

Daniel H. Atchley, Ph.D., M.S., MT-ASCP

Harding University College of Pharmacy
915 E. Market Ave, Box 12230
Searcy, AR 72149-2230
(501) 279-5513
datchley@harding.edu

ACADEMIC BACKGROUND

Ph.D. (Microbiology & Immunology), Medical University of South Carolina, Charleston, SC
M.S. (Laboratory Medicine/Clinical Chemistry), University of Washington, Seattle, WA
B.S. (Medical Technology), Northeastern State University, Tahlequah, OK

PROFESSIONAL CERTIFICATIONS

American Heart Association Basic Life Support Instructor
American Society of Clinical Pathologists, Board Certified Medical Technologist (MT-ASCP Certification #163411)

PROFESSIONAL MEMBERSHIPS

National Board of Osteopathic Medical Examiners National Faculty
American Osteopathic Association
American Association of Colleges of Pharmacy
American Society of Microbiology
Beta-Beta-Beta Biological Honors Society
Society of Armed Forces Medical Laboratory Scientists
Medical Technologist, American Society of Clinical Pathologists

WORK EXPERIENCE

Professor of Pharmaceutical Sciences

Harding University College of Pharmacy, Searcy, Arkansas, June 2023 - Present
Responsibilities included oversight of college faculty development activities and retreats, setting the vision and direction for

Dean

Harding University College of Pharmacy, Searcy, Arkansas, June 2022 – May 2023
Responsibilities included oversight of college faculty development activities and retreats, setting the vision and direction for

Associate Dean for Faculty Affairs, Chair, and Professor of Pharmaceutical Sciences

Harding University College of Pharmacy, Searcy, Arkansas, June 2021 – Present
Responsibilities included oversight of college faculty development activities and retreats, setting the vision and direction for the pharmaceutical sciences department of the college of pharmacy, leading and 6 faculty and 2 staff in facilitating high quality learning and outcomes for our students, microbiology and immunology component of the preclinical curriculum, leading 3 faculty in facilitating high quality learning and outcomes for our students, and oversight of two budgets: faculty affairs and the pharmaceutical sciences budget.

Assistant Dean for Preclinical Medicine, Professor of Microbiology, Immunology & Pharmacology

Arkansas Colleges of Health Education (ACHE), Fort Smith, Arkansas, August 2020 – June 2021
Responsibilities included helping set the vision and direction for the osteopathic medical college's preclinical curriculum and assisting the Dean by drafting curricular and assessment portions of the self-study in preparation for the upcoming accreditation visit.

Chair of Microbiology, Immunology and Pharmacology, and Professor of Microbiology & Immunology,

Arkansas College of Osteopathic Medicine, Arkansas Colleges of Health Education, Fort Smith, Arkansas, July 2019 – Present
Responsibilities included setting the vision and direction for the microbiology and immunology component of the preclinical curriculum, leading 3 faculty in facilitating high quality learning and outcomes for our students, and oversight of the department budget.

Associate Dean for Basic Sciences, and Professor of Microbiology & Immunology,

Kentucky College of Osteopathic Medicine, University of Pikeville (UPIKE), Pikeville, KY, July 2016 – July 2019
Responsibilities included setting the vision and direction for the osteopathic medical college's basic science curriculum, leading 14 faculty and 1 staff in facilitating high quality learning and outcomes for our students, oversight of a \$162,000.00

annual budget; oversight of safety and operations of an open floorplan, multiple-bench research laboratory; helping establish the basic science curriculum for UPIKE's new college of optometry; teaching medical microbiology and medical immunology; teaching select lectures in physiology, and leading students in biomedical research.

Associate Dean for Basic Sciences, IRB Chairperson, and Associate Professor of Microbiology & Immunology, Kentucky College of Osteopathic Medicine, University of Pikeville (UPIKE), Pikeville, KY, 2015 – 2016
Responsibilities – same as above.

Associate Professor & IRB Chairperson, Department of Basic Sciences, Kentucky College of Osteopathic Medicine, University of Pikeville, Pikeville, KY, 2013 – 2015

Responsibilities include teaching preclinical medical sciences, medical microbiology and medical immunology and conducting biomedical research

Associate Professor & Director of Assessment, Department of Pharmaceutical Sciences, Harding University College of Pharmacy, Searcy, AR, 2007 – 2013

Responsibilities included directing the college's assessment efforts, teaching basic medical sciences and leading ~20 students in biomedical research.

Awards: Teacher Achievement Award for superior performance in teaching, 2012

Director, Harding University College of Pharmacy Assessment Committee, 2009 – 2013

Founding Member, Harding University College of Pharmacy Curriculum & Assessment Committee, 2007 – 2009

Associate Professor, Department of Biology, Deputy for Academic Resources, USAF Academy, CO, 2006 – 2007

Responsibilities included oversight of a multimillion-dollar educational facility, conducted and documented safety training and monitored safety protocols for classroom, microbiology, research, animal, and cadaver laboratories, and a \$350,000.00 annual budget supporting 29 staff, 28 courses, and 2,000 students per year. Developed courses; taught and evaluated students in multiple upper-level courses. Mentored 30+ cadets in research focused on filling Department of Defense real-world gaps in bio-threat agent detection and identification capabilities.

Awards: US Air Force Academy Frank J. Seiler Award for Research Excellence, 2006

Assistant Professor, Department of Biology, Deputy for Academic Resources, USAF Academy, CO, 2004 – 2006

Responsibilities – see above.

Chief, Molecular & Advanced Biotechnology, Brooks City-Base, TX, 2001 – 2004

Responsibilities included leading a 20-person molecular diagnostics research group, oversight of the Department of Defense Influenza Surveillance Program's molecular diagnostics laboratory (a World Health Organization collaborating laboratory), two tours to the Middle East for rapid identification of pathogens using molecular microbiology, and supervision of a biosafety level three laboratory.

Ph.D. Candidate, Microbiology & Immunology, Medical University of South Carolina, SC, 1998 – 2001

Instructor/Assistant Professor, Department of Biology, USAF Academy, CO, 1997 – 1998

Awards: Outstanding Academy Educator Award for Teaching Excellence, US Air Force Academy, 1998

Instructor, Department of Biology, USAF Academy, CO, 1995 – 1997

Awards: Promethean Educational Leadership Award for Teaching Excellence, US Air Force Academy, Dept. of Biology, 1997

M.S. Graduate Student, Laboratory Medicine/Clinical Chemistry, University of Washington, WA, 1993 – 1995

Chief, Analytical Laboratory Systems, Eglin Air Force Base, FL, 1989 – 1993

Staff Medical Technologist, Saint Francis Medical Center, Tulsa, OK, 1984 – 1989

TEACHING

Pharmacy Courses (Current)

Pathophysiology I and II – Course Director and teach majority of blocks

World Diseases (select topics)

Research electives

Osteopathic Medical College Courses (Previous)

Medical Microbiology

Medical Immunology

Medical Pathology (select topics)

Medical Physiology (select topics)

Clinical Skills (select topics)

Optometry Courses (Previous)

Immunology/Microbiology (all lectures), Pathology and Disease (most lectures)

Previous Pharmacy Courses (Previous)

Advanced Pharmacy Practice Electives (research electives & Health & Wellness)
General Pathophysiology (Intro to pathophysiology, Cellular response to stress, injury, and aging, Genetic and congenital disorders, Cancer overview, Alterations in nutrition, Case studies, RBC disorders, Fluid/electrolyte/acid-base disorders, Alterations in hemostasis, Diabetes, Non-DM Endocrine disorders)
Introductory Pharmacy Practice Electives (Charitable Clinic Lab shadowing/Pharmacy-Service Learning)
Medical Immunology (all lectures)
Medical Microbiology (all lectures)
Pathophysiology I (Immunity Primer)
Pathophysiology II (Acid-Base Disorders, Renal Disorders, RBC Disorders, WBC Disorders, Hypersensitivities, Antibody-based Therapeutics, Nutrition Disorders, Diabetes mellitus)
Pharmacology III (Mechanisms of bacterial infection, Mechanisms of viral infection)
Research Electives
World Diseases (HIV, STIs)

Physician Assistant Courses (Previous)

Clinical Medicine I (Blood Constituents, Immunity and Inflammation)
Clinical Medicine II (Introduction to Infectious Diseases, Mechanisms of Infectious Diseases, Acid-Base Disorders)
Clinical Medicine III (Hematopoietic System, Disorders of Hemostasis, WBC and RBC Disorders, Endocrine Control)
Clinical Skills I (Introduction to Laboratory Medicine, Phlebotomy and IVs Skills)
Clinical Skills III (Laboratory medicine II)
Pharmacology I (Upper/Lower Respiratory Tract Infections)

Master's Courses (Previous)

Microbiology and Immunology

Undergraduate Courses (Previous)

Extensive experience teaching numerous US Air Force Academy undergraduate biology (Biology, Microbiology, Environmental Microbiology, Anatomy, Physiology, Molecular Biology, Several Research Electives, Senior Seminar), professional development, communication, and humanities courses.

INTELLECTUAL CONTRIBUTIONS

Publications

- Garcia, A.P., Hatvany, J.B., Murphy, M.A., Atchley, D.H., Gurley, W.J., Kamdem, L.K. (2019). Osteoprotegerin Could Predict the Outcome of Skeletal Disease in Women Receiving Aromatase Inhibitors. *Journal of Clinical Pharmacology*, Sept 2019; 00(0): 1-9.
- Kisby, G., Kaneshiro, K., Nguyen, V., Nallamala, H., Kirby, C., Cho, T., Messer, K., Zahl, S., Lowery, J.W., Modzrakowski, M., Atchley, D.H., Zeigler, D., Pipitone, O. (2019). Assessment of the Research Interests of First-Year Medical Students Among Four Colleges of Osteopathic Medicine. Accepted - *Journal of the American Osteopathic Association*, Apr 2019.
- Gregory, B.J., Chen, S.M., Murphy, M.A., Atchley, D.H., Kamdem, L.K. Impact of the OATP1B1 c.521T>C single nucleotide polymorphism on the pharmacokinetics of exemestane in healthy post-menopausal female volunteers. *Journal of Clinical Pharmacy and Therapeutics*. 2017;42(5): 547-553 (Online: 29 JUL 2017, DOI: 10.1111/jcpt.12569)
- Chen, S.M., Atchley, D.H., Murphy, M.A., Gurley, B.J., Kamdem, L.K. (2016). Impact of Impact of *UGT2B17* Gene Deletion on the Pharmacokinetics of 17-hydroexemestane in Healthy Volunteers. *J. of Clin. Pharm*, 56(7):875-884 (Online: Dec 2015)
- Lee, Y., Atchley, D.H., Proctor, C.A., Smith, F.L., Yi, S., Loftis, C., Yates, K.M. (2015). Time Kill Kinetics of a Novel Antimicrobial Silver Wound Gel Against Select Wound Pathogens. *Wounds: A Compendium of Clinical Research and Practice*. Wounds 2015;27(12):336-346
- Craig D. Nowadly, Jason W. David, Melanie L. M. Grogger, Erik R. Demkowicz, Daniel H. Atchley, Donald V. Veverka (2014). Characterizations of the effects of heat stress on the DNA-intercalating dye EvaGreen for potential use with the Joint Biological Agent Identification and Diagnostics System (JBAIDS). *Military Medicine*, 179(6):580-e718
- Odreman-Macchioli, M., Vielma, S., Atchley, D., Comach, G., Ramirez, A., Perez, S., Tellez, L., Quintero, B., Hernandez, E., Munoz, M., Mendoza, J. (2013). Analysis of real-time pcr amplification efficiencies from three genomic regions of dengue virus. *Investigacion Cientifica*, 54(1):5-19
- Hall, P. D., Weimert, N. A. , & Atchley, D. H. (2011). Function and Evaluation of the Immune System, In J.T. Dipiro (Ed.), *Pharmacotherapy: A Pathophysiological Approach* (pp. 1487 - 1504). New York: McGraw Hill.
- Reiman, R. W., Atchley, D. H., & Voorhees, K. J. (2007). Indirect detection of *Bacillus anthracis* using real-time PCR to detect amplified gamma phage DNA. *Journal of Microbiological Methods*.
- McAvin, J. C., Bowles, D. E., Swaby, J. A. , Blount, K. W. , Blow, J. A. , Quintana, M., Hickman, J.R., Atchley, D.H., Niemeyer, D.M. (2005). Identification of *Aedes aegypti* and its Respective Life Stages by Real-time PCR. *Military Medicine*.

- McAvin, J. C., Escamilla, E. M., Blow, J. A., Turell, M. J., Quintana, M., Bowles, D.E., Swaby, J.A., Barnes, W.J., Huff, W.B., Lohman, Atchley, D.H., Hickman, J.R., Niemeyer, D.M. (2005). Rapid identification of dengue virus by RT-PCR using field-deployable instrumentation. *Military Medicine*.
- Daum, L. T., Kruzlock, R. P., Ye, K., Hickman, J. R., Chambers, J. P., Barnes, W.J., Atchley, D.H. (2004). Comparison of taqman and epoch dark quencher hydrolysis probes during real-time reverse transcriptase pcr. *Molecular and Cellular Probes*.
- McAvin, J. C., Morton, M. M., Roudabush, R., Atchley, D. H., & Hickman, J. R. (2004). Identification of *Francisella tularensis* using real-time fluorescence PCR. *Military Medicine*.
- Azzimonti, F., Atchley, D. H., Morrison, C. A., Dodd, S., Boulton, D. W., DeVane, C.L., Arnaud, P. (2003). One step purification of alpha(1)-acid glycoprotein from human plasma. Fractionation of its polymorphic allele products. *Journal of Chromatography B Analytical Technology Biomedical Life Science*, 784, 33-38.
- Virella, G. H., Thorpe, S., Alderson, N. L., Stephan, E. M., Atchley, D. H., Wagner, F., Lopes-Virella, M., and the DCCT/EDIC Research Group, (2003). Autoimmune response to advanced glycosylation end products of Human LDL. *Journal of Lipid Research*.
- Anderson, F., Game, B., Atchley, D. H., Xu, M., Lopes-Virella, M., Huang, Y. (2002). IFN-gamma fusion toxin pretreatment augments immune complex-induced matrix metalloproteinase-1 expression in U937 histiocytes. *Clinical Immunology*.
- Atchley, D. H., Lopes-Virella, M. F., Aheng, D., Kenny, D., & Virella, G. (2002). Oxidized LDL-anti-oxidized LDL immune complexes and diabetic nephropathy. *Diabetologia*.
- Burnham, B. R., Atchley, D. H., Defusco, R. P., Fowler, J., Darling, M. J., Angulo, F.J. (2002). The use of enrofloxacin to prevent shedding of *Salmonella* from Green Iguanas, *Iguana iguana*. *Journal of Herpetological Medicine and Surgery*, 12 (2), 10-13.
- Virella, G., Atchley, D. H., Koskinen, S., Zheng, D., Lopes-Virella, M. F., DCCT/EDIC Research Group, (2002). Proatherogenic and proinflammatory properties of immune complexes prepared with purified human oxLDL Antibodies and human oxLDL. *Clinical Immunology*.
- Hall, P., Virella, G., Willoughby, T., Atchley, D. H., Kreitman, R., Frankel, A. (2001). Antibody response to DT-GM during a phase I trial of patients with relapsed or refractory acute myeloid leukemia. *Clinical Immunology*.
- Hirsch, I., Atchley, D. H., Tsai, E., Labbe, R., & Chait, A. (1998). Ascorbic acid clearance in diabetic nephropathy. *Journal of Diabetes & its Complications*.
- Burnham, B., Atchley, D. H., DeFusco, R., Ferris, K., Zicarelli, J., Lee, J., Angulo, F. (1998). Prevalence of fecal shedding of *Salmonella* organisms among captive green iguanas and potential public health implications. *Journal of the American Veterinary Medical Association*.

Oral and Poster Presentations

Gave oral presentations at 3 national conferences.

Co-authored 26 posters at local, state, regional, national, and international professional meetings.

Posters (Recent)

Importance of Pre and Post Tests in Optometry and Osteopathic Medical Students, Apr, 2023, American Association of Colleges of Osteopathic Medicine, Baltimore, MD.

The antimicrobial effect of silver citrate on *Burkholderia cepacia*. 18 May, 2014; American Society of Microbiology Annual Meeting, Boston, MA

Time kill kinetics of a novel antimicrobial silver wound gel against select wound pathogens. 20 May, 2013; American Society for Microbiology Annual Meeting, Denver, CO

Oral Presentations (Recent)

Sebastian County Medical Society, "Flatten the COVID-19 Curve;" 10 March 2020; Mercy Hospital, Ft. Smith, AR

Faculty Development: "Improving Exam Reliability with Item Analysis;" 18 December 2013; KYCOM, Pikeville, KY

Medical technology career paths – the academic option; 5 April, 2012; Society of Armed Forces Medical Laboratory Scientists Annual Meeting; Memphis, TN

Patents/Inventions

Compositions and methods for Treatment of Oral Ulceration and Oral Mucositis (US 2021/0267929), Sep 2, 2021

Antimicrobial Silver Hydrogel Composition for the Treatment of Burns and Wounds (US2019/10272108 B2), Apr 2019

Antimicrobial Silver and Acemannan Composition for the Treatment of Wounds or Lesions or Burns (2704729), Issued 11 Apr 2018

Antimicrobial Silver Hydrogel Composition for the Treatment of Burns and Wounds (US2016/0243164 A1), Aug 2016

Differential Multiplexing with Pattern Recognition (US 8,455,184B2), June 2013

Antimicrobial Silver Hydrogel Composition for the Treatment of Burns and Wounds (US2012/0282348 A1), Nov 2012

Research Reports

Atchley, D. H., Kellogg M.D., Carter, G.W., Barnes, W.J., & Hale, D.W., Rodent-borne Disease Survey and Comparison of DoD Assays for detection of *Yersinia pestis*, submitted to Defense Threat Reduction Agency (DTRA), 2007

Research Grants

Atchley, D.H., Stillwell, M, Vitamin D Status and Blood Type as Possible Predictors of COVID-19 Infection Severity, ARCOM Internal Grant, \$8,000.00 2021

Atchley, D.H., Improving Teaching Effectiveness via a Novel Use of a Learning Styles Inventory, AACOM \$5,000.00, Unfunded

Atchley, D.H., Antifungal Efficacy Studies of Novel Silver-Based Antimicrobial Agents, KYCOM \$10,000.00, 2014

Atchley, D. H., Microbial Screening - Oral Rinse, Celecare, \$1500.00, 2012

Atchley, D. H., Field-Stable Molecular Diagnostics Reagent Development, GOV-National Aeronautics and Space Administration (NASA), \$5,000.00, 2010

Atchley, D. H. Rodent-Borne Disease Survey. *Yersinia pestis*-focus, Defense Threat Reduction Agency, \$27,000.00, 2005-2006

Atchley, D. H., Universal Bacterial Assay Using R.A.P.I.D. Technology, GOV-Air Force Office of Scientific Research (AFOSR), \$10,000.00, 2005-2006

Atchley, D. H., Single-tube Identification of Multiple Bacterial Targets Using R.A.P.I.D Technology, Air Force Office of Special Research, \$5,000.00, 2004

SERVICE

Christian Research Hospital, Board of Directors, 2016-Present
Medical outreach mission to rural Cameroon

Harding University College of Pharmacy Consultant, 2014-Present
Assessment, infectious diseases, and lab safety

COCA Leadership Team – Standard 7 Chair 2015 Accreditation Visit
Assembled supporting evidence and drafted COCA Standard 7 response

Institutional Review Board Chair, Pikeville University, 2014-Present
Established new IRB for research conducted by university faculty

Assessment Committee Member, Harding University, 2012-2013
Identified and executed university-level assessment activities.

Assessment Committee Director, Harding University College of Pharmacy, 2009-2013
Identified and executed college-level assessment activities.

Medical Laboratory Director and Preceptor, Christian Health Ministries (Charitable Clinic), 2008-2013
Volunteered ~8 hours per month as medical laboratory director, and as preceptor for pharmacy students in research and in introductory pharmacy practice experiences.

Doctoral Committee Member, for Ph.D. Candidate Gregory Davenport (Doctor of Health Sciences), Harding University, 2011

Advisor, Department of Defense, Defense Threat Reduction Agency, Chemical and Biological Defense Panel, 2005 - Present

AWARDS & HONORS

Awards

Outstanding Educator of the Year, Kentucky College of Osteopathic Medicine, 2014

Teacher Achievement Award for Teaching Excellence, Harding University, 2012

Frank J. Seiler Award for Research Excellence, US Air Force Academy, 2006

Outstanding Academy Educator Award for Teaching Excellence, US Air Force Academy, 1998

Promethean Educational Leadership Award for Teaching Excellence, US Air Force Academy, Department of Biology, 1997

Honors

Faculty Delegate to the AACP House of Delegates, American Association of Colleges of Pharmacy (AACCP), Harding University College of Pharmacy, Searcy, Arkansas, 2010

Meritorious Service Medal for outstanding service as Associate Professor and Deputy for Resources US Air Force Academy, Colorado, 2007

Certificate of Achievement for support to field laboratory operations, US Army, 2006

Meritorious Service Medal for outstanding service as Chief, Molecular & Advanced Biotechnology, Epidemiological Surveillance Division, Brooks City-Base, Texas, 2004

All American Scholar, Medical University of South Carolina, Charleston, South Carolina, 1999

Meritorious Service Medal for outstanding service as Assistant Professor of Biology, US Air Force Academy, Colorado, 1998

Commendation Medal for outstanding service as Chief, Laboratory Diagnostics, Eglin Air Force Hospital, Eglin Air Force Base, Florida, 1993

Achievement Medal for leading the hospital laboratory information system implementation, Eglin Air Force Hospital, Eglin Air Force Base, Florida, 1992