

LaToya Jones Braun, PhD
Associate Professor, Department of Pharmaceutical Sciences, School of Pharmacy
Rueckert-Hartman College for Health Professions
Regis University
3333 Regis Blvd. H-28
Denver, Colorado 80221

CONTACT INFORMATION

Business Phone: (303) 964-6698
Business FAX number: (303) 625-1305
Email: lbraun001@regis.edu

EDUCATION

2001-2004 Postdoctoral Fellow
University of Kansas, Department of Pharmaceutical Chemistry, Lawrence, KS
Advisor: C. Russell Middaugh

2001 Ph.D., Pharmaceutical Sciences
University of Colorado Health Sciences Center, Denver, CO
Dissertation title: The effects of pharmaceutically relevant excipients – sucrose, Tween 20, dextran, and benzyl alcohol - on the physical stability of model protein pharmaceuticals
Advisor: John F. Carpenter

1996 M.S., Chemical Engineering
University of Colorado, Boulder, CO
Thesis title: Interaction between non-ionic surfactants and protein therapeutics
Advisor: Theodore W. Randolph

1996 Interdisciplinary Biotechnology Program Certification
University of Colorado, Boulder, CO

1994 B.S., Chemical Engineering
Yale University, New Haven, CT

CERTIFICATIONS

2017 Regis University Brave Space “Gender and Sexuality 101” Training Certificate
Queer Resource Alliance

1996 Interdisciplinary Biotechnology Program Certification
University of Colorado, Boulder, CO

EMPLOYMENT HISTORY

1/14-Present Regis University
Associate Professor of Pharmaceutical Sciences,
Pharmacy Skills Laboratory Co-director

School of Pharmacy

Department of Pharmaceutical Sciences
Denver, CO.

9/04-12/13 University of Colorado Denver
Assistant Professor of Pharmaceutical Sciences

Anschutz Medical Campus
Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS),
Department of Pharmaceutical Sciences
Aurora, CO.

HONORS AND AWARDS

2018 RHCHP Badge Men and Women in Service of Others
2018 Phi Lambda Sigma (Pharmacy Leadership Society), inducted April 10, 2018
2017 RHCHP Nominee for the Senior Teaching Excellence Award
2015-2016 RUSOP AACP Teacher of the Year (P2 class)
2008 Outstanding Reviewer for the *Journal of Pharmaceutical Sciences*
2005 Outstanding Reviewer for the *Journal of Pharmaceutical Sciences*
2005 Travel Grant to the FASEB/MARC Grantsmanship Workshop
2004 Outstanding Reviewer for the *Journal of Pharmaceutical Sciences*
2003 Outstanding Reviewer for the *Journal of Pharmaceutical Sciences*
2002-04 Pharmaceutical Research and Manufacturers of America (PhRMA) Foundation
Postdoctoral Fellow
2001-02 United Negro College Fund/Pfizer Postdoctoral Fellow
2000 Professor Serge N. Timasheff Award for Excellence in Graduate Studies in the
Field of Protein Stability Research (*Colorado Protein Stability Conference*) – 3rd
Place
2000 Outstanding Graduate Student Poster Presentation (*UCHSC Pharmaceutical
Sciences Departmental Retreat*) – 1st Place
1998-2000 Pharmaceutical Research and Manufacturers of America (PhRMA) Foundation
Advanced Predoctoral Fellow
1998 Rho Chi Society (Academic Honor Society in Pharmacy), inducted March
26, 1998
1994 Graduate School Dean's Small Grant Award (University of Colorado, Boulder)

SCHOLARLY ACTIVITIES: PUBLICATIONS

Publications in a Refereed Journal (articles, books, book chapters)

Book chapter

1. Jones LS, Bam NB, and Randolph TW. Surfactant - stabilized protein formulations: A review of protein-surfactant interactions and novel analytical methodologies. In

Therapeutic Proteins and Protein Formulation and Delivery. Shahrokh, Z, Cleland, JL, Shire, SJ, and Randolph, TW, Eds., American Chemical Society Symposium Series #675, 1997.

Full articles

1. James SF, **Braun LJ**, Feltman C, and Haight R. Development of an integrated immunology and vaccines pharmacy elective. *Innov Pharm* (2017) 8(3): Article 1.
2. Clapp T, Munks MW, Trivedi R, Kompella UB, and **Braun LJ**. Freeze-thaw stress of Alhydrogel ® alone is sufficient to reduce the immunogenicity of a recombinant hepatitis B vaccine containing native antigen. *Vaccine* (2014) 32(30):3765-71. doi: 10.1016/j.vaccine.2014.05.037. Epub 2014 May 20.
3. **Braun LJ**, Eldridge AM, Cummiskey J, Arthur, K, and Wuttke D. The role of adjuvant in mediating antigen structure and stability. *J Pharm Sci.* (2012) 101 1391-1399 [Epub ahead of print December 28, 2011. doi: 10.1002/jps.23039] PMID: 22213631.
4. Clapp T, Siebert P, Chen, D, and **Jones Braun L**. Vaccines with aluminum-containing adjuvants: optimizing vaccine efficacy and thermal stability. *J Pharm Sci.* (2011) 100 388-401. [Epub 2010 Aug 25, doi: 10.1002/jps.22284].
5. **Braun LJ**, Jezek J, Peterson S, Tyagi A, Perkins S, Sylvester D, Guy M, Lal M, Priddy S, Pizak H, Kristensen D, and Chen D. Characterization of a thermostable hepatitis B vaccine formulation. *Vaccine* (2009) 27 4609-4614 [Epub ahead of print June 10, 2009].
6. Jezek J, Chen D, Watson L. Crawford J, Perkins S, Tyagi A, and **Jones-Braun L**. A heat-stable hepatitis B vaccine formulation. *Human Vaccines* (2009) 5(8) 529-535.
7. **Braun LJ**, Tyagi A, Perkins S, Carpenter J, Sylvester D, Guy M, Kristensen D, and Chen D. Development of a freeze-stable formulation for vaccines containing aluminum salt adjuvants. *Vaccine* (2009) 27 72-79[Epub ahead of print].
8. Chen D, Tyagi A, Carpenter J, Perkins S, Sylvester D, Guy M, Kristensen DD, and **Braun LJ**. Characterization of the freeze sensitivity of a hepatitis B vaccine. *Human Vaccines* (2009) 5 26-32. [Epub ahead of print].
9. Estey T, Vessely C, Randolph TW, Henderson I, **Braun LJ**, Nayar R, and Carpenter JF. Evaluation of chemical degradation of a trivalent recombinant protein vaccine against botulinum neurotoxin by LysC peptide mapping and MALDI-TOF mass spectrometry. *J Pharm Sci* (2009) 98 2994-3012. [Epub ahead of print].
10. Vessely C, Estey T, Randolph TW, Henderson I, Cooper J, Nayar R, **Braun LJ**, and Carpenter JF. Stability of a trivalent recombinant protein vaccine formulation against botulinum neurotoxin during storage in aqueous solution. *J Pharm Sci* (2009) 98 2970-2993. [Epub ahead of print].
11. Clausi A, Cummiskey J, Merkley S, Carpenter JF, Braun **LJ**, and Randolph TW. Influence of particle size and antigen binding on effectiveness of aluminum salt adjuvants in a model lysozyme vaccine. *J Pharm Sci* (2008) 97 5252-5262.
12. Derrick T, Grillo AO, Vitharana SN, **Jones L**, Rexroad J, Shah A, Perkins M, Spitznagel TM, and Middaugh CR. Effect of polyanions on the structure and stability of Repifermin™ (keratinocyte growth factor-2). *J Pharm Sci* (2007) 96 761-76.
13. Peek LJ, Brandau DT, **Jones LS**, Joshi SB, and Middaugh CR. A systematic approach to stabilizing EBA-175 RII-NG for use as a malaria vaccine. *Vaccine* (2006) 24 5839-5851.

14. Dong A, **Jones LS**, Kerwin BA, Krishnan S and Carpenter JF. Secondary structures of proteins adsorbed onto aluminum hydroxide: infrared spectroscopic analysis of proteins from low solution concentrations. *Anal Biochem* (2006) 351 282-9.
15. **Jones LS***, Peek LJ*, Power J, Markham A, Yazzie B and Middaugh CR. Effects of adsorption to aluminum salt adjuvants on the structure and stability of model protein antigens. *JBC* (2005) 280 13406-13414.
16. **Jones LS**, Kaufmann AM, and Middaugh CR. Silicone oil induced aggregation of proteins. *J Pharm Sci* (2005) 94 918-927.
17. **Jones LS**, Yazzie B, and Middaugh CR. Polyanions and the proteome. *Molecular and Cellular Proteomics* (2004) 3 746-769.
18. Zhang Y, Roy S, **Jones LS**, Krishnan S, Kerwin BA, Chang BS, Manning MC, Randolph TW, and Carpenter JF. Mechanism for benzyl alcohol-induced aggregation of recombinant human interleukin-1 receptor antagonist in aqueous solution. *J Pharm Sci* (2004) 93 3076-89.
19. Kim YS, Jones LS, Dong A, Kendrick BS, Chang BS, Manning MC, Randolph TW, and Carpenter JF. Effects of sucrose on conformational equilibria and fluctuations within the native-state ensemble of proteins. *Protein Sci* (2003) 12 1252-61.
20. Brandau DT, **Jones LS**, Wiethoff CW, Rexroad J, and Middaugh CR. Thermal stability of vaccines. *J Pharm Sci* (2003) 92 218-31.
21. Rexroad J, Wiethoff CW, **Jones LS**, and Middaugh CR. Lyophilization and the thermostability of vaccines. *Cell Preservation Technology* (2002) 1 91-104.
22. Randolph TW and **Jones LS**. Surfactant-protein interactions. *Pharmaceutical Biotechnology* (2002) 13 159-75.
23. **Jones LS**, Randolph TW, Kohnert U, Papadimitriou A, Winter G, Hagmann M-L, Manning MC, and Carpenter JF. The effects of Tween 20 and sucrose on the stability of anti-L-selectin during lyophilization and reconstitution. *J Pharm Sci* (2001) 90 1466-77.
24. Yang T-H, Cleland JL, Meyer JD, **Jones LS**, Randolph TW, Manning MC and Carpenter JF. Effect of zinc binding and precipitation of structures of recombinant human growth hormone and nerve growth factor. *J Pharm Sci* (2000) 89 1480-85.
25. **Jones LS**, Cipolla D, Liu J, Shire SJ, and Randolph TW. Investigation of protein surfactant-interactions by analytical ultracentrifugation and electron paramagnetic resonance: The use of recombinant human tissue factor as an example. *Pharm Res* (1999) 16, 808-12.
26. Kreilgaard L, **Jones LS**, Randolph TW, Frokjaer S, Flink JM, Manning MC, and Carpenter JF. Effect of Tween 20 on freeze-thawing - and agitation-induced aggregation of recombinant human factor XIII. *J Pharm Sci* (1998) 87 1597-1603.

Other creative activity

1. Middaugh CR, **Jones LS**, Wiethoff CM, and Rexroad J, "Vaccine Thermal Stability," A report for the Program for the Appropriate Technology in Health (PATH), 2002.

This report was commissioned by PATH, a non-profit organization dedicated with working with commercial and academic partners to improve health of vulnerable populations worldwide. The report was a review of thermal stability issues of various classes of vaccines and suggested science-based approaches to develop vaccines with improved thermal stability

PRESENTATIONS

Refereed Presentations

Invited Talks and Podium Sessions

1. "An Integrated Approach to Vaccine Education for the College Campus." Accepted for presentation as a 90-minute continuing education session at the 2019 American College Health Association Annual Meeting, Denver, CO. May 30, 2019. (Co-presenters: Feltman C, Haight R and James S).
2. "A novel silicone oil-free lubrication for pre-filled glass syringes." University Research and Scholarship Council (URSC) Symposium. Regis University, Denver, CO. April 7, 2016.
3. "Formulation and Process Impacts of Adjuvants". Presented at the IBC's 3rd Annual International Forum: Vaccine Production Summit. San Francisco, CA, June 4, 2012.
4. "Interactions between antigen and adjuvants: Implications for formulation." Presented at New Cells, New Vaccines VI, Wilmington, DE, March 27, 2012.
5. "Vaccines then and now: Are we any closer to a novel product?" Presented at the 16th Annual Drug Delivery Partnerships Conference, Las Vegas, NV, January 24, 2012.
6. "Relationship between physical and chemical properties of aluminum-containing adjuvants and immunopotentiality." Presented in the *Adjuvants 101 – Sunrise Session* at the AAPS National Biotechnology Conference, San Francisco, CA. May 17, 2011.
7. "Stability of proteins at solid surfaces: From aluminum-containing adjuvants to zirconia crystals." Short Course lecture at the 8th Globalization of Pharmaceuticals Education Network (GPEN) Meeting. Chapel Hill, NC, November 11, 2010.
8. "Vaccine formulations: The key to success. Antigen/adjuvant interactions." *Short course lecture at the 7th Globalization of Pharmaceuticals Education Network Meeting*. Leuven, BELGIUM. September 11, 2008.
9. "Understanding adjuvant/antigen interactions: A biophysical approach." Presented at IMV 2008 – Immunopotentiators in Modern Vaccines. Montego Bay, JAMAICA. May 22, 2008.
10. "Towards the rational development of vaccines." Present at the *2007 Butcher Symposium on Genetics and Biotechnology: The Future of Biomedicine in Colorado - A Workshop of the Possible*, Westminster, CO. November 16, 2007.
11. "Microcalorimetry and the biophysical characterization of vaccine antigen/adjuvant interactions." Presented at the 2005 Current Trends in Microcalorimetry, Boston, MA. July 29, 2005.
12. "Beneficial and detrimental effects of Tweens on proteins during freeze-thawing, lyophilization and rehydration." **Jones LS**, Randolph TW, Chang BS, Kohnert U, Papadimitriou A, Winter G, Hagmann M-L, Manning MC, and Carpenter JF. Presented at the *Center for Pharmaceutical Processing Research 2001 Meeting on Freeze-Drying of Pharmaceutical and Biologicals*, Breckenridge, CO.
13. "Liquid and lyophilized protein stabilization using Tween 20: A mechanistic study." *Scientific talk at the 3rd Globalization of Pharmaceuticals Education Network Meeting*, Uppsala, SWEDEN. September 2000.

Poster Presentations

1. Young B, Nguyen J, King S, **Braun L**, and James S. Identifying community comfortability and knowledge of pharmacists' role in administering vaccinations. Presented at the American Society of Health-Systems Pharmacists (ASHP) 2018 Midyear Clinical Meeting, Anaheim, CA.
2. Young B, Nguyen J, King S, **Braun L**, and James S. Community Knowledge of Pharmacists' Ability to Administer Vaccinations. Presented at the National Association of Boards of Pharmacy (NABP) 114th Annual Meeting, Denver, CO (May 6, 2018).
3. Beer LL, Thornton J, Sakhrani V, and **Braun LJ**. TriboLink-Si, an Immobilized Silicone Coating for Prefilled Syringes, Offers an Alternative to Silicone Oil for Particle-Sensitive Drugs. Presented at the 2016 American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, Denver, CO (November 15, 2016).
4. **Braun LJ**, Beer LL, Thornton J, and Sakhrani V. TriboGlide® is an alternative to silicone oil-lubricated glass syringes: A 24-weeks study with a model protein. Presented at the 2016 AAPS Annual Meeting and Exposition, Denver, CO (November 14, 2016).
5. Clapp T. and **Braun LJ**. Enhancing the freeze-thaw stability of an aluminum-containing adjuvant. Presented at the 8th Globalization of Pharmaceutics Education Network (GPEN) Meeting, Chapel Hill, N.C. (November 10, 2010).
6. The laboratory of **LJ Braun** in collaboration with the laboratories of D. Wuttke, J. Carpenter, T. Randolph, and D. Chen. Improving Vaccines: A biophysical Approach. Presented at the Butcher Symposium, Westminster, CO (November 6, 2009).
7. Clapp T, Siebert P, Peterson S, Chen D, Konieczny J, and **Braun LJ**. Towards the improved thermostability of a polysaccharide vaccine. Poster presented at the 2nd Annual Global Health Symposium, Aurora, CO (October 2, 2009).
8. Perkins S, Chen D, Sylvester D, Tyagi AK and **Braun LJ**. A freeze stable hepatitis B vaccine formulation. Presented at the *10th Annual Conference on Vaccine Research*, Baltimore, MD, 2007.
9. Tyagi A, Perkins S, Carpenter JF, Chen D, and **Jones LS**. Stabilization of a freeze sensitive vaccine. Presented at the 2006 AAPS Annual Meeting, San Antonio, TX.
10. Liu L, Kuelto L, **Jones LS**, and Carpenter JF. Freezing-induced perturbation of tertiary structure of monoclonal antibody. Presented at the *2006 AAPS Annual Meeting*, San Antonio, TX.
11. Basu P, **Jones LS**, and Carpenter JF. Effects of adsorption onto glass nanoparticles on protein structure. Presented at *the 2006 AAPS Annual Meeting*, San Antonio, TX.
12. Vessely CR, Estey T, Cooper J, Nayar R, Randolph TW, **Jones LS**, and Carpenter JF. Long term stability of the botulinum neurotoxin derived from C-terminal protein antigens adsorbed to aluminum salt adjuvants. Presented at the *2005 Protein Stability Meeting*, Breckenridge, CO.

13. **Jones LS**, Yazzie B, and Middaugh CR. "Polyanions and the proteome." Presented at the *ASBMB and Stowers Institute for Medical Research Meeting on Proteomic Solutions in Cellular and Developmental Biology and Medicine*. Kansas City, MO, 2003.
14. **Jones LS**, Chang BS, Randolph TW, and Carpenter JF. "Mechanism(s) for inhibition of protein aggregation by Tween 20." Presented at the *2000 FASEB Summer Research Conference on Amyloids and Other Protein Assembly Processes*, Copper Mountain, CO.
15. **Jones LS**, Chang BS, Randolph TW, and Carpenter JF. "Protein interactions with Tween 20: Mechanism(s) of stabilization." Presented at the *American Association of Pharmaceutical Scientists Annual Meeting*, New Orleans, LA 1999.
16. Adesunloye TA, **Jones LS**, Cleland J, Randolph TW, and Carpenter JF. "Effect of excipients on zinc precipitated recombinant human growth hormones during freeze-drying." Presented at the *American Association of Pharmaceutical Scientists Annual Meeting*, New Orleans, LA 1999.
17. Kim YS, **Jones LS**, Dong A., Chang BS, Manning MC, and Carpenter JF. "Sucrose induces more restricted conformational fluctuations of ribonuclease A and S, and cytochrome C." Presented at the *American Association of Pharmaceutical Scientists Annual Meeting*, New Orleans, LA 1999.
18. **Jones L**, Randolph TW, Kohnert U, Papadimitriou A, Winter G, Haggmann M-L, and Carpenter JF. "The roles of Tween 20 and sucrose in stabilizing anti L-selectin in liquid and lyophilized formulations." Presented at the *American Association of Pharmaceutical Scientists Annual Meeting*, San Francisco, CA 1998.
19. **Jones L**, Randolph TW, Kohnert U, Papadimitriou A, Winter G, Haggmann M-L, and Carpenter JF. "The roles of Tween 20 and sucrose in stabilizing anti L-selectin in liquid and lyophilized formulations." Presented at the *International Conference on the Freeze-Drying of Pharmaceuticals and Biologicals*, Brownsville, VT 1998.
20. **Jones L**, Randolph TW, Kohnert U, Papadimitriou A, Winter G, Haggmann M-L, and Carpenter JF. "The roles of Tween 20 and sucrose in stabilizing anti L-selectin in liquid and lyophilized formulations." Presented at the *Colorado Institute for Research in Biotechnology Conference*, Fort Collins, CO, 1998.
21. **Jones L**, Randolph TW, Kohnert U, Papadimitriou A, Winter G, Haggmann M-L, and Carpenter JF. "The roles of Tween 20 and sucrose in stabilizing anti L-selectin in liquid and lyophilized formulations." Presented at the *Colorado Protein Stability Conference*, Breckenridge, CO, 1998.
22. **Jones LS**, Chang BS, Carpenter JF, and Randolph TW. "CNTF Stabilization: Effects of Tween 20 in freeze-thawing and freeze – drying." Presented at the *11th Annual American Association of Pharmaceutical Scientists Meeting*, Boston, MA, 1997.
23. Cipolla D, Shire S, Liu J, Bam N, **Jones LS**, and Randolph TW. "Characterization of truncated forms of human tissue factor - surfactant mixed micelles by analytical ultracentrifugation." Presented at the *41st Annual Meeting of the Biophysical Society*, New Orleans, LA, 1997.
24. Kreilgård L, **Jones L**, Randolph T, Frokjaer S, and Carpenter J. "Tween 20 prevents freeze-thawing and shaking-induced denaturation: A mechanistic study on protein surfactant interactions." Presented at the *10th Annual American Association of Pharmaceutical Scientists Meeting*, Seattle, WA, 1996.

25. **Jones LS**, Kreilgård L, Carpenter JF, and Randolph TW. "Interactions between pharmaceutical proteins and nonionic surfactants," Presented at the *Colorado Protein Stability Conference*, Breckenridge, CO, 1996.
-

Non-Refereed Presentations

Invited Talks and Podium Sessions

1. "Special considerations for biologics and vaccines." *Development of drugs and biologics (PHSC/TXCL 7330)*, Guest Lecturer, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO. October 31, 2018.
2. "Enough with the silicone injections! Expanding syringe lubrication options." *Regis University School of Pharmacy Department of Pharmaceutical Sciences Seminar Series*, Denver, CO. April 4, 2017.
3. "Oral drug delivery." *Nanotechnology and Drug Delivery (PHSC 7345)*, Guest Lecturer, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO. April 14, 2017.
4. "Special considerations for biologics and vaccines." *Development of drugs and biologics (PHSC/TXCL 7330)*, Guest Lecturer, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO. October 31, 2016.
5. "Special considerations for biologics and vaccines." *Development of drugs and biologics (PHSC/TXCL 7330)*, Guest Lecturer, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO. October 27, 2014.
6. "Investigating and improving the freeze-thaw stability of vaccines with aluminum-containing adjuvants: Case studies with model HBsAg vaccines." *CU Analytical Series*. Presented in the Department of Chemistry at the University of Colorado, Boulder, CO. April 8, 2013.
7. "Vaccines: Considerations of Antigen/Adjuvant Interactions." *University of North Carolina School of Pharmacy Molecular Pharmaceutics Seminar Series*, Chapel Hill, NC. August 20, 2008.
8. "A biophysical approach to the development of vaccines." *Department of Immunology Graduate Program Seminar*. National Jewish Medical Center, Denver, CO. November 19, 2007.
9. "Improving the freeze-stability of vaccines." *Department of Pharmaceutical Sciences Graduate Program Seminar*. University of Kentucky, Lexington, KY. October 26, 2007.
10. "Brief overview of protein stability." *Presented to scientists at the Program for Appropriate Technologies in Health (PATH)*, Seattle, WA. November 27, 2006.
11. "Vaccines." *Saturday Academy lecture to students in the Undergraduate Pre-health Program*. UCHSC. Denver, CO. October 7, 2006.
12. "Evaluating biophysical and immunological consequences of an HIV antigen/adjuvant interaction." *Colorado Center for AIDS Research (CFAR) Seminar -Pilot Project Report*. UCHSC, Denver, CO. September 15, 2005.

13. "Characterizing protein antigen/adjuvant interactions." *Analytical and Environmental Chemistry Division and Atmospheric Program Seminar*. University of Colorado, Boulder, CO. April 14, 2005.
14. "Biophysical characterization of HBsAg adsorbed onto an aluminum salt adjuvant: suspensions and CAN-BD processed formulations." *Presented to scientists at PATH*, Seattle, WA. January 24, 2005.
15. "Protein interactions with mineral salt adjuvants." *Presented to students supported in the Biotechnology Training Grant Program*. University of Colorado, Boulder, CO. October 26, 2004.

GRANT ACTIVITY

Completed Grants

02/02/2015-0831/2016

Title: Improved silicone lubrication to reduce sub-visible particles in parenteral containers

Funding Agency: NIH SBIR, Phase I (R43EY024461)

Investigators: Multi-PI – Jackson Thornton (PI, *TriboFilm Research*) and **LaToya Jones Braun** (PI, *Regis University*)

Total award: \$253,142

08/15/2012-07/31/2015

Title: Silicone-free glass pre-filled syringe system for biological drugs

Funding Agency: NIH SBIR, Phase II (R44HL092649)

Investigators: Vinay Sakhrani (PI, *TriboFilm Research*) and **LaToya Jones Braun** (PI, *University of Colorado and Regis University*)

Total award: \$1,462,205

05/11-06/12

Title: Utilizing mass spectrometry to characterize the conformation of proteins adsorbed onto aluminum-containing adjuvants – pilot studies

Funding Agency: Department of Pharmaceutical Sciences Mass Spectrometry Core Facility, Seed grant

Investigators: **LaToya Jones Braun** (PI, *University of Colorado*)

Total award: \$2,000

03/10-06/11

Title: Engineering vaccines for enhanced thermal stability"

Funding Agency: Department of Pharmaceutical Sciences, Seed grant

Investigators: **LaToya Jones Braun** (PI- *University of Colorado*) and Michael Wempe (Co-I, *University of Colorado*)

Total award: \$17,500

09/15/2009-03/14/2011

Title: Silicone-free glass pre-filled syringe system for biological drugs

Funding Agency: NIH SBIR, Phase I (R43HL092649)

Investigators: Vinay Sakhrani (PI, *TriboFilm Research*) and **LaToya Jones Braun** (PI, *University of Colorado*)

Total award: \$229,475

09/07-12/09

Title: Thermal Stabilization of Vaccines

Funding Agency: Program for Appropriate Technology in Health (PATH)

Investigators: LaToya Jones Braun (PI, *University of Colorado*)

Total award: \$199,664

05/10/05-08/31/07

Title: Freeze-Stabilization of Vaccines

Funding Agency: Program for Appropriate Technology in Health (PATH)

Investigators: LaToya Jones Braun (PI, *University of Colorado*) and Co-I John Carpenter (Co-I, *University of Colorado*)

Total award: \$269,575

07/05 - 07/07

Title: Towards the Rational Development of More Efficient Vaccines

Funding Agency: University of Colorado Butcher Awards in Biotechnology

Investigators: LaToya Braun (PI, *University of Colorado*) and Deborah Wuttke (PI, *University of Colorado*)

Total award: \$76,375

08/05 – 07/06

Title: Evaluating biophysical and immunological consequences of an HIV antigen/adjuvant interactions

Funding Agency: Colorado Center for AIDS Research (CFAR) – Pilot project

Investigators: LaToya Jones Braun (PI, *University of Colorado*)

Total award: \$30,000

Mentee Funding

2012-2014

Title: Novel Approaches to Address the Instability of Vaccines with Aluminum-Containing Adjuvants

Funding Agency: PhRMA Foundation Predoctoral Fellowship in Pharmaceutics

Investigators: Tanya Clapp (PhD student), LaToya Jones Braun – Faculty Advisor

Total award: \$40,000

2009-2011

Funding Agency: University of Colorado NIH Biotechnology Training Grant

Investigators: Tanya Clapp (PhD student), LaToya Jones Braun – Faculty Advisor

Award: Stipend and tuition benefit

CURRENT RESEARCH ACTIVITIES

2018-Present The public's perception and comfort regarding the role of pharmacists in vaccination campaigns

2017-Present Using a multidisciplinary approach to improve the preparedness of pharmacists to educate the public about vaccines

SCHOLARLY PROFESSIONAL ACTIVITIES

Grant review panels

- NIH SBIR Topic 255 Development of Anticancer Agents – External Reviewer (2012)
- NIH GDD –*Early Career Reviewer* (2012)
- NIH SBIR Topic 255 Development of Anticancer Agents – External Reviewer (2011)
- NIH SBIR Topic 255 Development of Anticancer Agents – External Reviewer (2010)
- Natural Science and Engineering Research Council of Canada Collaborative Health Research Projects Program – external reviewer (2009)
- Butcher Genomics Training Grant Review (2008)
- NIBIB/NIH Center for Point-of-Care Diagnostics for Global Health grant proposals -- External Reviewer (2008)

Journal article referee

- AAPS PharmSci Tech
- Acta Biomaterialia
- Acta Biochimica et Biophysica Sinica
- Biophysical Journal
- European Journal of Pharmaceutics and Biopharmaceutics
- Journal of Pharmaceutical Sciences
- Human Vaccines and Immunotherapeutics
- Langmuir
- Molecular Pharmaceutics
- NPJ Vaccines
- Pharmaceutical Research
- Preparative Biochemistry and Biotechnology
- Vaccine

Editorial board

Member of Editorial Advisory Board *Journal of Pharmaceutical Sciences* (2003-present)
2019 Ebert Prize selection subcommittee (2018)

PROFESSIONAL, SCIENTIFIC, HONORARY ASSOCIATIONS OR SOCIETIES

Memberships

- American Association of Colleges of Pharmacy (AACCP)
- American Association of Pharmaceutical Scientists (AAPS)
- Phi Lambda Sigma (Pharmacy Leadership Society), inducted April 10, 2018
- Globalization of Pharmaceutics Education Network (GPEN) (2008-2013)
 - Faculty Representative for the University of Colorado Denver – Full Member institution (2008-2013)
- Rho Chi Society (Academic Honor Society in Pharmacy), inducted March 26, 1998

SERVICE

Service to the College/University

Regis University

- | | |
|------|--|
| 2018 | Selected to represent Regis University at the 2019 ACJU Faculty Conversations Conference (Faculty participant) |
| 2018 | Creative Ways to Reach ALL Students, Discussion Panel and Workshop (Faculty panelist) |

Regis University RHCHP:

- | | |
|--------------|--|
| 2017-2018 | RHCHP Academic Dean Search Committee (member) |
| 2017 | RHCHP Cultivate Your Healthcare Day (pharmacy lab tour guide) |
| 2016-2017 | RHCHP Academic Council (chair) |
| 2015-2016 | RHCHP Academic Council (chair-elect) <ul style="list-style-type: none">• 2016 RHCHP Nominating Committee (chair) |
| 2014-Present | RHCHP Academic Council (member) |

University of Colorado:

- | | |
|-----------|---|
| 2012 | Health Science Library Faculty Status Committee (member) |
| 2008-2013 | Anschutz Campus Women's Committee (member) |
| 2006-2007 | University of Colorado Health Sciences Center Ethnic Minority Affairs Committee (interim co-chair and member) |
| 2000-2001 | University of Colorado Health Sciences Center Research Ethics Standing Committee (member) |

Service to the School/Department

Regis University School of Pharmacy/Department of Pharmaceutical Sciences:

- | | |
|--------------|--|
| 2018 | Elected RUSOP AACP faculty delegate (alternate 2019, delegate 2020) |
| 2018-Present | RUSOP Curriculum Committee (chair) |
| 2018-Present | DPS Faculty Search Committee (member) |
| 2018-Present | RUSOP Dean Search Committee (member) |
| 2018-Present | ACPE Steering Committee (DPS faculty representative) |
| 2018 | NCPA Regis Chapter Compounding Competition (judge) |
| 2017-Present | ACPE Students Standards Committee (member) |
| 2017-2018 | Department of Pharmaceutical Sciences (DPS) Department Chair Search Committee (member) |
| 2017-2018 | RUSOP Lab Assistant Search Committee (member) |
| 2016 – 2018 | AAPS Student Chapter at Regis University (faculty advisor) |
| 2016 | Student Awards Ceremony (S. Dean Allison Award - presenter) |
| 2016 | Department of Pharmacy Practice Faculty and Lab Director Search Committee (member) |
| 2016 | IL-2 Student Appeal's Committee (member) |

2015 – Present S. Dean Allison Award Committee (member, award presenter 2015, 2016)
 2015 Integrated Laboratory Sequence Review Taskforce (member)
 2015 IP-1 Student Appeal's Committee (member)
 2014 – Present RUSOP Curriculum Committee (member)
 2014 – Present White Coat Ceremony (Faculty adviser – participant)
 2014 – Present RUSOP Academic Adviser
 2014 – Present Multiple Mini-Interview Days (interviewer, tour of facilities)
 2014 – 2016 Experiential Advisory Committee (member)
 2014 – 2015 RUSOP ACPE Task Force to Address Faculty Standards 24 &26
 2014 DPS Faculty Search Committee (member)
 2014 NCPA Regis Chapter Compounding Competition (judge)

CU School of Pharmacy/Department of Pharmaceutical Sciences:

2012-2013 SSPPS Nanotechnology and Drug Delivery Faculty Search Committee (member)
 2012 SSPPS Metabolomics Faculty Search Committee (member)
 2011-2012 School of Pharmacy Research Distinction/Honors Program Development Committee (member)
 2010-2012 School of Pharmacy Foundational Sciences Domain Group for Curriculum Renewal (member)
 2009 – 2013 AAPS Student Chapter at Regis University (faculty advisor)
 2009 ad hoc School of Pharmacy Lecture Capture Policy Committee (member)
 2008-2013 School of Pharmacy Scholastic Advancement and Appeals Committee (member)
 2008-2013 Globalization of Pharmaceutics Education Network (GPEN) (Faculty Representative)
 2008-2011 School of Pharmacy Honors Program Committee (member)
 2008-2009 School of Pharmacy ACPE self study Practice Facilities & Library Resource committee (member)
 2007-2008 School of Pharmacy Student Ethics and Conduct Committee (member)
 2006-2007 Department of Pharmaceutical Sciences Faculty Search Committee (member)
 2006 Department of Pharmaceutical Sciences Annual Retreat (co-organizer)
 1998-2001 School of Pharmacy Diversity Committee, University of Colorado Health Sciences Center (student representative)
 1998-1999 Pharmaceutical Sciences Program, School of Pharmacy, University of Colorado Health Sciences Center (Graduate Student representative)

1997-1999 School of Pharmacy Journal Club Co-organizer, School of Pharmacy, University of Colorado Health Sciences Center (co-organizer)

Service to the Community

Community:

2018-Present Louisville United Methodist Church Staff Parish Relations Committee (chair)

2018 Louisville United Methodist Church Staff Parish Relations Committee (member, Christian Education Liaison)

2018 Colorado Student Leadership Institute (COSLI) Luncheon and Panel (panelist)

2018 RHCHP Diversity Outreach and Engagement Event (preceptor)

2017-Present Louisville United Methodist Church Worship Committee (chair)

2017-Present Louisville United Methodist Church Advisory Council (member)

2017-Present Louisville United Methodist Church Christian Education Committee (member)

2017 Cross-institutional Peer Reviewer of TBL Applications (study participant as a peer reviewer and submitter of a TBL application for review to an IRB-approved study conducted by researchers at Regis University and the University of Minnesota)

2017 Louisville Elementary School 5th grade Outdoor Education (parent chaperone)

2017 Community Food Share (warehouse volunteer)

2017 Gateway High School/EspeciallyMe Visiting Students (volunteer)

2017 Louisville United Methodist Church Christian Education Director Search Committee (member)

2017 Colorado Student Leadership Institute (COSLI) Luncheon and Panel (panelist)

2017 RHCHP Diversity Outreach and Engagement Event (preceptor)

2016 Colorado Student Leadership Institute (COSLI) Luncheon and Panel (panelist)

2016 RHCHP Diversity Outreach and Engagement Event (preceptor)

2015-2017 Louisville Elementary School Garden to Table (volunteer, committee co-lead)

2015 Boy Scout Event – Compounding Experience to Earn Science Belt Loop (preceptor)

2014	Middle Schoolers' College Campus Experience – Teaching Compounding Skills (preceptor)
2014	Collaboration with Educational Insights as featured scientist on an educational chemistry toy in the Nancy B Science Club line
2011	CREATE Health Scholars – Job Shadowing (volunteer, preceptor)
2009-2012	Aurora Lights Summer Institute, Partnership between the Aurora Public School System and UCD – Provide 2 weeks of lab educational experience (volunteer, preceptor)

Thesis/Dissertation Committees:

PhD Thesis Committees

2012-2017	Ankita Nagvekar – Thesis adviser: LaToya Jones Braun (2012-2013); Raj Argarwal (2014-2017), Department of Pharmaceutical Sciences CU SSPPS (committee member)
2009-2014	Tanya Clapp – Thesis adviser: LaToya Jones Braun (2012-2013); Department of Pharmaceutical Sciences CU SSPPS (committee member, thesis advisor)
2010-2013	Merry Le – Thesis advisor: John Carpenter, Department of Pharmaceutical Sciences CU SSPPS (committee chair)
2010-2013	Neha Pardeshi – Thesis advisor: John Carpenter, Department of Pharmaceutical Sciences CU SSPPS (committee member)
2009-2013	Regina Bis – Thesis advisor: Krishna Mallela, Department of Pharmaceutical Sciences CU SSPPS (committee member)
2009-2013	Rinku Baid – Thesis advisor: Uday Kompella, Department of Pharmaceutical Sciences CU SSPPS (committee chair)
2009-2013	Tyson Smyth – Thesis advisor: Thomas Anchordoquy, Department of Pharmaceutical Sciences CU SSPPS (committee chair)
2008-2013	James Barnard – Thesis advisor: John Carpenter, Department of Pharmaceutical Sciences CU SSPPS (committee chair)
2008-2013	Nicole Payton – Thesis advisor: Thomas Anchordoquy, Department of Pharmaceutical Sciences CU SSPPS (committee chair)
2008	David Brett Ludwig – Thesis advisor: Theodore Randolph, Department of Chemical and Biological Engineering, CU Boulder (committee member)
2007-2013	Pinaki Basu – Thesis advisor: John Carpenter, Department of Pharmaceutical Sciences CU SSPPS (committee member)
2007-2013	Luke Liu – Thesis advisor: John Carpenter, Department of Pharmaceutical Sciences CU SSPPS (committee chair)

- 2007-2010 Long Xu – Thesis advisor: Thomas Anchordoquy, Department of Pharmaceutical Sciences CU SSPPS (committee chair)
- 2005-2007 Amber Clausi – Thesis advisor: Theodore Randolph, Department of Chemical and Biological Engineering, CU Boulder (committee member)
- 2005-2007 Shujun Bai – Thesis advisor: John Carpenter, Department of Pharmaceutical Sciences CU SSPPS (committee chair)
- 2005 Christina Vessely – Thesis advisor: John Carpenter, Department of Pharmaceutical Sciences CU SSPPS (committee member)

Master’s Thesis Committee:

- 2013 Jessica Ponder – Thesis advisor: Brad Bendiak

PharmD Honors Program:

- 2012-2013 Rebecca Forbes– **Research Advisor: LaToya Jones Braun**
- 2012-2013 Colleen Tholen – **Research Advisor: LaToya Jones Braun**

TEACHING RESPONSIBILITIES

Department of Pharmaceutical Sciences, Regis University School of Pharmacy

Fall 2018

- Integrated Pharmacotherapy 1, PHRM 701, instructor
- Integrated Pharmacotherapy 2, PHRM 702, instructor
- Integrated Pharmacotherapy 5, PHRM 705, instructor
- Integrated Pharmacy Laboratory 1, PHRM 721, co-course director and instructor
- Integrated Pharmacy Laboratory 3, PHRM 723, course director and instructor
- Professional Development I, PHRM 725, instructor
- Advanced Pharmacy Practice Experience (APPE III), PHRM 763, preceptor (1 student – Sia Yang)
- Advanced Pharmacy Practice Experience (APPE IV), PHRM 764, preceptor (1 student – Lalia Kamsin)
- Advanced Pharmacy Practice Experience (APPE V), PHRM 764, preceptor (1 student – Brittanii Prah)

Summer 2018

- IPPE IV/V Advanced Specialty, PHRM754/PHRM755, preceptor (1 students – Reyvick Garcia)
- Advanced Pharmacy Practice Experience (APPE II), PHRM 762, preceptor (1 student – Ryan McInroy)
- Immunology and Vaccines, PHRM 795, instructor

Spring 2018

- Integrated Pharmacotherapy 3, PHRM 703, instructor
- Integrated Pharmacotherapy 4, PHRM 704, instructor
- Integrated Pharmacy Laboratory 2, PHRM 722, instructor
- Integrated Pharmacy Laboratory 4, PHRM 724, course director and instructor
- Professional Development 2, PHRM 726, instructor

Fall 2017

- Integrated Pharmacotherapy 1, PHRM 701, instructor
- Integrated Pharmacotherapy 2, PHRM 702, instructor

- Integrated Pharmacotherapy 5, PHRM 705, instructor
- Integrated Pharmacy Laboratory 1, PHRM 721, instructor
- Integrated Pharmacy Laboratory 3, PHRM 723, course director and instructor
- Professional Development I, PHRM 725, instructor
- IPPE IV/V Advanced Specialty, PHRM754/PHRM755, preceptor (2 students – Christine Pan, Amin Zahoui)
- Advanced Pharmacy Practice Experience (APPE), PHRM 762, preceptor (1 student – Mollie Michel)
- Advanced Pharmacy Practice Experience (APPE), PHRM 764, preceptor (1 student – Tyler Bradley)

Summer 2017

- IPPE IV/V Advanced Specialty, PHRM754/PHRM755, preceptor (6 students – Arthur Fagin, Holly Rawlings, James Lim, Bao Truong, Paige Collins, and Brett Young)
- Immunology and Vaccines, PHRM 795, instructor

Spring 2017

- Integrated Pharmacotherapy 3, PHRM 703, instructor
- Integrated Pharmacotherapy 4, PHRM 704, instructor
- Integrated Pharmacy Laboratory 2, PHRM 722, instructor
- Integrated Pharmacy Laboratory 4, PHRM 724, course director and instructor
- Professional Development 2, PHRM 726, instructor
- Advanced Pharmacy Practice Experience (APPE), PHRM 766, preceptor (1 student- Lauren Nickell)

Fall 2016

- Integrated Pharmacotherapy 1, PHRM 701, instructor
- Integrated Pharmacotherapy 2, PHRM 702, instructor
- Integrated Pharmacy Laboratory 1, PHRM 721, instructor
- Integrated Pharmacy Laboratory 3, PHRM 723, course director and instructor
- Professional Development I, PHRM 725, instructor
- IPPE IV/V Advanced Specialty, PHRM754/PHRM755, preceptor (1 student – Nathan Le)
- Immunology and Vaccines, PHRM 795, instructor

Summer 2016

- IPPE IV/V Advanced Specialty, PHRM754/PHRM755, preceptor (2 students – Steven Wang and Braden Wallace)

Spring 2016

- Integrated Pharmacotherapy 3, PHRM 703, instructor
- Integrated Pharmacotherapy 4, PHRM 704, instructor
- Integrated Pharmacy Laboratory 2, PHRM 722, instructor
- Integrated Pharmacy Laboratory 4, PHRM 724, course director and instructor
- Professional Development 2, PHRM 726, instructor
- Advanced Pharmacy Practice Experience (APPE), PHRM 766, preceptor (1 student- Matthew Sherlock)

Fall 2015

- Integrated Pharmacotherapy 1, PHRM 701, instructor
- Integrated Pharmacotherapy 2, PHRM 702, instructor
- Integrated Pharmacotherapy 5, PHRM 705, instructor
- Integrated Pharmacy Laboratory 1, PHRM 721, instructor

- Integrated Pharmacy Laboratory 3, PHRM 723, course director and instructor
- Professional Development I, PHRM 725, instructor
- Immunology and Vaccines, PHRM 795, instructor

Summer 2015

- Advanced Pharmacy Practice Experience (APPE), PHRM 761, preceptor (1 student – Peter Nguyen)

Spring 2015

- Integrated Pharmacotherapy 3, PHRM 703, instructor
- Integrated Pharmacotherapy 4, PHRM 704, instructor
- Integrated Pharmacy Laboratory 2, PHRM 722, instructor
- Integrated Pharmacy Laboratory 4, PHRM 724, course director and instructor
- Integrated Pharmacy Laboratory 6, PHRM 726, instructor
- Advanced Pharmacy Practice Experience (APPE), PHRM 765, preceptor (1 student - Ashlee Whitnee)

Fall 2014

- Integrated Pharmacotherapy 1, PHRM 701, instructor
- Integrated Pharmacotherapy 2, PHRM 702, instructor
- Integrated Pharmacy Laboratory 1, PHRM 721, instructor
- Integrated Pharmacy Laboratory 3, PHRM 723, course director and instructor
- Topics in Pharmaceutical Sciences, PHRM 790E, course director and instructor (1 student - Josephine Giang)
- Advanced Topics in Drug Delivery, PHRM 774, course director and instructor

Summer 2014

- IPPE IV Advanced Specialty, PHRM754, preceptor (1 student - Josephine Giang)

Spring 2014

- Integrated Pharmacy Laboratory 2, PHRM 722, instructor
- Integrated Pharmacy Laboratory 4, PHRM 724, instructor

CU SSPPS

2013

- Pharmaceutics, PHRD 5925 – Course co-developer, course co-director, and instructor
- Fundamentals of Pharmaceutical Sciences, PHSC/TXCL 7310, instructor
- Nanotechnology and Drug Delivery, PHSC 7345, instructor
- Seminar in Pharmaceutical Sciences, PHSC 7568, course co-developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2012

- Proteins, PHSC/BMST 7350, instructor
- Fundamentals of Pharmaceutical Sciences, PHSC/TXCL 7310, instructor
- Issues in Drug Development, PHSC 7330, instructor
- Structural Analysis of Biomolecules, PHSC/BMST 7354, instructor
- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2011

- Science Foundations I: Chemistry and Pharmaceutics, PHRD 5600, instructor
- Fundamentals of Pharmaceutical Sciences, PHSC/TXCL 7310, instructor

- Nanotechnology and Drug Delivery, PHSC 7345, instructor
- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2010

- Science Foundations I: Chemistry and Pharmaceutics, PHRD 5600, instructor
- Proteins, PHSC/BMST 7350, instructor
- Ethical Issues in Toxicology and Pharmaceutical Sciences, TXCL/PHSC 7400, course director, instructor
- Fundamentals of Pharmaceutical Sciences, PHSC/TXCL 7310, instructor
- Issues in Drug Development, PHSC 7330, instructor
- Structural Analysis of Biomolecules, PHSC/BMST 7354, instructor
- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2009

- Science Foundations I: Chemistry and Pharmaceutics, PHRD 5600, instructor
- Ethical Issues in Toxicology and Pharmaceutical Sciences, TXCL/PHSC 7400, instructor
- Fundamentals of Pharmaceutical Sciences, PHSC/TXCL 7310, instructor
- Nanotechnology and Drug Delivery, PHSC 7345, instructor
- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2008

- Science Foundations I: Chemistry and Pharmaceutics, PHRD 5600, instructor
- Proteins, PHSC/BMST 7350, instructor
- Ethical Issues in Toxicology and Pharmaceutical Sciences, TXCL/PHSC 7400, instructor
- Issues in Drug Development, PHSC 7330, instructor
- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2007

- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2006

- Proteins, PHSC/BMST 7350, instructor
- Issues in Drug Development, PHSC 7330, instructor
- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, instructor

2005

- Seminar in Pharmaceutical Sciences, PHSC 7568, course developer, course director, instructor
- P3 Seminar, PHRD 5200, seminar advisor

2004

- Proteins, PHSC/BMST 7350, instructor

Other Teaching Activities (Prior to initial faculty appointment)

University of Kansas (experience as a postdoctoral trainee)

Science in Film and Literature

This was a one-semester undergraduate course offered jointly to students attending the University of Kansas and Haskell Indian Nations University, both in Lawrence, KS. Haskell Indian Nations University is a four-year university with a student body comprised solely individuals affiliated with federally recognized tribes eligible for benefits from the Bureau of Indian Affairs, either official members or at least ¼ degree blood descendents of such members. Dr. Middaugh designed the course, and **I assisted in facilitating the course discussions**. In selecting reading and video material for this course, care was taken to include examples of underrepresented minorities and women in scientific roles. The reading material and films included science fiction as well as science in other forms of literature and film (i.e., mysteries, novels, biographies). Areas of science covered included biotechnology, oceanography, and naturalists. Discussions focused on the accuracy of the portrayal of science and stereotypes presented in these media and the potential effects that they have on the public's perception of science and scientists.

Biotechnology in Film and Science

I was the facilitator for this course, which was offered to students in the Pharmaceutical Chemistry graduate program at the University of Kansas. The graduate students on the NIH Biotechnology training grant were required to enroll. It was based on the successful undergraduate course, *Science in Film and Literature*. The reading material and films for this course were more narrowly focused including both biotechnology and research ethics. Topics of discussion included how accurately these works portrayed the drug discovery and development process, the experiences of the pursuit of science careers, and ethical dilemmas a scientist might face.

University of Colorado (experience as a graduate student)

Pharmacy Skills Lab

As a graduate student in Pharmaceutical Sciences at the University of Colorado, I served as a TA in a first year Pharmacy Skills lab for the BS Pharmacy curriculum. I volunteered for this position, as I had a fellowship at the time. I assisted the course instructors in preparing for the lab and evaluating the students' work.