

Holly D. Maples, Pharm.D.

PERSONAL INFORMATION

Business Address

UAMS College of Pharmacy
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EDUCATION

Pediatric Pharmacology Fellowship

July 2001 to July 2003

University of Arkansas for Medical Sciences

**College of Pharmacy &
Arkansas Children's Hospital**

Little Rock, Arkansas

Director: Cindy D. Stowe, Pharm.D.

General Practice Residency

(ASHP Accredited)

July 2000 to June 2001

Spectrum Health & DeVos Children's Hospital

Grand Rapids, Michigan

Director: Jaci DeYoung, Pharm.D.

Advisor: Michael Bouthillier, Pharm.D.

Doctor of Pharmacy

September 1994 to May 2000

Ohio Northern University

Ada, Ohio

ACADEMIC APPOINTMENTS

College of Pharmacy

Endowed Chair

November 2011 to present

Jeff and Kathy Lewis Sanders College of

Pharmacy Chair in Pediatrics

UAMS College of Pharmacy

Associate Professor

July 2011 to present

University of Arkansas for Medical Sciences

Department of Pharmacy Practice

Little Rock, Arkansas

Assistant Professor

July 2003 to July 2011

University of Arkansas for Medical Sciences

Department of Pharmacy Practice

Little Rock, Arkansas

Instructor

July 2001 to July 2003

University of Arkansas for Medical Sciences

Department of Pharmacy Practice

Little Rock, Arkansas

Adjunct Faculty

July 2000 to June 2001

Ferris State University

College of Pharmacy

Big Rapids, Michigan

PROFESSIONAL EXPERIENCE

College of Medicine

Assistant Professor

July 2003 to present

University of Arkansas for Medical Sciences

Department of Pediatrics

Little Rock, Arkansas

Arkansas Children's Hospital

Affiliated Health Professional Staff

October 17, 2003 to present

Affiliated Health Staff Privileges

Clinical Pharmacist Services

January 2009-July 2010

In-patient Renal Transplant

2007-present

Antimicrobial Stewardship

2003-present

In-patient Cystic Fibrosis

2003-present

Therapeutic Drug Monitoring Service

2003-2015

Infectious Disease/HIV Clinic Pharmacist

Director

November 2007 - present

Antimicrobial Stewardship Program

Director

July 2015- present

Pediatric Infectious Diseases and Antimicrobial Stewardship Fellowship

July 2010 - 2015

PGY-2 Pediatric Infectious Disease/Antimicrobial Stewardship Residency Program

July 2006 - 2013

PGY-1 Pediatric Pharmacy Practice Residency Program

Other Experiences

Pharmacy Extern

1999 (summer)

Dayton Children's Hospital

Dayton, OH

Pharmacy Extern

1999 (summer)

Wal-Mart

Findlay, OH

Pharmacy Intern

1995-1998

Reid Hospital and Healthcare

Richmond, IN

TEACHING

College of Pharmacy: Current Participation

2017-present

Course Coordinator and Facilitator, PPHR 7366 Infectious Diseases Pharmacotherapy [elective]. Fall (2 credit hours)

2016-present

Preceptor and Coordinator, PPHR 7150 Special Problems in Clinical Practice [elective] (2 credit hours)

Research 2016 Fall (McMinn); Clinical 2017 Fall (Snodgrass); Research 2018 Spring (Snodgrass); Clinical 2018 Spring (Goodner)

TEACHING (continued)

2012-present

Co-Course Coordinator, PhSc 4642, Clinical Pharmacokinetics

	Spring (2 credit hours)
2009-present	Course Coordinator and Facilitator, PHPR 5472 PBL Pediatric Therapeutics [elective]. Spring (2 credit hours)
2006-present	Lecturer, PHPR 5362 Drug-Induced Disease [elective]. Fall (1 hour) Metabolic Complications Associated with Antiretrovirals (2013-present) Mentored Fellow/Resident providing this lecture
2006-present	Mentor, Pharmacy Residents/Fellows Precepting, APPE-DPC Acute Care Advance Pharmacy Practice Experience, Pediatrics. 2016-2017 (4 students) 2015-2016 (4 students), 2014-2015 (4 students), 2013-2014 (4 students), 2012-2013 (4 students), 2011-2012 (4 students), 2010-2011 (4 students), 2009-2010 (5 students), 2008-2009 (6 students), 2006-2007 (4 students)
2005-present	Small Group Facilitator, PHPR 3423 Pharmacy Practice /PHPR3422 Career Orientation and Communications.
2005-present	Lecturer, PHPR 5635 Therapeutics II. Fall 2014-17 (9 hours), 2008-2013 (8 hours), 2007 (6 hours), 2005-2006 (4 hours). ○ <i>Bugs & Drugs, Antibiotic Resistance, HIV, STD's.</i>
2004-present	Lecturer, PHSCI 4642 Clinical Pharmacokinetics/PHSCI 4445 Pharmacokinetics. Spring 2016-2018 (11 hours), including 2 TBLs on PK and Special Populations Spring 2015 (10 hours), including TBL on PK Spring 2013 & 2014 (7 hours), including TBL on PK Spring 2012 (6 hours) ○ <i>Aminoglycosides, Therapeutic Drug Monitoring, Developmental Pharmacology, Obesity, Anticonvulsants</i> Spring 2009-2011, Fall 2007-2008, 2004-2005 (1 hour). ○ <i>Developmental Pharmacology.</i>
2002-present	Lecturer, PHPR 5645 Therapeutics III. Spring 2014-2018 (10 hours) Spring 2011-2013 (9 hours) Spring 2010 (12 hours), Spring 2008-2009 (11 hours), Spring (10 hours), Spring 2006 (7 hours), Spring 2005 (4 hours), Spring 2004 (2 hours). ○ <i>Cystic Fibrosis, Introduction to Pediatrics, Pediatric Drug Delivery and Dosing Considerations, Advanced Developmental Pharmacology, Meningitis, Otitis media, Viral Illnesses, ADHD, Immunizations, Special Problems.</i>
2002-present	Preceptor, APPE-DPC Acute Care Advance Pharmacy Practice 4 Week Experience, Pediatrics. Academic year 2014-2017 (10 students) 2013-2014 (8 students), 2012-2013 (8 students), 2011-2012 (10 students), 2010-2011 (10 students), 2009-2010 (7 students), 2008-2009 (8 students), 2007-2008 (8 students), 2006-2007 (6 students), 2005-2006 (6 students), 2004-2005 (6 students), 2003-2004 (2 students), 2002-2003 (4 students), 2001-2002 (4 students)

TEACHING (continued)

Colleges of Pharmacy: Previous Participation

- 2005-2013 **Lecturer, PHPR 3423 Pharmacy Practice /PHPR3422 Career Orientation and Communications.** Fall 2010-13 (6 hours), Fall 2006 -2009 (5 hours), Fall 2005 (4 hours).
- *Residencies, Fellowships, and Clinical Practice; Cultural Competency.*
- 2006 **Course Faculty and Research Project Mentor, PHPR 5442 Introduction to Research Methods [elective].** Fall and Spring 2006.
- Special Populations, Research Projects/Interests, Poster Presentations, Publishing.*
- 2004 **Lecturer, PHPR 5352 Advanced Infectious Disease Therapeutics Elective.** Spring 2004 (2 hours).
- Antibiotic Use and Dosing Considerations in Children, Pediatric HIV.*
- 2002 **Facilitator, PHPR 5645 Therapeutics III Recitation.** Spring 2002.
- 2000 **Lecturer, PHPR 352 Introduction to Clinical Pharmacy Practice II**
COP Ferris State University
Fall 2000 (1 hour) Career Choices: Clinical Pharmacy and Residencies

Postgraduate Training

- 2013-present **Preceptor,** Pediatric Pharmacy Practice Residency Program *University of Arkansas for Medical Sciences COP & Arkansas Children's Hospital*
Serve as the primary preceptor for the following rotations: General Pediatrics, Infectious Disease, Antimicrobial Stewardship, Inpatient Pulmonary, Longitudinal TDM
- 2017-18 Min Cai, Pharm.D. (TDM/Stewardship)
 - 2016-17 Josh Robinson, Pharm.D. (2 months of stewardship)
 - 2015-16 Jon Martinez, Pharm.D. (TDM/Stewardship)
 - 2014-15 Andrew Houck, Pharm.D. (General Peds, TDM, Antimicrobial Stewardship)
 - 2013- Catherine Needham, Pharm.D. (General Pediatrics and Antimicrobial Stewardship)
- 2010-present **Director and Primary Preceptor,** Pediatric Infectious Disease/Antimicrobial Stewardship Residency (1 year 2010-2015)/Fellowship Program (2015-present) *University of Arkansas for Medical Sciences COP & Arkansas Children's Hospital*
- 2017-current- Kimberly Pough, Pharm.D. and Corey Lance, Pharm.D.
 - 2016-current- Hoang Huynh, Pharm.D., MBA
 - 2015-2016- Drew Stahl, Pharm.D.
 - Antimicrobial Stewardship/Infectious Disease Pharmacist
 - Kosair Children's Hospital, Louisville, KY (current)
 - Jewish and St. Mary's Hospitals, Louisville, KY (2016-2017)
 - 2014-2015-Justin Markham, Pharm.D.
 - Hem/Onc ID Clinical Pharmacist
 - Cincinnati Children's Hospital

TEACHING (continued)

- 2013-2014-Karisma Patel, Pharm.D.
 - Antimicrobial Stewardship Clinical Pharmacist
 - Dallas Children's in Dallas, TX (current)
 - Mercy Children's in Kansas City, MO (2014-2017)
- 2010-2011-Ashley Crumby, Pharm.D.
 - Started as an Assistant Professor with Purdue University, based at Riley Children's Hospital, Indianapolis, IN and transferred back to the University of Mississippi School of Pharmacy to study Pharmacy Administration in the summer of 2013.

2007

Preceptor, Pharmacy Practice Residency Program
Central Arkansas Veterans Healthcare System Pharmacy Services, Little Rock, Arkansas

- April-June 2007 Melanie Claborn, Pharm.D.
 - Pediatric HIV Ambulatory Longitudinal Experience

2006-2013

Director and Preceptor, Pediatric Pharmacy Practice Residency Program
UAMS COP & Arkansas Children's Hospital

- 2012-2013- Karisma Patel, Pharm.D.
 - Antimicrobial Stewardship Clinical Pharmacist at Mercy Children's Hospital, Kansas City
- 2011-2012- Kirsten Boggs, Pharm.D.
 - Currently a staff pharmacist at Denver Children's Hospital
- 2009-2010-Ashley Crumby, Pharm.D.
 - Started as an Assistant Professor at Purdue University based at Riley Children's Hospital focusing on Pediatric HIV Ambulatory Care, Indianapolis, IN and transferred back to the University of Mississippi School of Pharmacy to study Pharmacy Administration in the summer of 2013.
- 2009-2010- Starr McLain, Pharm.D.
 - 2014-current Compound Pharmacist at Cornerstone Pharmacy specializing in transplant, Little Rock, AR
 - 2010-2014 Renal/Liver Transplant Pharmacist: Arkansas Children's Hospital, Arkansas
- 2008-2009- Matthew Gentry, Pharm.D.
 - Started as a Clinical Antimicrobial Stewardship Pharmacist: Orange County Children's Hospital, California then changed the Fall of 2013 to the Children's Hospital of Los Angeles.
- 2008-2009- Nisha Thomas, Pharm.D.
 - Currently a Clinical NICU Pharmacist: Children's Hospital of Eastern Ontario, Canada
- 2006-2007- Natalie Bohannon, Pharm.D.
 - Currently a Clinical Pharmacist: North Little Rock Baptist Hospital, Arkansas

Served as the primary preceptor for each PGY1 resident for 6-8 months in the following monthly experiences: general pediatrics, antimicrobial stewardship, infectious diseases, and inpatient pulmonary. Also oversee longitudinal clinic experience in HIV.

TEACHING (continued)

2005-2008

Preceptor, UAMS Pharmacy Practice Residency Program-Pediatric Rotation

- January 2008- Nisha Thomas, Pharm.D.
- March 2006- Catherine O'Brien, Pharm.D.
- November 2005- Kimberley Dickey, Pharm.D.

- 2003-2004 **Preceptor**, UAMS COP Infectious Disease Fellowship
- July 2003-June 2004 Jarrett Amsden, Pharm.D.
 - Pediatric HIV Ambulatory Longitudinal Experience: ½ day/week

College of Nursing:

- 2006-2010 **Lecturer, Clinical Management of Child & Family (NUSC 5313)**
 Spring 2009, Spring 2008, Spring 2007 (3 hours), Spring 2006 (2 hours).
Pediatric Dosing Considerations, Antimicrobial Resistance.

College of Medicine:

- 2014-2016 **Lecturer, AI Didactic Session**
 Present once on alternating months to current AI's with our P4 pharmacy students on Antibiotic principles
- 2005-present **Lecturer, Arkansas Medical Resident Noon Lecture Series**
 2009-2010, 2012-2016 (1 hour/year) 2005-2008, 2011 (2 hours/year).
Antimicrobial Stewardship, Therapeutic Drug Monitoring, Vancomycin, Developmental Pharmacology
- 2002-present **Lecturer, Pharmacology and Toxicology M4 Longitudinal Elective (LPHAA)**
 Spring 2012-2017 (2 hours/year) Spring 2010-2011 (3 hours/year), Fall 2006-2008 (3 hours/year), Fall 2003-2005 (2 hours/year).
Simplified Dosing Adjustments, Pediatric Dosing Considerations, Drug Interactions.

Arkansas Children's Hospital:

- 2014-present **Faculty, Versant Curriculum for Nursing Residents**
 Teach 1.5 hours per semester on Developmental Pharmacology and Antimicrobial Stewardship Program
- 2017-present **Faculty, Nursing Fellowship**
 Teach 1.5 hrs every other month on Antimicrobial Stewardship

Academic Advisement: College of Pharmacy

- 2007-present **Faculty Mentor**, College of Pharmacy Honors in Research Program (HIRP)
- Class of 2021: Emma Matherne
 - Class of 2020: Julianne Mott
 - Class of 2019: Caleb McMinn, Sathya Kumaran
 - Class of 2017: Corey Lance (approved)
 - Class of 2014: Rachel McCaleb, B.S. (approved January 2014)
 - Class of 2012: Sarah Norman (application approved January 2012)
 - Class of 2011: Jonathan Barham (application approved January 2011)
 - Class of 2010: Annie Inman (application approved January 2010)
 - Class of 2010: Debbie McCastlain (application approved January 2010)
- 2007-present **Faculty Advisor**, Longitudinal Introductory Pharmacy Practice Experience
 Provide a 4 hour shadowing experience

TEACHING (continued)

- 2007-present **Research Mentor**, College of Pharmacy, Pharmacy Practice Student Research Fellowship- Provide a 10 week summer clinical research opportunity with the aim of exposing the student to various aspects of research design, implementation, assessment, and presentation.
- Emma Matherne, 2017 recipient
 - Caleb McMinn, 2016 recipient
 - Miriam Khan, 2015 recipient
 - Grant Florer, 2013 recipient (co-mentored with Catherine O'Brien, Pharm.D.)
 - Rachel McCaleb, B.S., 2011 and 2012 recipient (co-mentored with Catherine O'Brien, Pharm.D.)
 - Sarah Norman, 2010 recipient (co-mentored with Catherine O'Brien, Pharm.D.)
 - Jonathan Barham, 2009 recipient
 - Debbie McCastlain, 2008 recipient
 - Annie Inman, 2007 recipient

2005-present **Faculty Mentor**, College of Pharmacy Mentoring Program

2002-2004 **Mentor**, SSHP Shadowing Program

Academic Advisement: Postgraduate Programs

- 2006-present **Research Mentor**, UAMS College of Pharmacy & Arkansas Children's Hospital Pharmacy Practice Residency/Fellowship
- **Kimberly Pough, Pharm.D., 2017-present**
Project: Evaluation of Antimicrobial Usage in Surgical Site Infections at Arkansas Children's Hospital (shunts, spines, cardiovascular, colorectal).
Project: Evaluation of oral antimicrobial usage in the treatment of small intestinal bowel overgrowth (SIBO) and risk of bacterial resistance and other side effects.
 - **Corey Lance, Pharm.D., 2017-present**
Project: Impact of rapid pathogen detection on CSF and blood using BioFire FilmArray® on time to appropriate antibiotic use at Arkansas Children's.
Project: Assessment of Antibiotic Length of Therapy in Surgical and Non-Surgical Necrotizing Enterocolitis.
 - **Hoang Huynh, Pharm.D., MBA 2016-current**
Project: Assessment of pediatric risk of nephrotoxicity with combination vancomycin and piperacillin/tazobactam in a children's hospital.
Project: SHARPS Antibiotic Resistance, Prescribing, and Efficacy among Children.
Project: Evaluation of HAI's and Antibiotic Susceptibility in a Children's Hospital.
Project: Identification of *Clostridium difficile* Infection Risk Factors at a Children's Hospital.

TEACHING (continued)

- **Drew Stahl, Pharm.D., 2015- 2016**
Project: SHARPS Antibiotic Resistance, Prescribing, and Efficacy among Children.
Project: Vancomycin in Children: From Trough Monitoring to AUC: A Retrospective evaluation utilizing Vancomycin AUC Calculation to Determine efficacy and Safety.
Project: Impact of Pharmacist Intervention while Utilizing a Novel Educative Antimicrobial Stewardship Model.
- **Justin Markham, Pharm.D., 2014-2015**
Project: *Evaluating the Impact of Meropenem Restriction on Utilization of Other Antimicrobials.*
- **Karisma Patel, Pharm.D., 2013-2014**
Project: *Evaluating Vancomycin dosing, concentration, and impact on time to negative MRSA blood cultures.*
- **Karisma Patel, Pharm.D., 2012-13**
Project: *Risk factors associated with the development of multi-drug resistant Pseudomonas aeruginosa in children and adults with cystic fibrosis.*
- **Kirsten Boggs, Pharm.D., 2011-12**
Project: *Effect of Appetite Suppressing Medication Use on Nutritional Status and Need for Nutritional Intervention in Cystic Fibrosis Patients.*
- **Ashley Crumby, Pharm.D., 2010-11**
Project: *Evaluation of carbapenem utilization in a children's hospital.*
- **Starr McLain, Pharm.D., 2009-10**
Project: *Determining barriers and strategies with medication adherence in adolescents and young adults post-liver and renal transplant.*
- **Ashley Crumby, Pharm.D., 2009-10**
Project: *Effect of multi-drug resistant gram-negative organisms on lung function in cystic fibrosis patients.*
- **Nisha Thomas, Pharm.D., 2008-09**
Project: *The Impact of MRSA on FEV1 in Pediatric CF Patients.*
- **Matthew Gentry, Pharm.D., 2008-09**
Project: *Impact of Azithromycin on Time to Inducible Clindamycin Resistance of Staphylococcus in CF.*
- **Natalie Bohannon, Pharm.D., 2006-07**
Project: *Antibiotic Treatment Evaluation of Staphylococcus aureus in a Pediatric Hospital.*

2006

Faculty Mentor, 2006 Walmart Annual Conference Scholarship Program awarded to Natalie Bohannon, Pharm.D. (Resident)

- A nationally competitive award for students, residents, or fellows with interest in an academic career meant to strengthen the recipient's skills and commitment to academia. The award funds the recipient/faculty mentor pair's registration and travel expenses for AACP's Teacher's Seminar at the AACP Annual Meeting. Dr. Bohannon was one of 35 recipients nationwide.

TEACHING (continued)

Other Teaching: College of Pharmacy

2008-present **Facilitator**, Pharmacy Report (5 sessions each month for all P4 students on APPE at Arkansas Children's Hospital)
Topics: Pharmacokinetics Review and Application: 2 hours
P4 Formal Case Presentations: 2-3 hours
P4 Topic Debate: 2 hours

2006-2010 NAPLEX Review, Pediatrics and HIV (1 hour)

Professional Development: Teaching

UAMS COP Summer Faculty Development Workshops 2010 (4 hours)
ACCP Teachers Seminar Pre-session. "Teaching with Technology". Boston, Mass. July 2009
UAMS OED Blackboard 8/Wimba Training Workshops 2008 (4 hours)
UAMS COP Summer Faculty Development Workshops 2008 (2 hours)
ACCP Teachers Seminar Pre-session. "Primer in Pharmacy Education Workshop" ACCP Annual Meeting, San Diego, CA July 2006

Teaching Awards

2015 Department of Pharmacy Practice Outstanding Faculty Award
2011-2012 UAMS College of Pharmacy Teacher of the Year Award

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK

Publications and Scholarship

Publication of Original Research in Refereed Journals

Lance C, Bai S, **Maples HD**, Khan M, Harik N, Li J, Weiss D. Assessment of Antibiotic Use in Patients with Necrotizing Enterocolitis in the Neonatal Intensive Care Unit: A Quality Improvement Project. Submission planned for Journal of Pediatric Infectious Diseases Society (Spring 2018)

Newland JG, Gerber JS, Kronman MP, Meredith G, Lee BR, Thurm C, Hersh AL, **SHARPS Collaborative**. Sharing Antimicrobial Reports for Pediatric Stewardship (SHARPS): A Quality Improvement Collaborative. J Pediatr Infect Dis Soc. 2017 Apr 4. Doi: 10.1093/jpids/pix020

McCaleb R, Warren RH, Willis D, **Maples HD**, Bai S, O'Brien CE. Description of Respiratory Microbiology of Children with Long-Term Tracheostomies. Respir Care Dec 2016;61:447-52

Newland JG, Gerber J, Weissman S, Shah SS, Turgeon C, Hedican EB, Thurm C, Courter J, Brogan T, **Maples H**, Lee B, Hersh AL. Prevalence and Characteristics of Antimicrobial Stewardship Programs at Freestanding Children's Hospitals in the United States. Infect Control Hosp Epidemiol. 2014;35:265-71.

Jacobs RF, **Maples HD**, Aranda JV, Espinoza GM, Knirsch C, Chandra R, Fisher JM, Kearns G. Pharmacokinetics of Intravenously Administered Azithromycin in Pediatric Patients. *Pediatr Infect Dis J* 2005;24:34-9.

Maples HD, James LP, Stowe CD, Chesney R, Christensen M, Blumer J, Wilson J, Wells TG, Kearns G. Famotidine disposition in children and adolescents with chronic renal insufficiency. *The Journal of Clinical Pharmacology*. 2003;43:7-14.

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Publication of Case Reports and Reviews in Refereed Journals

Muldrew K, **Maples HD**, Stowe CD, Jacobs RF. Intravenous Voriconazole Use in a Pre-Term Infant. *Pharmacotherapy* 2005;25:893-8. (CASE REPORT)

Roberts GM, Wheeler GW, Tucker NC, Hackler C, Young K, **Maples HD**, Darville T. Nonadherence With Pediatric Human Immunodeficiency Virus Therapy as Medical Neglect. *Pediatrics* 2004;114:e346-53.

Maples HD, Stowe CD, Saccente SL, Jacobs RF. Voriconazole Serum Concentrations in an Infant Treated for *Trichosporon beigeli* Infection. *Pediatr Infect Dis J* 2003;22:1022-4. (CASE REPORT)

Published Invited Reviews in Refereed Journals

Kronman MP, Banerjee R, Duchon J, Gerber JS, Green MD, Hersch AL, Hyun D, **Maples H**, Nash CB, Parker S, Patel SJ, Saiman L, Tamma PD, Newland JG. Expanding Existing Antimicrobial Stewardship Programs in Pediatrics: What comes Next? *J Pediatric Infect Dis Soc* 2017 doi:10.1093/jpids/pix104.

Patel K, Crumby A, **Maples HD**. Balancing Vancomycin Troughs and Nephrotoxicity: What Should We Be Aiming For? *Pediatric Drugs* 2015;17:97-103.

Hyun DY, Hersch AL, Namtu K, Palazzi DL, **Maples HD**, Newland JG, Saiman L. Antimicrobial Stewardship in Pediatrics: How Every Pediatrician Can Be a Steward. *JAMA Pediatrics* 2013;167:859-66.

Maples HD, Schutze GL. Consultation With The Specialist: Malaria Prophylaxis in Children. *Pediatr Rev* 2006;27:346-50.

Published Letters in Professional Journals

Darville T, Wheeler JG, Tucker NC, Hackler C, Young K, **Maples HD**. Coercive Treatment of HIV-Positive Children Is Not Justified: In Reply. *Pediatrics* 2005;116:1606-8.

Professional Board Prep Materials

2015-16 PPAG: Pediatric PharmPrep Advanced Guide: Pediatric Infectious Disease Module
Cellulitis, Orbital Cellulitis, Pyelonephritis, Septic Arthritis, UTI's, HIV, Prenatal Prevention of HIV, Opportunistic Infections, Osteomyelitis, Impetigo

ANGELS Guidelines

2012-present (yearly update): **Maples HD and the ANGELS Team**. ANGELS Guidelines: Antibiotic Use in the Nursery (E. coli, Group B Streptococcus, Staphylococcus aureus)

Published Book Chapters

Maples HD, James LP, Stowe CD. Chapter 10: "Special Pharmacokinetic and Pharmacodynamic Considerations in Pediatrics", in Applied Pharmacokinetics and Pharmacodynamics: Principles of Therapeutic Drug Monitoring. Shaw LM, Evans WE, Schentag JJ, Burton ME 4th ed. Lippincott Williams & Wilkins, Philadelphia. 2005

Stowe CD, **Maples HD**. "Immunizations", in Pediatric Pharmacotherapy Continuing Education Workbook. Kuhn RJ, 4th ed. University of Kentucky Press. Lexington, Kentucky. 2003

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Invited Reviews in Non-Refereed Journals

Maples HD, Farrar HC. Case Studies Show Principles of Pediatric TDM: Part 2. *Clinical and Forensic*

Toxicology News Mar 2004:3-5.

Maples HD, Farrar HC. Case Studies Show Principles of Pediatric TDM: Part 1. *Clinical and Forensic Toxicology News* Dec 2003:3-4.

Maples HD, Stowe CD. Pediatric Pharmaceutical Care In the Community Setting. *America's Pharmacist*. 2002 Nov 38-43. (REVIEW)

Service as Referee for Professional Journals

2017-present	Reviewer , Italian Journal of Pediatrics
2017-present	Reviewer and Editorial Advisory Board Member , Journal of Antimicrobial Stewardship
2013-present	Reviewer , Pharmacotherapy
2010-present	Reviewer , Journal of Pediatric Pharmacology and Therapeutics
2006-2009, 2013-present	Reviewer , <i>Pediatric Infectious Disease Journal</i>
2006-2008	Reviewer , <i>Paediatric and Perinatal Drug Therapy</i>
2003-2007	Reviewer , <i>Advances in Pharmacy</i>
2002-2007	Reviewer , <i>Hospital Pharmacy Journal</i>

Clinical Performance

Development of New Clinical Services/Programs

July 2015-present	Pediatric Infectious Disease/Antimicrobial Stewardship Fellowship <ul style="list-style-type: none">• Recruited first fellow that started in July 2015• Expanded from 1 fellow to 3 fellows in July 2017<ul style="list-style-type: none">○ 1 fellow- co-funded with ACH and Chair funds○ 1 fellow-co-funded with Health Department and Chair funds
July 2010-June 2015	Pediatric Infectious Disease/Antimicrobial Stewardship Residency Program <ul style="list-style-type: none">• Recruited first resident that started in July 2010.• Serve as Director and primary preceptor.• Utilize 1 of 2 split funded positions between Arkansas Children's Hospital and the UAMS COP gained in 2006 for pharmacy residents.

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

- January 2009 In-patient Renal/Liver Transplant Clinical Pharmacist
- Assisted in re-accreditation of Renal Transplant Service and initiation of Liver Transplant Service through utilization of PGY1 resident.
 - Served as Inpatient Renal Transplant pharmacist January 2009-July 2010.
 - Managed 11 transplanted patients during inpatient stay.
 - Provided 7 day a week coverage.
 - Provided justification for creation of a new position at Arkansas Children’s Hospital. Position filled July 2010.
 - Currently serve as back-up for vacation needs.
- November 2007-present **Antimicrobial Stewardship Program (ASP)**
- 2007- Provided justification for creation of a new program at Arkansas Children’s Hospital. Received 0.5 FTE for pharmacist from ACH
 - 2007- 7 day a week program providing coverage for vancomycin utilization, indication, and monitoring throughout hospital.
 - Expanded to include aminoglycosides in 2014.
 - In 2014, Theradoc allowed for more stewardship activities to be done after the TDM portion is completed. This is only looked at Monday-Friday.
 - 2017- ASP/TDM Policy and Procedure went into effect.
 - 2017- gained 0.2 FTE of ID MD support and stats support
 - 2017, Antimicrobial Stewardship became a Joint Commission mandate. ACH was surveyed in July 2017 and passed inspection with “flying colors”.
 - 2017- initiated new Quality Improvement ASP Research Committee
 - EPIC went into effect Nov 2017, changing flow of stewardship activities.
 - 2018, expansion of ASP to include the new ACHNW.
- July 2007 Burn Clinical Pharmacist Position
- Initiated in 2006 after assisting with an Acinetobacter outbreak in the Burn Center, I worked with the Burn Medical and Nursing Directors in conjunction with the College of Pharmacy to establish a new faculty position.
 - Kendrea Jones, Pharm.D. was hired July 2007 in a 50/50 faculty position with the UAMS College of Pharmacy and Arkansas Children’s Hospital.
- July 2006 Pharmacy Practice General Pediatric Residency Program
- Funding secured from Arkansas Children’s Hospital and UAMS COP for 2 resident positions.
 - Currently serve as director and preceptor.
- July 2003-2010 Infectious Disease/HIV Clinic Pharmacist
- Established position focusing on HIV patients in clinic ½ day per week.
 - Approximately 135 clinic visits per year of HIV positive.
 - Approximately 40 clinic visits per year of exposed infants until ruled out.
 - Since 2006, this clinic is used as our primary longitudinal ambulatory experience for our PGY1 resident(s).
 - Now can serve as a monthly ambulatory experience for our PGY1 or 2 residents.

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Continuation of Prior Services

- 2003-present In-patient Cystic Fibrosis
- Created automatic consult for all inpatient CF patients starting in 2005.
 - Assist in selection, dosing, and monitoring of all antibiotics.
 - 7 day a week program that is incorporated with the antimicrobial stewardship service.
 - Arkansas Children's Hospital maintains approximately 200 CF patients in our Center.
- 2003-present Therapeutic Drug Monitoring Service (TDM)
- Follow 24/7 any patient at ACH on Vancomycin or Aminoglycosides

Presentation at Professional Grand Rounds

- August 2017 Bugs, Drugs, and Resistance: An Update on Antimicrobial Stewardship at Arkansas Children's.
Invited Lecture, Arkansas Children's Hospital Medical Grand Rounds Little Rock, AR
- June 2017 Antimicrobial Stewardship: What Does Nursing Have to DO With It?
Invited Lecture, Arkansas Children's Hospital Nursing Grand Rounds Little Rock, AR
- March 2008 Antimicrobial Stewardship: Nuisance or Necessity?
Invited Lecture, Arkansas Children's Hospital Medical Grand Rounds Little Rock, AR

Faculty Development Invited Lecture

- September 2014 Growing up with Vancomycin: A Pediatric Perspective of the Past, Present, and Future
Invited Lecture, University of Illinois Chicago College of Pharmacy

Grants and Contracts

Funded Proposals- Extramural Funding

Co-Investigator, "*Network of Pediatric Pharmacology Research Units.*" (Principal Investigator: Thomas G. Wells, M.D.), National Institutes of Child Health and Human Development #2UIO HD 31324-06 July 1, 2001-June 30, 2003. Title: Associate Pharmacologist; **50% Fellowship Stipend for 2 years.**

Funded Proposals-Intramural Funding

Co-Investigator, *Pharmacokinetic-Pharmacodynamic Modeling of Cyclomydril in Preterm Infants.* (Howard Hendrickson, Ph.D., Principal Investigator) The University of Arkansas for Medical Sciences 2011 Medical Research Endowment Proposal. October 2010. **\$8,155.**

Principal Investigator. "*Lansoprazole Disposition in Young Children with Cystic Fibrosis.*" The University of Arkansas for Medical Sciences 2006 Medical Research Endowment Proposal. June 2005. **\$15,000.**

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Principal Investigator. *“Maturation of P-glycoprotein Expression on Lymphocytes.”* Dean’s / Children’s University Medical Group (CUMG) Research Development Fund (ACHRI) grant: New Investigator. December 2003. **\$19,668.**

(Residency Project)

Co-Principal Investigator. *“The effects of Hextend® on coagulation at doses up to 20 mL/kg in the pediatric population.”* (Principal Investigator: Nabil Hassan, M.D.) DeVos Children’s Hospital, Internally funded between Department of Pediatrics and Department of Pharmacy. July 2001. **\$5,000.**

Unfunded Proposals

Co-PI Investigator, *Implementation of a Multidisciplinary Antimicrobial Stewardship Program Focusing on Qualitative and Quantitative Performance Measures.* MAD-ID (Making a Difference in Infectious Diseases. Grant: \$30,000. Submitted 2016.

Co-Investigator, *Examining Physiologic Changes After Retinopathy of Prematurity Eye Exams.* (Anita Mitchell, RN, Ph.D., Principal Investigator) National Institute for Nursing Research (NINR), National Eye Institute, and the National Institute for Child Health and Development R15 Grant: \$407,433 **2% Salary Savings.** Submitted 2010, Resubmitted 2011.

Principal Investigator. *“Influence of CF and 2C19 Polymorphism on the Pharmacokinetics of IV Lansoprazole.”* The American College of Clinical Pharmacy: Investigator Development Research Award. Submitted 6/1/06; **\$20,000.**

Principal Investigator. *“Pharmacodynamics of Lansoprazole in Children with Cystic Fibrosis.”* The American College of Clinical Pharmacy: Investigator Development Research Award. Submitted 9/05; **\$17,500.**

Principal Investigator. *“The Impact of CYP2C19 Genotype on the Pharmacokinetics of Intravenous Lansoprazole in Cystic Fibrosis Compared to Normal Children.”* The American Association of Colleges of Pharmacy 2005-2006 New Investigators Program for Pharmacy Faculty. Submitted 5/05; **\$10,000.**

Principal Investigator. *“Intravenous Lansoprazole Disposition in Children with Cystic Fibrosis.”* TAP Pharmaceutical Investigator Initiated Grant. Submitted 9/04; **\$40,000.**

Presentations and Abstracts

Presentation of Original Research at National Meetings (Reviewed)

Matherne E, Vijayan V, Gaspar A, Marrero E, Mott J, Maples HD. Evaluation of Bacterial Healthcare-Associated Infections and Antibiotic Susceptibility in a Burn Unit.

- March 2018: Platform Presentation, American Pharmacists Association (APhA) Annual Meeting, Nashville, TN

Mott J, Vijayan V, Marrero E, Maples HD. Evaluation of bacterial healthcare-associated infections and antibiotic susceptibility in a neonatal intensive care unit.

- December 2017: Poster Presentation, ASHP Midyear Meeting, Orlando, FL

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Huynh HA, Wisdom C, **Maples HD**. Association of Acid Suppression and Antimicrobial Use with *Clostridium difficile* Infection in Children.

- October 2017: Poster Presentation, ID Week, San Diego, CA
- Dr. Huynh received a Trainee Travel Grant- \$800

Huynh HA, Mott J, Wisdom C, Linam WM, **Maples HD**. Evaluation of Hospital-Acquired Infections and Antibiotic Susceptibility in the Hematology-Oncology Unit at a Children's Hospital.

- June 2017: Poster Presentation, 8th Annual International Pediatric Antimicrobial Stewardship Conference, St. Louis, MO

McMinn C, **Maples HD**. Assessment of Antimicrobial Allergy Labels on Prescribing Behavior and Outcomes in Pediatric Patients.

- June 2017: Poster Presentation, 8th Annual International Pediatric Antimicrobial Stewardship Conference, St. Louis, MO

Kumaran S, Mott J, Wisdom C, Huynh H, Lance C, Linam W, **Maples HD**. Healthcare-Associated Infections in the Pediatric Cardiovascular Intensive Care Unit.

- March 2017: Poster Presentation, SHEA Spring Meeting, St. Louis, MO

McMinn C, Lance C, Mott J, Wisdom C, Honeycutt M, Han J, **Maples HD**. Bacterial Resistance and Antibiograms: A 30 Year History in a Children's Hospital.

- March 2017: Poster Presentation, SHEA Spring Meeting, St. Louis, MO

Lance C, Bai S, **Maples HD**, Khan M, Harik N, Li J, Weiss D. Antibiotic Therapy in Patients with Necrotizing Enterocolitis in the Neonatal Intensive Care Unit: A Quality Improvement Project.

- October 2016: Poster Presentation, ID Week, New Orleans, LA

Lance C, Bai S, Maples HD, Khan M, Harik N, Li J, Weiss D. Assessment of Antibiotic Use in Patients with Non-Surgical Necrotizing Enterocolitis in the Neonatal Intensive Care Unit: A Quality Improvement Project.

- June 2016: Poster Presentation, 7th Annual Pediatric Antimicrobial Stewardship Conference, Kansas City, MO

Patel, K, O'Brien C, Harik N, **Maples HD**. Efficacy of Lower Vancomycin Trough Serum Concentrations in Pediatric Patients with *Staphylococcus aureus* Bacteremia.

- June 2014: Platform Presentation, 5th Annual International Pediatric Antimicrobial Stewardship Conference, Kansas City, MO

McCaleb R, **Maples H**, Warren R, Willis D, O'Brien CE. Respiratory Cultures of Trach Dependent Children.

- December 2013: Poster Presentation, American Society of Health-System Pharmacists, Midyear Clinical, Orlando, FL

Garlick J, Linam M, **Maples H**, Furlong-Dillard J, Swearingen C, Brown A, Green J. The Use of Antimicrobials in Respiratory Disease in a PICU.

- January 2013: Poster Presentation, Society of Critical Care Medicine's 42nd Critical Care Congress, San Juan, Puerto Rico.

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

McCaleb R, **Maples H**, Warren R, Willis D, O'Brien CE. Respiratory Cultures of Trach Dependent Children.

- October 2012: Poster Presentation, Enriching the Care of the Child with Complex Medical Needs Conference, Des Moines, Iowa.

Crumby AS, Ottoson L, Stinnett A, **Maples HD**, DeHart R, Jones K, O'Brien CE. Use of anti-anxiety medications, antidepressants, and stimulants among students in a college of pharmacy.

- July 2011: Poster Presentation, 2011 AACP Annual Meeting, San Antonio, TX.

Jones K, **Maples HD**, O'Brien C. Implementation and Effectiveness of a Structured Debate in Advanced Pharmacy Practice Experiences.

- July 2011: **Poster Presentation**, 2011 AACP Annual Meeting, San Antonio, TX.

Crumby AS, **Maples HD**, Stovall SH, O'Brien CE. Evaluation of meropenem use among patients in the intensive care and hematology/oncology units at a pediatric hospital.

- March 2011: **Platform Presentation**, 2011 PPAG Annual Meeting, Memphis, TN.

Crumby AS, **Maples HD**, Thrailkill K, Stovall S. Tenofovir-associated nephrotoxicity reversed in a pediatric HIV patient upon discontinuation of the antiretroviral medication.

- December 2010: **Poster Presentation**, 45th ASHP Midyear Clinical Meeting, Anaheim CA.

Com G, **Maples HD**, Beavers T, Harik N. Epidemiology of *Staphylococcus aureus* Respiratory Infections in Pediatric Patients with Cystic Fibrosis.

- October 2010: **Poster Presentation**, 24rd Annual North American Cystic Fibrosis Conference, Baltimore, Maryland.

Crumby A, O'Brien C, **Maples HD**. Effect of multi-drug resistant gram-negative organisms on lung function in cystic fibrosis patients.

- April 2010: **Platform Presentation**, Pediatric Pharmacy Advocacy Group Specialty Meeting, Salt Lake City, Utah.

McLain S, O'Brien CE, **Maples HD**. Medication adherence in adolescents and young adults post-liver and renal transplant: Self-reported barriers and strategies for improvement.

- April 2010: **Platform Presentation**, Pediatric Pharmacy Advocacy Group Specialty Meeting, Salt Lake City, Utah.

Maples HD, Curtis T, Stovall SH. Impact of an Education Based Approach to Antimicrobial Stewardship in a Pediatric Hospital.

- October 2009: **Poster Presentation**, Infectious Disease Society of America 47th Annual Meeting Philadelphia, PA.

Maples HD, Beavers-May TK, Juretschko S, Meredith-Neve SM, Hickerson WL, Stovall SH. Utilization of Multiple Combination Bactericidal Testing and Evaluation of Time to Appropriate Therapy During an *Acinetobacter baumannii* Outbreak in a Burn Center.

- June 2008: **Poster Presentation**, American Society for Microbiology Meeting Boston, MA.

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Juretschko S, Beavers-May TK, **Maples HD**, Bennett TD, Stovall SH. AmpC type B-lactamase *Enterobacter cloacae* Causing Neonatal Meningitis.

- June 2008: **Poster Presentation**, American Society for Microbiology Meeting
Boston, MA.

Beavers-May TK, Juretschko S, **Maples HD**, Stovall SH. Interventional Microbiology: Utility of the BD EpiCenter™ and Sentinel™ in Management of *Staphylococcus aureus* in Pediatric Hospitalized Patients.

- June 2008: **Poster Presentation**, American Society for Microbiology Meeting
Boston, MA.

Juretschko S, Beavers-May TK, **Maples HD**, Parrett M, Hemphill C, Stovall SH. Discrepancies in Vancomycin MIC values for *Staphylococcus aureus* between Vitek 2, BD Phoenix and Etest®.

- May 2007: **Poster Presentation**, American Society for Microbiology Meeting
Toronto, Canada.

Bohannon N, **Maples HD**. “Antibiotic Treatment Evaluation of *Staphylococcus aureus* in a Pediatric Hospital.”

- April 2007: **Platform Presentation**, Pediatric Pharmacy Advocacy Group Specialty Meeting
Lubbock, Texas.

Maples HD, West DS, Hubbard C, Stowe CD. Student Use of Personal Digital Assistants on Senior Pediatric Clinical Clerkships. *Pharmacotherapy*. 2003;23:417 (ABSTRACT)

- April 2003: **Poster Presentation**, American College of Clinical Pharmacy
Palm Springs, CA

Maples HD, James LP, Stowe CD, Chesney R, Christensen M, Blumer J, Wilson J, Wells TG, Kearns G. Pharmacokinetics of famotidine in children and adolescents with chronic renal failure. *Clinical Pharmacology and Therapeutics*. 2002;71:P4. (ABSTRACT)

- March 2002: **Platform and Poster Presentation**, American Society of Clinical Pharmacology and Therapeutics Annual Meeting, Atlanta, GA

Presentation of Original Research at Regional Meetings (Reviewed)

Matherne E, Gaspar A, Marrero E, Vijayan V, Mott J, **Maples HD**. Evaluation of Infections and Antibiotic Resistance in a Pediatric Intensive Care Unit.

- February 2018: Platform Presentation, Southern Society for Pediatric Research
New Orleans, LA

Mott J, Harik N, Linam W, McMinn C, **Maples HD**. Evaluation of Outcomes for Extended Interval Gentamicin Dosing in Children with Tularemia.

- February 2017: Poster Presentation, Southern Society for Pediatric Research
New Orleans, LA

McCaleb R, **Maples HD**, Warren R, Willis D, O’Brien CE. Retrospective analysis of respiratory cultures of individuals with neurodisabilities who are tracheostomy dependent.

- February 2012: Platform Presentation, Southern Society for Pediatric Research
New Orleans, LA

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Barham J, O'Brien C, **Maples HD**. Impact of Chronic Inhaled Tobramycin on Incidence of Tobramycin Resistant *Pseudomonas aeruginosa* in Cystic Fibrosis. *Journal of Investigative Medicine*. 2010;58:484. (ABSTRACT)

- February 2010: **Platform Presentation**, Southern Society for Pediatric Research
New Orleans, LA

Muldrew K and **Maples HD**. Pharmacokinetics of Linezolid in Two Patients with Major Thermal Injury Receiving Continuous Venovenous Hemofiltration.

- November 2009: **Platform Presentation**, Southern Regional Burn Conference, Shreveport, LA.

McCastlain D, Beavers-May TK, **Maples HD**. Cystic Fibrosis Colonization with the Unusual Plant Pathogen, *Rhizobium radiobacter*. *Journal of Investigative Medicine*. 2009;57:409. (ABSTRACT)

- February 2009: **Platform Presentation**, Southern Society for Pediatric Research
New Orleans, LA

Inman RA, Beavers-May TK, Harik N, **Maples HD**. Emergence of Linezolid-Resistant *Staphylococcus aureus* in Cystic Fibrosis. *Journal of Investigative Medicine*. 2009;57:339. (ABSTRACT)

- February 2009: **Poster Presentation**, Southern Society for Pediatric Research
New Orleans, LA

Maples HD, Stowe CD, James LC, Darville T. Evaluation of Short Course Direct Observational Therapy in Pediatric HIV Patients. *Journal of Investigative Medicine*. 2004;52:S215.

- February 2004: **Platform Presentation**, Southern Society of Pediatric Research Meeting
New Orleans, LA

Maples HD, Darville T, Stowe CD. Evaluation of Trizivir® in pediatric HIV patients. *Journal of Investigative Medicine*. 2003;51:S308. (ABSTRACT)

- February 2003: **Platform Presentation**, Southern Society of Pediatric Research Meeting
New Orleans, LA

Presentation of Original Research at Local Meetings

Boggs K, **Maples HD**, O'Brien C. Effect of Appetite Suppressing Medication Use on Nutritional Status and Need for Nutritional Intervention in Cystic Fibrosis Patients

- June 2012: **Platform Presentation**, VA Residency Research Conference, Little Rock, AR

Norman S, O'Brien C, **Maples HD**. IV or No IV: Eradication of *Pseudomonas aeruginosa* in Pediatric Cystic Fibrosis Patients.

- October 2010: **Poster Presentation**, AAHP Annual Meeting, Little Rock, AR.

Inman RA, Beavers-May TK, Harik N, **Maples HD**. Emergence of Linezolid-Resistant *Staphylococcus aureus* in Cystic Fibrosis.

- April 2010: **Poster Presentation**, UAMS COP Research Day
Little Rock, AR.

Gentry M, Muldrew K, **Maples HD**. Impact of Azithromycin on Time to Inducible Clindamycin Resistance of *Staphylococcus* in CF.

- June 2009: **Platform Presentation**, VA Residency Research Conference,
Little Rock, AR.

SCHOLARSHIP, RESEARCH, OTHER CREATIVE WORK (continued)

Thomas N., Muldrew K, **Maples HD**. The Impact of MRSA on FEV1 in Pediatric CF Patients.

- June 2009: **Platform Presentation**, VA Residency Research Conference, Little Rock, AR.

Scholarship Honors and Awards

- Rho Chi Society Membership 2012
- Southern Society of Pediatric Research Young Faculty Award 2004
- Southern Society of Pediatric Research Trainee Travel Award 2003
- ASCPT Presidential Trainee Award 2002

Professional Development: Scholarship

June 2017	Pediatric Antimicrobial Stewardship Conference, St. Louis, MO
March 2017	SHEA Antimicrobial Stewardship Training Track, St. Louis, MO
October 2016	ID Week, New Orleans, LA
June 2016	Pediatric Antimicrobial Stewardship Conference, Kansas City, MO
October 2015	ID Week, San Diego, CA
June 2015	Pediatric Antimicrobial Stewardship Conference, Kansas City, MO
April 2015	ACCP: Updates in Therapeutics: Pediatric Pharmacy Prep Course
June 2014	Pediatric Antimicrobial Stewardship Conference, Kansas City, MO
October 2013-present	MAD- ID Antimicrobial Stewardship Certification
June 2013	Pediatric Antimicrobial Stewardship Conference, Kansas City, MO
October 2012	Pre-Meeting Workshop, Antimicrobial Stewardship, Infectious Diseases Society of America (IDSA) Annual Meeting, San Diego, CA
June 2012	Pediatric Antimicrobial Stewardship Conference, Kansas City, MO
June 2011	Pediatric Antimicrobial Stewardship Conference, Kansas City, MO
June 2010	Pediatric Antimicrobial Stewardship Conference, Kansas City, MO
October 2008	Monitoring, Evaluating, and Managing Antimicrobial Use in Hospitals Workshop. 48 th Annual IDSA/ICCAC Meeting. Washington D.C.
December 2007	17 th Annual Professional Development Day: Sponsored by the UAMS COM and the Women's Faculty Development Caucus
April 2006	ABLE MIC and PK/PD for Targeting Antimicrobial Therapy in Critical Care <ul style="list-style-type: none">• 3 day workshop (Lecture and Lab) in Stockholm, Sweden• I was one of 45 attendees who were invited from 26 different countries• Conference was team based (physician, microbiologist, pharmacist)
2003-2013	Pharmacology/Toxicology Journal Club, UAMS Colleges of Pharmacy and Medicine (monthly)
2002-present	Infectious Disease Journal Club, UAMS College of Medicine (weekly)
Spring 2002	Advanced Statistics (EDFN 8305) Course Instructor: Robert Kennedy, Professor of Education Leadership University of Arkansas at Little Rock Graduate School, Little Rock, Arkansas
Fall 2001	Basic Statistical Concepts (EDFN 7304) Course Instructor: Candace Burns, Professor of Educational Foundations University of Arkansas at Little Rock Graduate School, Little Rock, Arkansas

SERVICE

National Level Service

2016-2017	Member , American Society of Health-System Pharmacists (ASHP) Antimicrobial Taskforce.
2013-present	Expert Panelist , American Society of Health-System Pharmacists (ASHP) Clinical Practice Guideline Revision 2014: Therapeutic Monitoring of Vancomycin: A Consensus Review of the American Society of Health-System Pharmacists, Infectious Disease Society of America, Society of Infectious Disease Pharmacists, Pediatric Infectious Disease Society.
2012-2017	Judge and Case Reviewer , American Society of Health-System Pharmacists (ASHP) Clinical Skills Competition
2010-present	Pediatric Infectious Disease Society (PIDS) Member , Antimicrobial Stewardship Program Steering Committee Leader , Education Subcommittee (2010-2015)
2003-2010	Pediatric Pharmacy Advocacy Group (PPAG) Journal Advisory Board Member , <i>Journal of Pediatric Pharmacology and Therapeutics</i>
2007-2009	American Association of College of Pharmacy (AACP) Council of Faculty <ul style="list-style-type: none">• Delegate, 2008-2009• Alternate Delegate, 2007-2008
2007-2008	Pediatric Pharmacy Advocacy Group (PPAG) Chair , Education Committee, 2008 Spring Meeting
2005-2006	Pediatric Pharmacy Advocacy Group (PPAG) Member , Education Committee, 2006 Annual Meeting

State Level Service

2017-present	Member , Arkansas Health Department's Antibiotic Stewardship Sub-committee
2017-present	Member , Arkansas Hospital Association's Sepsis Collaborative
2013-2014	Member , AR-ACCP and Health Department Collaborative for State-wide Antimicrobial Stewardship <ul style="list-style-type: none">• Chair, Arkansas Antimicrobial Stewardship Meeting Little Rock, AR Nov 7, 2013
2005-present	Member , Arkansas Medicaid Retrospective DUR Committee Health Information Designs, Inc. <ul style="list-style-type: none">• Review profiles monthly and attend meeting monthly.

University Level Service

2015	Member , UAMS COP Dean Search Committee
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SERVICE (continued)

College Level Service

2012-2015	Member , Continuing Pharmacy Education Committee
2012-2013	Member , 2013 Self Study Leadership Committee
2012-2014	Member , Assessment Committee
2010-2014	Member , Student Retention ad hoc committee
2005-present	Member , Scholastic Standing Committee <ul style="list-style-type: none">• Chair, 2011-2015
2005-2010	Member , Curriculum Committee
2004-2008	Member , Student Research Committee <ul style="list-style-type: none">• Chair, 2005-2008
2006-2007	Member , Curriculum Self-study Committee
2005-2006	Member , Faculty Recruitment Committee <ul style="list-style-type: none">• Chair, UAMS COP/ Arkansas Children's Hospital Burn Center Position Search Committee
2002-2003	Reviewer , Non-Traditional Pharm.D. Therapeutics Exam Review Committee

Department Level Service

2017-present	Member , Residency Review Committee
2016-2017	Member , Grievance Panel Procedures Revision ad hoc committee
2016-2017	Member , MICU Search Committee
2012-present	Co-Course Coordinator , PhSc 4642, Clinical Pharmacokinetics
2011-2013	Member , Residency Development Program ad hoc committee
2010-present	Evaluator , Therapeutics Recitation Residency Teaching Experience
2009-present	Course Coordinator , PHPR 5472 PBL Pediatric Therapeutics (elective)
2009	Evaluator , Third Annual CAVHS Residency Research Conference
2006-present	Teaching Evaluator , PHPR 5635 Therapeutics II Recitation Instructors
2001-present	Case Writer and Evaluator , Pharmaceutical Care Encounters Program

Arkansas Children's Hospital Service

2017-present	Chair , Antimicrobial Stewardship QI Research Committee
2017-present	Member , Healthcare advisory committee for catheter-associated urinary tract infections (CAUTI)
2017-present	Member , Healthcare advisory committee for Surgical-site infections (SSI)
2015-present	Member , Infection Prevention Committee
2010-2011	Member , Patient Safety Steering Committee
2009-2012	Member , Medication Management for Continuous Survey Readiness
2008-2010	Member , Arkansas Center for Technology Dependent Children (ACRTDC)
2008-2011	Member , Anticoagulation Policy Committee
2007-2010	Co-chair , Drug Level Collection Policy Committee

SERVICE (continued)

2006-2016 **Member**, CF Leadership Team Committee
2005-2016 **Member**, CF Inpatient Steering Group
2007 **Co-Coordinator**, Arkansas Children's Hospital Microbiology/Pharmacy
 Workshop
2005-2010 **Member**, Medication Safety Committee

Continuing Education Presentations

September 2017 Bugs, Drugs and Resistance: An Update on Antimicrobial Stewardship at Arkansas
Children's Hospital
Pharmacists ACPE CE (1hr) at ACH

June 2017 Literature Support for Antimicrobial Stewardship Programs
David Hyun and Holly Maples
Pediatric Antimicrobial Stewardship Annual Conference, St. Louis, MO

April 2017 Antimicrobial Challenges: An Arkansas Perspective 1978-Present
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Big Cedar Lodge, Ridgedale, MO

June 2016 Literature Support for Antimicrobial Stewardship Programs
David Hyun and Holly Maples
Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO

April 2016 Hot Topics in Pediatric Antimicrobial Stewardship
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Big Cedar Lodge, Ridgedale, MO

September 2015 Pediatric Infectious Diseases Board Preparation
PPAG Fall Meeting, Houston TX

September 2015 Update in Infectious Disease: Antibiotic Consideration in the Pediatric Population
2015 Fall Distance Learning Experience
University of Wisconsin-Madison School of Pharmacy CE Series

June 2015 Literature Support for Antimicrobial Stewardship Programs
David Hyun and Holly Maples
Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO

May 2015 Pediatric Infectious Diseases Board Preparation
Presented in combination with Kristin Kein, Pharm.D. FPPAG
PPAG Spring Meeting, Minneapolis, MN

April 2015 Antimicrobial Stewardship in the Pediatrician's Office
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Big Cedar Lodge, Ridgedale, MO

February 2015 Hospital Story- Arkansas Children's Hospital Antimicrobial Stewardship Program
Arkansas Association of Health-System Pharmacists: Pharmacist-Led Collaborative for
Antimicrobial Stewardship

SERVICE, continued

June 2014	Pharmacotherapeutics: Antimicrobial Stewardship and Emerging Resistance Patterns. Arkansas Children's Hospital Advanced Practice Nurse Practitioner's Conference
June 2014	Future of Vancomycin in Pediatrics: AUC/MIC or Trough Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO
June 2014	Literature Support for Antimicrobial Stewardship Programs David Hyun and Holly Maples Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO
May 2014	Putting Together the Nuts and Bolts of Pediatric Antimicrobial Stewardship (2 hour workshop) Leader: David Hyun Co-Leaders: Holly Maples, Cecilia Di Pentima, Jason Newland, and Debra Palazzi. Pediatric Academic Societies Annual Meeting, Vancouver, Canada.
May 2014	Balancing Vancomycin Troughs and Nephrotoxicity: What should we be aiming for? Pediatric Academic Societies' & Asian Society for Pediatric Research Joint Meeting, Vancouver, Canada
December 2013	Brave New World-Antimicrobial Stewardship Strategies in Pediatrics American Society for Health Systems Pharmacists Midyear 2013 Meeting, Orlando, FL
November 2013	TBL Workshop: Developing the Infrastructure of an Antimicrobial Stewardship Collaborative in Arkansas. (1.5 hours) Arkansas Antimicrobial Stewardship Conference: Developing a Collaborative Approach
June 2013	Pediatric PK/PD Challenges in Antimicrobial Stewardship Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO
June 2013	Literature Support for Antimicrobial Stewardship Programs David Hyun and Holly Maples Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO
May 2013	Pediatric PK/PD Applications MAD-ID: Making a Difference in Infectious Diseases Pharmacotherapy Annual Meeting, Orlando, FL
May 2013	Beyond the Basics: Advanced Steps for Antibiotic Stewardship (3 hour workshop) Leader: Debra Palazzi Co-Leaders: Holly Maples, Cecilia DiPentima, David Hyun, Jason Newland, Lisa Saiman. Pediatric Academic Societies Annual Meeting, Washington DC.
June 2012	Antimicrobial Stewardship Pharmacy Pearls Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO
May 2012	Literature Support for Antimicrobial Stewardship Programs David Hyun and Holly Maples Pediatric Antimicrobial Stewardship Annual Conference, Kansas City, MO

SERVICE, continued

- May 2012 Bugs, Drugs, And Resistance: Strategies for Treatment and Prevention
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Big Cedar Lodge, Ridgedale, MO
- April 2012 Managing Drugs and Bugs: How every physician can be an antibiotic steward
(3 hour workshop) Leader: David Hyun Co-Leaders: Holly Maples, Adam Hersh, Katie
Namtu, Jason Newland, Debra Palazzi, Lisa Saiman.
Pediatric Academic Societies Annual Meeting, Boston, MA.
- April 2012 Mechanisms of Antibiotic Resistance & Strategies for Prevention Workshop
Pediatric Pharmacy and Advocacy Group Annual Meeting, Houston, TX
- April 2012 Pharmacokinetic Parameters: Effective and Appropriate Antibiotic Prescribing
Arkansas Nurses Association Pharmacotherapeutic Seminar, Little Rock, AR
- April 2012 How Did We Get Here? Antibiotic Resistance
Arkansas Nurses Association Pharmacotherapeutic Seminar, Little Rock, AR
- March 2012 Antimicrobial Stewardship: A Team Sport- The role of the microbiology lab as the point
guard!
Pre-meeting workshop: South Central Association for Clinical Microbiology (SCACM)
Indianapolis, IN
- October 2011 *Pushing the Limits: Aggressive Infectious Disease Strategies in Pediatric Patients*
American College of Clinical Pharmacy Annual Conference
Pittsburgh, PA
- May 2011 Facing the Resistance Challenge in Respiratory Care.
UAMS College of Medicine/Arkansas Children's Hospital Respiratory Care Services
The Diamond Conference, Little Rock, AR
- April 2011 Immunizations: A Pharmacology Review of the Latest Immunization Schedules
Arkansas Nurses Association Pharmacotherapeutic Seminar, Little Rock, AR
- April 2011 Hot Topics in Immunizations: Where are we in Arkansas and in the Nation
Arkansas Nurses Association Pharmacotherapeutic Seminar, Little Rock, AR
- April 2011 Antimicrobials and Resistance: Looking Beyond Generation X, Y, and Z.
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Big Cedar Lodge, Ridgedale, MO
- October 2010 Containing Antimicrobial Resistance: What Can We Learn From BP's Oil Experience?
44th Annual Fall Seminar, Arkansas Association of Health-System Pharmacists.
Little Rock, AR
- October 2010 Facing the Resistance Challenge in Arkansas: Case Application and Review.
44th Annual Fall Seminar, Arkansas Association of Health-System Pharmacists.
Little Rock, AR
- June 2010 Where's the Plumber? Overflowing Resistance with a Dripping Antibiotic Pipeline.
Arkansas Association of Health System Pharmacists / Arkansas Pharmacists Association
128th Annual Convention, Fort Smith, AR

SERVICE, continued

- April 2010 The Future of Antimicrobial Resistance: A 5 year, 10 year, and Lifetime Plan!!!
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Hot Springs, AR
- September 2009 Developmental and Disease State Pharmacology: Is Everyone Created Equal?
And April 2010 Arkansas Nurses Association Pharmacotherapeutic Seminar, Little Rock, AR
- September 2009 Antibiotic Resistance in 2015: Can we change the future?
And April 2010 Arkansas Nurses Association Pharmacotherapeutic Seminar, Little Rock, AR
- April 2009 Where's the Plumber? Overflowing Resistance with a Dripping Antibiotic Pipeline.
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Big Cedar Lodge, Ridgedale, MO
- March 2009 Antimicrobial Stewardship: Nuisance or Necessity?
24th Symposium on Critical Care and Emergency Medicine
Sponsored by UAMS and UT Medical Centers, Hot Springs, AR
- March 2009 Antimicrobial Stewardship Update
Arkansas Children's Hospital Pharmacy and Therapeutics Committee, Little Rock, AR
- May 2008 The HIV Pandemic: Where Are We and Where Are We Going?
39th Western Michigan Society of Health-Systems Pharmacists Spring Seminar
Grand Rapids, MI
- April 2008 MRSA in the ICUs: Creation of the Perfect Storm.
Pediatric Pharmacy Advocacy Group (PPAG) Spring Meeting, Little Rock, AR
- January 2008 Updates in Microbiology & Pharmacology: Arkansas Children's Hospital Cystic Fibrosis
Conference/ Arkansas Children's Hospital Grand Rounds, Little Rock, AR
- November 2007 Bench to Bedside: Teamwork Approach to Improve Patient Care
Arkansas Children's Hospital Microbiology/Pharmacy Workshop
Little Rock, AR
- November 2007 What To Do With All "R's": Multiple Combination Bactericidal Testing
Workshop Lecture, Arkansas Children's Hospital Micro/Pharmacy Workshop
Little Rock, AR
- June 2007 Give Me One More Shot!: An Immunization Review and Update
Arkansas Pharmacist Association 125th Annual Convention, Rogers, AR
- September 2006 The War on Antimicrobial Resistance: Laying the Groundwork
Pediatric Pharmacology Advocacy Group (PPAG) Annual Meeting
San Francisco, CA
- April 2005 Pediatric ID: Pharmacology Hodgepodge
UAMS College of Medicine/Arkansas Children's Hospital Pediatric Infectious Disease
Update, Big Cedar Lodge, Ridgedale, MO

SERVICE, continued

BD Diagnostics Continuing Microbiology Education

March 2014	Antimicrobial Stewardship vs. CRE: The War Continues 1 hour live Webinar Session to approximately 1000 people online
May 2012	Antimicrobial Stewardship: A Team Sport- The role of the microbiology lab as the point guard! Cleveland, OH (1 hour)
May 2012	Antimicrobial Stewardship: A Team Sport- The role of the microbiology lab as the point guard! Chicago, IL (1 hour)
March 2010	Where's the Plumber? Overflowing Resistance with a Dripping Antibiotic Pipeline, Wilmington, OH (1 hour)
June 2009	Where's the Plumber? Overflowing Resistance with a Dripping Antibiotic Pipeline, Anaheim, CA (1 hour)
June 2009	Where's the Plumber? Overflowing Resistance with a Dripping Antibiotic Pipeline, Minneapolis, MN (1 hour)
March 2008	Antibiotic Resistance: Surveillance and Intervention in Practice Greensboro, NC (1 hour)
March 2008	Antibiotic Resistance: Surveillance and Intervention in Practice Dallas, TX (1 hour)
April 2008	Antibiotic Resistance: Surveillance and Intervention in Practice Telecommunication Presentation to BD Sales Staff (1 hour)
June 2008	Antibiotic Resistance: Surveillance and Intervention in Practice BD Diagnostics Booth Presentation at the 108th American Society for Microbiology Meeting, Boston, MA (1 hour)

Pfizer Sponsored Continuing Pharmacist Education

February 2007	Treatment of MRSA Infections Update Jonesboro, AR (1 hour)
January 2007	Treatment of MRSA Infections Update Little Rock, AR (1 hour)

UAMS Sponsored Continuing Pharmacist Education

December 2011	Hot Topics in Immunizations 2012: Where are we in Arkansas and the Nation UAMS COP Last Chance CE, Little Rock, AR
December 2009	Immunizations: Reflecting on the past, dealing with the present, and facing the future. Little Rock, AR (2 hours)
November 2008	Antibiotic Resistance in the Community Setting: Creation of the Perfect Storm Helena, AR (2 hours)

SERVICE, continued

December 2007	A Shot a Day...Keeps the Doctor Away!: An Immunization Review and Update Little Rock, AR (2 hours)
	The HIV Pandemic: Where Are We and Where Are We Going? Little Rock, AR (1 hour)
September 2005	Past, Present, and Future: Anti-infectives and the Resistance Challenge Texarkana, AR (2 hours)
September 2002	Pediatric Pharmaceutical Care in the Community Setting Helena, AR (1 hour)

Other Continuing Pharmacist Education

April 2013	Vancomycin TDM Arkansas Children's Hospital Pharmacists
October 2009	Antimicrobial Stewardship at ACH: Nuisance or Necessity? Arkansas Children's Hospital Pharmacy Staff (1 hour)

Service Honors and Awards

August 2010	Crossing the Creek Award Arkansas Children's Hospital
	<ul style="list-style-type: none">• Awarded to individuals that exceed expectations, going above and beyond and going the "extra mile"

PROFESSIONAL AFFILIATIONS

2016-present	Making a Difference in Infectious Disease (MAD-ID)
2013-present	Arkansas College of Clinical Pharmacy (AR-ACCP)
2011-present	American Academy of Pediatrics Affiliate member of SOCPT
2010-present	Pediatric Infectious Disease Society (PIDS)
2007-present	Arkansas Pharmacists Association (APA)
2005-present	American Society for Microbiology (ASM)
2005-present	Society of Infectious Disease Pharmacists (SIDP)
2004-present	Southern Society for Pediatric Research (SSPR)
2003-present	American Association of Colleges of Pharmacy (AACCP)
2001-2010	American Society for Clinical Pharmacology and Therapeutics (ASCPT)
2000-present	Pediatric Pharmacy Advocacy Group (PPAG)
1999-present	American College of Clinical Pharmacy (ACCP)
	2007-present: Full Member
1995-present	American Society of Health Systems Pharmacists (ASHP)

RELATED TRAINING CERTIFICATION

August 2001-present	NIH-IRB investigator training Certification: Arkansas
October 2000-2002	Pediatric Advanced Life Support Provider
March 1999-2002	Basic Life Support Provider
November 2000-2001	NIH-IRB investigator training Certification: Michigan
April 1999-2001	Advanced Cardiac Life Support Provider
May 1999	Smoking Cessation Certification (Ohio)
May 1999	Immunization Delivery Certification (Ohio)

COMMUNITY SERVICE PROJECTS

- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 16-21, 2017
- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 17-22, 2016
- Basketball coach: Holy Souls, 12th grade girls in the PUMC League, 2015-16
- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 19-24, 2015
- Basketball coach: Holy Souls, 11th grade girls in the PUMC League, 2014-15
- Volunteer Pharmacy Preceptor, Our House, August 25th, 2014
- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 20-25, 2014
- Basketball coach: Holy Souls, 10th grade girls in the PUMC League, 2013-14
- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 21-26, 2013
- Basketball coach: Holy Souls, 9th grade girls in the PUMC League, 2012-13
- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 15-20, 2012
- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 17-22, 2011
- Camp Hope: Pharmacist and Counselor. Camp For All, Burton TX July 18-23, 2010
- Basketball coach: Episcopal Collegiate Wildcats, 6th grade girls 2004-2005
- Softball coach: Highway 10 Co-ed League (6-9 year olds) 2003
- National Pharmacy Week 2000 Brown Bag at Spectrum Health, Grand Rapids, MI
- Speaking at area girls' high school basketball camps 1997-2000
- AWARE- Drug Abuse Education 1998