

**NSF EPSCoRE** “Development of a Near Infrared Depth Profiling Method as a Tool to Study the Interaction of Polymers and Water” Co-PI (C. Wyandt PI, UM) Submitted September 1995. \$71,809. (not funded)

**DEPSCoR** “New Antimalarial Drugs Based on Artemisinin” Co-PI (M. Avery, PI, UM) Submitted August 1995. \$331,225. (not funded)

## **CONTRACTS**

**Pending**

None

**Completed**

ChromaDex Pharmaceuticals CoQ10 Pharmacokinetic Study, March 08 – March 09 (\$30,570)

Tapestry Pharmaceuticals, Docataxel Pharmacokinetic Study, January 08 – March 08 (\$14,500)

Tapestry Pharmaceuticals, TPI Compounds Stability Study, January 08 – March 08 (\$11,000)

OsteoTech, Determination of residuals in a collagen bandage, January 08 – December 10 (40,000)

ChromaDex Pharmaceuticals, Actin analysis, September 07 – November 07 (\$960)

ChromaDex Pharmaceuticals, CoQ10 Pharmacokinetic study, August 07 (\$7,500)

LifeCyte, Wound healing gel, March 06- August 06 (\$7,000)

Forest General Hospital, Analysis of Drug, August 05 (\$300)

Delta Pharma, Compound analysis, June-July 2001 (\$2,500)



**PROFESSIONAL DEVELOPMENT**

- 02/14 Animal Welfare Meeting
- 08/13-12/13 Sabbatical
- 11/13 BBB Short Course Leiden, Netherlands
- 01/12-03/12 ACS Short course on Pharmacokinetics and Pharmacodynamics. On-line (webinar) format, 6 one-hour lectures.
- 10/10 Flash Chromatography Workshop
- 05/10 American Association of Colleges of Pharmacy Institute "Active Learning and Pedagogical Change"
- 04/10 Research Animal Diet Workshop
- 11/09 PhD/PharmD Degree Program American Association of Collages of Pharmacy
- 10/08 National Association of Boards of Pharmacy, Foreign Pharmacy Graduate Equivalency Examination Item Writing Workshop. Park Ridge, IL
- 11/06 American Association of Colleges of Pharmacy Institute
- 10/06 PK/PD Science in Drug Development Plans Workshop
- 05/06 National Science Foundation Case Study Workshop
- 04/06 Critical Issues in Discovering Quality Clinical Candidates
- 07/05 Barnett International outsourcing meeting
- 07/05 Extractables and Leachables Forum
- 11/04 Clinical Biomarkers in Drug Development: Efficacy Assessment, Pharmacokinetics/Pharmacodynamics and Regulatory Insights.
- 10/04 National Association of Boards of Pharmacy, Foreign Pharmacy Graduate Equivalency Examination Item Writing Workshop. Park Ridge, IL
- 01/04 American Chemical Society Leadership Conference
- 11/03 LC/MS Strategies for the Identification of Impurities, Degradents, and Metabolites
- 11/02 Highlights of FDA Good Laboratory Practices and OECD Guidelines
- 04/01 Dissolution Workshop
- 03/99 HPLC and ion chromatography workshop
- 01/99 Compounding Course sponsored by the Professional Compounding Centers of America
- 01/98 American Chemical Society Leadership Conference
- 04/98 The Washington Scene
- 02/98 Insider Tips for Grant making
- 01/98 American Chemical Society Leadership Conference
- 12/97 NSF Fast Lane workshops
- 11/97 Objectivity in Research Policy
- 10/97 Grant Proposal Budgets
- 09/97 NIH AREA Workshop
- 07/97 Attended the American Association of Colleges of Pharmacy Teachers Seminar.
- 06/97 Technology in the Classroom
- 05/97 How to interview prospective students
- 03/97 Light scattering techniques
- 02/97 Waters training session on the Millennium™ system

- 02/97 Waters chromatography training seminar on reversed-phased and ion exchange chromatography
- 10/96 Americans with Disabilities Act Workshop
- 09/96 Attended a Waters training session on the Millennium™ system.
- 09/96 Waters chromatography training seminar on Strategies for faster HPLC Method development for Pharmaceutical compounds.
- 08/96 HPLC and ion chromatography workshop sponsored by DIONEX.
- 07/96 American Association of Colleges of Pharmacy Teachers Seminar.
- 04/96 Office of Research NIH AREA Workshop

## BIBLIOGRAPHY

### SCIENTIFIC PUBLICATIONS (PEER REVIEWED):

1. Boddu, S; Vuppala, P; Furr, E; Cutler, S; McCurdy, C.R; **Avery, B.A**; Method development for determination of mitragynine in rat plasma after administration of lyophilized Kratom tea by UPLC/MS/S: application to pharmacokinetics. *Chromatographia*, (**Submission, 2017**).
2. Boddu, S; Vuppala, P; Furr, E; Cutler, S; McCurdy, C.R; **Avery, B.A**; Physicochemical properties, stability and pharmacokinetics of mitragynine after administration of mitragynine HCl and Kratom extract after I.V. and oral administration to Sprague Dawley rats. *Drug metabolism and distribution* (**Submission, 2017**).
3. Vinnakota, H; Narayanan, S; Mesangeau, McCurdy, C.R; **Avery, B.A**; Preclinical pharmacokinetic studies of SN79, a novel sigma receptor antagonist. *Drug Testing and Analysis* (**Accepted 2017**).
4. Vinnakota, H; Vuppala1, P; Leon, J; Furr, E; Adkins, J; Cutler, S; McCurdy, C.R; **Avery, B.A**; Pharmacokinetic and tissue distribution studies of mitragynine, a naturally occurring opioid agonist, in rats using UPLC/MS/MS. (**Submission, 2017**).
5. McCurdy, C.R.; El-Alfy, A.T.; Wilson, L.L.; Furr, E.B.; Boyer, E.W.; Cutler, S.J.; Vuppala, P.; Boddu, S.; **Avery, B.A**. A Botanical Based Translational Approach to Treating Opioid Withdrawal with *Mitragyna speciosa* extracts and mitragynine. *Addiction* (**Submission, 2017**).
6. Adkins, J.E.; Moraes, N.; Vennakota, H.; White, N.; Tadlock, L.A.; Nieto, M.J.; **Avery, B.A**; McCurdy, C.R. HPLC method for determination of mitragynine, an indole alkaloid, in crude extracts of *Mitragyna speciosa*. *Phytochem. Anal.*, (**Submission, 2017**).
7. Abdelazeem, A.H.; Mesangeau, C.; Seminaro, M.; Jamalapuram, S.; El-Sayed Abbas, S.; Matsumoto, R.R.; **Avery, B.A**; Poupaert, J.H.; McCurdy, C.R. Design and synthesis of metabolically stable benzothiazolone derivatives of CM156 with high affinity and selectivity for sigma ( $\sigma$ ) receptors. *Journal of Medicinal Chemistry* (**Submission, 2017**).
8. Avery, B.A.; Pabbisetty, D.; Li, L.; Sharma, A.; Gundluru, M.K.; Chittiboyina, A.G.; Williamson, J.S.; Avery, M.A. A Pharmacokinetic Comparison of Homodimer ARB-92 and Heterodimer ARB-89: Novel, Potent Antimalarial Candidates Derived from 7B-Hydroxyartemisinin. *Journal of Pharmaceutical*

- Investigation, DOI: 10.1007/s40005-017-0352-6 JPIN-D-17-00067.1 PMID: PMCID: pending (**accepted 2017**)
9. Yi, W.; Narayanapillai, S.C.; Updhyaya, P.; Hcht, F.; McLaughlin, J.; Xing, C. UPLC-MS/MS method of five major kavalactones and its application to kava product analysis, mouse pharmacokinetics and human exposure. (**Submitted 2017**)
  10. Shen, B.; Park, J.H.; Hjernevik, T.; Cipriano, P.W.; Yoon, D.; Gulaka, P.K.; Holly, D.; Behera, D.; **Avery, B.A.**; Gambhir, S.S.; McCurdy, C.R.; Biswal, S.; Chin, F.T. Radiosynthesis and First-in-Human PET/MRI Evaluation with Clinical-Grade [<sup>18</sup>F]FTC-146. *Molecular Imaging and Biology*, **2017**, (**IN PRESS**) Web Published March 9, 2017. DOI: 10.1007/s11307-017-1064-z PMID: 28280965 PMCID: Pending
  11. **Avery, B.A.**; Vuppala, P.K.; Jamalapuram, S.; Sharma, A.; Mesangeau, C.; Chin, F.T.; McCurdy, C.R. Quantification of Highly Selective Sigma-1 Receptor Antagonist CM304 using Liquid Chromatography Tandem Mass Spectrometry and its application to a Pre-clinical Pharmacokinetic Study. *Drug Testing and Analysis*, **2016**, (**IN PRESS**) Web Published December 30, 2016. DOI: 10.1002/dta.2156 PMID: 28039926 PMCID: pending.
  12. Lydecker, A.G.; Sharma, A.; McCurdy, C.R.; **Avery, B.A.**; Babu, K.M.; Boyer, E.W. Suspected Adulteration of Commercial Kratom Products with 7-Hydroxymitragynine. *Journal of Medical Toxicology*, **2016**, *12*, 341-349. Web Published October 17, 2016. DOI: 10.1007/s13181-016-0588-y PMID: 27752985 PMCID: pending.
  13. James, M.L.; Shen, B.; Nielsen, C.H.; Behera, D.; Buckmaster, C.L.; Mesangeau, C.; Zavaleta, C.; Vuppala, P.K.; Jamalapuram, S.; **Avery, B.A.**; Lyons, D.M.; McCurdy, C.R.; Biswal, S.; Gambhir, S.S.; Chin, F.T. Evaluation of Sigma-1 Receptor Radioligand [<sup>18</sup>F]FTC-146 in Rats and Squirrel Monkeys using Positron Emission Tomography. *Journal of Nuclear Medicine*, **2014**, *55*, 147-153. Web Published December 12, 2013. DOI: 10.2967/jnumed.113.121.0261 PMID: 24337599
  14. Vuppala, P.K.; Jamalapuram, S.; Furr, E.B.; McCurdy, C.R.; **Avery, B.A.** Development and validation of a UPLC-MS/MS method for the determination of 7-hydroxymitragynine, a m-opioid agonist, in rat plasma and its application to a pharmacokinetic study. *Biomedical Chromatography*, **2013**, *12*, 1726-1732. Web Published July 24, 2013. DOI: 10.1002/bmc.2986 PMID: 23893615
  15. Jamalapuram, S.; Vuppala, P.K.; Abdelazeem, A.H.; McCurdy, C.R.; **Avery, B.A.** Ultra performance liquid chromatography tandem mass spectrometry method for the determination of AZ66, a sigma receptor ligand, in rat plasma and its application to in vivo pharmacokinetic study. *Biomedical Chromatography*,

**2013**, 27, 1034-1040. Web Published 4-5-2013. DOI: 10.1002/bmc.2901  
PMID: 23558564

16. James, M.L.; Shen, B.; Zavaleta, C.L.; Nielsen, C.H.; Mesangeau, C.; Vupalla, P.K.; Chan C.; **Avery, B.A.**; Fishback, J.A.; Matsumoto, R.R.; Gambhir, S.S.; McCurdy, C.R.; Chin, F.T. A New Positron Emission Tomography (PET) Radioligand for Imaging Sigma-1 Receptors in Living Subjects. *Journal of Medicinal Chemistry*, **2012**, 55, 8272-8282. Web Published 8-1-2012. DOI: 10.1021/jm300371c PMID: 22853801
17. Kaushal, N.; Robson, M.J.; Vinnakota, H.; Narayanan, S.; **Avery, B.A.**; McCurdy, C.R. and Matsumoto, R.R., "Synthesis and Pharmacological Evaluation of 6-Acetyl-3-(4-(4-(4-fluorophenyl)piperazin-1-yl)butyl)benzo[d]oxazol-2(3H)-one (SN79), a Cocaine Antagonist, in Rodents", *The AAPS Journal* 13 (3), 336-346 (**2011**). Web Published 4-15-2011. DOI: 10.1208/s12248-011-9274-9. PMID: 21494909
18. Seminerio, M.J; Robson, M.J; Abdelazeem, H; Mesangeau, C; Jamalapuram, S; **Avery, B.A**; McCurdy, C.R; Matsumoto, R.R; Synthesis and Pharmacological Characterization of a Novel Sigma Receptor Ligand with Improved Metabolic Stability and Antagonistic Effects Against Methamphetamine. *The AAPS Journal*, 14 (1), 43-51 (**2011**), Web Published 12-20-2011. DOI: 10.1208/s12248-011-9311-8 PMID: 22183188.
19. Jamalapuram, S.; Vuppala, P.K.; Mesangeau, C.; McCurdy, C.R.; **Avery, B.A.** Determination of a highly selective mixed-affinity sigma receptor ligand, in rat plasma by ultra performance liquid chromatography mass spectrometry and its application to a pharmacokinetic study. *Journal of Chromatography B*, 891-892. 1-6 (**2012**). Web Published 12-20-2011. DOI: 10.1016/j.jchromb.2011.12.013 PMID: 22406103
20. Pabbisetty, D; Gundluru, M; Chittiboyina, A; Avery, M.A.; **Avery, B.A.**; Determination of ARB89 (7-hydroxy artemisinin carbamate), a novel antimalarial drug candidate in rat serum by UPLC/MS/MS and its application in pharmacokinetics. *Journal of Chromatography B* 889-890, 123-129 (**2012**).
21. Vuppala, P.K.; Boddu, S.P.; Furr, E.B.; McCurdy, C.R.; **Avery, B.A.** A simple, sensitive, high-throughput method for the quantification of mitragynine in rat plasma using UPLC-MS and its application to an intravenous pharmacokinetic study. *Chromatographia*, 74, 703-710 (**2011**). Web Published 7-31-2011. DOI: 10.1007/s10337-011-2128-x
22. Kaushal, N.; Robson, M.J.; Vinnakota, H.; Narayanan, S.; **Avery, B.A.**; McCurdy, C.R., Matsumoto, R.R. Synthesis and Pharmacological Evaluation of 6-Acetyl-3-(4-(4-(4-fluorophenyl)piperazin-1-yl)butyl)benzo[d]oxazol-2(3H)-

- one (SN79), a Cocaine Antagonist, in Rodents. *The AAPS Journal*, **2011**, 61, 992-1000. Web Published 4-15-2011. DOI: 10.1208/s12248-011-9274-9
23. Shah, F.; Zhang, S.Q.; Kandhari, S.P.; Mukherjee, P.; Chittiboyina, A.; Avery, M.A.; **Avery, B.A.** In vitro erythrocytic uptake studies of artemisinin and selected derivatives using LC-MS and 2D-QSAR analysis of uptake in parasitized erythrocytes. *Bioorganic & Medicinal Chemistry*. 17(14), 5325-5331 (**2009**).
  24. Zhang, S.Q.; Vinnakota, H.; Jung, J.C.; Carvalho, P.; Chittiboyina, A. G.; Avery, M.A.; **Avery, B.A.** Determination of a novel epothilone D analog (AV-EPO-106) in human plasma using ultra-performance liquid chromatography-tandem mass spectrometry. *Biomedical Chromatography*, 23(3), 302-307 (**2009**).
  25. Boddu, S.P.; Rao Yamsani, M.; Potharaju, S.; Veeraraghavan, S.; Rajak, S.; Kumar, V.V.S.; **Avery, B.A.**; Repka, M.A.; Varanasi, V.S.K.K. Influence of grapefruit juice on the pharmacokinetics of diltiazem in Wistar rats upon single and multiple dosage regimens, *Pharmazie*. 64, 525-531 (**2009**).
  26. Li, L.; Pabbisetty, D.; Avery, M.A. and **Avery B.A.** Ultra-performance liquid chromatography–tandem mass spectrometric method for the determination of Artemisinin in rat serum and its application in pharmacokinetics. *Journal of Chromatography. B*, 867(1), 131-137 (**2008**).
  27. Zhu, S.; Li, L.; Thornton, C.E.; Carvalho, P.; **Avery, B.A.**; Willett, K. Simultaneous determination of benzo[a]pyrene and eight of its metabolites in *Fundulus heteroclitus* bile using ultra performance liquid chromatography with mass spectrometry *Journal of Chromatography B*, 863(1) 141-149 (**2008**).
  28. Li, L.; Pabbisetty, D.; Avery, M.A. and **Avery B.A.** Analysis of CoQ10 in rat serum by ultra-performance liquid chromatography mass spectrometry after oral administration. *Journal of pharmaceutical and biomedical analysis*. 46(1), 137-142 (**2008**).
  29. Zhang, S.Q.; Chen, G.H.; **Avery, B.A.** Determination of Paclitaxel in Human Plasma by UPLC-MS-MS. *Journal of Chromatographic Science*, 46(3), 220-224 (**2008**).
  30. Zhang, S.Q.; Chittiboyina, A.G.; Kulkarni, S.J.; Avery, M.A.; **Avery, B.A.** LC Determination of a Novel Synthetic Thiazolidinedione (BP-1107) in Rat Plasma and Its Application to a Pharmacokinetic Study. *Chromatographia* 68 issue 7/8 551-55 (**2008**).
  31. Li, L.; Pabbisetty, D.; Avery, M.A. and **Avery B.A.** Urinary Excretion Study of Coenzyme Q10 in Rats by Ultra-Performance Liquid Chromatography–Mass Spectrometry. *Journal of Chromatographic science*. 46(3), 215-219 (**2008**).

32. Zhang, S.Q.; Vinnakota, H.; Jung, J.C.; Carvalho, P.; Chittiboyina, A.G.; Avery, M.A.; **Avery, B.A.** Determination of a novel epothilone D analog (AV-EPO-106) in human plasma using ultra-performance liquid chromatography-tandem mass spectrometry, *Biomedical Chromatography*. (2008) (Epub ahead of print).
33. Tumuluri, V.S.; Kemper, M.S.; Lewis, I.R.; Prodduturi, S.; Majumdar, S.; **Avery, B.A.**; Repka, M.A. Off-line and on-line measurements of drug-loaded hot-melt extruded films using Raman spectroscopy. *Int. J. Pharm.* 357(1-2), 77–84 (2008).
34. Tumuluri, V.S.; Kemper, M.S.; Sheri, A.; Choi, S.R.; Lewis, I.R.; Avery, M.A.; **Avery, B.A.** Use of Raman spectroscopy to characterize hydrogenation reactions. *Organic Process. Research & Development* 10(5), 927-933 (2006).
35. Bashyal, B.; Desai, P.; Rao, K. V.; Hamann, M.T.; **Avery, B.A.**; Reed, J.K.; Avery, M.A. Terpenes from *Eunicea laciniata* and *Plexaurella nutans*. *Journal of Chemical Research* (3), 165-167(2006).
36. Dutta, A.K.; **Avery, B.A.**; Wyandt, C.M. Development and validation of a stability-indicating reversed-phase high performance liquid chromatography method for NPC 1161C, a novel 8-aminoquinoline anti-malarial drug. *Journal of Chromatography, A* 1110(1-2), 35-45 (2006).
37. Shah, A.K.; **Avery, B.A.**; and Wyandt, C.M. Content analysis and stability evaluation of selected commercial preparations of St. John's Wart, *Drug Development and Industrial Pharmacy*, 31, 907-916 (2005).
38. Tumuluri, V.S.; Prodduturi, S.; Crowley, M.M.; Stodghill, S.P.; McGinity, J.W.; **Avery, B.A.**; and Repka, M.A. The use of Near-Infrared Spectroscopy for the Quantitation of a Drug in Hot-Melt Extruded Films, *Drug Devel. Ind. Pharm.*, 30(5), 505-511, (2004).
39. Kandhari, S.P.; Avery, M.A.; **Avery, B.A.** "Analytical Techniques for the Determination of Artemisinin and Its Related Analogs" *Research Advances in Antimicrobial Agents and Chemotherapy*, 3, 97-106 (2003).
40. Illapakurthy, A.C.; Sabnis, Y.A.; **Avery, B.A.**; Avery, M.A.; Wyandt, C.M. "Interaction of Artemisinin and its Related Compounds with Hydroxypropyl- $\beta$ -Cyclodextrin in Solution State: Experimental and Molecular-Modeling Studies" *J. Pharm. Sci.*, vol. 92, no. 3 (2003).
41. Fiaux de Medeiros, S.; Avery, M.A.; **Avery, B.A.**; Leite, S.G.F.; Freitas, A.C.; Williamson, J.S. "Biotransformation of 10-deoxyartemisinin to its 7 $\beta$ -hydroxy derivative by *Mucor ramannianus*" *Biotechnology Letters* 24, (11) 937-941 (2002).

42. Vyas, N.; **Avery, B.A.**; Avery, M.A.; Wyandt, C.M. "Carrier-mediated partitioning of artemisinin into Plasmodium falciparum-infested erythrocytes" *Antimicrobial Agents and Chemotherapy* 46(1), 105-109 (2002).
43. Wu, B.; **Avery, B.A.**; Avery, M.A. "Conjugate addition of a primary carbon radical to a,b-unsaturated carboxylic acids" *Tetrahedron Letters* 41(20), 3797-3800 (2000).
44. **Avery, B.A.**; Venkatesh, K.K.; Avery, M.A. "Rapid determination of artemisinin and related analogs by high-performance liquid chromatography and an evaporative light scattering detector" *Journal of Chromatography, B: Biomedical Sciences and Applications* 730(1), 71-80 (1999).
45. Avery, M.A.; Bonk, J.D.; Chong, W.K.; Mehrotra, S.; Miller, R.D.; Goins, K.; Venkatesan, S.; Wyandt, C.; Khan, I.; and **Avery, B.A.** "Structure-Activity Relationships of the Antimalarial Agent Artemisinin. 2. Effect of Heteroatom Substitution at O-11: Synthesis and Bioassay of N-Alkyl-11-aza-9-demethylartemisinins" *Journal of Medicinal Chemistry* 38, 5038 (1995).
46. **Nelson-Avery, B.A.**; Tilotta, D.C. "Near-Infrared Molecular Emission from a Gas Fountain", *Applied Spectroscopy* 48(12), 1461-1467 (1994).

#### INVITED BOOK CHAPTERS:

Phytochemistry of *Mitragyna Speciosa*. Vedanjali Gogineni, Francisco Leon, **Bonnie A. Avery**, Christopher McCurdy and Stephen J. Cutler. In, "Kratom and Related Compounds: Chemistry and Pharmacology of Opioids from a Non-Opium Source" Edited by Robert B. Raffa. Chapter 6. Taylor and Francis Group, Boca Raton, 2014.

#### INVITED PAPERS:

**Avery, B.A.**; Sample preparation techniques for biologics. **Bioanalysis** (in preparation.)

#### INVITED BOOK REVIEWS:

**Avery, B.A.** Martin's Physical Pharmacy and Pharmaceutical Sciences edited by Patrick J, Sinko Lippincott Williams and Wilkins.

#### PATENTS:

McCurdy, C.R.; Mesangeau, C.; **Avery, B.A.**; Abdelazeem, A.H.A.; Chin, F.T.; Poupaert, J.H. Highly Selective Sigma Receptor Ligands. Application



Bonnie A. Avery, Ph. D.

Number: 13/187035. Publication Number: US 2015/0018339 A1 Publication Date: Jan 15, 2015

McCurdy, C.R.; Mesangeau, C.; Narayanan, S.; Matsumoto, R.R.; Poupaert, J.H.; **Avery, B.A.**; Abdelazeem, A.H. Highly Selective Sigma Receptor Ligands. U.S. Patent No.: US8,686,008 B2. Issued Apr.1, 2014

McCurdy, C.R.; Mesangeau, C.; Narayanan, S.; Matsumoto, R.R.; Poupaert, J.H.; **Avery, B.A.**; Abdelazeem, A.H. Highly Selective Sigma Receptor Ligands. U.S. Application Number: 12/785,217. Filed 05/21/2010