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School of Chemical Engineering
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Education

2007 Postdoc. Pharmaceutical Chemistry, University of Kansas, Lawrence, KS
2006 Ph.D. Chemical and Biomolecular Engineering, University of Illinois, Urbana, IL
2003 M.S. Chemical Engineering, University of Illinois, Urbana, IL
2000 B.S. (*summa cum laude*) Chemical Engineering, Oklahoma State University, Stillwater, OK

Professional Experience

2020 – present **Professor**, Oklahoma State University, Stillwater, OK
School of Chemical Engineering

2014 – 2020 **Associate Professor**, Oklahoma State University, Stillwater, OK
School of Chemical Engineering

2008 – 2014 **Assistant Professor**, Oklahoma State University, Stillwater, OK
School of Chemical Engineering

2006 – 2007 **Postdoctoral Fellow**, University of Kansas, Lawrence, KS
Mentor: Professor Russell C. Middaugh, Pharmaceutical Chemistry

2000 – 2006 **Graduate Research Assistant**, University of Illinois, Urbana, IL
Advisor: Professor Daniel W. Pack, Chemical and Biomolecular Engineering

Summer 1999 **Process Engineering Intern**, Ultramar Diamond Shamrock, Ardmore, OK

Summer 1998 **Process Engineering Intern**, Lyondell-Citgo, Houston, TX

1996 – 1998 **Undergraduate Research Assistant**, Oklahoma State University, Stillwater
Advisor: Professor A.J. Johannes, Chemical Engineering

Professional Activities

Ad hoc reviewer: *ACS Applied Polymer Materials, ACS Omega, Advanced Drug Delivery Reviews, Biomacromolecules, Biomembranes, Controlled Release Society, Drug Discoveries and Therapeutics, Journal of Biochemistry, Journal of Controlled Release, Journal of Drug Targeting, Journal of Pharmaceutical Sciences, Journal of Virological Methods, Langmuir, Molecular Pharmaceutics, Molecular Therapy, Molecular Therapy Nucleic Acids, Nanomedicine and Nanotechnology, Reactive and Functional Polymers, Science Advances, Therapeutic Delivery, Toxicology and Applied Pharmacology, UNL Natural Resources Strategic Investments, Canada Foundation for Innovation, and the Prostate Cancer Foundation of Australia*

2025 Chair, *Chemical Engineers in Medicine Topical Conference*, AIChE Annual Meeting, Boston, MA

2024 Chair, *Pandemic Response, Public Health, and mRNA Vaccines*, AIChE Annual Meeting, San Diego, CA

Professional Activities – continued

2024 Chair, *Engineering Cancer*, AIChE Annual Meeting, San Diego, CA
 2024, 23, 21 INTERACT Research Symposium – Conference Planning Committee
 2024 – 2009 Reviewer for the National Science Foundation (7 separate panels)
 2022, 21, 17 Reviewer for Quebec Consortium for Drug Discovery
 2022 Chair, *Chemical Engineering Principles Advancing Medicine*, AIChE Annual Meeting, Phoenix, AZ
 2020 Chair, *Diagnostics, Treatments and Theranostics*, AIChE Annual Meeting, Virtual
 2019 Chair, *Diagnostics, Treatments and Theranostics*, AIChE Annual Meeting, Orlando, FL
 2018 Reviewer for Swiss National Science Foundation
 2018 END2CANCER:Emerging Nanotechnology and Drug Delivery Applications for Cancer - Conference Planning Committee
 2017 Reviewer for Kentucky Science & Technology Corporation
 2013 Invited Judge for Research Presentations, University of Illinois, Urbana
 2013 Chair, Nucleic Acid Delivery, AIChE Annual Meeting
 2013 Chair, Drug Delivery III, AIChE Annual Meeting
 2012 Chair, Geotechnical Engineering, OkTC Annual Summer Symposium
 2012 Chair, Drug Delivery I, AIChE Annual Meeting
 2012 Chair, Drug Delivery II, AIChE Annual Meeting
 2011 Chair, Nucleic Acid Delivery I, AIChE Annual Meeting
 2011 Chair, Nucleic Acid Delivery II, AIChE Annual Meeting
 2010 Chair, Nucleic Acid Delivery II, AIChE Annual Meeting
 2008 Chair, Drug Delivery I, AIChE Annual Meeting

Honors and Awards**Personal Honors and Awards**

2024, 2023, Outstanding Undergraduate Professor of the Year, Stillwater, OK
 2022, 2021
 2024 ConocoPhillips Lecture Faculty Fellow, Stillwater, OK
 2023 Regents Distinguished Teaching Award, Stillwater, OK
 2019 President's Fellows Faculty Research Award, Stillwater, OK
 2018 – pres. R.N. Maddox Professorship, Stillwater, OK
 2016 – 2018. Anadarko Faculty Fellow, Stillwater, OK
 2016 Finalist, Oklahoma Biosciences Researcher Recognition Award
 2014 National Science Foundation CAREER Award, Stillwater, OK
 2014 OSU Award of Excellence for Advisement, Stillwater, OK
 2014 CEAT Teaching Achievement Award, Stillwater, OK
 2013 Oklahoma State University President's Cup (3rd Place), Stillwater, OK
 2009, 10, 11 Outstanding Graduate Teacher of the Year, Stillwater, OK
 2007 Journal of Pharmaceutical Sciences 2007 Top Reviewers, Lawrence, KS
 2006 – 2007 PhRMA Foundation Postdoctoral Research Fellowship, Lawrence, KS
 2006 Hanratty Travel Award, Urbana, IL
 2005 Graduate College Conference Travel Award, Urbana, IL
 2001 List of Teachers Ranked as Excellent, Urbana, IL
 2000 Omega Chi Epsilon Outstanding Chemical Engineering Senior, Stillwater, OK

Personal Honors and Awards – continued

- 2000 R.N. Maddox Chemical Engineering Design Award, Stillwater, OK
- 2000 Celanese Design Competition – First Place, Stillwater, OK
- 1996 – 2000 Oklahoma Regents Scholarship, Stillwater, OK
- 1996 – 1997 Oklahoma Engineering Foundation Scholarship, Stillwater, OK
- 1996 – 2000 CEAT Scholars Program, Stillwater, OK
- 1996 – 1997 President’s Leadership Council, Stillwater, OK
- 1996 Top Ten Freshman Man, Stillwater, OK

Advisee Honors and Awards

- 2024 1st Place, AIChE National Student Design Contest, Ellison Denoso, Johnathon Kemp, Quinn Stretcher, and Tyme Taylor, San Diego, CA
- 2023 Process Safety Division Student Design Competition Award, Ryan Kuepfer, Luke Tompkins, Logan Wargo, and Connor Wigginton, Orland, FL
- 2019 2nd Place, AIChE National Student Design Contest, Cardin Hart, Colin O’Day, Luke MacNaughton, and Sarah Rechlin, Orlando, FL (2019)
- 2017 1st Place, AIChE National Student Paper Presentation, Anna Condacse, Minneapolis, MN
- 2017 1st Place, AIChE National Student Design Contest, Lauren Austin, Jessica Caitlin, Madeline Ley, and Yen Nguyen, Minneapolis, MN
- 2017 1st Place, AIChE Midwest Regional Student Paper Presentation, Anna Condacse, Tulsa, OK
- 2016 Jack Wehman Student Design Competition Award for Safety from the AIChE Safety and Health Division, Anndrea Fenton, Abigail Hase, and Kyler Hixon, San Francisco, CA
- 2015 AIChE Outstanding Student Chapter Award, Salt Lake City, UT
- 2014 AIChE Outstanding Student Chapter Award, Atlanta, GA
- 2014 Student Design Competition Award for Safety from the AIChE Safety and Health Division, Drew Belcher, Ashlee Keenum, and Eddie Martin, Atlanta, GA
- 2013 AIChE Outstanding Student Chapter Award, San Francisco, CA
- 2012 Top-three ranking, Graduate Student Poster Contest, Sravanthi Vupputuri, Stillwater, OK
- 2012 Student Design Competition Award for Safety from the AIChE Safety and Health Division, Mark Cavett, Michael Sumner, and Clifton Woods, Pittsburgh, PA
- 2012 AIChE Outstanding Student Chapter Award, Pittsburgh, PA
- 2011 3rd Place, AIChE National Student Poster Contest, Danielle Hentges, Minneapolis, MN
- 2011 1st Place, AIChE Midwest Regional Paper Presentation, Matthew Miskelley, Fayetteville, AR
- 2011 Student Design Competition Award for Safety from the AIChE Safety and Health Division, Matthew Grant, Stuart Randel, and Blake Winden, Minneapolis, MN
- 2011 Top-three ranking, Graduate Student Poster Contest, Sravanthi Vupputuri, Stillwater, OK
- 2010 2nd Place, AIChE National Student Design Contest, Jonathan Barnes, Jake Grant, and Drew Sahli, Salt Lake City, UT

Professional Activities and Societies

Licensed Professional Engineer, Oklahoma
American Institute of Chemical Engineers
Tau Beta Pi Engineering Honor Society
Omega Chi Epsilon Chemical Engineering Honor Society

Professional Consulting

2024 Expert Witness
 2018-current Extraction Alternatives Inc.
 2018 AYUB Foundation

Teaching Experience*Oklahoma State University*

Fall 2018	ENGR 2100	Introduction to the Engineering of Coffee: Honors
Summer 2024	ENGR 4063	Technology and Culture of Japan
Fall 2008, 09, 23	CHE 3333	Transport Phenomena
Fall 2009 –22, 24	CHE 4124	Chemical Engineering Design I
Spring 2010–20, 22–24	CHE 4224	Chemical Engineering Design II
Spring 2021	CHE 4990	Delivery of Macromolecular Drugs
Spring 2008 – 2013	CHE 5213	Diffusional Mass Transport

University of Illinois, Champaign-Urbana

Spring 2005	EOL 585	College Teaching and Academic Careers: Training
Spring 2003	CHE 373	Mass Transfer Operations: Teaching Assistant
Spring 2002	CHE 396	Biochemical Engineering: Teaching Assistant
Fall 2001	CHE 421	Momentum and Heat Transfer: Teaching Assistant

University Service Activities

2024 – current	School of Chemical Engineering Curriculum Committee
2016 – current	Vice President of Research Microscopy Advisory Committee
2015 – current	Omega Chi Epsilon, Student Chapter Advisor
2023 – 2024	One-Health Strategic Task Force
2023 – 2024	Strategic Working Group on Recruitment of Underserved Populations
2021 – 2022	ConocoPhillips Lecture (organizer)
2021	School of Chemical Engineering Faculty Search Committee, Chair
2016 – 2021	CEAT Faculty Advisory Council (Chair 2018-19)
2014 – 2021	School of Chemical Engineering Curriculum Committee
2020 – 2021	Faculty Search Committee for Center for Veterinary Health Sciences
2020	Faculty Council – Athletic Committee
2018 – 2020	Provost/Vice President of Research OSU Research Climate Working Group
2019 – 2020	Search Committee for School of Chemical Engineering
2013 – 2020	School of Chemical Engineering Scholarship Committee
2018 – 2019	Search Committee for Head of School of Chemical Engineering
2014 – 2018	Undergraduate Program Director, School of Chemical Engineering
2016 – 2017	Search Committee for Director of Water Resource Center
2016 – 2017	Search Committee for Dean of Center for Veterinary Health Sciences
2015, 2017	CEAT Saint Patrick's Selection Committee
2013 – 2017	CEAT Student Technology Fee Oversight Committee
2015 – 2016	Faculty Position Search Committee
2013 – 2015	Pre-Health Advisory Committee
2011 – 2015	Goldwater Selection Committee
2011 – 2015	American Institute of Chemical Engineers, Student Chapter Advisor
2014 – 2015	Faculty Position Search Committee

University Service Activities – continued

Fall 2014	Faculty Position Search Committee, Chair
2013 – 2014	Faculty Position Search Committee
2012 – 2013	Faculty Position Search Committee
Spring 2012	Engineering Sciences Curriculum Oversight Committee (ENGR 1111/1412)
2008 – 2013	Interview CEAT Scholars
2011	Petroleum Engineering Endowed Chair Search Committee
2009 – 2011	Omega Chi Epsilon, Student Chapter Advisor
2008, 2009	Commencement Reader
Spring 2008	Reinstatement Appeals Review Board

Popular Press

- “A Hopeful Heart.” *Vanguard*, OSU’s Annual Research Magazine, 2012
- “Small Organisms, Big Impact.” *Oklahoma Transportation Center Newsletter*, January 2012
- “SACHE Faculty Workshop Experience.” *SACHE News*, Spring 2010

Books and Chapters

1. Y. Gabal and **J.D. Ramsey**[‡], “Surface Modification of Adenovirus Vector to Improve Immunogenicity and Tropism” *Vaccine Delivery Technology: Methods and Protocols*, Eds. B. Pfeifer and A. Hill. Springer Science – Methods in Molecular Biology, 2021.
2. MK Yazdi, P. Zarrintaj, F. Mottaghitlab, M. Farokhi, **J.D. Ramsey**, MR Saeb, “Controlled/localized release and nanotechnology.” *Nanoengineered Biomaterials for Advanced Drug Delivery*, Ed. M. Mozafari. Elsevier Academic Press, 27-36, 2020.
3. P. Zarrintaj, MK Yazdi, B Bagheri, YC Kim, **J.D. Ramsey**, MR Saeb, “Block copolymers for nanoscale drug and gene delivery.” *Nanoengineered Biomaterials for Advanced Drug Delivery*, Ed. M. Mozafari. Elsevier Academic Press, 181-200, 2020.
4. **J.D. Ramsey**[‡]. “Hazardous Release: Point and Nonpoint Sources” *An Introduction to Interdisciplinary Toxicology: From Molecules to Man*, Eds. C. Pope and J. Liu. Elsevier Academic Press, 2018.
5. **J.D. Ramsey**[‡] and K.J. Bell. “Heat Exchangers for the Process and Energy Industries.” *The CRC Handbook of Thermal Engineering, Second Edition*, Ed. R.P. Chhabra. CRC Press 2017.
6. N. Flynn and **J.D. Ramsey**[‡]. Virus-Like Particles in Gene, Vaccine, and Therapeutic Delivery. In *Nanoparticles for Biotherapeutic Delivery (Vol. 1)*. London, UK: Future Science Ltd. 38-48, 2015.
7. **J.D. Ramsey**[‡] and M.L. Forrest (Eds.). (2015). *Nanoparticles for Biotherapeutic Delivery (Volume 1)*. London, UK: Future Science Ltd.
8. **J.D. Ramsey**[‡] and M.L. Forrest (Eds.). (2015). *Nanoparticles for Biotherapeutic Delivery (Volume 2)*. London, UK: Future Science Ltd.

Publications

1. Z. Syed, S. Samaraweera, Z. Wang, J.K. Schrader, C. Scott, J. Schut, D.J. Smith, **J.D. Ramsey**, S. Krishnan, “Colorimetric Hybridization Sensor for DNA Mimic of a SARS-CoV-2 RNA Marker: Direct and Inverse Bioanalysis” ACS Measurement Science AU, 2024.
2. S. Xie, S. Manouchehri, A. Erfani, **J.D. Ramsey**, C. Aichele “Aerosolization of Poly (Sulfobetaine) Microparticles that Encapsulate Therapeutic Antibodies” Biomaterials Advances, 160, 213839, 2024.
3. A. Taghizadeh, M. Taghizadeh, M.K. Yazdi, P. Zarrintaj, **J.D. Ramsey**, F. Seidi, F.J. Stadler, H. Lee, M.R. Saeb, M. Mozafari, “Mussel-inspired biomaterials: From chemistry to clinic” Bioengineering & Translational Medicine, 7 (3), 2022.
4. G. Mahmodi, A. Ronte, S. Dangwal, P. Wagle, E. Echeverria, B. Sengupta, V. Vatanpour, D.N. McIlroy, **J.D. Ramsey**, S.J. Kim, “Improving antifouling property of alumina microfiltration membranes by using atomic layer deposition technique for produced water treatment” Desalination, 523, 115400, 2022.
5. M. Taghizadeh, A. Taghizadeh, M.K. Yazdi, P. Zarrintaj, F.J. Stadler, **J.D. Ramsey**, S. Habibzadeh, S.H. Rad, G. Naderi, M.R. Saeb, M. Mozafari, U.S. Schubert, “Chitosan-based inks for 3D printing and bioprinting” Green Chemistry, 24 (1), 62-101, 2022.
6. P. Zarrintaj, S. Ghorbani, M. Barani, N.P.S. Chauhan, M.K. Yazdi, M.R. Saeb, **J.D. Ramsey**, M.R. Hamblin, M. Mozafari, E. Mostafavi, “Polylysine for skin regeneration: A review of recent advances and future perspectives” Bioengineering & Translational Medicine, 7 (1), 2022.
7. R.S.Hikkaduwa Koralege, K. Sahoo, N.H. Flynn, A. Ranjan, C. Pope, and **J.D. Ramsey**[‡], “Erythrocytes internalize nanoparticles functionalized with low molecular weight protamine.” Journal of Nanoparticle Research, 23 (4), 1-16, 2021.
8. S. Vupputuri, L. Tayebi, R.S. Hikkaduwa Koralege, A. Nigatu, M. Mozafari, A. Mishra, L. Liu, **J.D. Ramsey**[‡], “Polyethylene glycol–modified DOTAP: cholesterol/adenovirus hybrid vectors have improved transduction efficiency and reduced immunogenicity.” Journal of Nanoparticle Research, 23 (2), 2021.
9. S. Manouchehri, P. Zarrintaj, M.R. Saeb, **J.D. Ramsey**[‡], “Advanced Delivery Systems Based on Lysine or Lysine Polymers.” Molecular Pharmaceutics, 18 (10), 3652-3670, 2021.
10. A. Erfani, A. Hanna, P. Zarrintaj, S. Manouchehri, K. Weigandt, C. Aichele, **J.D. Ramsey**[‡], “Biodegradable Zwitterionic Poly (Carboxybetaine) Microgel for Sustained Delivery of Antibodies with Extended Stability and Preserved Function.” Soft Matter, 2021.
11. A. Erfani, P. Zarrintaj, **J.D. Ramsey**, C. Aichele, “Zwitterionic poly(carboxybetaine) microgels for enzyme (chymotrypsin) covalent immobilization with extended stability and activity.” Applied Polymer Science, 138 (22), 50545, 2021.
12. MP Singh, NH Flynn, SN Sethuraman, S Manouchehri, J Ritchey, J Liu, **J.D. Ramsey**, C. Pope, A. Ranjan, “Reprogramming the rapid clearance of thrombolytics by nanoparticle

- encapsulation and anchoring to circulating red blood cells.” *Journal of Controlled Release*, 329, 148-161, 2021.
13. P. Zarrintaj, S. Manouchehri, M. Davachi, M.K. Yazdi, **J.D. Ramsey**, M.R. Saeb, M.R. Ganjali, “Biopolymeric Sensors.” *Functionalized Polymers*, 235-249, 2021.
 14. P. Zarrintaj, M. Khodadadi Yazdi, M. Youssefi Azarfam, M. Zare, **J.D. Ramsey**, F. Seidi, M.R. Saeb, S. Ramakrishna, M. Mozafari, “Injectable Cell-laden Hydrogels for Tissue Engineering: Recent Advances and Future Opportunities.” *Tissue Engineering Part A*, 27, 821-843, 2021.
 15. P. Zarrintaj, S. Ghorbani, M. Barani, N.P. Singh Chauhan, M. Khodadadi Yazdi, M.R. Saeb, **J.D. Ramsey**, M.R. Hamblin, M. Mozafari, E. Mostafavi, “Polylysine for Skin Regeneration: A Review of Recent Advances and Perspectives.” *Bioengineering & Translational Medicine*, 10261, 2021.
 16. M.K. Yazdi, P. Zarrintaj, S. Manouchehri, **J.D. Ramsey**, M.R. Ganjali, M.R. Saeb, “Elastomeric and Plastomeric Materials.” *Functionalized Polymers*, 193-207, 2021.
 17. H. Aghazadeh, M.K. Yazdi, A. Kolahi, M. Yekani, P. Zarrintaj, **J.D. Ramsey**, M.R. Ganjali, F.J. Stadler, M.R. Saeb, M. Mozafari, “Synthesis, characterization and performance enhancement of dry polyaniline-coated neuroelectrodes for electroencephalography measurement.” *Current Applied Physics*, 27, 43-50, 2021.
 18. J. Seaberg, S. Kaabipour, S. Hemmati, and **J.D. Ramsey**[‡], “A rapid millifluidic synthesis of tunable polymer-protein nanoparticles.” *European Journal of Pharmaceutics and Biopharmaceutics*, 154, 127-135, 2020.
 19. J. Seaberg, N.H. Flynn, A. Cai, **J.D. Ramsey**[‡], “Effect of redox-responsive DTSSP crosslinking on poly(L-lysine)-grafted-poly(ethylene glycol) nanoparticles for delivery of proteins.” *Biotechnology and Bioengineering*, 117 (8), 2504-2515, 2020.
 20. A. Erfani, N.H. Flynn, C.P. Aichele, and **J.D. Ramsey**[‡], “Encapsulation and delivery of protein from within poly(sulfobetaine) hydrogel beads.” *Journal of Applied Polymer Science*, 137 (40), 49550, 2020.
 21. A. Erfani, J. Seaberg, C.P. Aichele, and **J.D. Ramsey**[‡], “Interactions between biomolecules and zwitterionic moieties: a review.” *Biomacromolecules*, 21 (7), 2557-2573, 2020.
 22. S. Vupputuri, L. Tayebi, R. Hikkaduwa Koralege, A. Nigatu, M. Mozafari, A. Mishra, L. Liu, and **J.D. Ramsey**[‡], “Polyethylene glycol-modified DOTAP:cholesterol/adenovirus hybrid vectors have improved transduction efficiency and reduce immunogenicity.” *Journal of Nanoparticle Research*, 23 (2), 1-14, 2020.
 23. A. Erfani, S. Khosharay, N.H. Flynn, **J.D. Ramsey**, C.P. Aichele, “Effect of zwitterionic betaine surfactant on interfacial behavior of bovine serum albumin.” *Journal of Molecular Liquids*, 318, 114067, 2020.
 24. V. Vatanpour, S.S.M. Khadem, M. Masteri-Farahani, N. Mosleh, M.R. Ganjali, A. Badiei, E. Pourbashir, A.H. Mashhadzadeh, M.T. Munir, G. Mahmodi, P. Zarrintaj, **J.D. Ramsey**, S.J. Kim, M.R. Saeb. “Anti-fouling and permeable polyvinyl chloride nanofiltration membranes

- embedded by hydrophilic graphene quantum dots for dye wastewater treatment.” *Journal of Water Process Engineering*, 38, 101652, 2020.
25. P. Zarrintaj, G. Mahmodi, S. Manouchehri, A.H. Mashhadzadeh, M. Khodadadi, M. Servatan, M.R. Ganjali, B. Azambre, S.J. Kim, **J.D. Ramsey**, S. Habibzadeh, M.R. Saeb, M. Mozafari, “Zeolite in Tissue Engineering: Opportunities and Challenges.” *MedComm*, 5-34, 2020.
 26. M.A. Salati, J. Khazai, A.M. Tahmuri, A. Samadi, A. Taghizadeh, M. Taghizadeh, P. Zarrintaj, **J.D. Ramsey**, S. Habibzadeh, F. Seidi, M.R. Saeb, M. Mozafari, “Agarose-based biomaterials: opportunities and challenges in cartilage tissue engineering.” *Polymers*, 12 (5), 1150, 2020.
 27. M. Nourbakhsh, P. Zarrintaj, S.H. Jafari, S.M. Hosseini, S. Aliakbari, H.G. Pourbadie, N. Naderi, M.I. Zibaii, S.S. Gholizadeh, **J.D. Ramsey**, S. Thomas, M. Farokhi, M.R. Saeb[‡], “Fabricating an Electroactive Injectable Hydrogel Based on Pluronic-Chitosan/Aniline-Pentamer Containing Angiogenic Factor for Functional Repair of the Hippocampus Ischemia Rat Model.” *Material Science and Engineering C*, 117, 2020.
 28. M.K. Yazdi, A. Taghizadeh, M. Taghizadeh, F.J. Stadler, M. Farokhi, F. Mottaghitlab, P. Zarrintaj, **J.D. Ramsey**, F. Saidi, M.R. Saeb, and M. Mozafari[‡], “Agarose-based biomaterials for advanced drug delivery.” *Journal of Controlled Release*, 2020.
 29. P. Zarrintaj, H. Hosseiniamoli, A.H. Mashhadzadeh, M.R. Saeb, **J.D. Ramsey**, M.R. Ganjali, M. Mozafari[‡], “Zeolites for theranostic applications.” *Journal of Materials Chemistry B*, 8 (28), 5992-6012, 2020.
 30. G. Mahmodi, S. Dangwal, P. Zarrintaj, M. Zhu, Y. Mao, D.N. McIlroy, M.R. Saeb, V. Vatanpour, **J.D. Ramsey**, and S.J. Kim[‡], “NaA Zeolite-Coated Meshes with Tunable Hydrophilicity for Oil-Water Separation.” *Separation and Purification Technology*, 240, 116630, 2020.
 31. P. Zarrintaj, **J.D. Ramsey**, A. Samadi, Z. Atoufi, M.K. Yazdi, M.R. Ganjali, L.M. Amirabad, E. Zangene, M. Farokhi, K. Formela, M.R. Saeb, M. Mozafari, S. Thomas[‡], “Pluronic: A versatile tri-block copolymer for biomedical applications.” *Acta Biomaterialia*, 110, 37-67, 2020.
 32. P. Zarrintaj, G. Mahmodi, M. Taghizadeh, M. Taghizadeh, S. Manouchehri, S. Dangwal, R. Anil, M.R. Ganjali, **J.D. Ramsey**, M.R. Saeb[‡], S.J. Kim[‡], “From Microporous to Mesoporous Mineral Frameworks: An alliance between Zeolite and Chitosan.” *Carbohydrate Research*, 489, 107930, 2020.
 33. M.K. Yazdi, P. Zarrintaj, H. Hosseiniamoli, A.H. Mashhadzadeh, M.R. Saeb, **J.D. Ramsey**, M.R. Ganjali, and M. Mozafari, “Zeolites for theranostic applications.” *Journal of Materials Chemistry B*, 8 (28), 5992-6012, 2020.
 34. N.H. Flynn, A. Ranjan and **J.D. Ramsey**[‡], “Intracellular Delivery of Glucose Oxidase for Enhanced Cytotoxicity Toward PSMA-Expressing Prostate Cancer Cells.” *Macromolecular Biosciences*, 19, 1900183, 2019.
 35. A. Erfani, N.H. Flynn, **J.D. Ramsey**, and C. Aichele[‡], “Increasing protein stability by association with zwitterionic amphiphile cocamidopropyl betaine.” *Molecular Liquids*, 295, 111631, 2019.

36. M. Amer, Y. Feng, and **J.D. Ramsey**[‡], “Using CFD simulations and statistical analysis to correlate oxygen mass transfer coefficient to both geometrical parameters and operating conditions in a stirred-tank bioreactor.” *Biotechnology Progress*, 2785-2799, 2019.
37. M. Amer and **J.D. Ramsey**[‡], “Multi-Chamber Single-Use Bioreactor – A Proof of Concept Prototype.” *Biochemical Engineering Journal*, 130 (2018), 113-120, 2018.
38. K. Sahoo, S. Karumuri, R. Hikkaduwa Koralege, N.H. Flynn, S. Hartson, J. Liu, **J.D. Ramsey**, K. Kalkan, C. Pope, A. Ranjan[‡], “Molecular and biocompatibility characterization of red blood cell membrane targeted and cell penetrating peptide-modified polymeric nanoparticles.” *Molecular Pharmaceutics*, 14 (7), 2224-2235, 2017.
39. K. Poindexter, J. Liu, N.H. Flynn, L. Sultatos, L. Geng, S. Brimijoin, **J.D. Ramsey**, S. Hartson, A. Ranjan, and C. Pope[‡], “Polyionic Complexes of Butyrylcholinesterase and Poly-L-lysine-g-poly(ethylene glycol): Comparative Kinetics of Catalysis and Inhibition and in vitro Inactivation by Proteases and Heat.” *Chemico-Biological Interactions* 275 (2017), 86-94, 2017.
40. G. Kupgan, S.P. Choudhari, N.H. Flynn, A.N. Nigatu, S. Vupputuri, W.D. Picking, W.L. Picking, and **J.D. Ramsey**[‡], “Identification of Excipients for Stabilizing Fiberless Adenovirus as Biopharmaceuticals.” *Journal of Pharmaceutical Sciences*, 106 (7), 1764 – 1771, 2017.
41. M. Rasoulianboroujeni, G. Kupgan, F. Moghadam, M. Tahriri, A. Boughdachi, P. Khoshkenar, J.J. Ambrose, N. Kiaie, D. Vashae, **J.D. Ramsey**, and L. Tayebi, “Development of a DNA-Liposome Complex for Gene Delivery Applications.” *Material Science and Engineering C*, 75, 191-197, 2017.
42. S. Koteeswaran, J.C. Pashin, **J.D. Ramsey**, and P.E. Clark, “Quantitative Characterization of Polyacrylamide-Shale Interaction under Various Saline Conditions.” *Petroleum Sciences*. 14, 586-596, 2017.
43. N.H. Flynn, Ç. Ö. Topal, R.S. Hikkaduwa Koralege, S. Hartson, A. Ranjan, J. Liu, C. Pope, and **J.D. Ramsey**[‡], “Effect of Cationic Grafted Copolymer Structure on the Encapsulation of Bovine Serum Albumin.” *Material Science and Engineering C*, 62, 524-531, 2016.
44. K. Sahoo, R. Hikkaduwa Koralege, N. Flynn, S. Koteeswaran, P. Clark, S. Hartson, J. Liu, **J.D. Ramsey**, C. Pope, and A. Ranjan[‡], “Nanoparticle Attachment to Erythrocyte via the Glycophorin A Targeted Ery1 Ligand Enhances Binding without Impacting Cellular Function.” *Pharmaceutical Research*, 33 (5), 1191-1203, 2016.
45. G. Premaratne, R. Nerimetia, R. Matlock, L. Sunday. R. Hikkaduwa Koralege, **J.D. Ramsey**, and S. Krishnan[‡], “Stability, Scalability, and Reusability of a Volume Efficient Biocatalytic System Constructed on Magnetic Nanoparticles.” *Catalysis Science & Technology*, 2016 (6), 2361-2369, 2016.
46. S. Nasrazadani[‡], R. Eghtesad, E. Sudoi, S. Vupputuri, **J.D. Ramsey**, and T. Ley, “Application of Fourier Transform Infrared Spectroscopy to Study Concrete Degradation Induced by Biogenic Sulfuric Acid.” *Materials and Structures*. 5 (49), 2025-2034, 2016.
47. C. Pope, C. Uchea, N.H. Flynn, K. Poindexter, L. Geng, W.S. Brimijoin, S. Hartson, A. Ranjan, **J.D. Ramsey**, and J. Liu[‡], “In Vitro Characterization of Cationic Copolymer-

- Complexed Nanoparticles of Human Butyrylcholinesterase.” *Biochemical Pharmacology*, 98 (3), 531-539, 2015.
48. **J.D. Ramsey**[‡] and N.H. Flynn, “Cell-Penetrating Peptides Transport Therapeutics into Cells.” *Invited Review, Pharmacology & Therapeutics*, 154, 78-86, 2015.
49. N. Flynn and **J.D. Ramsey**[‡]. Virus-Like Particles in Gene, Vaccine, and Therapeutic Delivery. In *Nanoparticles for Biotherapeutic Delivery (Vol. 1)*. London, UK: Future Science Ltd. 38-48, 2015.
50. A.S. Nigatu, N. Flynn, S. Vupputuri, and **J.D. Ramsey**[‡], “Effects of Cell-Penetrating Peptides on Transduction Efficiency of PEGylated Adenovirus.” *Biomedicine and Pharmacotherapy*, 71 (2015), 153-160, 2015.
51. S. Vupputuri, B. Fathepure, G. Wilber, S. Nasrazadani, T. Ley, **J.D. Ramsey**[‡], “Characterization of an Acid-Producing Microorganism Collected from a Deteriorating Bridge Site.” *International Biodeterioration & Biodegradation*, 97 (Jan.-Feb.), 128-134, 2015.
52. G. Kupgan, D. Hentges, N. Muschinske, W.D. Picking, W.L. Picking and **J.D. Ramsey**[‡], “The Effect of Fiber Truncations on the Stability of Adenovirus Type 5.” *Molecular Biotechnology*, 56 (11), 979 – 991, 2014.
53. S.P. Choudhari, K. Pendleton, **J.D. Ramsey**, T. Blanchard and W.D. Picking[‡], “A Systematic Approach Toward Stabilization of CagL, a Protein Antigen from *Helicobacter pylori* that is a Candidate Subunit Vaccine.” *Journal of Pharmaceutical Sciences*, 102 (8), 2508 – 2519, 2013.
54. N.A. Alhakamy, A.S. Nigatu, C.J. Berkland and **J.D. Ramsey**[‡], “Gene Delivery Applications of Noncovalently Associated Cell-Penetrating Peptides.” *Therapeutic Delivery*, 4 (6), 741 – 755, 2013.
55. E. Whitebay, B. Neely, K.G. Gasem and **J.D. Ramsey**[‡], “In Silico Prediction of Mechanism of Action for Cancer Therapeutics.” *Molecular Informatics*, 32 (8), 735 – 741, 2013.
56. A. Nigatu, S. Vupputuri, N. Flynn, B.J. Neely and **J.D. Ramsey**[‡], “Evaluation of Cell Penetrating Peptide-Adenovirus particles for Transduction of CAR-Negative Cells.” *Journal of Pharmaceutical Sciences*, 102 (6), 1981-1993, 2013.
57. S. Vupputuri, S. Karode, B.J. Neely and **J.D. Ramsey**[‡], “Protein Impurities from Cell Culture Dramatically Impact Transduction Efficiency of Polymer/Virus Hybrid Vectors.” *Journal of Virological Methods*, 92 (2013), pp. 1-11, 2013.
58. K. Singarapu, I. Pal, and **J.D. Ramsey**[‡], “Modified Polyethylenimine Used to Enhance Adenovirus Gene Delivery.” *Journal of Biomedical Materials Research: Part A*, 101A, 1857 – 1864, 2013.
59. I. Pal and **J.D. Ramsey**[‡], “The Role of the Lymphatic System in Vaccine Trafficking and Immune Response.” *Advanced Drug Delivery Reviews*, 63 (10-11), 909-922, 2011.
60. Y. Zeng*, **J.D. Ramsey**^{*}, R. King, M. Leviten, R. McGuire, D. Volkin, S.B. Joshi, and C.R. Middaugh, “Identifying Stabilizers for Plasmid DNA for Pharmaceutical Use.” *Journal of Pharmaceutical Sciences*, 100 (3), 904-914, 2011.

*Authors share equal first authorship.

61. **J.D. Ramsey**, H.N. Vu and D.W. Pack, "Top-Down Approach for Construction of Hybrid Polymer-Virus Gene Delivery Vectors." *Journal of Controlled Release*, 1 (144), 39-45, 2010.
*Featured as the cover story.
62. **J.D. Ramsey**, M.L. Gill, T.J. Kamerzell, E.S. Price, S.B. Joshi, S.M. Bishop, C.N. Oliver and C.R. Middaugh, "Using Empirical Phase Diagrams to Understand the Role of Intramolecular Dynamics in Immunoglobulin G Stability." *Journal of Pharmaceutical Sciences*, 98 (7), 2432-2447, 2009.
63. T.J. Kamerzell, **J.D. Ramsey** and C.R. Middaugh, "Immunoglobulin Dynamics, Conformational Fluctuations, Non-linear Elasticity and Their Effects on Stability." *Journal of Physical Chemistry B* 112, 3240-3250, 2008.
64. R. Middaugh and **J.D. Ramsey**, "Analysis of Cationic-Lipid-Plasmid-DNA Complexes. *Analytical Chemistry* 79, 7240-7248, 2007.
*Featured as the cover story.
65. H.N. Vu, **J.D. Ramsey** and D.W. Pack, "Engineering of a Stable Retroviral Gene Delivery Vector by Directed Evolution." *Molecular Therapy* 16, 308-314, 2007.

‡Corresponding author

Research Selected for Presentation at Conferences

1. S. Xie, S. Manouchehri, J.D. Ramsey, and C. Aichele, "Biodegradable Poly (Sulfo Betaine) Microparticles for Antibody Pulmonary Delivery." *5th International Conference on Bioinspired and Zwitterionic Materials*, July 31, 2024.
2. S. Manouchehri, A. Singh, A. Ranjan and J.D Ramsey, "Targeted Delivery of Glucose Oxidase Prolongs Survival of a Mouse Prostate Tumor Model." *AIChE Annual Meeting*, Orlando, FL, November 8, 2023.
3. S. Xie, S. Manouchehri, J.D. Ramsey and C. Aichele, "Biodegradable Zwitterionic Polymer Microparticles for Pulmonary Delivery of Protein-Based Therapeutics." *AIChE Annual Meeting*, Orlando, FL, November 8, 2023.
4. J. McCreary, S. Manouchehri, Y.Y. Liu, Y. Lin, **J.D. Ramsey**, I. Huang, "Targeting *Clostridioides difficile*: Designing an Oral Mucosal Vaccine for Enhanced Protection." 7th Annual Joint Research Meeting: Biomedical, Biological, Neuroscience, Physiology, Forensics, July 21, 2023.
5. S. Xi, S. Manouchehri, **J.D. Ramsey**, and C. Aichele, "Tailoring the Size of Biodegradable Poly (sulfobetaine) Hydrogels for IgG Pulmonary Delivery." *AIChE Annual Meeting*, Phoenix, AZ, November 14, 2022.
6. Z. Syed, Z. Wang, S. Manouchehri, **J.D. Ramsey**, and S. Krishnan, "Ultra-low detection of infectious disease nucleic acid biomarkers by a visual colorimetric sensor: Point-of-need instrument free application." *9th Annual Research Symposium Oklahoma Center for Respiratory & Infectious Diseases*. April 2022.
7. Z. Syed, Z. Wang, **J.D. Ramsey**, and S. Krishnan, "Ultra-low detection of infectious disease nucleic acid biomarkers by a visual colorimetric sensor." *242nd ECS Meeting*, Atlanta GA. October 2022.

8. S. Manouchehri[‡], A. Hanna, S. Tarte, A. Ranjan, and **J.D. Ramsey**, “Glucose Oxidase Delivery Using Polylysine-Grafted-Polyethylene Glycol Nanoparticles for Cancer Therapy.” *AIChE Annual Meeting*, Boston, MA, November 11, 2021.
9. D. Mahmodi[‡], A. Ronte, **J.D. Ramsey**, and S. Kim, “Atomic Layer Deposition-Modified Membranes for Produced Water Treatment.” *AIChE Annual Meeting*, Boston, MA, November 11, 2021.
10. A. Erfani, P. Zarrintaj, **J.D. Ramsey**, C.P. Aichele, “Covalent immobilization of chymotrypsin within zwitterionic poly(carboxybetaine) microscale hydrogels”, *AIChE Annual meeting*, November 2020.
11. Y Gabal[‡] and **J.D. Ramsey**, “Design of Hybrid Polymer/Adenoviral Gene Delivery Vectors.” *AIChE Annual Meeting*, Orlando, FL, November 14, 2019.
12. N.H. Flynn and **J.D. Ramsey**[‡], “PSMA-Targeted Glucose Oxidase Nanoparticles for Directed Cytotoxicity Toward Prostate Cancer Cells.” *AIChE Annual Meeting*, Orlando, FL, November 11, 2019.
13. Y Gabal[‡] and **J.D. Ramsey**, “Trafficking of Hybrid Adenoviral Gene Delivery Vectors.” *AAPS 2019 PHARMSCI 360*, San Antonio, TX, November, 3, 2019.
14. Seaberg[‡], N.H. Flynn, and **J.D. Ramsey**, “Stimuli Responsive Nanoparticles for Delivery of Therapeutic Proteins.” *Bioengineering & Translational Medicine Conference*, Durham, NC, October 7, 2019.
15. Erfani[‡], N.H. Flynn, C. Aichele, and **J.D. Ramsey**, “Synthesis, characterization, and evaluation of a zwitterionic microgel for therapeutic protein delivery.” *American Chemical Society National Meeting*, San Diego, CA, August 28, 2019.
16. Erfani[‡], N. Pickering, J.L. White, **J.D. Ramsey**, and C. Aichele, “Protein-excipient interactions via diffusion NMR: Case study of zwitterions.” *American Chemical Society National Meeting*, San Diego, CA, August 27, 2019.
17. Erfani[‡], N.H. Flynn, **J.D. Ramsey**, and C. Aichele “Protein encapsulation using cationic copolymers in the presence of zwitterionic surfactants.” *American Chemical Society National Meeting*, Boston, MA, August 20, 2018.
18. Erfani[‡], S. Khosharay, N.H. Flynn, , **J.D. Ramsey**, and C. Aichele “Bovine serum albumin protein surface properties in the presence of polymers or surfactants.” *American Chemical Society National Meeting*, Boston, MA, August 22, 2018.
19. Y.M. Gabal[‡] and **J.D. Ramsey**, “A Hybrid Viral Vector to Enhance Gene Delivery.” *End2Cancer*, Oklahoma City, OK, December 15, 2017.
20. G Kupgan, A. Candace[‡], and **J.D. Ramsey**, “Production and Stabilization of a Fiberless Adenovirus Gene Vector.” *AIChE Annual Meeting*, Minneapolis, MN, October 30, 2017.
21. M. Amer[‡] and **J.D. Ramsey**, “Multi-Chamber Single-Use Bioreactor - A Proof of Concept Prototype.” *BioProcess International Conference*, Boston, MA, September 26-28, 2017.
22. Pope, S. Hartson, J Liu, **J.D. Ramsey**[‡], A. Ranjan, W.S. Brimijoin, “Nanocarrier-mediated Targeting of Bioscavengers to the Red Blood Cell for Prolonged Circulation and Protection” *Defense Threat Reduction Agency*, Lorton, VA, July 18, 2017.

23. K. Poindexter[‡], S. Hartson, J. Ramsey, A. Ranjan, S. Brimijoin, N. Flynn, C. Pope, J. Liu, “Comparative Kinetics of Inhibition, Proteolytic Sensitivity and Heat Inactivation of Free and Nanocomplexed Butyrylcholinesterase.” Chemical & Biological Weapons Session, Society of Toxicology 56th Annual Meeting, March 14, 2017.
24. J. Liu[‡], C. Pope, S. Brimijoin, S. Hartson, L. Geng, N. Flynn, A. Ranjan, J.D. Ramsey, “Erythrocyte Binding in vitro and Tissue Distribution in vivo of Free and Copolymer-complexed Butyrylcholinesterase.” Chemical & Biological Weapons Session, Society of Toxicology 56th Annual Meeting, March 14, 2017.
25. K. Poindexter[‡], J. Liu, N.H. Flynn, **J.D. Ramsey**, S. Hartson, A. Ranjan, S. Brimijoin, and C. Pope, “Comparative Kinetics of Inhibition, Proteolytic Sensitivity, and Heat Inactivation of Free and Nanocomplexed Butyrylcholinesterase.” OSU Research Week, January 2017
26. Candace[‡], M. Amer, and **J.D. Ramsey**, “A Fiberless Adenovirus Vector for Delivering the gfp Reporter Gene.” *AICHE Midwestern Regional Meeting*, Tulsa, OK, April 1, 2017.
27. Rangika Hikkaduwa Koralege[‡], Kaustuv Sahoo, Nicholas Flynn, Steven Hartson, Jing Pope, Ashish Ranjan, Carey Pope and Joshua Ramsey, “Internalization of Nanoparticles Functionalized with Low Molecular Weight Protamine into Erythrocytes.” *AICHE Annual Meeting*, San Francisco, CA, November, 2016.
28. Nicholas Flynn[‡], Rangika Hikkaduwa Koralege, Kaustuv Sahoo, Ç. Özge Topal, Sravanthi Vupputuri, Liyi Geng, Stephen Brimijoin, Steven Hartson, Ashish Ranjan, Jing Pope, Carey Pope, and **J.D. Ramsey**, “Protein Encapsulation for Delivery to Erythrocytes.” *AICHE Annual Meeting*, Salt Lake City, UT, November, 2015.
29. Momen Amer and **J.D. Ramsey**, “Investigating the Effects of Polyethylene Glycol (PEG) and Poly-L-Lysine (PLL) Molecular Weights and Grafting Ratios on the Physicochemical Properties and the Transduction Efficiency of PEG-PLL/Fiberless Adenovirus Vectors Targeting Prostate Cancer Cells.” *AICHE Annual Meeting*, Salt Lake City, UT, November, 2015.
30. Nicholas Flynn[‡], Chibuzor Uchea, Jing Pope, Steve Hartson, Sravanthi Vupputuri, Liyi Geng, Stephen Brimijoin, Ashish Ranjan, Carey Pope, and **J.D. Ramsey**, “Encapsulation of Butyrylcholinesterase with a Cationic Copolymer Library.” *AICHE Annual Meeting*, Atlanta, GA, November, 2014.
31. **J.D. Ramsey**[‡] and S.V. Madihally, “Alternate Models to TA-Graded Homework.” *AICHE Annual Meeting*, San Francisco, CA, November, 2013.
32. Nigatu, G. Kupgan, and **J.D. Ramsey**[‡], “Modification of Fiberless Adenovirus With a Polymer/Peptide Conjugate for Enhanced Transduction and Reduced Immune Response.” *AICHE Annual Meeting*, San Francisco, CA, November, 2013.
33. S. Vupputuri[‡], L. Tayebi, **J.D. Ramsey**, “Encapsulation of Adenovirus with Pegylated, Ternary Cationic Liposome Shows Improved Transduction of CAR-negative Cells.” *AICHE Annual Meeting*, San Francisco, CA, November, 2013.
34. G. Kupgan, S.P. Choudhari, N.H. Flynn, A.N. Nigatu, S. Vupputuri, W.D. Picking, W.L. Picking, and **J.D. Ramsey**[‡], “Stabilization of a Fiberless Adenovirus Gene Vector.” *AICHE Annual Meeting*, San Francisco, CA, November, 2013.

35. N. Flynn[‡] and **J.D. Ramsey**, "Targeted Adenoviral Gene Delivery." *Oklahoma State University Research Symposium*, February 21, 2013.
36. G. Kupgan[‡] and **J.D. Ramsey**, "Effect of Temperature and pH on Fiberless Adenovirus and Identification of Potential Stabilizers." *Oklahoma State University Research Symposium*, February 21, 2013.
37. Nigatu[‡], G. Kupgan, and **J.D. Ramsey**, "Genetic and Chemical Modification of Adenovirus for the Development of a Safe and Effective Gene Therapy Vector." *Oklahoma State University Research Symposium*, February 21, 2013.
38. S. Vupputuri[‡] and **J.D. Ramsey**, "Role of Cationic Liposomes in Adenovirus Gene Delivery to CAR- Negative Cells." *Oklahoma State University Research Symposium*, February 21, 2013.
39. E. Whitebay[‡], **J.D. Ramsey**, B.J. Neely, and K.A.M. Gasem, "In Silico Prediction of Cancer Mechanism of Action." *Oklahoma State University Research Symposium*, February 21, 2013.
40. Nigatu and **J.D. Ramsey**[‡], "Development of an Adenovirus Gene Therapy Vector with Improved Transduction Efficacy and Reduced Innate and Adaptive Immune Response." *AIChE Annual Meeting, Pittsburg, PA*, October 30, 2012.
41. E. A. Whitebay, **J. D. Ramsey**, B. J. Neely[‡], and K. A. M. Gasem, " In Silico Prediction of Cancer Mechanism of Action." *AIChE Annual Meeting, Pittsburg, PA*, October 30, 2012.
42. G. Kupgan[‡] and **J.D. Ramsey**, "Biophysical Characterization of Mutated Fiber Adenoviruses." *AIChE Annual Meeting, Pittsburg, PA*, October 28, 2012.
43. S. Vupputuri[‡], T. Ley, B. Fathepure, and G. Wilber, **J.D. Ramsey**, "Characterization and Mediation of Microbial Deterioration of Concrete Infrastructure." *Oklahoma Transportation Center Conference*, August 6, 2012.
44. G. Kupgan[‡] and **J.D. Ramsey**, "Physical Characterization of Recombineered Fiber-mutant Adenoviruses using Spectroscopic Techniques." *Oklahoma State University Research Symposium*, February 24, 2012.
45. Nigatu[‡] and **J.D. Ramsey**, "Adenovirus/Cell Penetrating Peptide Nanoparticles for Transduction of Difficult-to-Transform Cell Lines." *Oklahoma State University Research Symposium*, February 24, 2012.
46. S. Vupputuri[‡], T. Ley, B. Fathepure, and G. Wilber, **J.D. Ramsey** "Isolation of an Acid-Producing Microorganism Connected to Deterioration of Concrete Infrastructure." *Oklahoma State University Research Symposium*, February 24, 2012.
47. E. A. Whitebay[‡], **J.D. Ramsey**, B. J. Neely, and K. A. M. Gasem, "In Silico Development of Novel Anticancer Drugs." *Oklahoma State University Research Symposium*, February 24, 2012.
48. E. A. Whitebay, **J.D. Ramsey**[‡], B. J. Neely, and K. A. M. Gasem, "In Silico Prediction of Cancer GI50" *AIChE Annual Meeting, Minneapolis, MN*, October 19, 2011.
49. J.M. Miskelly[‡] and **J.D. Ramsey**, "Biocompatibility and Toxicity of Solvents for Frankincense Oil." *AIChE Annual Meeting, Minneapolis, MN*, October 17, 2011.

50. Hentges[‡], G. Kupgan and **J.D. Ramsey**, “Engineering Adenovirus Mutants and Characterizing Virus Stability.” *AIChE Annual Meeting, Minneapolis, MN*, October 17, 2011.
51. Fathepure[‡], S. Dalvi, **J.D. Ramsey**, L. Tyler, G. Wilber, “Molecular characterization of microbial communities of deteriorated concrete structures and the role of sulfur-oxidizers on the corrosion process.” *111th American Soc. of Microbiology*, New Orleans, LA, May 21-24, 2011.
52. J.M. Miskelly[‡] and **J.D. Ramsey**, “Biocompatibility and Toxicity of Solvents for Frankincense Oil.” *AIChE Midwestern Regional Meeting*, Fayetteville, AR, April 8-9, 2011.
53. Hentges[‡], G. Kupgan and **J.D. Ramsey**, “Engineering Adenovirus Mutants and Characterizing Virus Stability.” *AIChE Regional Meeting*, Fayetteville, AR, April 8-9, 2011.
54. Nigatu[‡] and **J.D. Ramsey**, “Development of an Improved Adenovirus Gene Therapy Vector That Employs Cell Penetrating Peptides for Transformation of Difficult to Infect Cell Lines.” *Oklahoma State University Research Symposium*, February 23, 2011.
55. Pal[‡] and **J.D. Ramsey**, “Enhanced Gene Delivery to CAR-negative Cells Using a PLL-g-PEG Copolymer.” *Oklahoma State University Research Symposium*, February 23, 2011.
56. K. Singarapu[‡] and **J.D. Ramsey**, “Modified Polyethylenimine used to Enhance Adenovirus Gene Delivery.” *Oklahoma State University Research Symposium*, February 23, 2011.
57. S. Vupputuri[‡], P. Rajakaruna, G. Wilber, B. Fathepure, T. Ley, and **J.D. Ramsey**, “Isolation and Characterization of an Acid-Producing Microorganism from Deteriorating Bridge Sites.” *Oklahoma State University Research Symposium*, February 24, 2011.
58. Hentges[‡], G. Kupgan and **J.D. Ramsey**, “Engineering Adenovirus Mutants and Characterizing Virus Stability.” *Oklahoma State University Research Symposium*, Feb. 25, 2011.
59. A. Nigatu[‡] and **J.D. Ramsey**, “Development of an Improved Adenovirus Gene Therapy Vector that Employs Cell-Penetrating Peptides for Transformation of Difficult-to-Infect Cell Lines.” *AIChE Annual Meeting*, Salt Lake City, UT, November 7-12, 2010.
60. B. Fathepure, S. Dalvi, P. Rajakaruna, **J.D. Ramsey**, L. Tyler, G. Wilber, “Molecular Diversity of Corroded Concrete Biofilms and the Role of Acid-Producers in Concrete Corrosion.” *13th International Society of Microbial Ecology*, Seattle WA, August 22-27, 2010.
61. Pal and **J.D. Ramsey**, “Characterizing Gene Delivery Efficiency of an Adenovirus Coated with PLL-g-PEG Copolymer.” *AIChE Annual Meeting*, Salt Lake City, UT, November 7-12, 2010.
62. S. Vupputuri, P. Rajakaruna, G. Wilber, B. Fathepure, T. Ley, and **J.D. Ramsey**[‡], “Isolation and Characterization of Microorganisms Responsible for Deterioration of Concrete.” *Oklahoma Transportation Center Research Symposium*, Oklahoma City, OK, July 26, 2010.
63. S.S. Karode, I. Pal, A.S. Nigatu, and **J.D. Ramsey**[‡], “Design and Development of a Hybrid Gene Delivery Vector.” *OCAST Health Research Conference*, April 22, 2010.

64. P. Rajakaruna[‡], **J.D. Ramsey**, T. Ley, B. Fathepure, and G. Wilber, "Characterization and Mediation of Microbial Deterioration of Concrete Infrastructure." *Oklahoma Transportation Center formal RITA site visit*, March 30, 2010.
65. S.S. Karode and **J.D. Ramsey**, "Effect of Serum Proteins on Hybrid Vector Transduction Efficiency." *Oklahoma State University Research Symposium*, February 17, 2010.
66. J.M. Miskelly and **J.D. Ramsey**, "Biocompatibility and Toxicity of Solvents for Frankincense Oil." *Oklahoma State University Research Symposium*, February 17, 2010.
67. A. Nigatu[‡] and **J.D. Ramsey**, "Formulation Variables for Optimizing Gene Delivery Efficiency of CPP-Ad and CPP-PEG-Ad Nanoparticles." *Oklahoma State University Research Symposium*, February 17, 2010
68. Pal[‡] and **J.D. Ramsey**, "Evaluation of Gene Delivery Efficiency of Polymer-Coated Adenovirus." *Oklahoma State University Research Symposium*, February 17, 2010.
69. S.S. Karode[‡] and **J.D. Ramsey**, "Design and Development of a Hybrid Gene Delivery Vector." *AIChE Annual Meeting*, Nashville, TN, November 11, 2009.
70. K. M. Yerramsetty, B. J. Neely, **J.D. Ramsey**, and K. A. M. Gasem, "Quantitative structure-property relationship model for prediction of blood-brain barrier permeability," *AIChE Annual Meeting*, Nashville, TN, November 8, 2009.
71. B.J. Neely, K. M. Yerramsetty, E. A. Whitebay, V. K. Rachakonda, S. Golla, **J.D. Ramsey**, H. D. N. Fahlenkamp, S. V. Madihally, R. L. Robinson Jr., and K. A. M. Gasem, "Virtual design of chemical penetration enhancers for transdermal drug delivery of insulin," Diabetes Research Retreat, Oklahoma City, OK, October 10, 2009.
72. S.S. Karode, I. Pal, A.S. Nigatu, and **J.D. Ramsey**[‡], "Design and Development of a Hybrid Gene Delivery Vector." *OCAST Health Research Conference*, April 16, 2009.
73. B.J. Neely, K. M. Yerramsetty, E. A. Whitebay, V. K. Rachakonda, S. Golla, **J.D. Ramsey**, H. D. N. Fahlenkamp, S. V. Madihally, R. L. Robinson Jr., and K. A. M. Gasem, "Virtual design of chemical penetration enhancers for transdermal drug delivery of insulin," *2nd International Conference on Drug Design and Discovery*, Dubai, UAE, February 1, 2009.
74. **J.D. Ramsey**, H. Vu and D.W. Pack[‡], "Construction of Hybrid Viral/Synthetic Gene Delivery Nanovectors." *AIChE Annual Meeting*, San Francisco, CA, November 14, 2006.
75. **J.D. Ramsey** and D.W. Pack[‡], "A Viral/Non-Viral Hybrid Gene Therapy Vector." *Proceedings of the International Symposium on Controlled Release of Bioactive Materials* 33, 596 (2006).
76. **J.D. Ramsey**[‡] and D.W. Pack, "Converting Non-Infectious Virus-Like Particles into Hybrid Gene Therapy Vectors Using Polyethylenimine." *American Society of Gene Therapy's 9th Annual Meeting*, Baltimore, MD, June 4, 2006.
77. **J.D. Ramsey**[‡] and D.W. Pack "A Viral/Non-Viral Hybrid Gene Delivery Vector." *AIChE Annual Meeting*, Cincinnati, Ohio, November 1, 2005.
78. H. Vu, **J.D. Ramsey**, and D.W. Pack[‡] "Enhanced Stability of Retrovirus by Directed Evolution." *AIChE Annual Meeting*, Cincinnati, Ohio, October 31, 2005.

79. H. Vu, **J.D. Ramsey**, and D.W. Pack[‡] “Directed Evolution of a Stable Variant of Murine Leukemia Virus.” *AIChE Annual Meeting*, San Francisco, California, November 20, 2003.
80. H. Vu[‡], **J.D. Ramsey**, and D.W. Pack “Improving Gene Therapy Vectors: Directed Evolution of Murine Leukemia Virus.” *AIChE Annual Meeting*, Indianapolis, Indiana, November 7, 2002.

[‡]Presenting author

Invited Presentations

1. “Genes and Proteins: How Do We Deliver Macromolecular Drugs?” University of Oklahoma, Norman, OK, February 12, 2018.
2. “Genes and Proteins: How Do We Deliver Macromolecular Drugs?” End2Cancer, Oklahoma City, OK, December 14, 2017.
3. “A Role for Adenovirus in Vaccine Delivery.” 16th Annual Greater Plains Infectious Disease Meeting, University of Kansas, Lawrence, KS, November 11 2017.
4. “Plenary Talk: Bridging the Gap Between Viral and Nonviral Gene Vectors” Chemical Engineering in Medicine, AIChE Annual Meeting, Minneapolis, MN, November 1, 2017
5. “Bridging the gap between viral and nonviral gene vectors.” Department of Biochemistry, Oklahoma State University, Stillwater, OK, March 29, 2016
6. “Bridging the gap between viral and nonviral gene vectors.” Department of Biopharmaceutical Sciences, University of Illinois, Chicago, IL, October 16, 2013
7. “Approaches to nanoparticle delivery of therapeutic genes.” Interdisciplinary Toxicology Program, Oklahoma State University, Stillwater, OK, October 9, 2013
8. “Teaching engineering through projects.” Institute for Teaching and Learning Excellence: Engineering Faculty from Southwest Jiaotong University (China), Stillwater, OK, July 30, 2013
9. “Bridging the gap between viral and nonviral gene vectors.” Department of Veterinary Pathobiology, Oklahoma State University, Stillwater, OK, January 31, 2013
10. “Bridging the gap between viral and nonviral gene vectors.” Chemical and Biological Engineering Department, Colorado School of Mines, Golden, CO, October 11, 2011
11. “Bridging the gap between viral and nonviral gene vectors.” Chemical and Petroleum Engineering Department, University of Kansas, Lawrence, KS, October 8, 2011
12. “Engineering Hybrid Viral/Nonviral Vectors for Gene Delivery” Oklahoma State University CEAT Associates Meeting, Stillwater, OK, October 14, 2011
13. “Microbial Deterioration of Concrete Infrastructure” Oklahoma State University CEAT Associates Meeting, Stillwater, OK, April 9, 2010
14. “Hybrid Gene Delivery Vectors and Formulation of Macromolecules.” Microbiology and Molecular Genetics Department, Oklahoma State University, Stillwater, OK, October 5, 2009
15. “The Role of Protein Dynamics in Protein Stability and Formulation.” Pharmaceutical Chemistry Fall Retreat, Lawrence, KS, October 11, 2007

16. “An Empirical Phase Diagram and High Throughput Approach to Macromolecular Formulation.” *DARPA/PATH Workshop: Emergency Vaccine Technologies for Epidemics & Disasters: Stabilization, Safety and Efficacy* Dulles, VA, November 29, 2007

Intellectual Property

P. Klee, A.H. Johannes, and J.D. Ramsey, “System for removal of lipids from plants and seeds” Provisional Patent Application, May 16, 2023.

S. Manouchehri, P. Zarrintaj, J.D. Ramsey, “Wound Bio-adhesive” Invention Disclosure, October 2020.

A. Erfani, N. Flynn, C. Aichele, J.D. Ramsey, “Zwitterionic Hydrogels and Methods of Making and Using Same for Protein Therapy” Invention Disclosure, WO2022047203A1, September 2019.

M. Amer and J. Ramsey, “Multi-Chamber Bioreactor Apparatus” Publication Number US-11,708,552-B2

C. Pope, J. Liu, J. Ramsey, K. Kalkan, “Plasmon-enhanced photoactivation of butyrylcholinesterase-mediated catalysis.” Invention Disclosure, January 2015.

C. Pope, A. Ranjan, J. Liu, S. Hartson and J.D. Ramsey, “Nanodelivery device for therapeutic loading of circulating erythrocytes.” Provisional Patent Application, 61/975,993, April 2014.

H.N. Vu, D.W. Pack and J.D. Ramsey, “Stable retrovirus and methods of use.” Publication Number US-2007-0196386

Research Advising

Current

Undergraduate (2)

Ariel Santos (Wentz Research Scholar)

Doctorate of Philosophy (2)

Niloofer Payam and Songpei Xie (co-advised)

Completed

Undergraduate Researchers (20)

Carol Abraham

Jenna Abouzahr (Niblack Research Scholar)

Alicia Aguilar (Freshman Research Scholar)

Lydia Bruce (Freshman Research Scholar)

Elizabeth Bunting

Amanda Cai

Anna Condacse (Niblack Research Scholar)

Andrea Fenton (Freshman Research Scholar)

Ian Folk

Danielle Hentges (Niblack Research Scholar)

Carson Hilliard

Brandon Hubbard

Jacob Lewellen

Matt Miskelly (Niblack Research Scholar)

Nathan Muschinske (Wentz Research Scholar)

Mary Parnell

Dakota Plumlee

Nick Russell

Mason Twocrow

Patrick Williamson (Fresh. Research Scholar)

Master of Science (thesis) (10)

Songpei Xi, *Aerosolization of Poly(sulfobetaine) Microparticles that Encapsulate Therapeutic Antibodies*. Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, September 2024

Abanoub Hannah, *Development of a Feeding Strategy for a Fed-Batch Culture of a Monoclonal Antibody-Producing Agarabi CHO Cell Line*, Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, July 2021.

Josh Seaberg, *Poly(L-lysine)-grafted-poly(ethylene glycol) Nanoparticles for Delivery of Proteins: Effects of Stimulus-Responsive Crosslinking and Tunable Millifluidic Assembly*, Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, April 2020

Nicholas Flynn, *Aptamer Functionalized PEGylated Adenovirus Targeting Cell Surface Nucleolin*, Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, June 2014.

Grit Kupgan, *The Effect of Fiber Truncations on the Stability of Adenovirus Type 5*. Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, May 2013.

Adane Nigatu, *Evaluation of Cell Penetrating Peptide/Adenovirus Particles for Transduction of CAR-Negative Cells*. Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, December 2012.

Kumar Singarapu, *Polyethylene Glycol-grafted-Polyethylenimine Used to Enhance Adenovirus Gene Delivery*. Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, December 2012.

Ivy Pal, *Developing and Optimizing an Adenovirus-based Gene Delivery Vector*. Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, December 2011.

Shishir Karode, *Effect of Serum and Cellular Proteins on Hybrid Vector Transduction Efficiency*. Master of Science, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, May 2010.

Punsasi Rajakaruna (co-advisor), *Microbial Deterioration of Concrete Infrastructure*. Master of Science, School of Civil and Environmental Engineering, Oklahoma State University, Stillwater, OK, December 2010.

Doctorate of Philosophy (8)

Saeed Manouchehri, *Encapsulation and Targeted Delivery of Glucose Oxidase for Prostate Cancer Therapy*. Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, June 2024

Amir Erfani, *Zwitterionic Microscale Hydrogels for Protein Delivery, Stabilization, and Immobilization*, Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, February 2021.

Yasmine Gabal, *Design and Intracellular Trafficking of Poly(L-lysine)-grafted-poly(ethylene glycol) Fiberless Adenovirus Gene Delivery Vector*, Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, July 2020.

Momen Amer, *Development, Characterization, and Optimization of a Multi-Chambered, Single-Use Bioreactor*, Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, May 2019.

Nicholas Flynn, *Synthesis and Functionalization of Poly-L-Lysine-Grafted-Polyethylene Glycol Copolymer Nanoparticle Complexes for Protein Delivery*, Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, July 2018.

Adane Nigatu, *Improvement of an Adenovirus-Based Gene Vector: Synthetic Materials that Reduce Immunogenicity and Function in Place of the Fiber Protein*. Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, May 2015.

Sravanthi Vupputuri, *Encapsulation of Adenovirus within Polyethylene Glycol-Modified Liposomes for Safer and More Efficient Gene Delivery*. Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, December 2014.

Eric Whitebay, *In Silico Design of Anticancer Drugs for the MCF-7 Cancer Cell Line*. Doctorate of Philosophy, School of Chemical Engineering, Oklahoma State University, Stillwater, OK, December 2013. (co-advised with K. Gasem)

Postdoctoral Researchers (3)

Rangika Hikkaduwakoralege, Nicholas Flynn, and Payam Zarrintaj

Thesis Defense Committees

Master of Science (27)

Vindula Basnayake, Lauren Benedict (Physiological Sciences), Regina Chan, Haoxian Chen, Sahiti Chintala, Carley Cook, Andishaeh Dadgar, Suman Das, Anand Govindarajan, Ting Huang, Pooja Iyer, Nikhil Japtiwale, Jaykiran Kamichetty, Sanket Kulkarni, Max Kozak, Krisada Leemasawatdigul, Kornkarn Makornkaewkeyoon, Katie Oswalt, Minu Pilvankar, Vindula Pussepitiya, Kevin Roehm, Jeongwook Seo, Raj Salunke, Munish Sharma, Subuola Sofolahan, Jimmy Walker, and Patrick Williamson

Doctorate of Philosophy (37)

Agelia Abudour, Phillip Adam (Microbiology), Menuka Adhikari (Chemistry), Saman Akhtarmanesh, Tina Al Attar, Olivia Arizmendi (Microbiology), Pongtorn Charoensuppanimit, Xiaotong Chen (Microbiology), Shyamal Choudhari (Microbiology), Taylor Conley Do, Younas Dadmohammadi, Suman Das, Mina Derakhshan, Mamatha Devarapalli (Ag and Biosystems), Asantha Dharmaratae (Chemistry), Solomon Gebreyohannes, Anirban Ghosh, Neda Ghousifam, Kapil Gumte, Tanim Islam (Veterinary Pathobiology), Sina Kaabipour, Utkarsh Kapoor, Sriharsha Karumuri (Mechanical Engineering), Joonyong Lee, Dioako Mahmodi, Anu Mukherjee, Emily Nunan (Physiological Sciences), Randy Phillips (Ag and Biosystems), Minu Pilvankar, Kirstin Poindexter (Physiological Sciences), Seok-Won Pok, Montashirur Rahman Rafi, Yang Shi,

Shoukath Sulthana (Chemistry), Yiwei Wang, Eric Whitebay, Lukasz Witek, and Krishna Yeramsetty

Current Funding (3)

National Institutes of Health, “Multiplex Hybridization Colorimetric Sensor for Wild Type and Variant RNA Biomarkers” 07/2023 – 06/2026, \$438,878 (co-PI)

Oklahoma State One-Health Seed Funding, “Development of Alternative Antimicrobials Against Multidrug Resistant Bacteria”, 01/2024 – 06/2025, \$75,000 (co-PI)

Oklahoma Center for the Advancement of Science and Technology, Oklahoma Health Research “Quantitative Understanding of a Multiplex Viral RNA Nano-Bioconjugate for Visual Self-Testing Sensors.” 11/2021 – 10/2024, \$135,000 (co-PI)

Prior Funding (20)

Department of Energy, Small Business Innovation Research – Phase II, “Efficient and Cost-Effective Enzymatic Conversion of Lignocellulose Feedstock to Useful Bioproducts.” 04/2022 – 3/2024, \$1,100,000 (PI: InnoSense LLC; co-PI: J. Ramsey (\$170,870))

Oklahoma Center for the Advancement of Science and Technology, Oklahoma Health Research “Targeted Delivery of a Reactive Oxygen Species Generator for Treatment of Hormone Refractory Prostate Cancer.” 09/2019 – 12/2022, \$135,000 (PI)

NIST Center for Neutron Research, “Interactions of Zwitterionic Polymers with Therapeutic Antibodies.” 01/26/2022 - 01/28/2022 (PI: C. Aichele; co-PI: J. Ramsey)

National Science Foundation, “MRI: Acquisition of a High-Resolution Confocal Laser Scanning Microscope (CLSM) for the Advancement of Materials and Biological Research at Oklahoma State University.” 09/2019 – 08/2021, \$703,000 (co-PI)

Oklahoma Center for the Advancement of Science and Technology, Oklahoma Applied Research “Commercialization of a Novel Single-use Bioreactor.” 08/2018 – 12/2020, \$300,000 (PI)

National Science Foundation, Early CAREER Award, “Multifunctional Polymer Coatings of Virus Particles for Safer and More Efficient Gene Delivery.” 04/2014 – 3/2020, \$490,000 (PI)

National Science Foundation, Major Research Instrumentation, “Nuclear Magnetic Resonance Instrument: High Field (600 MHz) with Cryo-Probe.” 9/2017 – 8/2020, \$2,288,600 PI: Smita Mohanty (Role: Major User)

OSU President’s Fellows Faculty Research Award, “Smart Material-Based Nanoparticles for Delivery of Protein Therapeutics.” 03/2019 – 06/2020, \$20,000 (PI)

Oklahoma State University, Technology Business Development Program, “A Multi-Chamber, Single-Use Bioreactor Prototype; Cell Culture and Recombinant Protein Production.” 5/2017 – 4/2018, \$25,000 (PI)

Department of Defense, Defense Threat Reduction Agency, “Nanocarrier-Mediated Targeting of Bioscavengers to the Red Blood Cell for Prolonged Circulation & Protection” 08/2013 – 11/2017, \$3,300,000 (coPI: \$765,000)

Oklahoma State University, Technology Business Development Program, “Construction and Evaluation of a Multi-Chamber, Single-Use Bioreactor.” 11/2015 – 10/2016, \$21,250 (PI)

Prior Funding – continued

OSU Interdisciplinary Toxicology Program, “Development of RBC Targeted rBChE Encapsulated Nanoparticles for Long-term Circulation and Bioavailability.” 04/2013 – 3/2014, \$18,500 (coPI)

OSU CVHS RED Account Competition, “Development of RBC-targeted Nanodevice for Long-term Protection against Organophosphates.” 02/2013 – 1/2014, \$34,000 (coPI)

American Heart Association, Scientist Development Grant, “Cell-Penetrating Peptide/Adenovirus Nanoparticles for Improved Gene Delivery to Vascular Tissue.” 07/2009 – 06/2013, \$308,000 (PI)

Oklahoma Transportation Center, “Characterization and Mediation of Microbial Deterioration of Concrete Infrastructure.” 06/2009 – 05/2013, \$600,000 (PI)

Oklahoma State University, Interdisciplinary Seed Funding, “Liposomal Encapsulated Adenovirus.” 01/2012 – 06/2012, \$4,000 (PI)

Oklahoma State University, “Interdisciplinary Biomedical Research Initiative – a Joint Program between OSU-Center for Health Sciences, OSU-Stillwater, and OSU-Tulsa.” 07/2011 – 8/2012, \$20,926 (co-PI)

Oklahoma Center for the Advancement of Science and Technology (OCAST), Oklahoma Health Research, “Design and Development of Hybrid Gene Delivery Vectors.” 08/2008 – 07/2011, \$133,705 (PI)

South Central Affiliate of American Heart Association, Beginning Grant-In-Aid, “Cell-Penetrating Peptide/Adenovirus Nanoparticles for Improved Gene Delivery to Vascular Tissue.” 07/2009 – 06/2011, \$140,000 (Declined award to accept AHA Scientist Development Grant.)

Oklahoma State University, Facility Renovation Program, “Development of Bio-based Technologies Laboratory.” 2010, \$120,000 (co-PI)

Professional Development Activities

Spring 2017	Effective College Teaching Workshop by Richard Felder and Rebecca Brent, Stillwater, OK, March 30-31, 2017.
Fall 2016	NSF Regional I-Corp Program, Austin/College Station, TX, Oct – Nov, 2016.
Fall 2015	Preparation for Chemical Engineering PE Exam, October 30, 2015.
Feb. 2014	Phillips 66 Process Design Course, Borger, TX, February 2-7, 2014.
Aug. 2013	SACHE Faculty Workshop, “Process Safety Management in an Industrial Complex.” Richmond, CA, August 18-21, 2013.
July 2012	ASEE Chemical Engineering Division Summer School, University of Maine, Orono, ME, July 21-27, 2012.
Spring 2009	Course observer in preparation for becoming a co-Instructor for CHE 4224: Senior Design II.
Fall 2008	Course observer in preparation for becoming a co-Instructor for CHE 4124: Senior Design I.
Fall 2008	OSRHE 8-Week Grant Writing Institute hosted by Linda Mason.
Sept. 2008	SACHE Faculty Workshop, “Chemical Process Safety: What Chemical Engineering Students Need to Know.” Philadelphia, PA, September 14-17, 2008.