
Scott W. Savage

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UNC Eshelman School of Pharmacy
Beard Hall; Room 100G
Chapel Hill, North Carolina 27599
919.962.0055 (Office)

PROFESSIONAL PROFILE

Experienced, highly adaptable Pharmacy Executive with a demonstrated history of aligning vision with strategic implementation to promote individual/organizational performance. Skilled in developing talent and building teams that care for patients across the continuum. Passion is optimizing patient experience via medication therapy. Interests include all areas of the Pharmacy Enterprise that leverage Education and Research to pursue Excellence. Areas of expertise include innovations via Lean Leadership methodologies in acute/ambulatory/infusion/specialty pharmacy practice, strategic supply management, analytics/technology, population health services, and accreditation/compliance controls.

CURRENT LEADERSHIP AND ACADEMIC PROFESSIONAL EXPERIENCE

Executive Vice Dean and Chief Operating Officer

UNC Eshelman School of Pharmacy
May 2019-present

Responsibilities: Advise the Dean on strategic initiatives as well as opportunities and challenges within the organization; Supervise and mentor the leadership and operations of Human Resources, Business and Finance, Facilities, Information Technology and Educational Technology; serve as the Chief Financial Officer (CFO) of the School and the Eshelman Institute of Innovation; negotiate, implement and manage all contracts, memorandum of understanding (MOU), and memorandum of agreement (MOA) for the School; serve as an ex officio member of the Executive Board of the Eshelman Institute of Innovation; assure collaboration and alignment with all School operations with the Dean and Chief Academic Officer.

Regional Director of Pharmacy

UNC Medical Center and Chatham Hospital
Department of Pharmacy
September 2016-April 2019

Responsibilities: Oversaw the UNC Medical Center (UNCMC) Department of Pharmacy (DOP) with a team of 426 FTEs (436 employees; 2 Directors, 1 Associate Director, 5 Assistant Directors, and 12 Managers) and Chatham Hospital with a team of 4.4 FTEs to support all clinical and distributive operations; interacted with strategic system leadership within UNC Health Care System and UNC Eshelman School of Pharmacy to successfully support the annual goals of UNCMC and the DOP; directed the annual budget with an annualized FY18 drug expense of \$265 Million with approximate patient revenues of \$1.1 Billion across our acute, ambulatory-infusion and ambulatory-retail operation; oversaw the pharmacy system infusion services, investigational drug services, medication assistance program, medication use policy, strategy and impact services; participated in leading the Pharmacy Residency Program of 39 Pharmacy Residents (8 Masters in Health System Pharmacy Administration, 14 PGY1 (acute and ambulatory), and 17 PGY2 specialty residents), oversaw on- and off-site operational services of 16 Pharmacies (Central Inpatient Pharmacy, Operating Room Pharmacy, Pediatric Pharmacy, 2 Investigational Pharmacies, 4 Oncology Pharmacies, Hillsborough Campus Pharmacy, WakeBrook Campus Pharmacy, 4 Retail Pharmacies, and Chatham Hospital Pharmacy).

Executive Associate Dean of Pharmacy Clinical Practice

University of North Carolina Eshelman School of Pharmacy
July 2017-March 20198

Responsibilities: Ambassador for shared interests between the Chapel Hill region within UNC Health Care System and UNC Eshelman School of Pharmacy related to education, research, practice and leadership; serve as member of the Dean's Executive Committee; oversee credentialing for all pharmacists within facilities

Expert Witness, Consultant, and Principal (Perseverance Advisory Solutions LLC)

Varies based on need
December 2012-present

Responsibilities: Review case with evidence-based research, develop opinions, write reports and testify as needed as a Rule 702 Expert. Engage in consultative services for all areas of Health System pharmacy and the practice of pharmacy with most recent experience in patient safety and infusion/specialty pharmacy assessments.

EDUCATION

Michigan State University

East Lansing, Michigan

Masters Certificate in Advanced Procurement Management; January- December 2015

The Ohio State University

Columbus, Ohio

Masters of Science, Health-System Pharmacy Administration; July 2002-June 2004

University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Doctor of Pharmacy; August 1998-May 2002

University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Undergraduate Pre-Pharmacy Curriculum with Economics Concentration; August 1995-May 1998

PROFESSIONAL EXPERIENCE (PRIOR)

Director of Pharmacy

UNC Medical Center

Department of Pharmacy

Chapel Hill, North Carolina

June 2016-August 2016

Responsibilities: Oversee the UNC Medical Center (UNCMC) Department of Pharmacy (DOP) with a team of 381 FTEs (436 employees; 2 Associate Directors, 3 Assistant Directors, and 14 Managers) to support all clinical and distributive operations; interact with strategic system leadership within UNC Health Care System and UNC Eshelman School of Pharmacy to successfully support the annual goals of UNCMC and the DOP; direct the annual budget with an annualized FY16 drug expense of \$205 Million with approximate patient revenues of \$775M; participate in leading the Pharmacy Residency Program of 33 Pharmacy Residents (1 International, 8 Masters in Health System Pharmacy Administration, 9 PGY1 (acute and ambulatory), and 15 PGY2 specialty residents), oversee on- and off-site operational services of 16 Pharmacies (Central Inpatient Pharmacy, Operating Room Pharmacy, Pediatric Pharmacy, 2 Investigational Pharmacies, 3 Oncology Pharmacies, UNC Shared Services Center Pharmacy, Hillsborough Campus Pharmacy, WakeBrook Campus Pharmacy and 5 Retail Pharmacies)

Associate Director of Pharmacy

UNC Shared Services Center

Department of Pharmacy

Durham, North Carolina

June 2013-May 2016

Responsibilities: Develop and oversee the strategic and tactical implementation of the UNC Health Care Shared Services Center Pharmacy and UNCMC Ambulatory Pharmacy Care Network (4 retail pharmacies) with a team of 78 FTEs (Assistant Director, Managers, and other team members); develop, implement, and optimize an

Integrated Pharmacy Supply Management program that includes the supply base management, procurement, sourcing, drug shortage management, 340B Program, unit dose/barcode/repackaging, and logistical support of pharmaceuticals to UNC Health Care System entities/clinics; implement and maintain the centralized health system pharmacy operations related to compounded sterile preparations; develop and optimize ambulatory pharmacy services (central fill, URAC accredited specialty service, home delivery, and skilled nursing facilities) that include a medication assistance program with pharmacy benefit management services (30,000 covered lives); responsible for each services' financial, budgetary, and data management needs; ensure the inclusion and alignment of entity-specific expertise through quarterly business operations reviews with stakeholders; monitor facility/departmental compliance with North Carolina State Board of Pharmacy Regulations, Joint Commission on Accreditation of Healthcare Organizations Standards, URAC, payor contracts, and United States Pharmacopeia

Assistant Director of Pharmacy

UNC Health Care
Department of Pharmacy
Chapel Hill, North Carolina
March 2011-June 2013

Responsibilities: Participated in Department of Pharmacy's leadership team, lead a team of Pharmacy Clinical Managers (4 FTEs) and Store Managers (1 FTE) responsible for the daily clinical and distributive operations of 90 FTEs for the UNCMC Ambulatory Pharmacy Care Network, Hematology/Oncology Team, Investigational Drug Services, Emergency Department, Medication Assistance Program, and UNCMC's Carolina Care at Home initiative; assessed ongoing efficiency of departmental services and subsequent implementation of deficiency solutions (e.g. automation, clinical pharmacy services, distributive services, clinical decision support tools, health care software); monitored facility/departmental compliance with North Carolina State Board of Pharmacy Regulations, Joint Commission on Accreditation of Healthcare Organizations Standards, and United States Pharmacopeia

Clinical Manager

UNC Health Care
Lineberger Comprehensive Cancer Center-North Carolina Cancer Hospital
Department of Pharmacy
Chapel Hill, North Carolina
October 2008-March 2011

Responsibilities: Participated in Department of Pharmacy's Acute Care Services leadership team, supervised daily distributive and clinical pharmacy services of 35 FTEs for the N.C. Cancer Hospital and Decentralized Pharmacist Group in a tertiary care, academic medical center; assessed ongoing efficiency of departmental services and subsequent implementation of deficiency solutions (e.g. automation, clinical pharmacy services, distributive services, clinical decision support tools, health care software); monitored facility/departmental compliance with North Carolina State Board of Pharmacy Regulations, Joint Commission on Accreditation of Healthcare Organizations Standards, and United States Pharmacopeia

Manager, Clinical and Distributive Operations

WakeMed Hospitals and Clinics
Department of Pharmacy
Raleigh, North Carolina
October 2007-February 2008

Responsibilities: Supervised a leadership group of 7 full-time equivalents (FTEs) responsible for the daily distributive and clinical pharmacy services of 95 FTEs in a private, not-for-profit health care system; directed departmental development of American Society of Health-System Pharmacists' Postgraduate year-1 residency (PGY-1) program; assessed ongoing efficiency of departmental services and subsequent implementation of deficiency solutions (e.g. automation, clinical pharmacy services, distributive services, clinical decision support tools, health care software, investigational medication services); monitored facility/departmental compliance with North Carolina State Board of Pharmacy Regulations and Joint Commission on Accreditation of Healthcare Organizations Standards; coordinated facilities' Doctor of Pharmacy rotations with the University of North Carolina at Chapel Hill and Campbell University; assisted with continuous and annual financial measures associated with medication and personnel expenditure

Pharmacy Manager

Medical College of Georgia Health (MCG) Health System
 Department of Pharmacy
 Augusta, Georgia
 August 2004-October 2007

Responsibilities: Supervised and integrated daily pharmacy clinical and distributive services of 84 fulltime equivalents (FTEs) in a tertiary, academic medical center environment with a 483-bed adult hospital, 149-bed Children's Medical Center, the Oncology Center of Excellence, and an Ambulatory Care Center with more than 80 clinics; evaluated, justified and implemented departmental and organizational modifications involving a multidisciplinary approach to patient care; monitored facility/departmental compliance with Georgia State Board of Pharmacy Regulations and Joint Commission on Accreditation of Healthcare Organizations Standards; assessed ongoing efficiency of departmental services and subsequent implementation of deficiency solutions (e.g. automation, clinical pharmacy services distributive services, clinical decision support tools, health care software, wholesaler/vendor contracts); coordinated facilities' Doctor of Pharmacy rotations with the University of Georgia College of Pharmacy, Medical University of South Carolina, University of North Carolina at Chapel Hill and Campbell University

Pharmacy Resident/Staff Pharmacist

The Ohio State University Medical Center
 Department of Pharmacy
 Columbus, Ohio
 July 2002-June 2004

Responsibilities: Served as administrator on-call on routine basis; performed daily task related to intravenous admixture, central staff, and clinical specialty pharmacist position (e.g. pharmacokinetics, TPN assessment/adjustment, drug information, order entry, pharmacy technician management and sterile product preparation)

TEACHING EXPERIENCE (Current and Prior)**Associate Professor of Clinical Education (April 2017-present)****Assistant Professor of Clinical Education (March 2010-April 2017)**

University of North Carolina Eshelman School of Pharmacy
 Division of Practice Advancement and Clinical Education
 Chapel Hill, North Carolina

Responsibilities: Direct PACE 833-Overview of Health Systems; participate and coordinate didactic coursework (PHCY 434-Successful Pharmacy Practice, PHCY 801-Introduction to Hospital Pharmacy Practice, PHCY 821-Contemporary and Applied Communications in Health Care, PHCY 836-Prevention, Treatment, and Recovery of Substance Abuse and Misuse Disorders, PACE 820-Managing the Practice of Pharmacy, PACE 860-Advanced Hospital Pharmacy Operations, PHCY 447-Hematology/Oncology, PHCY 442.2-Advanced Hematology/Oncology Topics) and practical rotations of students

Thesis Substitute Mentored:

- Ebony Adams (2017-2019). Creation of a pharmacy value management system: a lean transformation model.
- Elissa King (2017-2019). Evaluation of risk factors related to burnout and turnover to improve workforce resiliency in the pharmacy department of an academic medical center.
- Bijan Mekoba (2015-2017). Evaluation of provider perception and impact on medication access processes within a health system.
- Danielle Griggs (2014-2016). Impact of decreasing copayment on medication adherence: evaluation of health-system providers as prescription benefit members.
- Halena Leah Sautman (2013-2015). Assessment of the compliance and optimization of the 340B program at the university of North Carolina medical center after implementation of a 340B quality assurance specialist.
- Jeff Reichard (2011-2013). Pharmacy-initiated transitional services: a pilot study to evaluate impact on

patient satisfaction.

- Ryan Moore (2011-2013). Evaluation of a pharmacy-based medication delivery service and impact on hospital readmissions: a pilot study.
- Ian Willoughby (2010-2012). Implementation of a tiered prescription drug process within a pharmacy assistance program.
- Lindsey Amerine (2009-2011). Assessment of dosing accuracy when using volumetric technique in the preparation of chemotherapy.

Clinical Assistant Professor

University of Georgia College of Pharmacy
Athens, Georgia
June 2005-February 2008

Responsibilities: Participated in didactic coursework (Pharmacy Practice 5675-Hematology/Oncology, Pharmacy Practice 5650-Pharmacy Administration, Pharmacy Practice 5150-Introduction to Pharmaceutical Care Planning) and practical rotations of students within the UGA School of pharmacy

Preceptor of Fourth Year Doctor of Pharmacy Candidates

University of Georgia College of Pharmacy (August 2004-February 2008)
Medical University of South Carolina College of Pharmacy (January 2006-February 2008)
University of North Carolina at Chapel Hill College of Pharmacy (January 2006-February 2008)
Campbell University College of Pharmacy (March 2006-February 2008)

Responsibilities: Coordinated and precepted Health-System Pharmacy Administration rotations for Doctor of Pharmacy Candidates

Preceptor of First and Fourth Year Doctor of Pharmacy Candidates

The Ohio State University College of Pharmacy
Columbus, Ohio
January 2003-June 2004

Responsibilities: Scheduled students minimum required hours throughout The OSU Medical Center's Department of Pharmacy; individualized the goal and objectives of the rotation to meet the career goals of the student; evaluated student performance based on feedback of student and instructor

Teaching Assistant for First Year Doctor of Pharmacy Candidates

University of North Carolina at Chapel Hill College of Pharmacy
Chapel Hill, North Carolina
August 2000-May 2001
Supervisor: Carla White-Harris, BA, RPh

Responsibilities: Participated in a 14-member student staff to ensure proper weekly operations of skills lab; instructed eight first-year pharmacy students on a weekly basis; applied and integrated elements of the core pharmacy curriculum into a functional skill and knowledge base; developed communication, critical thinking, and problem-solving skills needed to solve drug-related patient problems; familiarized students with pharmacy-related languages, resources, and processes; initiated skills and strategies to facilitate life-long learning and career development for their future in pharmacy practice

ADDITIONAL WORK EXPERIENCE

Pharmacist

Thorne Drug Store
Tarboro, North Carolina
Supervisor: Tom and Bill Thorne
June 2009-August 2011

Responsibilities: Served as pharmacist overseeing drug information, order entry, pharmacy technician management and general responsibilities associated with pharmacy practice

Primary Research Intelligence Assistant

Glaxo Smithkline, Commercial Analysis (Strategic Information/Competitive Intelligence)
 Research Triangle Park, North Carolina
 August 1999-August 2000
 Supervisor: Deborah Holleman, Systems Specialist and Dan Mitchell, PharmD

Responsibilities: Responsible for the research of all pharmaceutical companies and their products (past and present); maintained an active log of all publicly known drugs that are now in any stage of clinical development; entered clinical trial information into databases (CLINT and DIRT) used by Glaxo SmithKline; summarized annual economic predications available through industrial and personal investment banks for corporate profiles on Glaxo SmithKline's "top ten" pharmaceutical competitors; monitored monthly reports on the state of the pharmaceutical industry; interacted with potential clinical investigators and current sales representatives

Intravenous Admixture Pharmacy Technician

University of North Carolina Hospitals
 Chapel Hill, North Carolina
 January 1999-December 2001
 Supervisor: Barbara Coward

Responsibilities: Prepared intravenous minibags in an aseptic environment for patients in a tertiary medical center; filled daily parenteral nutrition bags using Baxter Automix® and Micromix®; organized daily delivery of IV medications to all departments; maintained a running log of all federally-controlled, chemotherapeutic, compounded dilutions and expired medications

PUBLICATIONS

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- Muluneh BM, Schneider M, Faso A, Amerine L, Daniels R, Crisp B, Valgus J, and Savage S. Improved adherence rates and clinical outcomes of an integrated, closed-loop, pharmacist-led oral chemotherapy management program. *Journal of Oncology Practice*. 2018; 14(6):e324-e334.
 - Amerine LB, Calvert DR, Pappas AL, Lee SM, Valgus JM and Savage SW. Implementation of an integrated pharmacy supply management strategy. *Am J Health-Syst Pharm*. 2017; 74:2071-5.
 - Gonzalez D, Rao GG, Bailey SC, Brower KLR, Cao Y, Crona DJ, Kashuba ADM, Lee CR, Morbitzer K, Patterson JH, Wiltshire t, Easter J, Savage SW, and Powell JP. Precision Dosing: Public Health Need, Proposed Framework, and Anticipated Impact. *Clin Transl Sci*. 2017; 10(6):443-454.
 - Shah PF, Cruz JL, Pappas AL, Waldron KW, and Savage SW. Impact of inpatient automatic therapeutic substitutions on post discharge medication prescribing. *Hospital Pharmacy*. 2017; 52(9): 635-9.
 - Amerine LB, Valgus J, Moore JD, Arnall J, Savage SW. Implementation of a longitudinal early immersion student pharmacist health system internship program. *Curr Pharm Teach Learn*. 2017; 9:421-6.
 - Amerine LB, Eckel SF, Granko RP, Hatfield C, Savage SW, Forshay E, Crisp B, Waldron KW, Burgess HC, and Daniels R. Improving employee engagement within a department of pharmacy. *Am J Health-Syst Pharm*. 2016; 74:1316-19.
 - Bates JS, Buie LW, Amerine LB, Savage SW, Eckel SF, Patel R, Valgus JM, Rao R, and Daniels R. Expanding care through a layered learning practice model. *Am J Health-Syst Pharm*. 2016; 73:1869-75.
 - Reichard JS, Savage S, Eckel SF. Pharmacy-initiated transitions of care services: an opportunity to impact patient satisfaction. *Hosp Pharm*; 2015; 50:911-17.
 - Amerine LB, Chen S, Daniels R, Key N, Eckel SF, and Savage SW. Impact of an innovative blood factor stewardship program on drug expense and patient care. *Am J Health-Syst Pharm*. 2015; 72:1579-84.
 - Amerine LB, Granko, RP, Savage SW, Daniels R, Eckel SF. Experience of health-system pharmacy administration residents in a longitudinal human resource management program. *Am J Health-Syst Pharm*. 2014; 71(24):2143-48.
 - Poppe LB, Savage SW, Eckel SF. Assessment of final product dosing accuracy when using volumetric technique in the preparation of chemotherapy. *J Oncol Pharm Pract*. 2014;10:1-7.
 - Burgess C, Schneider M, and Savage SW. Specialty pharmacy accreditation: a tool to facilitate achievement. *Specialty Pharmacy Continuum*. 2014;3.
 - Shah S, Granko R, and Savage S. 340B software maintenance strategies. *Pharmacy Purchasing and Products*. 2014; 11(4).
 - Savage SW and Faso A. GI cancers: neuroendocrine cancer update. *Specialty Pharmacy Times*. 2014: May/June.

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- Granko RP, Poppe LB, Savage SW, Daniels R, Smith EA, and Leese P. Method to determine allocation of clinical pharmacist resources. *Am J Health-Syst Pharm.* 2012; 69:1398-1404.
- Rowe EC, Savage SW, Rutala WA, Weber DJ, Gergen-Teague M, Eckel SF. Economic and microbiologic evaluation of single-dose vial extension for hazardous drugs. *JOP.* July 1, 2012:e45-e49.
- Poppe L, Eckel S, and Savage SW. Implementation of continuous infusion of blood coagulation factors at an academic medical center. *Am J Health-Syst Pharm.* 2012; 69:522-26.
- Morgan KP, Buie LW, and Savage SW. The role of mannitol as a nephroprotectant in patients receiving cisplatin therapy. *Ann Pharmacother.* 2012;46.
- Heakal Y, Kester M, and Savage SW. Vemurafenib (PLX4032): an orally available inhibitor of mutated BRAF for treatment of metastatic melanoma. *Ann Pharmacother.* 2011;45.
- Valgus JM, Faso A, Gregory KM, Jar S, Savage SW, et al. Integration of a clinical pharmacist into the hematology-oncology clinics at an academic medical center. *Am J Health-Syst Pharm.* 2011;68:613-9.
- Savage SW. Pharmacy practice management residencies. *Am J Health-Syst Pharm.* 2005; 62:2265-70.
- Savage SW, Schneider PJ, and Pedersen CA. Utility of an online medication-error-reporting system. *Am J Health-Syst Pharm.* 2005; 62:2265-70.
- Savage SW, Gomez TA, and Burrell CR. Implementation of USP <797>: The gap analysis and action plan. *Hospital Pharmacy.* 2005;40(2):184-88.
- Savage SW. Mentoring: From Student to Resident. *Hospital Pharmacy.* 2003;38(5):411. Editorial.

OTHER PUBLICATION EXPERIENCE

Editorial Board

Pharmacy Times Health-Systems Edition
August 2018- present

Editorial Board

Specialty Pharmacy Times
January 2015-present

Clinical Advisory Board

Institute Safe Medical Practice (ISMP)-Medication Safety Alert® Newsletter
January 2003-October 2008

GRANTS RECEIVED

- *Implementation of a preemptive approach to pharmacogenetics in oncology* (\$50,000), NC TraCS Emerging Challenges in Biomedical Research (ECBR); September 2018. (Contributor)
- *A programmatic description of the unc charity care pharmacy assistance program* (\$35,890), NC TraCS Pilot Grant Program; February 2012. (Co-investigator)
- *Improving perceptions and outcomes in stem cell transplant: the "value" of a pharmacist* (\$15,000), Hematology/Oncology Pharmacy Association; November 2012. (Contributor)
- *User Experience with a Voluntary, Online Medication Error Reporting System* (\$15,000), United States Pharmacopeia (USP); December 2004. (Lead Principal Investigator)
- The Ohio State University Medical Center's Resident Education Sessions (\$5,000); Glaxo SmithKline; December 2003.

PEER REVIEWED ABSTRACTS

- Druga J, Hatfield L, Hatfield C, Lawson C, Mehrotra A, Waldron K, and Savage SW. *Implementation of an emergency department take-home medications process at a large, academic medical center.* Poster presented at the 52nd Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2017; Orlando, Florida
- Poppe LP, Savage SW, and Eckel SF. *Experience with drug vial optimization at an academic medical center.* Poster presenting at the International Pharmaceutical Federation (FIP) World Centennial Congress of Pharmacy and Pharmaceutical Sciences, September 2014; Bangkok, Thailand
- Malone R, Gay H, David JK, Minsley MA, Vaughn B, Coulombe L, and Savage S. *A pilot to improve pneumococcal influenza vaccination rates.* Poster presented at the UNC Practice, Quality, and Innovation Expo, September 2014, Chapel Hill, North Carolina

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- Moore J, Poppe LB, and Savage SW. *Development of a Tool to Facilitate Achievement of Specialty Pharmacy Accreditation Standards*. Poster presented at ACCP Annual Meeting, October 2013; Albuquerque, New Mexico
- Eckel SF, Granko R, Savage S, Crisp B, and Smith E. *Evaluating the impact of a pharmacy practice model at an academic medical center*. Poster presented at the International Pharmaceutical Federation (FIP) World Centennial Congress of Pharmacy and Pharmaceutical Sciences, October 2012; Amsterdam
- Holler J, Granko R, Savage S, and Eckel S. *Development of a method for allocation of pharmacist resources for ambulatory clinics*. Poster presented at the ASHP Summer Meeting and Exhibition, June 2012; Baltimore, Maryland
- Willoughby I, Crisp G, Weinberger M, McClurg MR, Savage S. *Impact of a tiered anti-secretory therapy program within a pharmacy assistance program*. Poster presented at the ASHP Summer Meeting and Exhibition, June 2012; Baltimore, Maryland
- Poppe LB, Savage SW, and Eckel SF. *Assessment of dosing accuracy when using volumetric technique in the preparation of chemotherapy*. Poster presented at the ASHP Summer Meeting and Exhibition, June 2011; Denver, Colorado
- Rowe EC, Savage SW, and Eckel SF. *Evaluating USP Chapter <797> Beyond Use Date Extension with Antineoplastics and Monoclonal Antibodies*. Poster presented at the 45th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2010; Anaheim, California
- Rowe EC, Savage SW, and Eckel SF. *Evaluating Microbial Growth in Various Antineoplastics and Monoclonal Antibodies*. Poster presented at the 45th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2010; Anaheim, California
- Kinsella EC, Griffith N, Berger M, and Savage SW. *Pharmacist-Run Neutropenia Management Program: The Clinical Outcomes and Cost Savings Associated with Appropriate Neutropenia Management*. Poster presented at the Annual American Society of Health-System Pharmacists Midyear Summer Clinical Meeting, June 2006; Orlando, Florida
- Savage SW, Schneider PJ and Pedersen CA. *User Experience with a Voluntary, Online Medication Error Reporting System*. Poster presented at the 39th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2004; Orlando, Florida

SPONSORED PRESENTATIONS

- *Innovating Pharmacy Centralization and Consolidation through RFID Technology*. US Bioservices: New Orleans, LA; December 2015.
- *Strategies for building a specialty pharmacy*. US Bioservices: Anaheim, California; December 2014.
- *Tygacil: Speaker training*. Wyeth Pharmaceuticals Visiting Speaker Bureau: Atlanta, GA; January 2008.
- *Methylnaltrexone: Education platform development meeting*. Wyeth Pharmaceuticals Visiting Speaker Bureau: Washington, D.C.; December 2007.
- *Conversations on compliance: standards and pharmacy practice*. Wyeth Pharmaceuticals Visiting Speaker Bureau: Miami, Charleston, Boston, Pittsburgh, Raleigh/Durham/Chapel Hill, Augusta, San Antonio, Washington D.C., New York NY, Portland; May-November 2007.

INVITED PRESENTATIONS

- *Finding strategies between clinic-based and community pharmacists*. Presentation to National Community Pharmacists Association (NCPA) 2018 Annual Conference, Boston, Massachusetts; ACPE#0207-0000-18-303-L04-P; October 2018.
- *Transitions of care: an opportunity we know we can lead*. Presentation to The Ohio State University Latiolais Leadership Program and College of Pharmacy Alumni Society, Columbus, Ohio; ACPE#0633-0000-18-024-L04-P; October 2018.
- *Patient safety: our role as one pharmacy community*. Presentation to Area L AHEC, Rocky Mount, North Carolina; ACPE# 0046-9999-18-342-L05-P; September 2018.
- *Biologicals and the potential impact on your practice*. Presentation to Wilson Medical Center Pharmacy CE Symposium, Wilson, North Carolina; ACPE#0046-9999-17-320-L01; November 2017.
- *Establishing a shared services model and its support of compounding services: UNC's journey*. Presentation to The Ohio State University Latiolais Leadership Program, Columbus, Ohio; ACPE#0633-0000-17-015-L04-P; October 2017.
- *The FDA draft compounding guidance: what does it mean to your pharmacy?* Presentation at the 51st Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, Nevada;

- ACPE#0449-0000-16-058-L05-P; December 2016.
- *Co-developing alignment for an integrated pharmacy supply management operation.* Presentation to Vizient Membership, Las Vegas, Nevada; December 2016.
 - *McKesson Elevation Forum: Tips for early success.* Presentation to Pharmacy Administration Resident Collaboration (PARC), Las Vegas, Nevada; December 2016.
 - *Strategic Supply Management: Where do you start?* Presentation at the MedAssets Business and Technology Forum, Dallas, Texas; November 2015.
 - *What is your facilities supply strategy and is pharmacy included?* Presentation at the North Carolina Association of Pharmacist's 2015 Annual Meeting, Raleigh, North Carolina; ACPE#0046-9999-15-210-L04-P; November 2015.
 - *When will the wait be over? Biologicals and the potential impact on your practice.* Presentation at the North Carolina Association of Pharmacist's 2015 Annual Meeting, Raleigh, North Carolina; ACPE#0046-9999-15-226-L04-P; November 2015.
 - *Leadership with Humility.* Presentation to The Ohio State University's Latiolais Leader Program's Young Alumni Leadership Series; ACPE#Pending; October 2015.
 - *Scalability and centralization: strategies to support specialty pharmacy growth.* Presentation at the UHC Rapid Diffusion of Innovation in Specialty Pharmacy; ACPE#0022-9999-15-125-L04-P, October 2015.
 - *Biologics: navigating the potential impact of biosimilars and meaning on your practice.* Presentation at the North Carolina Association of Pharmacist's Day in the Legislature, Raleigh, North Carolina; ACPE#Pending; April 2015.
 - *UNC Health Care: shared services center pharmacy compounding services.* Presentation at the MedAssets Business and Technology Forum, Dallas, Texas; November 2014.
 - *Specialty pharmacy: another opportunity to unify the profession.* Presentation at the VSHP Fall Meeting, Virginia Beach, Virginia; ACPE#0108-0000-14-023-L04P; October 2014.
 - *Management Case Studies H: Part 1, 2, and 3.* Presentation at the 47th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, Nevada; ACPE # 204-000-12-364-L04P; December 2012.
 - *Stop the bleeding: updates in hemophilia management and development of a factor stewardship program.* Presentation at the 47th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, Nevada; ACPE # 204-000-12-307-L04P; December 2012.
 - *Management Pearls 2011: Defining your "core self" for a foundation of success.* Presentation at the 46th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, Louisiana; ACPE # 204-000-10-228-L04P; December 2011.
 - *Amphetamines, Barbiturates, and Cocaine: The ABCs of Drug Diversion Detection and Prevention.* Presentation at the 45th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anaheim, California; ACPE # 204-000-10-243-L03P; December 2010.
 - *Second Annual National Safe Handling Awareness Day CE Webinar: Handling hazardous drugs, evidence based analysis and implementation of a CSTD.* Presentation at the 2010 Safe Handling Awareness Day, Houston, Texas; April 2010.
 - *Overview to practice models issues in hospital setting.* Presentation at the 2010 North Carolina Association of Pharmacists' Acute Care Practice Forum, Greensboro, North Carolina; ACPE #046-9999-10-049-L04-P; March 2010.
 - *Hemophilia and associated therapies.* Presentation to the North Carolina Medicare/Medicaid Pharmacist Reimbursement Group; January 2010.
 - *Health system managers' forum: conversations on compliance: standards and pharmacy practice.* Presentation at the 2008 North Carolina Association of Pharmacists' Acute Care Practice Forum, Concord, North Carolina; ACPE #046-999-08-002-L01-P; February 2008.
 - *Accreditation updates for hospital pharmacy: USP Chapter <797> revised.* Presentation at the 2008 North Carolina Association of Pharmacists' Acute Care Practice Forum, Concord, North Carolina; ACPE #046-999-08-002-L01-P; February 2008.
 - *Managing relationships above and below.* Presentation at the ASHP Great Expectations New Practitioners Conference, Chicago, Illinois; ACPE #204-000-07-808-L04-P; September 2007.
 - *How to set-up a clinical service.* Presentation at the ASHP Great Expectations New Practitioners Conference, Chicago, Illinois; ACPE #204-000-07-803-L04-P; September 2007.
 - *Medication variances: a dashboard for improvement.* Presentation at Medical College of Georgia Division of Pediatrics/MCG Children's Medical Center Pediatric Ground Rounds; March 2007.

- *Therapeutic issues in emergency management.* Presentation at the 41st Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; ACPE #204-000-06-284-L04; December 2006.
- *Hemostasis: assessing the need and controlling the cost.* Presentation at the University of Georgia College of Pharmacy Grand Rounds; ACPE #014-999-06-053-L01; October 2006.
- *USP Chapter <797>: Impact on the Profession of Pharmacy and Understanding the Implementation.* Presentation at the Georgia Society of Health-System Pharmacists Central Savannah River District; sponsored by Amgen; ACPE # 228-000-05-039-L04; June 2005.
- *USP Chapter <797>: Gap Analysis, Implications for Pharmacy and Sterile Compounding Activities.* Presentation at the University of Georgia College of Pharmacy Grand Rounds; ACPE #014-999-05-013-L02; January 2005.

STUDENT/RESIDENT-PRECEPTED POSTERS AND ABSTRACTS

- Vincent M, Leary MH, Morbitzer M, Stivers A, Waldron K, Eckel S, Daniels R, Pappas A, and Savage S. *Evaluation and impact of a partnership between a school of pharmacy and an academic medical center.* Resident poster at the Vizient Pharmacy Council Resident Poster Session, Las Vegas, Nevada; December 2016.
- Shah P, Pappas A, Cruz J, and Savage S. *Impact of inpatient automatic therapeutic substitutions on post-discharge medication therapy.* Resident poster at the Vizient Pharmacy Council Resident Poster Session, Las Vegas, Nevada; December 2016.
- Lavani P, Savage S, and Crisp G. *Optimization of institutional patient assistance programs at an academic medical center.* Student poster at the 50th American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, Louisiana; December 2015.
- Sautman L, Savage S, Lee S, and Savage S. *Compliance and optimization of the 340B program at an academic medical center.* Resident poster at the UHC Pharmacy Council Resident Poster Session, Anahiem, California; December 2014.
- Pennell B, Schneider M, Crisp B, Burgess H, and Savage S. *Assessment of purchasing accounts in a health system retail pharmacy environment.* Student poster at the 49th American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; December 2014.
- Woody SM, Wolfe AS, Lee S, and Savage S. *Variation in pharmacy purchasing accounts across an academic medical center: are you paying what you are supposed to pay?* Student poster at the 49th American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; December 2014.
- Rowe, E, Savage SW, and Eckel S. *Economic impact of hazardous drug preparation and beyond use extension.* Resident poster presented at the Hematology/Oncology Pharmacist Association, New Orleans, Louisiana; April 2010.
- Nguyen, T, Vanlandingham J, and Savage SW. *Antifungal therapy: a retrospective review of echinocandin use at an academic medical center.* Resident poster presented at the UHC Pharmacy Council Resident/Fellow Poster Session, Anahiem, California; December 2006.
- Cox S, Carswell J, Phillips M, and Savage SW. *Evaluation of medication errors at an academic medical center using an online reporting system.* Student poster presented at the 41st Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; December 2006.
- Ray S, Schober C, and Savage SW. *Evaluation of warfarin patients managed in a continuity care medicine clinic.* Student poster presented at the 41st Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; December 2006.
- Scanlon K, Davis W, Kuth J, and Savage SW. *Evaluation and implementation of an anemia management clinic.* Student poster presented at the 41st Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; December 2006.
- Space J, Kuth J, and Savage SW. *Community acquired pneumonia: descriptive analysis and implementation of CAP clinical decision support.* Student poster presented at the 41st Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; December 2006.
- Thomas M, Kuth J, and Savage SW. *Use of 5-HT3 inhibitor for treatment of generalized nausea, vomiting.* Student poster presented at the 41st Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anahiem, California; December 2006.
- Norman C, Williams D, and Savage SW. *USP <797>: Cost impact of implementing proposed beyond-use-dating for single-dose vials.* Student poster presented at the 40th Annual American Society of Health-

System Pharmacists Midyear Clinical Meeting, Las Vegas, Nevada; December 2005.

- Shah M, Savage SW, and Phillips MS. *Prevention of microbial dissemination: hand washing in health-system pharmacy*. Student poster presented at the 40th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, Nevada; December 2005.

RESIDENCY PRESENTATIONS, POSTERS AND ABSTRACTS

- *Evaluation of Physician Compliance with a Community Acquired Pneumonia (CAP) Prescribing Pathway at an Academic Medical Center using the Pneumonia Severity Index (PSI)*. Presentation at the Great Lakes Pharmacy Resident Conference, West LaFayette, Indiana; April, 2004.
- *Description and Implementation of Clinical Pharmacy Services at The Arthur G. James Cancer Hospital*. Presentation to The Ohio State University Medical Center Department of Pharmacy Directors' of Staff; February 2004.
- *Evaluation of Pyxis Capture Rate at an Academic Medical Center*. Presentation to The Ohio State University Medical Center Department of Pharmacy Director of Staff; February 2004.
- *Justification of Clinical Pharmacy Generalist Service Model at The Ohio State University East Hospital*. Presentation at OSU East Medical Executive Group; January 2004.
- *Implementation and Impact of an Automated Storage and Retrieval System on Pharmacy Operations*. Poster Presentation at the UHC Pharmacy Council Resident/Fellow Poster Session; December 2003; New Orleans, Louisiana.
- *User Experience with a Voluntary, Online Medication Error Reporting System*. Poster presented at the 38th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2003; New Orleans, Louisiana.
- *Assessment of Patient Allergy Status Discrepancies within Patient Care Information Systems at The Ohio State University Medical Center*. Presented to The Ohio State University Medical Center' Medication Safety Committee, July 2003; Columbus, Ohio.
- *Use of a Compliance Assessment Tool for Medication Security and Storage on a Hospital Nursing Unit*. Poster presentation at the 37th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2002; Atlanta, Georgia.
- *Use of a Compliance Assessment Tool for Medication Security and Storage on a Hospital Nursing Unit*. Poster presentation at the UHC Pharmacy Council Resident/Fellow Poster Session; December 2002; Atlanta, Georgia.

RESIDENCY ADMINISTRATIVE AUDITS

- Prospective Evaluation of the Impact of MedCarousel™ Technology on Medication Error Occurrence during the Dispensing Phase of the Medication Use Process, May 2003
- Assessment of Patient Allergy Status Discrepancies within Patient Care Information Systems at The Ohio State University Medical Center, March 2003
- Medication Security and Storage-Does The Ohio State University Medical Center Meet JCAHO Standards?, September 2002
- Preparation Guidelines for Intravenous (IV) Admixtures-An Online Teaching Module, August 2002

PRE-RESIDENCY PRESENTATIONS AND POSTERS

- *IV Pantoprazole: A Guideline-Based Approach to Therapy*. Presented at 36th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, December 2001; New Orleans, Louisiana.
- *Methadone. Its Use in Pain Management*. Presented to UNC Hospitals' General Medicine Service Team, March 2002.
- *Diabetes and Your Role in Proper Glucose Monitoring*. Presented to Community of Scotland Neck, North Carolina, January 2002.
- *Pharmacologic Treatment of Chronic Pain*. Presented to UNC Hospitals' Oncology Medical Service Team, November 2001.
- *A Literature Evaluation of the Use of Basiliximab, Daclizumab and Thymoglobulin in Pediatric Renal and Hepatic Transplant Recipients*. Presented to UNC Hospitals' Solid Organ Transplant Physician and Housestaff, August 2001.
- *Pediatric Guidelines for Anti-Hypertensives in Pediatric Transplant Patients*. Presented to UNC Hospitals'

- Solid Organ Transplant Physician Team, August 2001.
- *Myobloc®-Botulinum Toxin Type B*. Presented to UNC Hospitals' Pharmacy and Therapeutics Committee, August 2001.
- Daily Clinical Pearls, Journal Club. Drug Information Rotation, July 2001.
- *A Prospective Analysis of Pharmacy Turnaround Time and Its Implications on Medication Delivery*. Presented to UNC Hospitals' Pharmacy Executive Group, May 2001.
- *Etiology and Pathophysiology of Diabetic Ketoacidosis*. Presented to students/faculty in Critical Care Elective, March 2001.
- *An Infrastructural Analysis of Pfizer, Present and Future*. Presented to students/faculty in Pharmacy Policy and Evaluative Sciences Elective, October 2000.

APPOINTMENTS

- Member, ASHP Section Advisory Group on Management of the Pharmacy Enterprise, 2017-2018.
- Member, Vizient Pharmacy Business Council, 2017-2019.
- Member, North Carolina Physician Health Program (NCPHP), Compliance Committee, March 2016.
- Chair, UHC Pharmacy Specialty Pharmacy Committee, Data Management Subcommittee, June 2012.
- Member, UHC Pharmacy Specialty Pharmacy Committee, June 2012-July 2017.
- Member, UHC Pharmacy Ambulatory Care Committee, June 2011-July 2012.
- Member, UNC Eshelman School of Pharmacy Partnership in Patient Care, Steering Committee and Ambulatory Care Committee, January 2011.
- Chair-Legislative Affairs, Hematology/Oncology Pharmacist Association, April 2010-July 2011.
- Vice Chair-Legislative Affairs, Hematology/Oncology Pharmacist Association, July 2009-April 2010.
- Member, UNC Pharmacy Practice Committee, UNC Health Care, July 2009-July 2010.
- Member, Institutional Review Board, UNC Health Care/University of North Carolina at Chapel Hill, January 2009-January 2011.
- Member, Environmental Oversight Committee, UNC Health Care, November 2009.
- Member, Curb to Chemo Team, UNC Health Care, November 2009.
- Member, Pharmacy and Therapeutics Committee, WakeMed Health and Hospitals, January 2008.
- Member, Medication Safety Committee, WakeMed Health and Hospitals, January 2008.
- Member, Code Blue/Rapid Response Team, WakeMed Health and Hospitals, January 2008.
- Secretary, MCG Pharmacy and Therapeutics Committee Nutrition Subcommittee, MCG Health System, April 2006-October 2007.
- District Director, Central Savannah River District, Georgia Society Health-System Pharmacists; September 2005-October 2007.
- New Practitioners Forum-Communications and Public Affairs Subcommittee, American Society of Health-Systems Pharmacist; July 2005-June 2006.
- New Practitioners Forum-Education Subcommittee, American Society of Health-Systems Pharmacist; July 2004-June 2005.
- Medication Error Prevention Committee, MCG Health System; August 2004-October 2007.

APPOINTMENTS (UNC Eshelman School of Pharmacy)

- Member, School Diversity and Inclusion Core Team; July 2018-present.
- Member, AHEC Director Search Committee; May 2018-present.
- Member, Well-being and Resiliency Team; April 2018-present.
- Member, Dean's Search Committee; November 2017-present.
- Member, Dean's Executive Committee; August 2016-present.

AWARDS AND HONORS

- *2018 ASHP Best Practice Award, Innovation in training: transformation through a "flipped" approach to residency research*. Received at the 53rd Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Anaheim, California.
- *The Association of Community Cancer Centers (ACCC) Innovator Award 2018, Combating rising drug costs and waste through drug vial optimization*. Received at ACCC Annual Conference, Phoenix, Arizona.
- *2017 Excellence in Medication Safety, Improving care for patients with suspected or confirmed heparin-*

induced thrombocytopenia (HIT). Received at the 52nd Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Orlando, Florida.

- *2015 ASHP Best Practice Award, Impact of an integrated, closed loop, pharmacy led oral chemotherapy program on clinical and financial outcomes*. Received at the 50th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, Louisiana.
- *2013 ASHP Best Practice Award, Advancing into uncharted territory: impact of an innovative factor stewardship program on drug expense, patient care, and a pharmacist's role*. Received at the 48th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Orlando, Florida.
- *2013 5th Annual Baxter Leadership Excellence Awards in Pharmacy (LEAP), pCATCH: Method to determine allocation of clinical pharmacist resources*. Received at the 48th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Orlando, Florida.
- *2012 ASHP Best Practice Award, Maximizing the impact of pharmacists across transitions of care: hematopoietic cell transplant as a best practice opportunity for clinical pharmacists*. Received at the 47th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, Las Vegas, Nevada.
- *2011 ASHP Best Practice Award, Development, implementation, and impact of a comprehensive, medical service based pharmacy practice model that maximizes pharmacist involvement in the patient care setting*. Received at the 46th Annual American Society of Health-System Pharmacists Midyear Clinical Meeting, New Orleans, Louisiana.
- *Outstanding District Director Award, 2007*. Georgia Society of Health-System Pharmacists.

RESIDENCY APPOINTMENTS

- Communications Liaison, The Ohio State University Medical Center Pharmacy Residency Class, July 2003-June 2004.
- Pharmacy and Therapeutics Executive Committee, Resident Secretary, July 2003-June 2004.

PROFESSIONAL MEMBERSHIPS

- APICS supply chain professional organization (2015-present)
- American Society for Pharmacy Law (2015-present)
- Academy of Managed Care Pharmacy (2012-present)
- National Community Pharmacy Association (2012-present)
- Hematology/Oncology Association (2009-2012)
- Pediatric Pharmacy Advocacy Group (2004-2008)
- American College of Clinical Pharmacy (2002-2006)
- Ohio Society of Health System Pharmacists-Educational Affairs Committee (2002-2004)
- Rho Chi Pharmaceutical Honor Society (2000)
- American Society of Health-System Pharmacist (1998-present)
- American Pharmacists Association (1998-2004)

ACTIVITIES AND COMMUNITY SERVICE

- UNC School of Pharmacy Alumni Board of Directors; Appointed Member (2005-2007)
- UNC Alumni Association; President Augusta, Georgia Club Section (2004-2007)

CERTIFICATIONS

- Lean Value Management System (8-part series); UNC Health Care System (Pending January 2019)
- Lean Six Sigma, Purple Belt; UNC Health Care System (2014)
- Lean Six Sigma, Blue Belt; UNC Health Care System (2012)
- Lean Six Sigma, Yellow Belt; UNC Health Care System (2011)
- Hiring for Excellence; UNC Health Care System (2010)

LICENSURE

- North Carolina (#16486)

REFERENCES AVAILABLE UPON REQUEST
