

Stephen Frederick Eckel

200 Butternut Drive
Chapel Hill, NC 27514
seckel@unc.edu

Home: (919) 933-7480 Mobile: (919) 225-1943
Work: (919) 962-0071 Fax: (919) 843-3861

EDUCATION AND TRAINING

Masters of Healthcare Administration

University of North Carolina at Chapel Hill, August 2002 – May 2005

Board Certified as Pharmacotherapy Specialist (BCPS)

Certified, October 1998

Re-certified, October 2005 and October 2012

Pharmacy Practice Residency

Duke University Medical Center, July 1997 – June 1998

Doctor of Pharmacy

University of North Carolina at Chapel Hill, May 1997

Teaching Assistant for Pharmacy Skills Lab, Aug.- Dec. 1994 and Aug. 1995 - Apr. 1996

Bachelor of Science in Pharmacy

University of North Carolina at Chapel Hill, May 1995

Highest Honors with Distinction

WORK EXPERIENCE

University of North Carolina at Chapel Hill Eshelman School of Pharmacy **Chapel Hill, NC**

Clinical Associate Professor (March 2013 – Present)

Associate Dean for Global Engagement (February 2016 – Present)

- Provide leadership for the School's global activities and direction for programmatic activities

Interim Chair, Division of Practice Advancement and Clinical Education (August 2017 – December 2019)

- Give leadership to the academic development of the faculty within the division and ensure that the teaching needs of our curriculum are met

Vice Chair, Graduate and Post-Graduate Education – Division of Practice Advancement and Clinical Education (March 2013 – August 2017)

- Graduate Program Director for the MS in Pharmaceutical Sciences with a specialization in Health-System Pharmacy Administration (August 2007 – present)

Clinical Assistant Professor of Pharmacy Practice (October 1999 – March 2013)

University of North Carolina Hospitals and Clinics

Chapel Hill, NC

Director of Pharmacy, Innovation Services (November 2018 – Present)

Associate Director of Pharmacy (March 2013 – November 2018)

Assistant Director of Pharmacy (March 2002 – March 2013)

- Lead for 'Partnership in Patient Care' (July 2009 – July 2013)
 - Developed a 5-year strategic plan that would overlap missions between UNC Hospitals and UNC School of Pharmacy

- Originated the Layered Learning Practice Model (LLPM)
- 5 million dollar engagement
- Plan supported and signed off by leadership of UNC and UNC Hospitals
- Clinic-based pharmacy services (March 2005 – January 2016)
 - Grew a service line from involvement in two clinics to over fifteen clinics
 - Provide leadership through both prescribing and quality initiatives
 - Developed a process for facility fee billing, covering a majority of clinic-based pharmacist's salary
- Pediatric clinical and distributive services (March 2002 – July 2009)
 - Responsible for 10.4 FTEs
 - Pharmacy satellite operational for 7 days a week, 16 hours a day
 - Provide clinical services to all pediatric patients daily
 - Implemented many processes and systems to reduce medication errors and enhance patient care services
 - Opened the UNC Children's Hospital Pharmacy
- Adult clinical services (March 2005 – July 2009)
 - Responsible for 17.4 FTEs
 - Provided comprehensive clinical services daily to all adult patients
 - Enhanced our service coverage to provide more consistent services and innovative patient care
 - Developed and initiated clinical services where no pharmacists had existed previously (i.e. psychiatry; surgery critical care services)
 - Opened the UNC Women's Hospital
- Oncology service line (October 2008 – July 2009)
 - Responsible for 13.0 FTEs
 - Provided both the safe preparation and appropriate utilization of all chemotherapy products
 - Developed and opened the North Carolina Cancer Center pharmacy
- Decentralized pharmacy services (July 2008 – July 2009)
 - Responsible for 8.0 FTEs
 - Developed a completely new practice model to support them
 - Provided clinical pharmacy services in evening and weekend hours
- Investigational Drug Service (March 2005 – July 2007)
 - Responsible for 7.8 FTEs
 - Provided services 5 days a week, 8 hours a day
 - Managed over 400 active protocols
 - Improved revenue capture to become cost neutral and decrease protocol wait time
- Women's and Neurosciences' services (March 2002 – March 2005)
 - Introduced our first consistent clinical services in psychiatry
 - Worked with the nursing staff to improve pharmacy services
- IV Room operations (March 2002 – March 2005)
 - Overhauled operations for better services and reduced medication errors
 - Led the charge to prepare all IVs and decrease waste in the institution
- Chemotherapy operations (March 2002 – March 2005)
 - Oversaw two satellites to service both inpatients and outpatients
 - Provided over 180 chemotherapy preparations per day
 - Worked to bring both of the operations to function in similar fashion
- **Director of Residency Programs** (July 2004 – 2017)
 - Residency Program Director for 2 year Health-System Pharmacy Administration Residency / MS program (July 2008 – Present)
 - Residency Program Director for Pharmacy Practice Residency (July 2004 – January 2011)

- Residency Program Director for Pharmacy Practice Residency with emphasis in Managed Care (July 2011 – July 2012)
- Responsible for ensuring all accreditation standards are met for the residency program
- Oversee the development and growth of all residents
- Supervise Pharmacy Practice Residency Coordinator and Specialty Residency Coordinator
- Led the successful accreditation team for 11 different specialty residencies
- **Associate Residency Director** (July 2002 – June 2004)
 - Led Recruitment, Mentoring, and Evaluation of all residents
 - Supervised Residency Coordinator

Acute Care Services Manager for Central Pharmacy (August 1999 – March 2002)

- Inpatient pharmacy and IV room operations
- Personnel management for all technicians
- **Residency Coordinator** (November 1998 – July 2002)
 - Recruitment, Mentoring, and Evaluation of all residents

Clinical Pharmacist (October 1998 – August 1999)

- Clinical services provided to various inpatient teams

PharmaSTAT, Inc.

Winston Salem, NC

Pharmacist (May – July 1997)

HONORS AND AWARDS

Winner, ASHP Best Practices Award – 2018

Innovation in training: Transformation through a “flipped” approach to residency research.

Kamakshi V. Rao, Nicole R. Pinelli, Ashley L. Pappas, Kathryn Morbitzer, Kalynn A. Rohde, Emily A. Durr, Said M. Sultan, Stephen Eckel, Denise Rhoney, Rowell Daniels, and Scott W. Savage

Winner, Milton W. Skolaut Leadership Award – 2018

Winner, Fred M. Eckel Pharmacy Leadership Award – 2017

Winner, ASHP Research and Education Foundation Residency Awards – 2015
Pharmacy Residency Excellence Preceptor Award

Winner, ASHP Research and Education Foundation Literature Awards – 2015
Pharmacy Practice Research Award

Assessment of final product dosing accuracy when using volumetric technique in the preparation of chemotherapy.

Poppe LB, Savage SW, and Eckel SF. *Journal of Oncology Pharmacy Practice*. 2014 Sep 2. pii: 1078155214549489. [Epub ahead of print] PMID: 25182472.

Winner, NCAP Leadership Award – 2015

Winner, McKesson Leadership Award – 2015

Winner, BDO Life Sciences Award from the Triangle Business Journal – 2015
Outstanding Research University – ChemoGLO, LLC

Fellow, National Academies of Practice: Pharmacy – 2015

Winner, ASHP Best Practices Award – 2014

Advancing Pharmacy Practice Through an Innovative Ambulatory Care Transitions Program.

Jamie Jurkiewicz Cavanaugh, Emily M. Hawes; Nicole R. Pinelli; Stephen Eckel, Michael Pignone, Mark Gwynne, and Rowell Daniels

Next Generation Pharmacist: Finalist for Technology Innovator Category – 2014

- Winner, ASHP Best Practices Award – 2013
Advancing into Uncharted Territory: Impact of an Innovative Factor
Stewardship Program on Drug Expense, Patient Care, and a Pharmacist's Role.
Lindsey B. Poppe, Sheh-Li Chen, Rowell Daniels, Nigel Key, Stephen F. Eckel,
and Scott W. Savage
- Silver Award, Baxter Leadership Excellence Awards in Pharmacy (LEAP) – 2013
Using Lean Principles to Improve Adult Outpatient Chemotherapy
Preparation Turnaround Time in a Large Cancer Hospital Infusion Pharmacy.
Matt Lamm, Lindsey Poppe, and Stephen F. Eckel
- Winner, Excellence in Innovation Award – 2013
North Carolina Association of Pharmacists
- Fellow, American College of Clinical Pharmacy – 2013
- Winner, 2012 recipient of the American Pharmacists Association Academy of Pharmacy
Practice and Management (APhA-APPM) Distinguished Achievement Award in
Hospital and Institutional Practice
- Winner, ASHP Best Practices Award – 2011
Development, implementation, and impact of a comprehensive, medical service
based pharmacy practice model that maximizes pharmacist involvement in the
patient care setting. Stephen F. Eckel, Robert P. Granko, Scott Savage, Brett
Crisp, Edwin Smith, and Rowell Daniels
- Fellow, American Society of Health-System Pharmacy – 2010
- Fellow, American Pharmacists Association – 2010
- Reviewer
Journal of Oncology Pharmacy Practice: 2011 – present
American Journal of Health-System Pharmacy: 2005 – present
Journal of Hematology Oncology Pharmacy: 2015
European Journal of Hospital Pharmacy: 2014 – present
Journal of American Pharmacists Association
American Journal of Pharmacy Education
Currents in Pharmacy Teaching and Learning
Hospital Pharmacist
- North Carolina's Distinguished Young Pharmacist – 2005
- ASHP Leading Edge Participant – 2002
- The Searle Fellowships in Pharmacy: Third Place – 1996
Practicing Pharmaceutical Care in the Community Setting: Motivating your
Patients to take an Active Role in their Well-Being.
- ASHP Student Research Award – 1995
Comparison of Noninvasive Methodology for Quantitation of Debrisoquin
Hydroxylase Genetic Polymorphic Drug Metabolism.
Clinical Research Honors Project, 1993 – 1995
- Eli Lilly Achievement Award – 1995
- APhA Academy of Students of Pharmacy Award – 1995
- Mylan Pharmaceuticals Division of Pharmacy Practice Award – 1995
- Fonnie Jackson Andrews Award – 1994
- McKesson Leadership Award – 1994
- Rho Chi Induction – 1994
- Phi Lambda Sigma Induction – 1993
- Indian Health Service Pharmacy COSTEP Internship – 1993

BOOK CHAPTERS

- 15. The ACCP Field Guide to Becoming a Standout Pharmacy Residency
Candidate. Second Edition**
Jerry L. Bauman, Executive Editor; Keri A. Sims, Associate Editor

Step V: Gain Valuable Work Experience

Eckel SF: 2019: American College of Clinical Pharmacy.

- 14. Letters from Pharmacy Preceptors: Pearls for Success.** Joshua N. Raub, Cathy L. Walker, and Sara J. White, Editors
Perspective, Personality, Point of View: Full Immersion of Your Learner
Eckel SF: 2019: American Society of Health-System Pharmacists; 19-24.
- 13. Preceptor's Handbook for Pharmacists, Fourth Edition.** Lourdes M. Cuellar and Diane B. Ginsburg, Editors.
Chapter 8 – Administrative and Leadership Aspects of Pharmacy
Eckel SF and Knoer S: 2019: American Society of Health-System Pharmacists; 169-182.
- 12. Encyclopedia of Pharmacy Practice and Clinical Pharmacy**
Zaheer-Ud-Din Babar, Editor
Chapter 111 – Competency Standards for Clinical Pharmacists
Bruno A and Eckel S 2019: Elsevier
- 11. Introduction to Acute and Ambulatory Care Pharmacy Practice. Second Edition**
David A Holdford, Editor.
Chapter 7 – Medication Distribution Systems
Eckel SF, Mann JE, and Eckel FM: 2017: American Society of Health-System Pharmacists; 129-149.
- 10. Smart Infusion Pumps: Implementation, Management, and Drug Libraries, Second Edition.** Pamela Phelps, Editor.
Chapter 8 – Epidural and Intrathecal Drug Library
Eckel SF and Stivers AP: 2017: American Society of Health-System Pharmacists; 105-112.
Chapter 15 – Validating Pumps for Accuracy and Functionality
Stivers AP and Eckel SF: 2017: American Society of Health-System Pharmacists; 167-172.
- 9. The ACCP Field Guide to Becoming a Standout Pharmacy Residency Candidate.**
Jerry L. Bauman, Executive Editor; Keri A. Sims, Associate Editor
Step V: Gain Valuable Work Experience
Eckel SF: 2016: American College of Clinical Pharmacy; 75-89.
- 8. Preceptor's Handbook for Pharmacists, Third Edition.** Lourdes M. Cuellar and Diane B. Ginsburg, Editors.
Chapter 7 – Administrative Aspects of Pharmacy
Eckel SF and Glowczewski JE: 2016: American Society of Health-System Pharmacists; 119-129.
- 7. Safe handling of hazardous chemotherapy drugs in limited-resource settings.**
Connor TH, Eckel SF, McDiarmid MA, Polovich M, Power AL. Washington, DC: Pan American Health Organization 2013:1-53
- 6. Pharmacy and the US Healthcare System.** Michael Ira Smith, Albert Wertheimer, and Jack Fincham, Editors.
Chapter 15 – Patient Safety and Pharmacovigilance
Eckel SF, Jenkins AT, and Hansen K: 2013: Pharmaceutical Press; 297-315.
- 5. The ACCP Field Guide to Becoming a Standout Pharmacy Residency Candidate.**
Jerry L. Bauman, Executive Editor; Keri A. Sims, Associate Editor
Step V: Gain Valuable Work Experience
Eckel SF: 2012: American College of Clinical Pharmacy; 75-88.
- 4. Pharmacy Management, Leadership, Marketing, and Finance: 2nd Edition.** Marie A. Chisholm-Burns, Allison M. Vaillancourt, and Marv Shepherd, Editors
Chapter 1 – Management Essentials for Pharmacists.
Eckel SF, Marciniak MW, Mark SM, and Saenz R: 2012: Jones and Bartlett Learning; 3-22.

- 3. Securing and Excelling in a Pharmacy Residency.** Michael A Crouch, Editor.
Chapter 13 – The Application Process
Eckel SF: 2011: Jones and Bartlett; 107-113.
- 2. Introduction to Hospital and Health-System Pharmacy Practice.** David A Holdford and Thomas R Brown, Editors.
Chapter 7 – Medication Distribution Systems
Eckel SF and Eckel FM: 2010: American Society of Health System Pharmacists; 123-142.
- 1. Handbook of Institutional Pharmacy Practice:4th Edition.** Thomas Brown, Editor.
Chapter 27 – Medication Distribution Systems
Eckel SF and Eckel FM: 2006: American Society of Health System Pharmacy; 383-392.

PEER-REVIEWED PUBLICATIONS

- 68. Accessibility of Low-Cost Insulin from Illegitimate Online Pharmacies: A Cross-Sectional Study.**
Penley B, Minshew L, Chen H, Eckel S, and Ozawa S, *Journal of Medical Internet Research* (accepted for publication)
- 67. Exploring Shifts in Resident Recruitment during COVID-19: Initial Perceptions from Residents, Preceptors, and Residency Program Directors.**
Wolcott MD, Sasser CW, Morbitzer KA, and Eckel SF. *Journal of the American College of Clinical Pharmacy* 2021; Dec 18 (online ahead of print).
- 66. The Essential Nature of and Continued Need for Health Systems to Prioritize the Medication-Use Process.**
Vest TA, Gazda NP, and Eckel SF. *American Journal of Health-System Pharmacy* 2021; Oct 27 (online ahead of print).
- 65. Evaluation of Chemotherapy Preparation Process: Volumetric Method Reliability and Gravimetric Method Utility within 5 US Hospitals.**
Moss A, Kang S, Morbitzer K, Nguyen L, Shwin M, Cyr DS, Portogues J, and Eckel SF. *American Journal of Health-System Pharmacy* 2021; Nov 3 (online ahead of print).
- 64. The Medication-Use Process: Now as Ever, Pharmacy's Domain.**
Eckel SF and Jew R. *American Journal of Health-System Pharmacy* 2021; Nov 26 (online ahead of print).
- 63. P5 – the Compound Interest Formula for Professional Development.**
Eckel SF. *American Journal of Health-System Pharmacy* 2021; Oct 4 (online ahead of print).
- 62. Lessons Learned from Pharmacy Learner and Educator Experiences during Early Stages of COVID-19 pandemic.**
Sasser CW, Wolcott MD, Morbitzer KA, and Eckel SF. *American Journal of Health-System Pharmacy* 2021;78:872-878.
- 61. Practice-Enhancing Publications About the Medication Use Process in 2020.**
Vest TA, Gazda NP, O'Neil DP, Schenkat DH, and Eckel SF. *American Journal of Health-System Pharmacy* 2021; Nov 10 (online ahead of print).
- 60. A state affiliate's utilization of ASHP's Practice Advancement Initiative 2030 to identify current state of practice and a process to prioritize goal achievement.**
Vest TA, Doucette LF, and Eckel SF. *American Journal of Health-System Pharmacy* 2021; Dec 24 (online ahead of print).
- 59. Practice-Enhancing Publications About the Medication Use Process in 2019.**

Vest TA, Gazda NP, Schenkat DH, and Eckel SF. *American Journal of Health-System Pharmacy* 2021;78:141-153.

58. Characteristics of online pharmacies selling Adderall.

Penley B, Chen HH, Eckel SF, and Ozawa S. *Journal of the American Pharmacy Association* 2021;61:e103-e109.

57. Advancing Pharmacy Practice through an Innovative Ambulatory Care Transitions Program at an Academic Medical Center.

Cavanaugh J, Pinelli N, Eckel S, Gwynne M, Daniels R, and Hawes E. *Pharmacy* 2020;8,40; doi:10.3390/pharmacy8010040.

56. Effectiveness and Impact of a Structured Research Approach for a Health-System Pharmacy Administration and Leadership Residents.

Vest TA, Amerine LB, Savage SW, Rao KV, and Eckel SF. *American Journal of Health-System Pharmacy* 2021;78:229-234.

55. Development and Perceived Value of a Master's Degree in Health-System Pharmacy Administration Training.

Colmenares EW, McLaughlin JE, Morbitzer KA, and Eckel SF. *American Journal of Health-System Pharmacy* 2021;78:74-79.

54. Utilizing Intravenous Pump Infusion Data to Optimize Continuous Infusion Concentrations and to Reduce Drug and Fluid Waste.

Forshay CM, Hansen KN, and Eckel SF. *American Journal of Health-System Pharmacy* 2020;77:1497-1503.

53. Evaluation of Telepharmacy and the Use of a Gravimetric Technology-Assisted Workflow System for Remote Sterile Product Pharmacist Checks.

Jean SJ, Francart SJ, Eckel SF, Schenkat D, Eberwein S, Lamm M, Barnes N, Valgus JM, and Amerine LB. *American Journal of Health-System Pharmacy* 2020;77:560-567.

52. Practice-Enhancing Publications About the Medication Use Process in 2018.

Vest TA, Gazda NP, Schenkat DH, and Eckel SF. *American Journal of Health-System Pharmacy* 2020;77:759-770.

51. Unifying a profession and a Health Care System: Building the Case for a "One Pharmacy" Global Community.

Easter JC, Jani YH, Kirkpatrick CM, Steeb DR, and Eckel SF. *Research in Social & Administrative Pharmacy* 2020;16:257-260.

50. Impact of an Innovative Partnership in Patient Care between an Academic Medical Center Department of Pharmacy and a School of Pharmacy.

Vest MH, Petrovskis MG, Savage SW, Pinelli NR, Pappas AL, Morbitzer K, Eckel SF, Rhoney DH, and Rao K. *American Journal of Health-System Pharmacy* 2019;76:2070-2076.

49. Association between Student Characteristics and Rankings when Applying for a Residency in Health-System Pharmacy Administration.

Morbitzer KA and Eckel SF. *American Journal of Health-System Pharmacy* 2019;76:1944-1950.

48. Multicenter study to Evaluate the Benefits of Technology-Assisted Workflow on I.V. Room Efficiency, Costs, and Safety in Small Community Hospitals

Higgins J, Hardt S, Cowan D, Beasley E, and Eckel SF. *American Journal of Health-System Pharmacy* 2019;76:964-969.

47. Implementation of the Flipped Residency Research Model to Enhance Residency Research Training.

Morbitzer KA, Rao KV, Rhoney DH, Pappas AL, Durr EA, Sultan SM Eckel SF, Savage SW, Daniels BR, and Pinelli NR. *American Journal of Health-System Pharmacy* 2019; 76:608-612.

46. Implementation of Drug Vial Optimization to Reduce Drug Waste.

Amerine LB, Savage SW, Rowe EC, Daniels R, Valgus JM, Redding R, and Eckel SF. *Oncology Issues* March-April 2019;44-50.

- 45. Practice-Enhancing Publications About the Medication Use Process in 2017.**
Vest TA, Gazda NP, Schenkat DH, and Eckel SF. *American Journal of Health-System Pharmacy* 2019;76:667-676.
- 44. An Analysis of Hospital Pharmacy Practice in Six Countries of Sub-Saharan Africa based on the International Pharmaceutical Federation Basel Statements on the Future of Hospital Pharmacy.**
Law MG, Marriott J, Usifoh C, Acheampong F, Muungo L, Adome RO, Monera-Penduka TG, Ndzabala N, and Eckel SF. *International Journal of Pharmacy Practice* 2019;27:528-535.
- 43. Evaluation of a Gravimetric-Based Technology-Assisted Workflow for Non-Hazardous Sterile Product Preparation.**
Bucci T, Hedrick T, Roberts P, Lin K, South M, Willoughby I, Eckel SF, Hess E, Eberwein S, and Amerine L. *American Journal of Health-System Pharmacy* 2019; 76:1071-1078.
- 42. Multicenter Study to Evaluate the Benefits of Technology-Assisted Workflow on I.V. Room Efficiency, Costs, and Safety.**
Eckel SF, Druga JP, Hess E, Cerbone T, Civiello JB, Conley C, Jafari N, Shah S, Speth SL, and Thornton L. *American Journal of Health-System Pharmacy* 2019; 76:895-902.
- 41. Patterns and Characteristics Associated with Surface Contamination of Hazardous Drugs in Hospital Pharmacies.**
Salch SA, Zamboni WC, Zamboni BA, and Eckel SF. *American Journal of Health-System Pharmacy* 2019;76:591-598.
- 40. Application of the 2015 proposed NIOSH vapor containment performance protocol for closed system transfer devices used during pharmacy compounding and administration of hazardous drugs**
Forshay CM, Streeter SO, Salch SA, and Eckel SF. *Journal of Oncology Pharmacy Practice* 2019;25:1160-1166.
- 39. Knowledge, Attitudes and Practice of final-year student pharmacists in public health in Namibia, Zambia and Zimbabwe: An exploratory survey.**
Law MG, Maposa P, Chambula E, Steeb DR, Eckel SF, and Duncan G. *International Journal of Pharmacy Practice* 2019 Feb;27(1):55-62.
- 38. A Comparison of Approaches to Student Pharmacist Business Planning in Pharmacy Practice Management.**
Gatwood J, Hohmeier K, Farr G, and Eckel S. *American Journal of Pharmacy Education* 2018;82:6279.
- 37. Evaluation of a Comprehensive, Integrated, Medical Service-Based Pharmacy Practice Model.**
Vest TA, Carrasquillo MA, Morbitzer KA, Cruz JL, and Eckel SF. *Journal of the American College of Clinical Pharmacy* 2018 1(1);7-13.
- 36. Evaluation of a Gravimetric-based Technology-assisted Workflow System on Hazardous Sterile Product Preparation**
Roberts PA, Willoughby IR, Eckel SF, Barnes N, Paruscio A, Valgus JM, and Amerine LB. *American Journal of Health-System Pharmacy* 2018 Sep 1;75(17):1286-1292.
- 35. Development and Implementation of a Combined Master of Science and PGY1/PGY2 Health-System Pharmacy Administration Residency Program at a Large Community Teaching Hospital**
Gazda NP, Griffin E, Hamrick K, Baskett J, Mellon MM, Eckel SF, and Granko RP. *Hospital Pharmacy* 2018 Apr;53(2):96-100.

- 34. Continuous care provided through comprehensive medication management in an acute care practice model.**
Marr TD, Pinelli NR, Jarmul JA, Waldron KM, Eckel SF, Cicci JD, Bates JS, and Amerine LB. *Annals of Pharmacotherapy* 2018 Apr;52(4):314-324.
- 33. Identifying the presence of cognitive apprenticeship in the layered learning practice model.**
Pinelli NR, McLaughlin JE, Khanova J, Eckel SF, Vu MB, Weinberger M, and Roth MT. *American Journal of Pharmacy Education* 2018 Feb;82(1):6155.
- 32. It takes a village to raise awareness of and to address surface contamination of hazardous drugs**
Zamboni WC, Salch SA, Cox J, Eckel S. *Journal of Oncology Pharmacy Practice* 2017 Oct;23(7):558-560. doi: 10.1177/1078155217724650. Epub 2017 Aug 9. PubMed PMID: 28791909
- 31. Improving employee engagement within a department of pharmacy**
Amerine LB, Eckel SF, Granko RP, Hatfield C, Savage S, Forshay E, Crisp B, Waldron K, Burgess HC, and Daniels R. *American Journal of Health-System Pharmacy* 2017 Sep 1;74(17):1316-1319. doi: 10.2146/ajhp160740. PubMed PMID: 28842462
- 30. Development and evaluation of a novel product to remove surface contamination of hazardous drugs.**
Cox J, Speed V, O'Neal S, Hasselwander T, Sherwood C, Eckel SF, Zamboni WC. *Journal of Oncology Pharmacy Practice*. 2017 Mar;23(2):103-115.
- 29. Impact of the Pharmacy Practice Model Initiative on Clinical Pharmacy Specialist Practice**
Jacobi J, Ray S, Danelich I, Dodds Ashley E, Eckel S, Guharoy R, Militello M, O'Donnell P, Sam T, Crist SM, Smidt D. *Pharmacotherapy* 2016 May;36(5):e40-9. doi: 10.1002/phar.1745. Epub 2016 Apr 27. PubMed PMID: 27118546.
- 28. The layered learning practice model: lessons learned from implementation**
Pinelli NR, Eckel SF, Vu MB, Weinberger M, and Roth MT. *American Journal of Health-System Pharmacy* 2016; 73:2077-2082.
- 27. Prescribing pharmacists in the ambulatory care setting: Experience at the University of North Carolina Medical Center**
Hawes EM, Misita C, Burkhart JI, McKnight L, Deyo ZM, Lee RA, Howard C, and Eckel SF. *American Journal of Health-System Pharmacy* 2016;73: 1425-1433.
- 26. Determining the need for standardized infusions and concentrations at hospitals within North Carolina**
Lucas AT, Rowe E and Eckel SF. *Hospital Pharmacy* 2016;51(3):237-245.
- 25. Expanding care through a layered learning practice model.**
Bates JS, Buie LW, Amerine LB, Savage SW, Eckel SF, Patel R, Valgus JM, Rao K, and Daniels R. *American Journal of Health-System Pharmacy* 2016; 73:1869-1875.
- 24. Evaluating the sensitivity of a media-fill challenge test under various situations as a reliable method for recommended aseptic technique competency assessment**
Moody CA, Eckel SF, and Amerine LB. *Journal of Pharmacy Technology*. 2016;32(2):47-53.
- 23. Development of a global hospital self-assessment tool and prioritization tier system based on FIP's Basel Statements.**
Lyons KM, Blalock, S, Brock T, Manasse H, and Eckel SF. *International Journal of Pharmacy Practice*. 2016 Apr;24(2):123-33.
- 22. Assessment of final product dosing accuracy when using volumetric technique in the preparation of chemotherapy.**

Poppe LB, Savage SW, and Eckel SF. *Journal of Oncology Pharmacy Practice* 2016 Feb;22(1):3-9.

- 21. Evaluating the quality of competency assessments in pharmacy: A framework for workplace learning.**
Shah SK, McLaughlin JE, Eckel SF, Mangun J, and Hawes E. *Pharmacy* 2016, 4(1), 4; doi:10.3390/pharmacy4010004
- 20. Pharmacy-initiated transitions of care services: An opportunity to impact patient satisfaction**
Reichard JS, Savage SW, and Eckel SF. *Hospital Pharmacy* 2015;50:911-917.
- 19. Impact of an Innovative Blood Factor Stewardship Program on Drug Expense and Patient Care**
Amerine LB, Chen SL, Daniels RD, Key N, Eckel SF, and Savage SW. *American Journal of Health-System Pharmacy* 2015;72:1579-84.
- 18. Using lean principles to improve outpatient adult infusion clinic chemotherapy preparation turnaround times**
Lamm MH, Eckel S, Daniels R, and Amerine LB. *American Journal of Health-System Pharmacy* 2015;72:1138-46.
- 17. Significant Publications about the Medication Use Process in 2012**
Moore SJ, Jenkins AT, Poppe LB, Rowe EC, and Eckel SF. *Journal of Pharmacy Practice*. 2015;28(4):387-397.
- 16. Experience of health-system pharmacy administration residents in a longitudinal human resource management program**
Amerine (Poppe) LB, Granko RP, Savage SW, Daniels R, Eckel SF. *American Journal of Health-System Pharmacy* 2014;71:2143-8.
- 15. An integrated approach to research and manuscript development**
Roederer M, Marciniak MW, O'Connor SK, and Eckel SF. *American Journal of Health-System Pharmacy* 2013;70:1211-8.
- 14. Pharmacy practice in Singapore and training experiences in the United States**
Tee C, Raasch RH, and Eckel SF. *Journal of Asian Association of Schools of Pharmacy* 2012;1(3):137-144.
- 13. Clinical Training of Pharmacy Administration Residents**
Holler J, Willoughby I, and Eckel SF. *American Journal of Health-System Pharmacy* 2012;69:1544
- 12. Economic and microbiologic evaluation of single dose vial extension for hazardous drugs**
Rowe EC, Savage SW, Rutala WA, Weber DJ, Gergen Teague M, and Eckel SF *Journal of Oncology Practice* 2012;8:45e-49e.
- 11. Analyzing Methods for an Improved Management of Workflow in an Outpatient Pharmacy Setting**
Jenkins AT and Eckel SF. *American Journal of Health-System Pharmacy* 2012;69:966-71.
- 10. Implementation smart pumps for epidural infusions in an academic medical center**
Kennerly J, Jenkins A, Lewis AN, and Eckel SF. *American Journal of Health-System Pharmacy* 2012;69:607-11.
- 9. Implementation of Continuous Infusion of Blood Coagulation Factors at an Academic Medical Center**
Poppe LB, Eckel SF, and Savage SW. *American Journal of Health-System Pharmacy* 2012;69:522-526
- 8. Acute Care Clinical Pharmacy Practice: Unit- versus Service-Based Models**
Haas CE, Eckel SF, Arif S, Beringer PM, Blake EW, Lardieri AB, Lobo BL, Mercer JM, Moye P, Orlando PL, and Wargo K. *Pharmacotherapy* 2012;32(2):e35-e44.

- 7. Evaluating an Approach to Improving the Adoption Rate of Wireless Drug Library Updates for Smart Pumps**
Poppe LB and Eckel SF. *American Journal of Health-System Pharmacy* 2011;68:170-175.
- 6. Evaluation of a Condensed Training Program to Introduce the Process of Continuing Professional Development**
Tofade TS, Foushee LL, Chou SY, Eckel SF, and Caiola SM. *Journal of Pharmacy Practice* December 2010;23:560-569
- 5. Continuing Professional Development Training Program Among Pharmacist Preceptors and Non Preceptors**
Tofade TS, Chou SY, Foushee LL, Caiola SM and Eckel SF: *Journal of the American Pharmacists Association* 2010;50:6:730-735.
- 4. Teaching Certificate Programs: A National Survey of Accredited Pharmacy Residency Programs**
Stegall-Zanation JD, Rusinko KC, Eckel SF: *American Journal of Health-System Pharmacy* 2010;67:1;16-17.
- 3. User Satisfaction with an Intravenous Medication Safety System.**
Eckel SF, Anderson P, Zimmerman C, Szandzik EG, and McAllister JC: *American Journal of Health-System Pharmacy*. 2006;63:1419-1423.
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51. TIRES II Study: Multicenter Study to Evaluate the Benefits of Technology-Assisted Workflow on IV Room Efficiency, Costs and Safety in Small, Community Hospitals – Medication Errors

Druga JP, Hardt S, Cowan D, Beasley E, and Eckel SF

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50. TIRES II Study: Multicenter Study to Evaluate the Benefits of Technology-Assisted Workflow on IV Room Efficiency, Costs and Safety in Small, Community Hospitals – Turn-Around Time Analysis

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49. Standardized Compounded Intravenous Continuous Infusion Concentrations

- through an Evidence-Based Analysis Utilizing Smart Pump Data**
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- 48. Evaluation of the Difference in Densities of Compounded Sterile Products Measured by a Density Meter Versus Manual Calculation**
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- 47. An Analysis of Hospital Pharmacy Practice in Six Sub-Saharan African Countries based on the International Pharmaceutical Federation Basel Statements**
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- 46. Knowledge, Attitudes, and Practice of Student Pharmacists towards Public Health Within Namibia, Zambia, and Zimbabwe**
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- 45. TIRES Study: Multicenter Study to Evaluate the Benefits of Technology-Assisted Workflow on IV Room Efficiency, Costs and Safety – Medication Errors Analysis**
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- 44. TIRES Study: Multicenter Study to Evaluate the Benefits of Technology-Assisted Workflow on IV Room Efficiency, Costs and Safety – Turn-Around Time Analysis**
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- 43. Connector Integrity Testing to Assess the Efficacy of Multiple Closed System Transfer Devices**
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- 42. Application of Vapor Containment Protocol for Closed System Transfer Devices to Assess Efficacy during Pharmacy Compounding and Administration of Hazardous Drugs**
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- 41. Evaluating the Accuracy and Precision of Chemotherapy Preparations – Interim Analysis of a Multicenter Project**
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- 40. Evaluating the Accuracy and Precision of Chemotherapy Preparations – Single Center Site Analysis**
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- 39. Identifying Pharmacy Practice Patterns and Predictors Associated with Surface Contamination of Hazardous Drugs in Pharmacies: a Descriptive Summary of Five Commonly Used Antineoplastic Agents.**
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- 38. The Use of a Surface Detection Kit to Identify Occupational Hazardous Drug**

**Exposure: Identifying Pharmacy Practice Patterns and Predictors
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Poster at ASHP Midyear Clinical Meeting, 2015

37. Achieving Standardized Infusions and Concentrations at Hospitals within North Carolina

Lucas AT, Rowe E, and Eckel SF.

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36. Experience with Drug Vial Optimization at an Academic Medical Center

Poppe LB, Savage SW, and Eckel SF

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Lyons K, Eckel S, Blalock S, Brock T, and Manasse H

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34. Evaluation of the Quality of a Pharmacy Residency Assessment Program

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Conley CS and Eckel SF

Poster at ASHP Midyear Clinical Meeting, 2013

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Poster at ASHP Summer Meeting, 2013

28. Evaluating the Impact of a Pharmacy Practice Model at an Academic Medical Center

Eckel SF, Granko RP, Savage S, Crisp B, Smith E, and Daniels R

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27. Development of a Method for Allocation of Pharmacist Resources to Ambulatory Clinics

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- 21. Analyzing Methods for Improved Management of Workflow in an Outpatient Pharmacy Setting**
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- 19. Implementing a condensed continuing professional development (CPD) training program as a tool for lifelong learning among hospital pharmacists**
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- 18. Evaluation of Training Programs to Develop Pharmacy Preceptors**
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- 17. Requirements of Pharmacy Residency Teaching Certificate Programs**
Rusinko K, Stegall Zanation J, and Eckel SF.
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- 16. Detection of Contaminants from the Use of Docetaxel and Paclitaxel Chemotherapy in the Work Environment via ChemoGLO™**
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- 15. Teaching Opportunities within Pharmacy Residency Training Programs**
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- 13. Determining Medication Reconciliation Adverse Drug Events for Discharged Patients at an Academic Medical Center.**
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Cooper JB, Faulkner CM, and Eckel SF

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4. Evaluation of Automated Dispensing Technology: Effects on Inventory Control and Potential for Medication Errors.

Twombly RG and Eckel SF

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2. An Evaluation of Prophylactic Therapy for Glucocorticoid Induced Osteoporosis

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Poster at ASHP Midyear Clinical Meeting, 1993

PROFESSIONAL PRESENTATIONS – INTERNATIONAL

36. An Expert's Dose – Leadership Challenges, Failures, and Successes

King Saud University Pharmacy Student Club – Riyadh, Saudi Arabia (*Virtual*);
September 2021

35. Challenges to training in ethical competence – United States

International Pharmaceutical Federation (FIP) World Congress – Abu Dhabi,
United Arab Emirates; September 2019

34. Transitions of Care: Expanding opportunities for Pharmacists and Learners

King Abdulaziz University – Jeddah, Saudi Arabia; May 2018

- 33. Transitions of Care: Expanding Opportunities for Pharmacists and Learners**
Egyptian Foundation of Clinical Pharmacy – Cairo, Egypt; January 2018
- 32. Global Teaching Trends and Challenges in Pharmacy Education: Focus on Pharmacy Residencies**
Asian Association of Colleges of Pharmacy – Mysore, India; October 2017
- 31. USP 800 – Impactful Regulations to Guide Safe Handling of Hazardous Drugs**
Japan Society of Oncology Pharmacy Practice – Nagoya, Japan; June, 2016
- 30. Drug Vial Optimization – Overview and Experience**
Japan Society of Oncology Pharmacy Practice – Nagoya, Japan; June, 2016
- 29. Global assessment of the advancement of hospital pharmacy practice according to the International Pharmaceutical Federation (FIP) Basel Statements**
International Pharmaceutical Federation (FIP) World Congress – Dusseldorf, Germany; September 2015
- 28. Essentials of Clinical Pharmacy Certificate Training Program**
First Affiliated Hospital of Soochow University – Suzhou, China; August 2015
- 27. Pharmacists taking responsibility for the medication use process – case example from University of North Carolina Medical Center**
National Course on Personalized Medicine and its Clinical Practice at First Affiliated Hospital of Soochow University – Suzhou, China; November 2014
- 26. Global assessment of the advancement of hospital pharmacy practice according to the International Pharmaceutical Federation (FIP) Basel Statements: Pilot study**
International Pharmaceutical Federation (FIP) World Congress – Bangkok, Thailand; September 2014
- 25. Innovation and Entrepreneurship Training Program**
International Pharmacy Student Federation (IPSF) World Congress – Porto, Portugal; August 2014
- 24. From Personal Development to Professional Progress**
International Pharmacy Student Federation (IPSF) World Congress – Porto, Portugal; August 2014
- 23. Essentials of Clinical Pharmacy Certificate Training Program**
Hospital Pharmacy Association of Kenya (HOPAK) – Nairobi, Kenya; July 2014
- 22. Using hierarchy of controls in safe handling to provide protection and savings**
Japanese Society of Oncology Pharmacy Practice – Tokyo, Japan; May 2014
- 21. Using hierarchy of controls in safe handling to provide protection and savings**
Kameda Hospital – Kamogawa City, Japan; May 2014
- 20. Safe Handling of Hazardous Drugs**
Fourth Regional Congress of Cancer and Blood Disorders of Childhood: Jordan Society of Pediatric Oncology Pharmacy Day – Amman, Jordan; November 2012
- 19. Best Pharmacy Practice Models to Improve the Quality of Patient Care: The UNC Experience**
Fourth Regional Congress of Cancer and Blood Disorders of Childhood: Jordan Society of Pediatric Oncology Pharmacy Day – Amman, Jordan; November 2012
- 18. Overview to USP <797>**
National Oncology Pharmacy Symposium – Saskatoon, Saskatchewan, Canada; October 2012
- 17. Pharmacists at the Bedside: Providing Major Patient Impact**
FIP Centennial Congress – Amsterdam, The Netherlands; October 2012
- 16. Reducing the Economic Impact of Hazardous Drug Preparation and Beyond Use Date Extension**
National Oncology Pharmacy Symposium – Winnipeg, Manitoba, Canada; October 2010

- 15. Using Microbiological Data to Prevent Anti-infective Resistance in ICU Patients**
FIP World Congress – Lisbon, Portugal; August 2010
- 14. Skills and Resources Needed to Support CPD: What do we really need and what Works?**
FIP World Congress – Lisbon, Portugal; August 2010
- 13. Training our Future Pharmacists: Overview to Residency Programs and Precepting**
Hokkaido Pharmaceutical University – Sapporo, Japan; March 2010
- 12. Precepting International Pharmacy Students: The Benefits To Your Organization**
Conference on Clinical Rotation Experience Program at Universities in the USA
Keio University Faculty of Pharmacy – Tokyo, Japan; March 2010
- 11. Best Practices for Safe Handling of Hazardous Medications in the Pharmacy**
National Oncology Pharmacy Symposium – Ottawa, Ontario, Canada;
October 2009
- 10. Current Issues in Continuing Professional Development: What Are The ‘Best’ Sources of CPD?**
FIP World Congress – Istanbul, Turkey; August 2009
- 9. Past, Present, and Future of Hospital Pharmacy**
Pharmaceutical Society of Singapore – Singapore; August 2009
- 8. Practice Model Challenges – UNC Hospitals Model**
National University of Singapore – Singapore; August 2009
- 7. UNC Hospitals Provision of Pharmacy Services**
Tokushima University – Tokushima, Japan; January 2009
- 6. Overview to Rheumatoid Arthritis**
Kitasato University – Tokyo, Japan; January 2009
Tokushima University – Tokushima, Japan; January 2009
- 5. The Benefits to Having International Students at your Practice Site**
International Conference on Clinical Pharmacy Education: Kyoritsu University
of Pharmacy – Tokyo, Japan; June 2006
- 4. Expanding the Pharmacist’s Role in Ambulatory Care**
University of London School of Pharmacy – London, England; November 2005
- 3. Expanding the Pharmacist’s Role in Ambulatory Care**
Security Forces Hospital Annual Seminar: A New Era in Pharmacy Practice –
Riyadh, Saudi Arabia; November 2005
- 2. How to Precept Pharmacy Students**
Kyoritsu College of Pharmacy – Tokyo, Japan; April 2005
- 1. Overview to Pyxis® Technology**
Kyoritsu College of Pharmacy – Tokyo, Japan; October 2003

PROFESSIONAL PRESENTATIONS – NATIONAL

- 63. Shaping the Future of Pharmacy**
Alaska Pharmacists Association Annual Convention and Tradeshow –
Anchorage, AK; February 2020
- 62. Residency Preparation and Midyear Clinical Meeting Planning**
University of Texas El Paso School of Pharmacy Student Society of Health-
System Pharmacists – El Paso, TX; November 2019
- 61. Shaping the Future of Pharmacy**
Pennsylvania Society of Health-System Pharmacists Annual Assembly – King of
Prussia PA; October 2019
- 60. Changing the Profession through Entrepreneurship and Innovative Education**
ACCP Annual Meeting – Chicago, IL; July 2019

- 59. Advancing Workforce Well-Being and Resilience to Build Long-Term Change**
Eastern States Residency Conference – Hershey, PA; April 2019
- 58. Innovation and Intrapreneurship: Essential Skills for Pharmacy**
Florida Society of Health-System Pharmacists – Orlando, FL; August 2018
- 57. Innovation and Intrapreneurship: Essential Skills for Pharmacy**
Pennsylvania Society of Health-System Pharmacists Annual Assembly – Seven Springs, PA; October 2017
- 56. Practicing Rules or Ruling Practice?**
HOPA Drug Waste Summit – Washington DC; May 2017
- 55. The Flipped Residency Research Process**
ASHP Midyear Clinical Meeting – Las Vegas, NV; December 2016
- 54. Colleagues in Consultation: Preserving your Professional Legacy: Training the Next Generation of Pharmacy**
NCPA Annual Meeting – New Orleans, LA; October 2016
- 53. Innovation and Intrapreneurship: Essential Skills for Pharmacy**
ASHP National Pharmacy Preceptor Conference – Washington DC; August 2016
- 52. CPD: The North Carolina Experience – Implementation and Case Study**
ACCP Annual Meeting – Anaheim, CA; July 2016
- 51. The Innovative Habit of Mind**
ASHP Midyear Clinical Meeting – New Orleans, LA; December 2015
- 50. Automated Solutions to Reduce Sterile Compounding Errors**
ASHP Midyear Clinical Meeting – New Orleans, LA; December 2015
- 49. Developing a Growth Mindset in the Pharmacy Workplace**
ACCP Global Conference on Clinical Pharmacy – San Francisco, CA; October 2015
- 48. Occupational Exposure to Hazardous Drugs, USP 800, and Clinical Practice**
Georgia Society of Health-System Pharmacists – Young Harris, GA; October 2015
- 47. Hazardous drugs and multidisciplinary risk reduction strategies: A call to action!**
Southeast Society of Health-System Pharmacists – Pembroke Pines, FL; March 2015
Center for Safety and Clinical Excellence at Carefusion National Webinar, January 2015
- 46. Applying Best Practices to the safe handling of hazardous drugs: *Evolving Regulations & Practical Implementation***
Pharmacy Times National Webinar; April 2014
- 45. Opportunities associated with Drug Vial Optimization**
Kaiser Permanente Pharmacy Leadership – Downey, CA; February 2014
- 44. New and Emerging Strategies for Minimizing Errors in I.V. Preparation: Focus on Safety and Workflow Efficiency**
ASHP Midyear Clinical Meeting – Orlando, FL; December 2013
- 43. The Layered Learning Practice Model – Utilizing Learners to Expand Patient Care Service**
ASHP Midyear Clinical Meeting – Orlando, FL; December 2013
- 42. I.V. Preparation Procedures: Evaluating Processes for Improving Quality and Safety**
BD National Sales Meeting – Phoenix, AZ; November 2013
- 41. Drug Vial Optimization: Past, Present, and Future – Optimism or Pessimism?**
BD National Sales Meeting – Phoenix, AZ; November 2013
- 40. Overview to Safe Handling**
CareFusion National Sales Training Meeting – Philadelphia, PA; August 2013
- 39. Pharmacology for Prescribers: Hot Drugs for Nurse Practitioners**

- AAOHN National Conference – Las Vegas, NV; April 2013
- 38. Fifty Residents and Almost Just As Many Students -- Can Your Hospital Handle It?**
ACCP Annual Meeting – Hollywood, FL; October 2012
- 37. Development, Implementation, and Impact of a Comprehensive, Medical Service-Based Pharmacy Practice Model**
UHC Annual Conference – Orlando, FL; September 2012
- 36. A Different Take on Medication Safety: Protecting the Employee from Hazardous Medications**
MedAssets Clinical Pharmacy NorthEast Regional Meeting – New York, NY; June 2012
- 35. Advanced Degrees Webinar**
ASHP New Practitioners Leadership and Career Development Advisory Group – December 2011
- 34. Safe Handling – a Thought Leader’s Perspective**
Becton Dickinson Medical Surgical Systems Quarterly Meeting – Franklin Lakes, NJ; October 2011
- 33. Do Drugs Cost Too Much?**
CPFI Annual Meeting – Myrtle Beach, SC; June 2011
- 32. Smart Pumps – are they Infusing the Answers to our Problems?**
MedAssets Southeast Regional Meeting – Alpharetta, GA; May 2011
- 31. Reducing the Impact of Hazardous Drug Preparation and Beyond Use Date Extension**
Diablo Society of Health-System Pharmacists – Walnut Creek, CA; May 2011
- 30. Safe Handling of Hazardous Medications – Pharmacist’s Perspective**
Safe Handling Awareness Day Keynote Presentation – Houston, TX; April 2011 (broadcast to a national audience)
- 29. Optimize Workflow for Certified Pharmacy Technicians by Enhancing Activities by Pharmacists**
APhA Annual Meeting – Seattle, WA; March 2011
- 28. Reducing the Economic Impact of Hazardous Drug Preparation and Beyond Use Date Extension**
ASHP Midyear Clinical Meeting – Anaheim, CA; December 2010
California Society of Health-System Pharmacy Seminar 2010 – San Francisco, CA; October 2010
Virginia Society of Hospital Pharmacy – Washington, DC; July 2010
ASHP Summer Meeting – Tampa, FL; June 2010
- 27. Residency Prep 101: What to do While You Are Still in School**
ACCP Webinar on Residency Preparation – Chapel Hill, NC; December 2009
- 26. Defining the Leadership and Management of the Clinical Manager**
ACCP Annual Meeting – Anaheim, CA; October 2009
- 25. Continuing Professional Development**
Workshop to faculty members at Auburn University – Auburn, AL; May 2009
- 24. Best Practices for Safe Handling of Hazardous Medications in the Pharmacy**
Diablo Chapter, California Society of Health Systems Pharmacists – San Francisco, CA; April 2009
Quad City Chapter of Hospital Pharmacy – New York, NY; April 2009
Virginia Society of Hospital Pharmacy – Washington, DC; January 2009
ASHP Midyear Clinical Meeting – Orlando, FL; December 2008
- 23. Hot Topics in Practice Management: Targeted Selection**
ACCP Spring Practice and Research Forum – Phoenix, AZ; April 2008
- 22. Defining the Leadership and Management of the Clinical Manager**
ACCP Spring Practice and Research Forum – Memphis, TN; April 2007

- 21. Overview to Emergency Contraception**
CPFI Annual Meeting – Myrtle Beach, SC; June 2006
- 20. Contemporary Issues in Pharmacy Practice**
CPFI Annual Meeting – Myrtle Beach, SC; June 2006
- 19. The Future of Pharmacy – Student Roundtable: Pharmacy Times**
APhA Annual Meeting – San Francisco, CA; March 2006
ASHP Midyear Clinical Meeting – Las Vegas, NV; December 2005
- 18. Careers in Academia – Pharmacy Times Roundtable**
APhA Annual Meeting – San Francisco, CA; March 2006
- 17. Trends in Hospital Pharmacy**
CPFI Annual Meeting – Myrtle Beach, SC; June 2005
- 16. Intelligent Pumps and Patient Safety: The UNC Experience**
UHC Pharmacy Council Meeting – Orlando, FL; December 2004
- 15. Utilizing Decision-Support Infusion Technology to Help Improve Medication Safety**
ASHP Summer Meeting – Las Vegas, NV; June 2004
- 14. Improving Patient Safety through Decision-Support Infusion Technology**
AACN National Teaching Institute and Critical Care Exposition – Orlando, FL; May 2004
- 13. Improving Medication Safety through the Use of Innovative Infusion Pump Technology**
AACN National Teaching Institute and Critical Care Exposition – Orlando, FL; May 2004
- 12. Pharmacist Competencies for Improving Medication Use**
Roche Skills Development Program – Bristol, VA; April 2004
- 11. Effective Health Care Improvement Teams**
Roche Skills Development Program – Neptune, NJ; April 2004
- 10. Medication Error Prevention in Pediatrics**
APhA Annual Meeting – Seattle, WA; March 2004
- 9. Decision-Support Infusion Technology and Patient Safety: The UNC Experience**
ASHP Midyear Clinical Meeting – New Orleans, LA; December 2003
- 8. Planning for Safer Medication Use**
Roche Skills Development Program – Tallahassee, FL; October 2003
Roche Skills Development Program – Columbia, SC; September 2003
- 7. Preventing Medication Errors in Pediatrics**
APhA Annual Meeting – New Orleans, LA; March 2003
- 6. Applying Evidence-Based Principles to Pharmacy Automation**
CPFI Annual Meeting – Myrtle Beach, SC; June 2003
- 5. JCAHO Standards and Medication Use**
Roche Skills Development Program – Coral Gables, FL; May 2003
Roche Skills Development Program – Roanoke, VA; November 2002
- 4. Implementing Guideline Initiatives**
Roche Skills Development Program – Bridgeport, WV; February 2003
Roche Skills Development Program – Freeport, ME; September 2002
- 3. The University of North Carolina Experience - Mentoring Pharmacy Residents from Students Onward**
ASHP National Residency Preceptor's Conference – San Diego, CA; August 2002
- 2. Selecting, Implementing, and Optimizing Automated Dispensing Technology**
ASHP Midyear Clinical Meeting Exhibitor's Theatre – New Orleans, LA; December 2001
- 1. Thinning with the Thinner**
ASHP Midyear Clinical Meeting Pearl Presentation – Atlanta, GA; December 1997

PROFESSIONAL PRESENTATIONS – STATE

- 38. Shaping the Future of Pharmacy**
North Carolina Association of Pharmacists Health-System Forum – Chapel Hill, NC; March 2020
- 37. P⁵ – the compound interest formula for the pharmacy profession**
Duke University Pharmacy Residency Graduation Ceremonies – Durham, NC; June 2018
- 36. Intentional, Directional Mentorship – a framework for career satisfaction**
UNC Medical Center Pharmacy Residency Graduation Ceremonies – Chapel Hill, NC; June 2018
- 35. Design Thinking in Healthcare Workshop: Focus on Problem-Solving, Creativity, and Innovation**
American Mock World Health Organization International Conference – Chapel Hill, NC; April 2018
- 34. Innovation and Intrapreneurship: Essential Skills for Student Pharmacist Leaders**
Student National Pharmaceutical Association Regions I and II Conference – Chapel Hill, NC; February 2018
- 33. Hazardous Drugs and Multidisciplinary Risk Reduction Strategies: A Call to Action**
Area L AHEC – Wilson Medical Center, Wilson, NC; November 2016
- 32. Updates in North Carolina Pharmacy**
UNC Eshelman School of Pharmacy (webinar) – Chapel Hill, NC; March 2016
- 31. Hazardous Drugs and Multidisciplinary Risk Reduction Strategies: A Call to Action**
Area L AHEC – Rocky Mount, NC; December 2015
- 30. Drug Vial Optimization: Past, Present, and Future**
Carolina Healthcare System Pharmacy Leadership – Charlotte, NC; December 2013
- 29. New Drug Update**
NCAP Annual Convention – Raleigh, NC; October 2013
- 28. Pharmacy Practice Model Initiative**
NCAP Student Leadership Conference – Pinehurst, NC; September 2013
- 27. Practice Model Opportunities for Hospitals in North Carolina: The PPMI Survey**
NCAP Annual Convention – Raleigh Convention Center; October 2012
- 26. Layered Learning Practice Model: A method to care for patients and educate future pharmacists**
Duke University Health System Pharmacy Department Preceptor Development Seminar – April 2012
- 25. What do Certifications / Credentials mean for New Practitioners?**
NCAP Annual Convention – Research Triangle Park, NC; October 2010
- 24. New Drug Update**
NCAP Annual Convention – Research Triangle Park, NC; October 2009
- 23. New Drugs (local AHEC presentations)**
Greenville, NC; April 2014
Fayetteville, NC; December 2013
Hickory, NC; April 2013
Durham, NC; March 2013
Laurinburg, NC; September 2012, September 2013
Asheville, NC; December 2010, December 2011, May 2012, December 2012,

- December 2013, December 2014
Boone, NC; November 2009
Winston-Salem, NC; November 2009; February 2014
New Bern, NC; December 2007, December 2008, February 2011, January 2012
Rocky Mount, NC; December 2007, December 2008, December 2009; December 2010, February 2012, December 2013, December 2014
Raleigh, NC; May 2007, October 2007, May 2008, October 2008, May 2009, October, 2009, April 2012, November 2012, March 2013, December 2013, June 2014
Wilmington, NC; September 2007, September 2008, April 2009, September 2012, August 2013
Greensboro, NC; April 2007
Elizabeth City, NC; February 2007, October 2009
Charlotte, NC; February 2007
- 22. New Drug Controversies in Acute Care**
NCAP Annual Convention – Research Triangle Park, NC; October 2005
 - 21. The Institute for Healthcare Improvement – 100,000 Lives Saved Campaign**
NCAP Annual Convention – Research Triangle Park, NC; October 2005
 - 20. Implementing a Research Project**
NCAP Annual Statewide Resident’s Conference – Chapel Hill, NC; July 2004
NCAP Annual Statewide Resident’s Conference – Chapel Hill, NC; July 2003
NCAP Annual Statewide Resident’s Conference – Burlington, NC; July 2002
 - 19. Intelligent Pump Technology**
NCAP Acute Care Practice Forum – Greensboro, NC; April 2004
 - 18. Patient Care Teams: Improving Outcomes Through Collaboration**
Roche Skills Development Program – Chapel Hill, NC; April 2004
 - 17. Update in North Carolina Pharmacy Practice – Acute Care**
NCAP Annual Convention – Raleigh, NC; October 2003
 - 16. Preventing Medication Errors in Pediatrics**
University of North Carolina Hospitals – Chapel Hill, NC; July 2003
 - 15. Automated Dispensing Systems: Pyxis®, etc.**
NCAP Annual Convention / Carolina Seminar – Greensboro, NC; October 2002
 - 14. Update on the Pharmacotherapy of Cardiopulmonary Arrest**
University of North Carolina Hospitals – Chapel Hill, NC; November 2000
North Carolina Association of Pharmacists – Greensboro, NC; October 2000
 - 13. Mycophenolate Mofetil: The Value of Serum Monitoring**
Duke University Medical Center – Durham, NC; June 1998
 - 12. Treatment of Disseminated Mycobacterium Avium Complex: Evaluating the Recommendations of the Sanford Guide to Antimicrobial Therapy**
Duke University Medical Center – Durham, NC; May 1998
 - 11. New Guidelines for the Treatment of Hypertension: The JNC VI Recommendations. Keeping Blood Pressure Under Control!**
Duke University Medical Center – Durham, NC; March 1998
 - 10. Antileukotriene Therapy in the Treatment of Asthma**
Duke University Medical Center House Staff – Durham, NC; February 1998
Duke University Medical Center – Durham, NC; October 1997
 - 9. Thinning with the Thinner**
UNC School of Pharmacy – Chapel Hill, NC; April 1997
 - 8. Use of IVIG in the Adult Treatment of Myocarditis and Idiopathic Dilated Cardiomyopathy**
Duke University Medical Center – Durham, NC; September 1997
 - 7. New Frontiers in HIV Therapy: Are We on the Brink?**
UNC School of Pharmacy – Chapel Hill, NC; November 1996

- 6. The Role of Protease Inhibitors in HIV Infection**
New Hanover Regional Medical Center – Wilmington, NC; October 1996
- 5. Chemotherapy-Induced Nausea and Vomiting**
UNC Hospitals – Chapel Hill, NC; September 1996
- 4. Use of Positive Inotropes in the Pediatric Population**
Carolinas Medical Center – Charlotte, NC; May 1996
- 3. The Role of Antiarrhythmics in Pediatrics**
Carolinas Medical Center – Charlotte, NC; May 1996
- 2. Riluzole and the Treatment of Amyotrophic Lateral Sclerosis**
UNC School of Pharmacy – Chapel Hill, NC; February 1996
- 1. The Role of Cytochrome P450 3A4 in Altering Cyclosporine Dosing**
UNC School of Pharmacy – Chapel Hill, NC; October 1995

DIDACTIC TEACHING EXPERIENCE

- Course Coordinator, 2022 – Present**
UNC Eshelman School of Pharmacy
PHCY 619: Business of HealthCare: Focus on the Pharmacy Enterprise
Enrollment: 75 students (Block 1); 75 students (Block 2)
- Course Co-Coordinator, 2019 – Present**
UNC Eshelman School of Pharmacy
PACE 820: Health-System Pharmacy Leadership
Enrollment: 14 students (residential); 12 students (on-line)
- Course Coordinator, 2008 – Present**
UNC Eshelman School of Pharmacy
PACE 860: Advanced Pharmacy Operations
Enrollment: 14 students (residential); 12 students (on-line)
- Course Co-Coordinator, 2021**
UNC Eshelman School of Pharmacy
PACE 825: Foundational Practices of Successful Health-System Department of Pharmacy: Medication Safety, Quality Improvement, Informatics and Human Resources
Enrollment: 14 students (residential); 12 students (on-line)
- Course Coordinator, 2018**
University of North Carolina at Chapel Hill
SPCL 400-303 (C-Start):Healthcare Leadership and Innovation
Enrollment: 7 students
- Course Coordinator, 2016 – 2017**
UNC Eshelman School of Pharmacy
PHCY 621: Pharmacy Innovation and Problem Solving (PIPS)
Enrollment: 150 students
- Course Coordinator, 2015 – 2017**
Course Co-Coordinator, 2010 – 2014
UNC Eshelman School of Pharmacy
PHCY 434: Pharmacy Operations
Enrollment: 150 students

Course Coordinator, 1999 – 2015

University of North Carolina School of Dentistry
DENG 720: Clinical Pharmacology and Therapeutics
Enrollment: 20 students

Course Coordinator, 2007 – 2009

Course Co-Coordinator, 2002 – 2003

UNC Eshelman School of Pharmacy
PHPR 94: Institutional Pharmacy Practice

Invited Lecturer, 2003 – 2005

UNC Eshelman School of Pharmacy
PHCY 84: Pharmacy Law and Ethics

Invited Lecturer, 2001 – Present

UNC Eshelman School of Pharmacy
PHPR 137 / PACE 820: Developing a Philosophy of Pharmacy Practice

Primary Preceptor, 2000 – Present

University of North Carolina Pharm.D. Candidates
Advanced Hospital Rotation

Co-Preceptor, 1997 – 1998

University of North Carolina at Chapel Hill Pharm.D. Candidates

Co-Preceptor, 1997 – 1998

Campbell University Pharm.D. Candidates

Invited Lecturer, 1998

Duke University Graduate Program in Physical Therapy
Medical Sciences 336

THESIS SUBSTITUTE MENTORED

Bijan Mekoba (2015-2017)

Evaluation of Provider Perception and Impact on Medication Access Processes within a Health System

David South (2014-2016)

Implementation and Evaluation of an Automated Capture Method for Ambulatory Care Pharmacy Interventions

Elizabeth Hess (2013-2015)

Prospective evaluation of error detection rate by pharmacists in a sterile products area at an academic medical center

Christian Conley (2012-2014)

Evaluation of Dye Ingress Prevention using a Closed System Transfer Device

Kayley Lyons (2012-2014)

Development and Validation of a Survey to Evaluate a Hospital's Progress against the Basel Statements.

Jeff Reichard (2011-2013)

Pharmacy-initiated Transitional Services: A Pilot study to Evaluate Impact on Patient Satisfaction

Matt Lamm (2011-2013)

Analyzing methods for Improving Outpatient Chemotherapy Preparation Turnaround Time in a Cancer Hospital Infusion Pharmacy

Adam Wolfe (2011-2013)

Evaluation of Non-Pharmacist Perception Regarding Internal Communication in a Department of Pharmacy

Jacob Holler (2010-2012)

Development of a Method for Allocation of Pharmacist Resources to Ambulatory Clinics

Lindsey Poppe (2009-2011)

Assessment of Dosing Accuracy when using Volumetric Technique in the Preparation of Chemotherapy

Erinn Rowe (2008-2010)

Evaluating USP Chapter <797> Beyond Use Date Extension with Antineoplastics and Monoclonal Antibodies

Alex Jenkins (2008-2010)

Analyzing Methods for Improved Management of Workflow in an Outpatient Pharmacy Setting

HONORS PROJECTS MENTORED

Colin Cabelka (2020-2021)

Novel Technologies for the Evaluation of Sterile Compounding Technique

Jordyn Druga (2017-2018)

TIRES II Study: Multicenter study to evaluate the benefits of technology-assisted workflow on IV Room efficiency, costs, and safety in small, community hospitals

Michael Verble (2015-2016)

The Impact of Pharmacy Management (PHCY 434) on Advancing Pharmacy Services in North Carolina

Evan Colmeneres (2014-2016)

Evaluating the Educational Impact of a Graduate Program in Health-System Pharmacy Administration

Kristin Meckola (2013-2015)

Validating the Educational Impact of Video-Based Learning

RESEARCH ACTIVITIES – FUNDED

24. Automated Capture and Assessment of Aseptic Technique

Eckel SF (Primary Investigator, 0% Salary)

- \$150,000 Grant* – Funded: Eshelman Institute for Innovation (\$100,000) and QleanAir (\$50,000) (2021)
- 23. Evaluation of the percentage and perceived value of board-certified pharmacists in U.S. hospitals and associated impact on clinical and operational measures**
Eckel SF (Senior Investigator, 0% Salary)
\$5,000 Grant – Funded: Board of Pharmacy Specialties (2021)
- 22. Development of an Efficient Process to Identify Practice-Enhancing Publications about the Medication Use Process and Evaluate Use By Pharmacy Leaders**
Eckel SF (Primary Investigator, 0% Salary)
\$5,000 Grant – Funded: ASHP Foundation (2021)
- 21. Testing Hazardous Drugs on Exposed Syringe Inner Walls**
Eckel SF (Primary Investigator, 4.72% Salary x 6 months)
\$48,794 Grant – Funded: Equashield (2020)
- 20. Improving Neonatal and Pediatric Patient Safety through Precision Drug Concentrations**
Eckel SF (Primary Investigator, 12.7% Salary x 36 months)
\$347,400 Grant – Funded: Gerber Foundation (2020)
- 19. Understanding the impact of IV workflow technology on detecting and reducing medication errors and evaluating pharmacy operations that occur in IV preparation.**
Eckel SF (Primary Investigator, 5.78% Salary x 12 months)
\$50,000 Grant – Funded: Baxter Medical (2020)
- 18. Creation of a Hands-on Aseptic Technique Simulator**
Eckel SF (Primary Investigator, 0% Salary x 12 months)
\$50,000 Grant – Funded: UNC Eshelman Institute for Innovation (2019)
- 17. Development of the Precynge Medical Device Prototype for Assure Technologies**
Eckel SF (Primary Investigator, 0% Salary x 12 months)
\$50,000 Grant – Funded: KickStart Venture Services Commercialization Award (2019)
- 16. Vial Microbial Ingress for Arisure® CVA with Neutral Valve Test Protocol**
Eckel SF (Primary Investigator, 2.3% for 4 months)
\$14,105 Grant – Funded: EG-Gilero (2018)
- 15. Assessment of Closed System Transfer Devices across Vapor Release and Liquid Leakage**
Eckel SF (Primary Investigator, 5.7% for 4 months)
\$16,999 Grant – Funded: Equashield (2016)
- 14. Evaluating Harmonization of Hospital Pharmacy Practice to FIP's Basel Statements across the Global Pharmacy Education Development Network Center of Excellence**
Eckel SF (Primary Investigator, 0% Salary)
\$3,000 Grant – Funded: International Pharmaceutical Federation Hospital Pharmacy Section (2016)
- 13. Evaluating the Accuracy of Chemotherapy Preparations**
Eckel SF (Primary Investigator, 10% Salary x 12 months)
\$64,915 Grant – Funded: Becton, Dickinson and Company (2015)
- 12. Creating North Carolina Consensus Guidelines that Standardize Drug Infusion Concentrations and Dosing Units**
Eckel SF (Primary Investigator, 10% Salary x 12 months)
\$47,953 Grant – Funded: Carefusion Foundation (2014)
- 11. Multicenter study to evaluate the benefits of Technology-assisted workflow on IV Room Efficiency, costs and Safety (TIRES study)**
Eckel SF (Primary Investigator, 6% Salary x 18 months)
\$49,997 Grant – Funded: Baxter Medical (2014)

- 10. Evaluation of a new measurement device in improving the accuracy and precision of chemotherapy doses**
Eckel SF (Primary Investigator, no salary support)
\$2,000 Grant – Funded: NC TraCS (2014)
- 9. Evaluating prevention of microbial ingress with the use of the Yukon Medical sterile access device**
Eckel SF (Primary Investigator, 10% Salary x 4 months)
\$40,376 Contract – Funded: Yukon Medical (2014)
- 8. Using Lean Six Sigma to Improve the Process of Dispensing Medications at UNC Medical Center**
Eckel SF (Primary Investigator, 5% effort x 12 months)
\$35,092 Grant – Not Funded: UNC Institute for Health Care Quality Improvement (2014)
- 7. Evaluating prevention of microbial ingress with the use of the Yukon Medical sterile access device**
Eckel SF (Primary Investigator, 10% Salary x 4 months)
\$32,153 Contract – Funded: Yukon Medical (2013)
- 6. Prospective Evaluation of the Impact of Pharmacy Workflow Technology on Reducing Potential Medication Errors in the Preparation of Compounded Sterile Products**
Eckel SF (Primary Investigator, 10% Salary x 18 months)
\$89,917 Grant – Not Funded: Baxter Medical (2013)
- 5. The Layered Learning Practice Model: Toward a Consistent Model of Pharmacy Practice**
Pinelli NR (PI), Roth M, Weinberger M, and Eckel SF (Co-Investigator, 0% Salary x 1 year)
\$25,000 Grant – Funded: ASHP Foundation (5/2013)
- 4. Continuous Professional Development: State-Based Pilot Certificate Program.**
Caiola S, Eckel SF, Tofade T, and Foushee L: IRB Approved Study
\$10,000 Grant
- 3. A Clinical Use Experience Trial of the Hospira Next Generation Infuser.**
Eckel SF and McAllister JM: IRB Approved Study 04-PHARM-630
\$40,175 Grant
- 2. User Satisfaction Study for Abbott's MedNet Feature for Plum A+ Infusion Pumps.**
McAllister JM and Eckel SF: IRB Approved Study 03-PHARM-359
\$22,546 Grant
- 1. A 10-Year Multi-Center Evaluation of Quinolone Usage and Susceptibility Trends.**
Eckel SF and Klibanov O: *UNC Site Coordinator for Pfizer Multi-Center Coordinator*, July 2001
\$12,000 Grant

PROFESSIONAL ACTIVITIES

- American College of Clinical Pharmacy** – Member
 - Member, Certification Affairs Committee, 2012 – 2013
 - Vice Chair, Task Force on Acute Care, 2009 – 2010
 - Member, Certification Affairs Committee, 2008 – 2009
 - Member, Organizational Affairs Committee, 2007 – 2008
 - Member, Clinical Practice Affairs Committee, 2006 – 2007
 - Member, Task Force on Clinical Practice Management, 2005 – 2006

American Pharmacists Association – Member

Member, House of Delegates (representing NCAP), 2003 - 2008, 2010, 2013 – 2016

Chapter Adviser, Academy of Students of Pharmacy, 2004 – 2008

Member, Policy Review Committee, 2006

Chair, Policy Review Committee, 2007

American Society of Health-System Pharmacists – Member

Board of Directors, 2016 – 2020

Standardize for Safety Initiative

Member, 2016

Fellow Review Committee

Member, 2016

Section of Pharmacy Practice Managers Education Steering Committee

Member, 2013 – 2015

Section of Pharmacy Practice Managers Advisory Group on the Pharmacy Practice Model Initiative

Chair, 2011 – 2013

Vice Chair, 2011

Invited representative for the Pharmacy Practice Model Initiative – 2010

Council on Pharmacy Practice

Chair, 2009 – 2010

Vice Chair, 2008 – 2009

Member, 2006 – 2008

Section of Pharmacy Practice Manager's Programming Committee

Member, 2007 – 2009

Member, House of Delegates (representing NCAP), 2006 – 2017

Council on Educational Affairs

Student Member, 1995 – 1996

North Carolina Association of Pharmacists – Member

Past-President, July 2017 – December 2018

President, January 2016 – July 2017

President Elect, 2015

Development of the Strategic and Operational Plan

Co-chair Search Committee for the Executive Director

Education Steering Committee, 2010 – 2016

Board Member, 2005 – 2008

Chair, Acute Care Practice Forum, 2004

Chair-elect, Acute Care Practice Forum, 2003

Professional Relations Council, 1999 – 2002

Chair of the committee, 2000 – 2002

Ambulatory Care Practice Forum, 1999 – 2000

Pharmacotherapy Advisory Committee, 1999 – 2002

Public and Professional Relations Committee Member, 1994 – 1995

Executive Committee Ex Officio Member, 1993 – 1994

International Pharmaceutical Federation (FIP) – Member

Hospital Pharmacy Section Research Committee: World Hospital Pharmacy Research Committee, 2013 – Present

Pharmabridge Committee Member, 2014 – Present

Take 2 pharmacists per year for 1 month experience: 2011 – Present

Christian Pharmacists Fellowship International

Board Member, 2007 – 2010

Med Assets

Clinical Pharmacists Committee, 2007 – 2012

Pharmacy Times

Editor, Pharmacy Times, Health-System Edition, January 2012 – December 2016
Circulation of Print Journal to over 33,000 pharmacists
100 pages of editorial content directed annually
Focus on Current Thinking (blog) goes to 24,000 individuals
Editorial Board Member, 2006 – December 2016

Pharmacy Purchasing and Products

Editorial Board Member, 2004 – December 2016

University Health Systems Consortium

Strategic Initiatives & Programming Committee, 2013 – 2015
Research and Education Committee, 2000 – 2007

United States Pharmacopeia

NCAP Representative, 2000 – Present
Medication Error Data Analysis Ad hoc Advisory Panel, 2007 – 2009
Nominating Committee for the 2015-2020 Council of Experts, 2014 – 2015

Hospira, Inc.

Visiting Pharmacist Program, 2005

Abbott Laboratories

Visiting Pharmacist Program, 2003

Phi Lambda Sigma – University of North Carolina at Chapel Hill

President, 1994

Academy of Students of Pharmacy – University of North Carolina at Chapel Hill

President, 1993 – 1994

INNOVATION AND ENTREPRENEURSHIP

Founder of Assure Technologies, LLC – medical device company that is developing the PreCynge™, helping to make the syringe more precise and accurate.

Developed a Device to Improve Accuracy and Precision in Measuring Liquids
Filed a provisional patent application (application number 61/988,972) – May, 2014
Filed a patent conversion (PCT Filing) – May, 2015

Co-Founder of ChemoGLO™, INC – most widely used hazardous drug surface contamination detection kit in the United States

Developed and Launched HDClean™ – only laboratory tested cleaning system proven to remove hazardous drug surface contamination
Filed a provisional patent application on HDClean™ (application number 61/788,426)
www.chemoglo.com/

Founder and Developer of UNC Pharmacy Grand Rounds – subscription-based service provides a series of video webcasts designed specifically to meet the continuing education needs of pharmacists in health systems. These webcasts will provide current continuing education from practicing clinicians and pharmacy administrators through one hour, ACPE-accredited presentations given once a month.
www.uncgrandrounds.org

SPECIAL RECOGNITIONS

Editor for a themed issue within the *American Journal of Health-System Pharmacy* the

- impact of pharmacy departments on the medication use process (2022)
Developed and launched the **Bizzell Lecture Series** on the Business of Pharmacy for UNC Eshelman School of Pharmacy students interested in careers in this sector (2021)
Solicited to be a **guest reviewer** for *Journal of Pharmacy Practice and Research* on smart pumps (journal for the Society of Hospital Pharmacists of Australia) – 2011 and 2013
Smart Infusion Pumps: Implementation, Management, and Drug Libraries. Pamela K. Phelps, Editor.
Invited to write the foreword for the book.
Eckel SF: 2011: American Society of Health System Pharmacists.
Practicing Pharmaceutical Care in the Community Setting: Motivating your Patients to take an Active Role in their Well-Being.
Searle Fellowship in Pharmacy Research Paper, 1996 (Third Place)
Comparison of Noninvasive Methodology for Quantitation of Debrisoquin Hydroxylase Genetic Polymorphic Drug Metabolism.
Clinical Research Honors Project, 1993 – 1995

INSTITUTIONAL COMMITTEES

- UNC Eshelman School of Pharmacy Dean's Executive Council
Member, 2020 – Present
UNC Eshelman School of Pharmacy Executive Committee
Member, 2016 – Present
UNC Eshelman School of Pharmacy Nominations Committee
Member, 2014 – Present
UNC Eshelman School of Pharmacy Graduate Education Committee
Member, 2007 – 2019
UNC Eshelman School of Pharmacy Honors Committee
Member, 2013 – 2016
UNC Eshelman School of Pharmacy MS Program Steering Committee
Co-chair, 2013 – Present
UNC Eshelman School of Pharmacy HelpRx Committee
Chair, 2013 – 2015
UNC Eshelman School of Pharmacy Curriculum Transformation Steering Committee
Member, 2012 – 2013
UNC Eshelman School of Pharmacy / UNC Hospitals Partnership in Patient Care
Steering Committee Co-chair, 2011 – 2012
UNC Eshelman School of Pharmacy Singapore Planning Team
Co-chair, 2010 – 2011
UNC Eshelman School of Pharmacy Committee for Internationalization
Member, 2007 – 2011
Program Development Ad Hoc Committee
Co-chair, 2007 – 2008
Student Resident Advisory Committee
Chair: 2006 – Present
UNC Hospitals Pharmacy Clinical Management Committee, Chair, 2005 – 2010
UNC Eshelman School of Pharmacy Curriculum Committee, 1995 – 1997, 2000 – 2007
UNC Eshelman School of Pharmacy Criminal Background Check Committee
Member, 2005 – 2008
UNC Hospitals Medication Use Safety Committee, 1999 – 2000, 2002 – 2004
UNC Hospitals Pharmacy Nursing Committee, 2000 – 2002
Pharmacy Technician Advisory Committee, 1999 – 2002

Durham Technical Community College; Durham, North Carolina
Residency Accreditation Committee, 1999 – 2006
University of North Carolina; Chapel Hill, North Carolina
Antibiotic Decision Support Team: Subcommittee of P&T Committee, 1997 – 1998
Duke University Medical Center; Durham, North Carolina
Residency Advisory Committee, 1997 – 1998
Duke University Medical Center; Durham, North Carolina
Residency Accreditation Committee, 1997
Duke University Medical Center; Durham, North Carolina