

Lance F. Barton

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Education:

- 2003 Ph.D. in Immunology
 “The Proteasome Activator PA28 and Major Histocompatibility Class One Antigen Processing *In Vitro* and *In Vivo*”
 Department of Molecular Genetics, Biochemistry, and Microbiology
 University of Cincinnati, College of Medicine, Cincinnati, OH
- 2001 Certificate in Preparing Future Faculty (PFF)
 Certificate in Preparing Future Faculty in the Life Sciences (PFFLS)
 University of Cincinnati
- 1998 B.S. - Biology, *cum laude*
 Dickinson College, Carlisle, PA

Recent Professional Training:

- 2016 Summer STEM Leadership Institute, AAC&U/PKAL, Adamstown, MD
- 2014 Leading Change, American Chemical Society Leadership Development Workshop, Ft. Worth, TX
- 2014 Designing Scientific Teaching Tools for BMB Education, American Society for Biochemistry & Molecular Biology Regional Pedagogy Workshop, Texas State University, San Marcos, TX
- 2006 Frontiers in Basic Immunology, National Cancer Institute, National Institutes of Health, Bethesda, MD
- 2004 Council on Undergraduate Research Proposal Writing Workshop, University of Colorado – Pueblo

Administrative Positions Held:

- 2015 - Present Director, Center for Research, Experiential, Artistic, and Transformative Education (CREATE), Austin College, Sherman, TX

Teaching Experience (undergraduate level):

- 2017 - present Professor, Department of Biology, Austin College, Sherman, TX
- 2009 - 2017 Associate Professor, Department of Biology, Austin College, Sherman, TX
- 2003 - 2009 Assistant Professor, Department of Biology, Austin College, Sherman, TX
- 2002 Instructor, College of Mount Saint Joseph, Cincinnati, OH.
- 2001 Guest Lecturer, College of Mount Saint Joseph & Xavier University, Cincinnati, OH.
- 2000 - 2003 Immunology Teaching Assistant - Howard Hughes Medical Institute Summer Science Course for Gifted High School Students (ExSEL), University of Cincinnati
- Courses Taught: Cancer Biology (Biol347), Immunology (Biol340), Human Infectious Diseases (Biol354), Cellular Physiology (Biol248), Introductory Cell Biology (Biol116), Research and Design of Experiments (Biol472), Research Experience (Biol240), Non-majors Biology (Biol101 & Sci201), Communication/Inquiry (Freshman Seminar)

Publications: (* indicate undergraduate author)

Reed KE, DP Aiello, **LF Barton**, SL Gould, K McCain, JM Richardson. (2016) Integrating Leadership Development Throughout the Undergraduate Science Curriculum. *J College Science Teaching*. 45(5):51-59.

Uchimura Y, **LF Barton**, C Rada and MS Neuberger. (2011) REG γ associates with and modulates the abundance of nuclear activation-induced deaminase. *J Exp. Med*. 208(12): 2385-91.

Zannini L, D Lecis, G Buscemi, L Carlessi, P Gasparini, E Fonatanella, S Lisanti, **LF Barton**, and D Delia. (2008) REG γ proteasome activator is involved in the maintenance of chromosomal stability. *Cell Cycle* 7(4): 504-512.

Chen X, **LF Barton**, Y Chi, BE Clurman, and JM Roberts. (2007) Ubiquitin-independent degradation of cell cycle inhibitors by the REG γ proteasome. *Molecular Cell*. 26(6):843-852.

Barton, L.F., HA Runnels, TD Schell, Y Cho, R Gibbons, SS Tevethia, GS Deepe Jr., and JJ Monaco. (2004) Immune Defects in 28-kDa Proteasome Activator gamma-Deficient Mice. *J. Immunol.*172(6):3948-3954.

Barton, L.F., M Cruz, R Rangwalla, GS Deepe Jr, and JJ Monaco. (2002) Regulation of Immunoproteasome Subunit Expression *In Vivo* Following Pathogenic Fungal Infection. *J. Immunol.* 169(6):3046-52.

Selected Research Presentations: (* indicate undergraduate author)

Baker J. *, Calderilla D.*, Allawala A. *, Burns S.*, Collins T. *, Flaggert O. *, Gomathinayagam V.*, Li L. *, Tovar O. *, Reed K., **Barton L.F.** “The Effect of PA28 γ Genotype on Recovery of the Mouse Gut Microbiome Following Treatment with Streptomycin and Bacitracin.” *American Society for Cell Biology, 53rd Annual Meeting, New Orleans, LA, December 14-18, 2013, abstract 1507.*

Raghunath A. *, Jamshidi R.J. *, Phillips A.C. *, Gunter A.E. *, McKee D.W. *, Grouls A. *, Hanna K.M. *, Wurmbrand A.P. *, **Barton L.F.** “A Complex Role for PA28 γ as a Regulator of Cell Fate Decisions Following Stress.” *American Society for Cell Biology, 51st Annual Meeting, Denver, CO, December 3-7, 2011, abstract 1811.*

“Can there be ‘Only One?’ Life, Death, Immortality, and PA28 γ .” Biology Department Seminar Series, Austin College, Sherman, TX, December 2, 2010.

Barton L.F., Gunter A.E. *, Jamshidi R.J. *, Iqbal N.S. *, Wurmbrand A.P. *, & Collins A.C. *, “PA28 γ Enhanced Degradation of p38 MAPK by Proteasomes Reduces Survival Following Cellular Stress.” *Federated American Societies for Experimental Biology, Ubiquitin and Cellular Regulation Summer Research Conference, Saxtons River, VT, June 13-18, 2010, abstract 84.*

“Degradation, Death, and a Chamber of Doom.” Graduate Student Seminar Series, University of Cincinnati, Department of Molecular Genetics, Biochemistry, and Microbiology, Cincinnati, OH, March 19, 2010.

Selected Student Research Presentations: (* indicate undergraduate author)

Shah D.S. *, Smucker B.W., **Barton L.F.** “Investigating the DNA-binding and anti-proliferative effects of novel platinum compounds” *Beta Beta Beta South Central Regional Meeting, Cedar Hill, TX, April 1, 2017.*

D Ahle *, A Fusco *, & **Barton LF**, “Role of PA28 γ in Development of Cancerous Hallmarks in Cancer Clone & Fresh MEF Cell Lines” *Texas Academy of Science Annual Meeting, Temple, TX, March 3-4, 2017, poster 036.191.*

M Aliff*, Campbell V*, & **Barton LF**, “Comparing the Effects of p53 Mutations in Mammary Carcinoma and Mutated Cancer-like Cell Lines” *T, Texas Academy of Science Annual Meeting, Temple, TX, March 3-4, 2017, poster 036.183.*

Melchor G.S. *, Peterson K.B. *, Butterfield H.E. *, **Barton L.F.** “PA28 γ expression affects the acquisition of cancer phenotypes” *American Society for Cell Biology, 56th Annual Meeting, San Francisco, CA, December 3-7, 2016, abstract P1118.*

Shah D.S. *, Dang B. *, Hu J. *, Mortenson M.L. *, Smucker B.W., **Barton L.F.** “Platinum coordinated compounds bind DNA and alter cellular viability presenting the potential for use as novel anticancer

therapeutics” *American Society for Cell Biology, 56th Annual Meeting, San Francisco, CA, December 3-7, 2016, abstract P1915.*

Massey R.C. *, Grouls A. *, Marwaha V.S. *, **Barton L.F.** “Differential effects by Butyrate and Trichostatin A on MEFs demonstrate features of Butyrate beyond HDAC inhibition” *Texas Academy of Science Annual Meeting, Junction, TX, March 4-6, 2016, poster 026.105.*

Shah D.S. *, Sheth K.Y. *, Campbell V.J. *, **Barton L.F.** “Elucidating the role of PA28 γ on Akt and ERK signaling pathways following staurosporine treatment” *Texas Academy of Science Annual Meeting, Junction, TX, March 4-6, 2016, poster 026.108.*

Barrett J. *, Janes D.J. *, Shah D.S. *, **Barton L.F.** “PA28 γ -deficiency is associated with enhanced MAPK pathway activity following DNA damage” *American Society for Cell Biology, 55th Annual Meeting, San Diego, CA, December 12-16, 2015, abstract 2080.*

Campbell V. *, Dang B. *, **Barton L.F.** “Discovering a Synergetic Role of Akt and PA28 γ in Cancer Transformation” *American Society for Cell Biology, 55th Annual Meeting, San Diego, CA, December 12-16, 2015, abstract 2086.*

Massey R.C. *, Grouls A. *, Marwaha V. *, **Barton L.F.** “Suppression of Cell Growth by Butyrate is PA28 γ Independent” *American Society for Cell Biology, 55th Annual Meeting, San Diego, CA, December 12-16, 2015, abstract 2089.*

Barrett J. *, Clinton B. *, Herrera C. *, Liang T. *, Musoke N. *, Reed K.E., **Barton L.F.** “Investigating the Influence of PA28 γ Upon the Mammalian Gastrointestinal Microbiome” *Texas Branch American Society for Microbiology, 2014 Spring Meeting, New Braunfels, TX, April 3-5, 2014, abstract 13.*

Sliz A. *, Flores V.M. *, Raghunath A. *, Jamshidi R.J. *, Iqbal N.S. *, **Barton L.F.** “PA28 γ Regulates p53 Involvement in Cell Fate Decisions following Double Strand Breaks” *American Society for Cell Biology, 53rd Annual Meeting, New Orleans, LA, December 14-18, 2013, abstract 2091.*

Simpson S.S. *, Clarke J.A. *, Ellington L.E. *, Shah P.K. *, **Barton L.F.** “PA28 γ is required for effective initiation of apoptosis signaling by p53.” *American Society for Cell Biology, 51st Annual Meeting, Denver, CO, December 3-7, 2011, abstract 1299.*

Gunter A.E. *, Jamshidi R.J. *, Collins A.C. *, **Barton L.F.** “PA28 γ Mediated Degradation of p38 MAPK Reduces Survival Following Cellular Stress.” *American Society for Cell Biology, 49th Annual Meeting, San Diego, CA, December 5-9, 2009, abstract 2118.*

Jamshidi R.J. *, Iqbal N.S. *, Collins A.C. *, Zannini L., **Barton L.F.** “PA28 γ Mediates the Progression of Intracellular Apoptosis.” *American Association of Immunologists, 36th Autumn Immunology Conference, Chicago, IL, November 16-19, 2007, abstract 46.*

Hamilton M.P. *, Swamy P. *, Park S. *, **Barton L.F.** “Dynamic Proteasome Regulation by PA28 γ -Dependent and Ubiquitin-Independent Mechanisms.” *American Association of Immunologists, 36th Autumn Immunology Conference, Chicago, IL, November 16-19, 2007, abstract 65.*

Collins A.C. *, Sheng J. *, **Barton L.F.** “Yeast Model may Provide Key to Understanding Proteasome Activation by PA28 γ .” *American Association of Immunologists, 34th Autumn Immunology Conference, Chicago, IL, November 18-21, 2005, abstract 2.*

Mentored Research Student Awards:

- 2017 Dilan Shah, Honors Thesis in Biology “*Characterizing the DNA-Binding and Anti-Proliferative Effects of Modified Planar Platinum(II) Compounds.*”
- 2017 Dilan Shah, Second place, Frank G. Brooks Award for Excellence in Student Research, Beta Beta Beta South Central Region.
- 2017 Dilan Shah, Grants in Aid of Research (\$964), “*Platinum coordinated compounds bind DNA and alter cellular viability presenting the potential for use as novel anticancer therapeutics,*” Sigma Xi.

- 2016 Dilan Shah, Research Scholarship (\$500), “*Platinum coordinated compounds bind DNA and alter cellular viability presenting the potential for use as novel anticancer therapeutics,*” Beta Beta Beta.
- 2016 George Melchor, Minority Affairs Committee Special Recognition (Undergraduate) Presentation Award at the 56th Annual Meeting of the American Society for Cell Biology, ASCB MAC.
- 2016 George Melchor, Minority Affairs Committee Travel Award to present research at the 56th Annual Meeting of the American Society for Cell Biology (\$800), ASCB MAC.
- 2016 Joel Barrett, Honors Thesis in Biology “*PA28 γ modulates E2F1-mediated gene expression to control viability following cisplatin treatment.*”
- 2016 Joel Barrett, Undergraduate Scientific Research Award, Austin College, Sherman, TX.
- 2015 Rose Massey, Council on Undergraduate Research, Biology Division Travel Award to present research at the 55th Annual Meeting of the American Society for Cell Biology (\$225).
- 2015 Rose Massey, Undergraduate Travel Award to present research at the 55th Annual Meeting of the American Society for Cell Biology (\$250), ASCB Education Committee.
- 2015 Joel Barrett, Undergraduate Travel Award to present research at the 55th Annual Meeting of the American Society for Cell Biology (\$200), ASCB Education Committee.
- 2014 Nicholas J. Inman, Honors Thesis in Biology “*Regulation of p53 stability is not dependent on PA28 γ facilitated degradation of TAF9.*”
- 2013 Anna Sliz, Undergraduate Travel Award to present research at the 53rd Annual Meeting of the American Society for Cell Biology (\$200), ASCB Education Committee.
- 2012 Astrid Grouls, Honors Thesis in Biology “*Elucidating the apoptotic mechanism of Trichostatin A in PA28 γ -deficient MEF cells.*”
- 2012 Carla Khalaf, Honors Thesis in Biology “*The indirect role of PA28 γ on the microbiome community of the mouse intestine.*”
- 2012 Sean Simpson, Undergraduate Scientific Research Award, Austin College, Sherman, TX.
- 2011 Sean Simpson, Undergraduate Travel Award to present research at the 51st Annual Meeting of the American Society for Cell Biology (\$250), ASCB Education Committee.
- 2010 Anne Gunter, Grants in Aid of Research (\$735), “*Proteasome Activator PA28 γ inhibits cell survival through degradation of the stress activated protein kinase p38,*” Sigma Xi.
- 2009 Raehannah Jamshidi, Honors Thesis in Biology “*PA28 γ regulates apoptosis independently of JNK signaling.*”
- 2008 Laura Ellington, Honors Thesis in Biology “*Proteasome activator PA28 γ controls degradation of tumor suppressor p53 in a proteasome-dependent manner.*”
- 2008 Mark Hamilton, Honors Thesis in Biology “*Microarray analysis of PA28 γ effects on *Saccharomyces cerevisiae* demonstrates proteasome-dependent enhancement of cellular mitosis.*”
- 2007 Nida Iqbal & Raehannah Jamshidi, Travel Awards to present research at 36th Annual Autumn Immunology Conference, Council on Undergraduate Research, Biology Division
- 2007 Sun Park, Honors Thesis in Biology “*IIS Activator PA28 γ Regulates Ubiquitin Levels In Vivo.*”
- 2006 Angela Collins, Honors Thesis in Biology “*PA28 γ Regulates Apoptosis Through a Proteasome-Dependent Mechanism.*”

Awards and Honors:

- 2016 Nominee for the Minnie Stevens Piper Outstanding Professor of Texas, President's Office, Austin College, Sherman, TX.
- 2015 Roy F. Melugin Award for Outstanding Service, Sciences Division, Austin College, Sherman, TX.
- 2015 Faculty of the Month Appreciation Award (April), Student Assembly, Austin College, Sherman, TX.
- 2012 Outstanding Scholarship Award, Sciences Division, Austin College, Sherman, TX.
- 2009 Excellence in Teaching and Campus Leadership Award, Austin College, Sherman, TX.
- 2007 Excellence in Teaching Award, Sciences Division, Austin College, Sherman, TX.
- 2005 Outstanding Student Organization Faculty Sponsor (Alpha Phi Omega), Student Activities Office, Austin College, Sherman, TX.
- 2002 Graduate Student Scientific Research Award - University of Cincinnati, Department of Molecular Genetics, Biochemistry, and Microbiology, Cincinnati, OH.
- 2002 Graduate Student Summer Research Fellowship - University of Cincinnati, University Research Council, Cincinnati, OH.
- 1999 First Year Academic Achievement Award - University of Cincinnati, Department of Molecular Genetics, Biochemistry, and Microbiology, Cincinnati, OH.
- 1998 University Distinguished Scholar Fellowship (3 year fellowship) - University of Cincinnati, Division of Graduate Studies, Cincinnati, OH.

Selected Seminars, Workshops, & Other Professional Presentations:

“Developing a research program focused on undergraduates” **Barton LF** & M Wolyniak, American Society for Cell Biology, 56th Annual Meeting Career Mentoring Roundtable, San Francisco, CA, December 3-7, 2016.

“Writing the perfect Research Statement for your application package” **Barton LF** & M Wolyniak, American Society for Cell Biology, 56th Annual Meeting Career Mentoring Roundtable, San Francisco, CA, December 3-7, 2016.

“Sustaining an active research program through classroom undergraduate research experiences” **Barton LF**, American Society for Cell Biology, 56th Annual Meeting, San Francisco, CA, December 3-7, 2016, P843.

“Undergraduate Research: My Best Idea.” Barton LF. Johnson Center for Faculty Development and Excellence in Teaching, Faculty Development Lunch Series, Austin College, Sherman, TX, October 20, 2016.

“Getting What You Ask for... Now What? Institutionalizing Undergraduate Research via Grass Roots Efforts at Primarily Undergraduate Institutions.” **Barton LF** & KT Lee. CUR Conference Workshop, Council on Undergraduate Research, University of South Florida, June 27, 2016.

“Designing Course-Embedded Research Projects for Sophomore-Level Courses in the Sciences.” **Barton LF** & R Felix. CUR Conference Workshop, Council on Undergraduate Research, University of South Florida, June 27, 2016.

“Mechanisms for Effective Mentoring of Undergraduates in Research Projects.” **Barton LF**, S Byrd, & K Resendes CUR Conference Workshop, Council on Undergraduate Research, University of South Florida, June 27, 2016.

“Models of Undergraduate Research.” **Barton LF**, R Cape, & J Posadas. Johnson Center for Faculty Development and Excellence in Teaching, Faculty Development Lunch Series, Austin College, Sherman, TX, March 31, 2016.

“Promoting Leadership Development Within Undergraduate STEM Curricula” Aiello DP, **LF Barton**, SP Gould, KS McCain, KE Reed, & JM Richardson, American Society for Cell Biology, 55th Annual Meeting, San Diego, CA, December 12-16, 2015, abstract P22.

“The Council on Undergraduate Research (CUR): What’s in it for Future Faculty?” **Barton LF**, Fernandes J, Palladino M, & Resendes K, American Society for Cell Biology, 55th Annual Meeting, San Diego, CA, December 12-16, 2015, abstract P829.

“Building a successful research program- a road map” **Barton LF**, Fernandes J, Palladino M, & Resendes K, American Society for Cell Biology, 55th Annual Meeting, Workshop, San Diego, CA, December 15, 2015.

“Crafting a research statement that is undergraduate research friendly,” **Barton LF** & Resendes K, American Society for Cell Biology, 55th Annual Meeting Career Mentoring Roundtable, San Diego, CA, December 15, 2015.

“Promoting Leadership Development Within Undergraduate STEM Curricula” Aiello DP, **LF Barton**, SP Gould, KS McCain, KE Reed, & JM Richardson, AAC&U’s Network for Academic Renewal’s Crossing Boundaries: Transforming STEM Education, Seattle, WA, November 12-14, 2015, abstract P11.

“Explore. Dream. Discover. Frontiers in Cancer Research.” Phi Theta Kappa, Texas Honors Institute, U. of North Texas, Denton, TX, July 25, 2015.

“Integrating Undergraduate Research into the Classroom.” Johnson Center for Faculty Development and Excellence in Teaching, Faculty Development Lunch Series, Austin College, Sherman, TX, April 23, 2015.

“Linking Student Learning with the Discovery of Knowledge.” Johnson Center for Faculty Development and Excellence in Teaching, Faculty Pedagogy & Research Seminar Series, Austin College, Sherman, TX, September 23, 2014.

“Research on a Shoestring Budget.” **Barton LF**, S Byrd, S Safford & K Resendes. CUR Conference Workshop, Council on Undergraduate Research, Washington D.C., June 29, 2014.

“Undergraduate Research as a Platform to Develop Scientific Leaders.” **Barton LF** & SP Gould. CUR Conference Presentation, Council on Undergraduate Research, Washington D.C., June 29, 2014.

“STAR Academy: Training Future Scientists to Lead the Exploration of New Frontiers.” **Barton LF**, P DeLisle, & SP Gould. Johnson Center for Faculty Development and Excellence in Teaching, Faculty Pedagogy & Research Seminar Series, Austin College, Sherman, TX, September 24, 2013.

“The Rewards of Academia.” Career Opportunities in Biomedical Sciences Mini Symposium, University of Cincinnati, Department of Cell and Cancer Biology, Cincinnati, OH, July 25, 2007.

Schaeffer L.M., **Barton L.F.**, Choi E.M., Dean G.E., and Handwerger R.B. “A Problem-Based Learning Approach to Teaching Basic Immunology.” *American Society for Microbiology, 104th General Meeting, New Orleans, LA, May 23-27, 2004, presentation W-020.*

Membership in Professional Societies:

- 2015 - Present Texas Academy of Science, member
 Student poster and oral presentation judge (2015-17)
- 2009 - Present American Society for Cell Biology, member
 Career Discussion and Mentoring Roundtable leader (2013, 16)
 Undergraduate Poster Judge (2015)
 Table talk Leader (2015, 16)
- 2005 - Present Genome Consortium for Active Teaching, member
- 2003 - Present Council on Undergraduate Research
 Biology Division Councilor (2013-2019)
 Student Programming Task Force (2013 – Present)
 Student Resource Center subcommittee chair (2016-present)

Recognized as Outstanding Committee/Task Force of the year (2017)
 Austin College Liaison (2007 - Present)
 Mentor Network volunteer (2007 - Present)
 Posters on the Hill Abstract Reviewer (2014 - Present)
 Biology Division Faculty Mentor Awards Reviewer (2014-Present)
 Assessment Task Force (2013 - 2016)
 CUR Quarterly manuscript reviewer (2015)
 World Congress on Undergraduate Research abstract reviewer (2016)
 Program Reviewer (2016, 2018)

2002 - Present Sigma Xi Scientific Research Honor Society, member
 2003 - 2011 American Society for Microbiology, member
 2000 - 2009 American Association of Immunologists, member

College & Professional Service:

2017 Reviewer for manuscript submission to the International Journal of Cancer
 2015 - Present Undergraduate Research Program Director, CREATE@AC
 2011 - Present STEM Teaching And Research (STAR) Leadership Development Program
 Coordinator (2011-2013)
 Steering Committee (2013-2016), ex-officio (2016-Present)
 Participant Faculty Member (2011-Present)
 2007 - Present Survey of Undergraduate Research Experiences (SURE), partner institution liaison
 2007 - Present Sigma Xi working group, Austin College
 2014 - 2016 Austin College Faculty Compensation Committee
 Peers Subgroup Chair (2015)
 2008 - 2016 Robert & Joyce Johnson Center for Faculty Development and Teaching Excellence,
 Advisory Committee, Austin College
 2004 - 2015 Institutional Biosafety Committee, Austin College
 2012 - 2016 Austin College Student Scholarship Conference Organizing Committee
 Coordinator (2012-2015)
 2014 - 2015 Austin College Undergraduate Research Program Review Committee, Chair
 2004 - 2015 Institutional Animal Care and Use Committee, Austin College
 Chair (2008, 2011-2015)
 2013 Reviewer for manuscript submission to the Proceedings of the National Academy of
 Sciences (PNAS)
 2012 - 2013 Austin College Undergraduate Research Program Institutionalization Evaluation
 Coordinator & Lead Facilitator
 2010 - 2013 Curriculum Committee, Austin College
 2011 Judge, 52nd Annual National Student Research Forum, University of Texas Medical Branch
 2006 - 2012 Science Division Research Poster Symposium Organizing Committee
 Coordinator (2010)
 2003 - 2012 Honors Program Committee, Austin College
 Alpha Chi Sponsor (2007 – 2012)
 Chair (2008)
 2007 Immune Tolerance and Homeostasis Workshop Chair, Autumn Immunology Conference

Grants Awarded:

- 2017 The Discovery Foundation, Cancer Biology Research Fellowships and Curriculum Enhancements, P.I., \$149,903 requested – **funded (2018-2022)**
- 2017 Independent Bank Foundation, Enhancing New Student Success through Undergraduate Research Experiences (ENSURE), PI, summer 2018– **funded at \$10,000**
- 2017 Oliver Dewey Mayor Foundation, Enhancing New Student Success through Undergraduate Research Experiences (ENSURE), PI, \$7539 requested for summer 2017 pilot – **funded**
- 2017 Helen Freeborn Kerr Charitable Foundation, Training a New Generation of Physician Scientists to Understand the Molecular and Cellular Mechanisms Underlying Cancer, PI, students for summer 2018 – **funded at \$6500.**
- 2016 Total Wine and More, SC1100A: The Science and Culture of Wine course support funds, Instructor of Record, 10 cases of wine at cost (30% discount) requested –**funded at a value of \$779.35**
- 2016 National Science Foundation, IUSE, Type 1 project, “Developing Science Leaders Through Applied Learning Experiences and Reflection,” Award #1712066, Co-PI, \$299,999 requested – **funded (2017-2020)**
- 2016 Sigma Xi, Grants in Aid of Research, Sponsor/P.I. (Dilan Shah), \$964 for the purchase of research supplies – **funded**
- 2016 Beta Beta Beta Foundation, Research Scholarship, Sponsor/P.I. (Dilan Shah), \$500 for the purchase of research supplies – **funded**
- 2014 The Discovery Foundation, Cancer Biology Course Development & Cancer Research Fellowships, P.I., \$118,230 requested –**funded (2015-2017)**
- 2014 W.M. Keck Foundation, Undergraduate Education Program, The Science Teaching and Research (STAR) Leadership Program, Steering Committee Member & Participant, \$250,000 requested – **funded (2014-2017)**
- 2013 LI-COR Student Undergraduate Research Grant, Principle Investigator, total requested \$18,400 – **funded**, received an Odyssey Fc Imaging System
- 2009 Sigma Xi, Grants in Aid of Research, Sponsor/P.I. (Anne Gunter), \$735 for the purchase of Ultraviolet radiation detector and sensor - **funded**
- 2009 LI-COR Genomics Education Matching Funds Grant, contributor/participant, \$60,538 – **funded**, received the LI-COR 4300 Sequencing System

Curriculum Development Support:

- 2017 Training Support Program, \$739 in discounts to support course supplies for Biology 248 & 116, Promega Corporation, Madison, WI.
- 2016 Training Support Program, \$475 in discounts to support course supplies for Biology 347, Promega Corporation, Madison, WI.
- 2016 Training Support Program, \$623 in discounts to support course supplies for Biology 248 & 116, Promega Corporation, Madison, WI.
- 2015 Training Support Program, \$665 in discounts to support course supplies for Biology 340 & 347, Promega Corporation, Madison, WI.
- 2015 Training Support Program, \$321 in discounts to support course supplies for Biology 248, Promega Corporation, Madison, WI.

- 2014 Education Course Support Program, acquired supplies for Cellular Physiology & Cancer Biology courses, New England BioLabs, Ipswich, MA.
- 2014 Training Support Program, \$1220 in discounts to support course supplies for two courses, Promega Corporation, Madison, WI.
- 2014 Curriculum Development Grant, \$560 pays for development of new Introductory Cell Biology Labs using Vernier Lab Quest, Austin College, Sherman, TX.
- 2013 Education Course Support Program, acquired supplies for multiple biology courses, New England BioLabs, Ipswich, MA.
- 2012 Curriculum Development Grant, \$500 pays for Sciences Division Poster Symposium, Austin College, Sherman, TX.
- 2012 Curriculum Development Grant, \$4000 pays for Undergraduate Research Program Review by council on Undergraduate Research, Austin College, Sherman, TX.
- 2012 Johnson Center Faculty Support Funds, \$960 pays for faculty discussion group of the *Characteristics of Excellence in Undergraduate Research*, Austin College, Sherman, TX.
- 2010 Keck Interdisciplinary Course Development Funds, \$1400 pays for development of new Interdisciplinary non-majors science course on public health, Austin College, Sherman, TX.
- 2004 Lilly Mentoring Development Grant, \$140 support to attend a retreat on effective mentoring practices, Austin College, Sherman, TX.

Community Service:

- 2013-present Jag Dads volunteers, member
- 2013-present Rueben Johnson Elementary, volunteer
- 2011-present Faculty Sponsor, H.E.A.T. student organization
- 2007-present Dickinson Alumni Volunteer Service (DAVS), Admissions volunteer
- 2004-present Faculty Sponsor, Phi Xi Chapter of Alpha Phi Omega
- 2006-2014 Faculty Sponsor & Coach, Austin College Roller Hockey Team
- 2012 Susan G. Komen Foundation, Human Pink Ribbon Volunteer
- 2010 Judge, Spirit of Innovation Awards, Conrad Foundation
- 2008, 2013 Alumni Reunion Committee, Class of 1998, Dickinson College
- 2004-07 Great Day of Service, Austin College
- 2007 Relay for Life, American Cancer Society
- 2002 MS Walk-a-thon, National M.S. Society