



Research & Scholarship Day 2026

Symposium, Poster Exhibition & Competition

Wednesday, April 15, 2026

1:00 PM - 4:00 PM

Student Union Building - Ballrooms B & C

Chronic Respiratory Inflammation?

Department of Pharmaceutical Sciences
Shoultz, A., Aboudohalams, G., Herbert, J.

Results and Discussions: Cells Exposure

AG49 cell viability (%) following 48 h exposure

Low or non-detectable acute toxic effects of nanoparticles were reported at concentrations as high as 800,000,000 µg/ml (Sark et al. 2021 and Li et al. 2022).

Significant lower toxic doses were detected (100-100 µg/ml) in our experiments (n=3).

Concentration (µg/ml)	Fresh Fibers (%)	UV-aged fibers (%)
100	~85	~95
1000	~75	~90
10000	~65	~85

Do Fibers cytotoxicity induce allergic responses?

Preliminary data shows that fibers can induce the expression of the proallergic cytokine thymic stromal lymphopoietin (TSLP) in A549 cells. TSLP was measured following 24h exposure (n=2).

Concentration (µg/ml)	Fresh Fibers (pg/ml)	UV-aged fibers (pg/ml)
100	~150	~50
1000	~250	~100
10000	~350	~150

Do Fibers translocate into the

Biocompatibility of biofilm formation in vivo and in vitro based on *Staphylococcus aureus* accessory gene regulator status

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Healthcare-associated infections (HAIs) are a major cause of morbidity and mortality. Biofilms, which are communities of microorganisms attached to a surface, are a common cause of HAI. The accessory gene regulator (AGR) system is a key component of the *S. aureus* biofilm-forming machinery. This study investigated the biocompatibility of biofilm formation in vivo and in vitro based on the AGR status of *S. aureus*.

Methods: The biocompatibility of biofilm formation was evaluated in vitro using a murine model of HAI. The AGR status of the strains was determined by PCR. The biocompatibility of biofilm formation was evaluated in vivo using a murine model of HAI.

Results: The AGR status of the strains was determined by PCR. The biocompatibility of biofilm formation was evaluated in vitro using a murine model of HAI. The AGR status of the strains was determined by PCR. The biocompatibility of biofilm formation was evaluated in vivo using a murine model of HAI.

Development of an open-loop control system for a multi-stage microfluidic process for the synthesis of a novel compound that can be activated by near-infrared light

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ABSTRACT

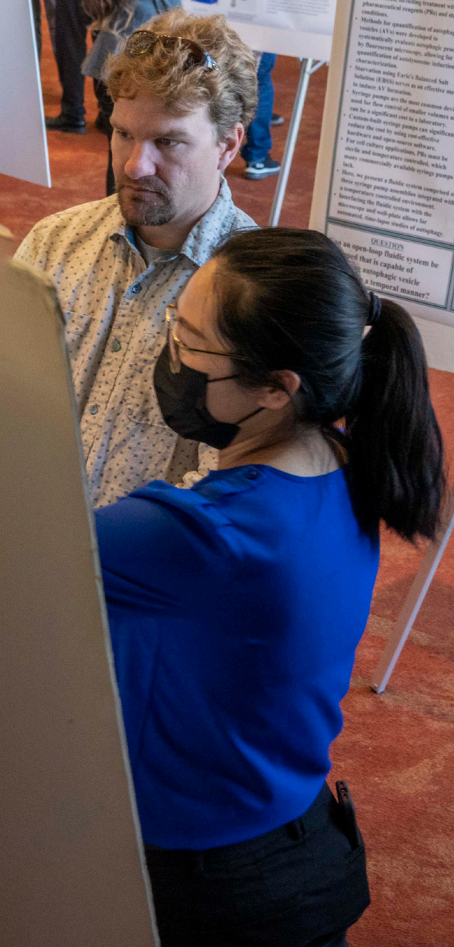
The development of a multi-stage microfluidic process for the synthesis of a novel compound that can be activated by near-infrared light is presented. The process involves the synthesis of a novel compound that can be activated by near-infrared light. The process involves the synthesis of a novel compound that can be activated by near-infrared light.

INTRODUCTION

The development of a multi-stage microfluidic process for the synthesis of a novel compound that can be activated by near-infrared light is presented. The process involves the synthesis of a novel compound that can be activated by near-infrared light. The process involves the synthesis of a novel compound that can be activated by near-infrared light.

CONCLUSION

The development of a multi-stage microfluidic process for the synthesis of a novel compound that can be activated by near-infrared light is presented. The process involves the synthesis of a novel compound that can be activated by near-infrared light. The process involves the synthesis of a novel compound that can be activated by near-infrared light.



PROGRAM OF EVENTS

Ballroom C

10:30 AM- 1:00 PM

Poster Setup

Ballroom C

1:00 PM - 3:00 PM

Poster Competition

Ballroom B

3:15 PM - 3:20 PM

Welcome & Introduction

Donald Godwin, PhD

Dean & Professor, UNM College of Pharmacy

3:20 PM - 3:25 PM

Best Paper by a Clinician Educator Track Faculty

Barry E. Bleske, PharmD

Chair & Professor, Pharmacy Practice & Admin Sciences

3:25 PM - 3:30 PM


2026 Outstanding COP Alumni Excellence in Research
Award Recipient

Marcus Garcia, PharmD

Assistant Professor, Pharmacy Practice & Admin Sciences

3:30 PM - 4:00 PM

Refreshments & Award Ceremony



The UNM College of Pharmacy is proud to present this annual multidisciplinary exhibition highlighting the cutting-edge research and impressive scholarly activities of our MS, PhD, and PharmD students, post-docs, residents, faculty and staff.



C. J. Wiley

College of Pharmacy
UNIVERSITY OF NORTH TEXAS

C. J. Wiley

Best poster by a Doctor of Pharmacy or Undergraduate Student in Clinical Sciences

1. Tamer Peña, M. Gabriela Cabanilla, Mark Cinquegrani, Catia Marzolini, Freshta Popal, Keenan Ryan, Bernadette Jakeman: Medication Use and Risk Evaluation in People with HIV \geq 65 Years

2. Marissa Vigil, Gabriela Cabanilla, PharmD, Amer El Ghali, PharmD, Eva Crollett, Keenan Ryan, PharmD, Molly Benning, PharmD, Nestor Sosa, MD, Bernadette Jakeman, PharmD: Outcomes of Patients Receiving Long-Term Antimicrobial Therapy at the University of New Mexico Outpatient Antimicrobial Therapy Clinic

Best poster by a Doctor of Pharmacy or Undergraduate Student in Basic Science

3. Olivia Cartron, Cody J. Wiley, Marcus A. Garcia, Milad Mazloumi Bakhshayesh, Matthew J. Campen, Linda A. Felton: A Physiologically Relevant In Vitro Model to Assess Nanoplastic Transport

4. Courtney McKenzie, Rhiann Dennis, Lucas Chavez, Kathy Tong, Michelle Ozbun, Jason McConville: Formulation of Thermoresponsive Sprays to Target Oropharyngeal HPV Infections

5. Karen P. Colorado, Cody Wiley, Linda Felton: Comparison of physicochemical properties of various excipients

6. Kathy Tong, Amelia Anakwue, Lucas Chavez, Courtney McKenzie, Amy Bachyrycz, Azizi Ray, Jason McConville: Evaluation of Pharmaceutical Thin Film Platforms for Naloxone Drug Delivery

7. Adamaris Arteaga, Guy W. Herbert, Karen L. Cooper, Prabu Paramasivam, Barry E. Bleske, Marcus A. Garcia, Matt J. Campen, A. Mary Vilay: Investigation of Microplastic Uptake in HEK-293 Cells

8. Elizabeth Zapien, Pavan Muttill, Christina Salas: Surfactant-Based Formulation Strategies to Improve Wettability and Coating Uniformity of SLA-Printed BioMed Amber Microneedles

9. Jennifer Tjung, Charlotte M. McVeigh, Jorge L. Moreno, Serena C. Helewicz, Alicia M. Bolt: Evaluating the Fibrogenic Effects of Tungsten Particulate Exposure in 3T3 and HFL1 Fibroblasts

10. Andrea Ibarra, Peace Ikwuemesi, Olivia Lanier, and Pavan Muttill: Hyaluronic Acid-Based Dissolving Microneedles for Delivery of Lipid Nanoparticle Vaccines: Fabrication and Characterization

11. Lexi Trujillo, Peace Ikwuemesi, Andrea Ibarra, Olivia Lanier, Pavan Muttill: PEG-Modified Flexible Backing Layer for Lipid Nanoparticle-Loaded Dissolving Microneedles

12. Lauren Crowley, Marinca Faimau, Ania Klas, Tyler Hipple, David Savage, Rita Serda, Nathan Jackson, Pavan Muttill: Dissolving Microneedle Arrays for Delivery of Silicified Cancer Cells in Melanoma: Fabrication and Characterization

13. Serena Helewicz, Charlotte M. McVeigh, Jorge Moreno, Alicia M. Bolt: Investigating Cadmium's Adipogenic Effects on Breast Cancer Metastasis in the Bone Niche

14. Sebastian C Stoker, Lisa Erdle, Marcus Garcia, Alexandria Sandoval, Rawan Lilo, Nicholas Gabaldon, Mariah Liedy, Abdul-Mehdi S. Ali, Laura V. Gonzalez Bosc, Marcus Eriksen, Justin T. Baca, and Robert M. Taylor: Trouble in Paradise: Heavy Metal Adsorption and Release from Beach Microplastics to Water

15. Nicolai Morford-Oberst, Maribel Hernandez, Grace Picha, Amanda Barkley-Levenson, Sebastian Medina: Stimulatory Effects of Alcohol in As3MT Knockout Mice

16. Idara Udiok: Analysis of Isoniazid Induced Changes in THP-1 Cell Metabolism

Best Poster by a Post Doc, Fellow, or Resident

17. Sakshi Patil, Risa Smith, Laurisa Barela, Josiah Kingston, Marcus Garcia, Milad MazloumiBakhshayesh, Rui Lui, Tamara Howard, Jessica Gross, Jorge Gonzalez-Estrella, Shahani Noor, Kiran Bhaskar, Bill Shuttleworth, Chad Cole, Matthew Campen, Andrew Carlson, Eliane El Hayek: Advancing the method for isolating and quantifying MNPs in human cerebrospinal fluid for Brain Waste Clearance Studies

18. Sumira Phatak, Brenna Baird, Marian Olewine, Shahani Noor, Matthew Campen: Quenching the flame: VCAM blockade neutralizes age enhanced neuroinflammation

19. Dinesh Choudhury, Alan McNolty, Amy Rasley, Sandra K G Peters, Litzy Juarez Serrano, Nicholas O. Fischer, Pavan Muttill: Toward Cold-Chain Independent Vaccines: Spray-Dried Nanolipoprotein Particles Stabilized in a single excipient matrix

20. Maribel Hernández, G. A. Picha, N. D. Morford-Oberst, S. Medina, and A.M. Barkley-Levenson: The Behavioral and Neurotoxic Effects of Arsenic and Alcohol Co-Exposure

21. Lauren Heine, Anastacia Armijo, Grace Picha, Mae Esquibel, Karina Gonzalez, Brianna Maes, Alicia Bolt, Ke Jian Liu, Sebastian Medina: Disruption of Early Human Red Blood Cell Development by Arsenite and Its Primary Metabolite Monomethylarsonous Acid

Best Poster by a Pharmacy Practice & Administrative Sciences Graduate Student or a Pharmaceutical Sciences Graduate Student

22. Crystal Cevering, Marena Montera, Brenna Baird, Ember Suh, Ed Barr, Jessica Begay, Guy Herbert, Selita Lucas, Milad MazloumiBakhshayesh, Hayley Wondra, Laura Santos-Media, Matthew Campen, Sarah Blossom: Woodsmoke as a Potential Environmental Amplifier of Autoimmune Pathology in Experimental Autoimmune Encephalomyelitis (EAE) Mouse Model

23. Hayley Wondra, Marena Montero, Laura Santos-Medina, Lindsey Baca, Sarah J Blossom: Trichloroethylene-Induced Metabolic Reprogramming of CD4* T Cells: Implications for Autoimmunity

24. Ember Suh, Ting Jiang, Haiwei Gu, Jessica Begay, Edward Barr, Selita Lucas, Guy Herbert, Lingjun Li, Ximeng Liu, Shiquan Cui, Shahani Noor, Matthew Campen: Mass spectrometry imaging (MSI) elucidates regional distribution of metabolomic and lipidomic changes in the brain following exposure to wildfire smoke in mice

25. Charlotte McVeigh, Jennifer A. Tjung¹, Jorge L. Moreno¹, Sydnee J. Yazzie², Lauren K. Heine¹, Grace A. Picha¹, Serena C. Helewicz¹, Guy W. Herbert¹, Sebastian Medina¹ and Alicia M. Bolt¹: Analysis of potential drivers of tungsten-enhanced breast cancer metastasis: A longitudinal study of bone marrow adipocytes.

26. Laura Santos-Medina, Marena Montera, Mitra Afghapour-Becklund, Samrat Roy Choudhury, Sarah J. Blossom: Trichloroacetaldehyde (TCAH) Drives Histone Variant-Specific Epigenetic Remodeling in Activated CD4+ T Cells with Potential Effects on Cell Cycle Progression

27. Andre Lucas Silva Borges, Rebeka Sultana, Amanda Barkley-Levenson: Characterizing the effects of Slc39a8 deficiency on ethanol-related phenotypes

28. Jorge Moreno, Mitra Afaghpour-Becklund, Charlotte McVeigh, Sydnee Yazzie, Onamma Edeh, Brenna Baird, Rui Lui, Jose Cerrato, Katherine E. Zychowski, Sarah Blossom, and Alicia Bolt: Investigation into Immune Cell Dysregulation and Autoimmune Disease Mechanisms Following Exposure to Uranium Bearing Dust in vivo.

29. Mae Esquibel, Lauren K. Heine, Olivia F. McDonald, Abby M. Baca, Grace A. Picha, Brianna B. Maes, Marcus A. Garcia, Eliane El Hayek, James J. Pestka, and Sebastian Medina: Exposure to Polystyrene Micro- and Nano-Plastics Potentiates Macrophage-Mediated Proinflammatory Responses

30. Lucas Chavez, Avipsha Silwal, Jason McConville: Thermally Gelling Formulations for Dental Remineralization

31. Alan K. McNolty, Dinesh Choudhury, Bryce Chackerian, Pavan Muttli: Encapsulation of Vaccine Candidates for Single-Shot Immunization and Vaccine Stability

Best Poster by a Research Staff Member

32. Sonia Macías Rodríguez, Lidia Enriquez Márquez, Xingya Ma, Rajani Rai, Ludmila N Bakhireva: Associations of Postpartum Maternal Depressive Symptoms and Socioeconomic Factors with Infant Temperament Domains at 3-9 months of Age

33. Rui Liu, Ting Jiang, Matt Campen, Changjian Feng: Development and Optimization of an HPLC-ICP-MS Method for Chromium and Arsenic Speciation

34. Prabu Paramasivam, Michael Paffett, Sharina Desai, Josh Monts, Marcus Garcia, Eliane El Hayek, Jessica Begay, Guy W Herbert, Robert M Taylor, Kiran Bhaskar, Reza Ehsanian, Karin Westlund, Matthew Campen: Role of ApoE ϵ 3/4 variants in modifying Human Brain Microvascular endothelial uptake and toxicity of microplastics derived from the Pacific Gyre.

35. Veronica Brtek, Xingya Ma, Dr. Pilar Sanjuan, Dr. Ludmila N. Bakhireva: Economic Stress and Substance Use During Pregnancy: The Buffering Role of Public Assistance Programs in the HBCD Study

36. Susan Carroll, Amre Elmaoued, Prajatka Adsul, Ludmila Bakhireva, Azizi Ray: Training Pharmacist Clinicians in a Task-Shifting Collaborative Care Model for MOUD: Qualitative Insights on Implementation and Patient Care

37. Huayu Zheng, Ting Jiang, Changjian Feng: Per- and Polyfluoroalkyl Substances (PFAS) Analysis in Drinking Water

Best Poster by a Research Faculty Member

38. Curtis Miller, Esther Erdei, Judith Zelikoff, Tri Huynh: Preliminary analysis for a study of environmental health among the Turtle Clan of the Ramapo Lunaape Tribal Nation

Best COP Inter-Departmental Collaborative Research Poster

3. Olivia Cartron, Cody J. Wiley, Marcus A. Garcia, Milad Mazloui Bakhshayesh, Matthew J. Campen, Linda A. Felton: A Physiologically Relevant In Vitro Model to Assess Nanoplastic Transport

6. Kathy Tong, Amelia Anakwue, Lucas Chavez, Courtney McKenzie, Amy Bachyrycz, Azizi Ray, Jason McConville: Evaluation of Pharmaceutical Thin Film Platforms for Naloxone Drug Delivery

7. Adamaris Arteaga, Guy W. Herbert, Karen L. Cooper, Prabu Paramasivam, Barry E. Bleske, Marcus A. Garcia, Matt J. Campen, A. Mary Vilay: Investigation of Microplastic Uptake in HEK-293 Cells

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Non-competing Category (Poster Display Only)

39. Katie Zychowski: NM-INSPIRES Translational Research Support Core (TRSC)

40. Changjian Feng, Rui Liu, Matthew Campen: UNM IMAC/BACC Core Facility: Advanced ICP-MS and GC-MS Platforms for Sensitive Elemental, Trace Organic, and Microplastic Analysis

41. Changjian Feng, Ting Jiang, Huayu Zheng: UNM IMAC/BACC Core Facility: High-Performance LC-MS and Mass Spectrometry Imaging for Proteomics, Metabolomics, and Spatial Molecular Analysis

42. Paulina Deming, Carly Floyd, Nahla Ismael, Savannah Gold, Michelle Iandiorio: HCV Medication Turnaround Time Using Specialty Mail Order vs Local Pharmacy
43. Michael Lehman (NMT Biology Chair): Biology Department at New Mexico Tech
44. Ting Jiang, Haikun Zhang, Changjian Feng: Protein dynamics of NO synthases by photo-crosslinker-based quantitative cross-linking mass spectrometry
45. Huayu Zheng, Ting Jiang, Changjian Feng: Targeted Metabolomics Study by LC-MS/MS
46. Mallery Quetawki, Asis Lopez, Ph.D: Communicating Culturally-Relevant and Community-Tailored Environmental Health Science Research to Partner Communities
47. Carolyn Roman, Jose Cerrato, METALS research team: UNM METALS Superfund Center Overview
48. Elena O'Donald, Marcia O'Leary, Kendra Enright, Bernadette Pacheco, Rae O'Leary, Morgan Reynolds, Sunmi Lee, Kurunthachalam Kannan, Esther Erdei: Serum concentrations of per- and polyfluoroalkyl substances (PFAS) in Cheyenne River Sioux Tribe (CRST) samples
49. Grace Picha, Karen A. Torczynski, Jodi R. Schilz, Laurie G. Hudson, Erica J. Dashner-Titus, Sebastian Medina: Combined Arsenic and Uranium Exposure Drives Tissue-Specific Molecular Responses
50. Bethany Jorgensen, NM-INSPIRES Center: New Mexico Integrative Science Program Incorporating Research in Environmental Sciences (NM-INSPIRES) Center
51. Ashley Wegele, Navajo Birth Cohort Study Team: Overview and Findings from the Navajo Birth Cohort Study
52. Becky Woloszyn, Luke Latterell: COP Research Highlights
53. Becky Woloszyn, Luke Latterell: COP Research Office Services



**THANK YOU
FOR JOINING US!**



Our Mission

Our mission is to develop pharmacists, educators and scientists whose leadership, dedication and innovation improve the health of our local and global communities.

Our Vision

To prepare tomorrow's leaders through innovative teaching, research and clinical practices that translate scientific discoveries into new treatments and models of care to improve both health and quality of life.

Our College

The UNM College of Pharmacy is the premier destination for exceptional pharmacy education, research, and patient care programs. Building on a 77-year legacy of innovation, the College prides itself in preparing the next generation of pharmacy leaders.

College of Pharmacy
The University of New Mexico Health Sciences

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