

CHRISTINE E. CUTUCACHE, Ph.D.
(Maiden name: Gilling)
819 Hidden Hills Dr.
Bellevue, NE 68005
Ph: 402-707-3547
ccutucache@unomaha.edu

Current Academic Position: Haddix Community Chair of Science and Assistant Professor of Biology, UNO, June 2014-present

Prior Positions: Instructor, Department of Biology, University of Nebraska at Omaha August 2012-May 2014

Education

University of Nebraska Medical Center, 986395 Nebraska Medical Center, Omaha, NE 68198-6395

Ph.D. in Genetics, Cell Biology, and Anatomy 2012

Dissertation Title: Molecular and cellular determinants of lymph node microenvironment-induced immunosuppression in chronic lymphocytic leukemia (Advisor: SS Joshi, Ph.D.)

University of Nebraska at Kearney, 905 West 25th St., Kearney, NE 68849

B.S. Biology 2008

Peer Reviewed Funding Received

I. Funding Received for Discipline-Based Education Research (DBER) Studies

- Peter Kiewit Foundation (2016) *NE STEM 4U: Programming for elementary schools. Partnership with Collective for Youth* (PI: C. Cutucache; CoPIs: N. Grandgenett, W. Tapprich) \$9,000
- Peter Kiewit Foundation (2015) *NE STEM 4U: Programming for elementary schools. Partnership with Collective for Youth* (PI: C. Cutucache; CoPIs: N. Grandgenett, W. Tapprich) \$9,000
- The Sherwood Foundation (2015-2018) #01134880 *UNO supporting research opportunities for underprivileged youth through teacher-researcher partnerships.* (PI: C. Cutucache; CoPIs: W. Tapprich, R. Shuster, N. Grandgenett, S. Rodie) F&A 10%; \$628,208
- The Sherwood Foundation (2015-2018) #3500 *OPS K-12 Comprehensive Science Teaching and Learning (CSTL)* (PI: C. Schaben, co-PIs: C. Cutucache and N. Grandgenett) F&A 10%; \$4,201,985
- The Sherwood Foundation (2015-2016) *NE STEM 4U: After school STEM outreach in OPS* (PI: C. Cutucache; Co-PIs: William Tapprich & Neal Grandgenett) F&A 10% \$106,877
- The Sherwood Foundation (2014-2015) #3727 *NE STEM 4U: After school STEM outreach in OPS* (PI: C. Cutucache; Co-PIs: William Tapprich & Neal Grandgenett) F&A 10% \$114,482
- NSF AISL (Re-Submitted Oct 2015) *NE STEM 4U: Advancing Knowledge and Broadening Participation in Science* (PI: C. Cutucache; Co-PIs: Neal Grandgenett & William Tapprich) \$1,999,596—**not funded**
- Nebraska Research Initiatives (NRI) *A focus on STEM in Teaching, Mentorship, Service Learning, and Ethics*, 2014-2016 (PI: W. Tapprich; Co-PIs: C. Cutucache, A. Nelson, G. Talmon) \$99,800
- Sherwood Foundation, *STEM Pedagogy & Community Outreach: NE STEM 4U*, 2013, (PI: C. Cutucache; Co-PI: T. Helikar); F&A 10%; \$98,886
- NASA Nebraska, Mini-Grant for *NE STEM 4U*, 2013 (C. Cutucache) \$2,000
- NSF Travel Grant, *ASM-CUE*, May 2013 (C. Cutucache), \$500
- UNO UCRCA research funds, 2013 (PI: C. Cutucache), \$4,250

- UNO UCAT travel funds, February 2013 (C. Cutucache), \$586
- UNO UCRCA travel funds (L. Dahlquist, undergraduate; C. Cutucache as mentor), 2013 \$500

II. Funding Received for Biomedical Research Studies (Tumor Immunology, Genetics, Bioinformatics)

- Mentored successfully funded applications for 1 FUSE student, 2016 (\$2,500): J. Robinson
- Mentored successfully funded applications for 5 FUSE students, 2015 (\$2,500 award per student): T. Shew, H. Spurgin, A. Hall, R. Brohimer, T. Boham.
- Mentored successfully funded NSF GRFP application by graduate student, Tyler Herek \$162,000 over 5 years (2015-2020)
- Mentored successfully funded GRACA application by graduate student, Tyler Herek, \$5,000
- UNO Technology Fund, Approval for iPads, 2013 (C. Cutucache), \$4,000
- SigmaXi, Grant in Aid of Research, 2013 (B. Conroy; Mentor: C. Cutucache), \$500
- FUSE grant, 2013 (B. Conroy; Mentor: C. Cutucache), \$3,000
- FUSE grant, 2013 (H. Wyble; Mentor: C. Cutucache), \$3,000
- UNO UCRCA research funds, 2013 (PI: T. Helikar, Ph.D.; Co-PI: C. Cutucache), \$5,000
- Presidential Graduate Fellowship (C. Cutucache) 2012 \$24,000
- UNMC Fellowship 2012 (C. Cutucache) \$24,000
- BRIN/INBRE Fellowship (mentor: S. Joshi), 2009-2010 \$21,000
- BRIN/INBRE Fellowship (mentor: S. Joshi), 2008-2009 \$21,000
- Undergraduate Research Council Grant, University of Nebraska at Kearney (mentor: K. Carlson), 2007 \$1,000
- SET Funds, University of Nebraska at Kearney (mentor: K. Carlson), 2007 \$500
- Student Talent Funds, University of Nebraska at Kearney (mentor: K. Carlson), 2007 \$500
- Undergraduate Research Council Grant, University of Nebraska at Kearney (mentor: K. Carlson), 2006 \$1,000
- Summer Student Research Program Project Grant, University of Nebraska at Kearney (mentor: K. Carlson), 2006 \$2,500
- Undergraduate Research Council Grant, University of Nebraska at Kearney (mentor: K. Carlson), 2005 \$1,000

Publications & Presentations

(*Denotes Undergraduate)

I. Publications and Peer-Reviewed Abstracts

Publications

Shukla A, **Cutucache CE**, Opavsky R, Swanson PC, Joshi SS. 2016. *Absence of caveolin-1 leads to delayed development of chronic lymphocytic leukemia in Emu-TCL1 mouse model*. *Experimental Hematology* doi:10.1016/j.exphem.2015.09.005

Cutucache CE, J. Luhr, K. Nelson, Grandgenett N., Tapprich W. 2016. *NE STEM 4U: An out-of-school time academic program to improve achievement of underprivileged youth in STEM areas*. *International Journal of STEM Education*. DOI: 10.1186/s40594-016-0037-0

Tapprich W., Grandgenett N., Leas H., Rodie S., Shuster R., Schaben C., **Cutucache C**. 2016. *Enhancing the STEM ecosystem through Teacher-Researcher Partnerships*. *Metropolitan Universities Journal* 27(1).

Herek T.A., Shew T.D.*, Spurgin H.*, **Cutucache CE**. 2015. *Conserved molecular underpinnings of*

mature T-cell lymphomas and characterization of a role for Caveolin-1 in the Tumor Microenvironment. PLoS One, DOI:10.1371/journal.pone.0142682.

Grandgenett N, Edick N, Boocker D, Ali H, Hodge A, Dorn B, **Cutucache CE**. 2015. *Community Chairs as a Catalyst for Campus Collaboration in STEM.* The Metropolitan Universities Journal, Vol 26 (1): 52-72.

Helikar T., **Cutucache C.E.**, Dahlquist L.M., Herek T., Larson J.J., Rogers J. (2015) Integrating interactive computational modeling in biology curricula. *PLoS Computational Biology*. 11(3): e1004131

Conroy D, Herek TA, Shew T, Latner M, Larson JJ, Allen L, Davis PH, Helikar T, **Cutucache CE**. 2014. Design, assessment, and *in vivo* evaluation of a computational model illustrating the role of CAV1 in CD4+ T lymphocytes. *Frontiers Immunology*, DOI 10.3389.

Mittal AK, Chaturvedi NK, Rai KJ, **Gilling-Cutucache CE**, Nordgren-Gries TM, Moragues M, Lu R, Opavsky R, Bociek GR, Weisenburger DD, Iqbal J, Joshi SS. 2014. *Chronic lymphocytic leukemia cells in lymph node microenvironment depict molecular signature associated with an aggressive disease.* Molecular Medicine DOI:10.2119/molmed.2012.00303

Batra S. Kumar S, Torres M, Kaur S, Rachagani S, Joshi S, Momi N, Baine M, **Gilling-Cutucache C**, Smith L, Wyatt T, Jain M, Johansson S, Joshi S. 2014. *Smoking accelerates pancreatic cancer progression by promoting differentiation of MDSCs and inducing HB-EGF expression in macrophages.* Oncogene. DOI: 10.1038/onc.2014.154

Cutucache CE, Chen H*, Conroy B*, Madden C*, Peterson D*, Strathman L*, Stoffel S*, Kolok A. 2014. *Culturing Undergraduate Research at UNO: A collaboration among the Nebraska Watershed Network, Undergraduate Microbiology Students, and the Omaha Community.* Council of Undergraduate Research-Quarterly (Summer). 34 (4):33-37.

Cutucache CE, Helikar T. 2014. *An Inquiry-Based Approach to Cancer Biology.* Kendall-Hunt Publishing, 1st Edition.

Shukla A, Chaturvedi NK, Ahrens AK, **Cutucache CE**, Mittal AK, Bierman P, Weisenburger DD, Lu R, Joshi SS. 2013. *Stromal tumor microenvironment in Chronic Lymphocytic Leukemia: Regulation of Leukemia Progression.* Journal of Leukemia, 1:113. 10.4172/2329-6917.1000113

Cutucache, CE. 2013. *Explorative Microbiology! A problem-based learning approach.* Pearson Publishing, 1st Edition.

Cutucache CE. 2013. *Tumor-induced host immunosuppression: Special focus on CLL.* International Immunopharmacology. 17(1):35-41. DOI: 10.1016/j.intimp.2013.05.021

Peters HL, Yan Y, Nordgren TM, **Cutucache CE**, Joshi SS, Solheim JC. 2013. *Amyloid precursor-like protein 2 suppresses irradiation-induced apoptosis in Ewing sarcoma cells and is elevated in immune-evasive Ewing sarcoma cells.* Cancer Biology & Therapy 14(8): DOI: 10.4161/cbt.25183

Cutucache CE, Iqbal J, Bierman PJ, Bociek RG, Weisenburger DD, Joshi SS. 2013. *PRE-binding sites in the MDR of CLL: Potential Tumor Suppressor Regulation.* Advances in Bioscience and Biotechnology, 4:129-135. 10.4236/abb.2013.41A019

- Gilling CE**, Mittal AK, Iqbal J, Aoun P, Bierman PJ, Bociek GR, Weisenburger DD, Joshi SS. 2012. *Lymph Node induced Immune Tolerance in Chronic Lymphocytic Leukemia: A Role for Caveolin-1*. British Journal of Haematology 158:216-31. DOI: 10.1111/j.1365-2141.2012.09148.x.
- Gilling CE**, and Carlson K. 2009. *The effect of OTK18 upregulation on neuronal survival*. In *Vitro Cellular & Developmental Biology - Animal* 45:243-251. DOI: 10.1007/s11626-009-9175-8.
- Larson, S., **Gilling, C.**, Carlson, K. 2008. *A proposed mechanism for OTK18 regulation of TNF-alpha and NT3 in a response to neurotoxic insult*. J of Biology, Biological Systems, and Bioinformatics. 2(1).

Manuscripts Currently Under Review

- Herek T, **Cutucache C**. Submitted May 2016. Using murine models to understand tumor-lymphoid interactions: Spotlight on CLL and AITL. *Frontiers Oncology*.
- Cutucache C**, Herek T. Submitted May 2016. Burrowing through the heterogeneity: Review of mouse models of PTCL-NOS. *Frontiers Oncology*.

Peer-Reviewed, Published Abstracts

- Herek TA, Shew T*, Spurgin H*, Conroy B*, Helikar T, **Cutucache CE**. 2015. *Identification of a caveolin-1-associated signature in CD4+ malignancies*. W.28, pg. 102. Federation of Clinical Immunology Societies (FOCiS).
- Shukla A, **Cutucache CE**, Rai KJ, Rai SJ, Opavsky R, Swanson P, Joshi SS. 2014. *Delayed development of CLL in the absence of caveolin-1 (Cav-1) in the Eμ-TCL1 mouse model*. Blood, 2196.
- Herek T*, Dahlquist L*, **Cutucache CE**, Helikar T. 2014. The Cell Collective Promotes Student Understanding and Interest: A Pilot Study. CALHE, St. Joseph's, MO
- Cutucache CE**, Strathman L*, Stoffel S*, Ahrendsen D, Farhat A*, Westbrook L. 2013. *A Service Learning Opportunity to Study the Microbiota of Heron Haven: Feedback from the Student Feedback, Community Partner, and Faculty Perspectives*. Proceedings of the International Association for Research on Service-Learning and Community Engagement. 13:25.
- Cutucache CE**, Dahlquist LM*. 2013. *Effectiveness of Implementing a STEM Service Learning Component Engaging Students in After School Time Activities*. Proceedings of the International Association for Research on Service-Learning and Community Engagement. 13:35.
- Cutucache CE**, Dahlquist LM*, Ahrendsen D. 2013. *UNO Students as Service Learning Leaders: Pioneers in STEM for Omaha Public Schools*. Proceedings of the International Association for Research on Service-Learning and Community Engagement. 13:35.
- Larson JJ, Iqbal J, **Cutucache CE**. 2013. *A CAV1-Dependent Gene Expression Signature in Chronic Lymphocytic Leukemia Indicates Activation of the Immune Response*. SigmaXi International Conference Proceedings, Research Triangle Park, NC

- Conroy B*, Latner M*, Helikar T, **Cutucache CE**. 2013. Characterization of the role of CAV1 in cellular proliferation pathways in a CD4+ T helper cell. SigmaXi, Research Triangle Park, NC
- Herek T*, Dahlquist L*, **Cutucache CE**, Helikar T. 2013. The Cell Collective Promotes Student Understanding and Interest: A Pilot Study. SigmaXi, Research Triangle Park, NC
- Dahlquist LM*, **Cutucache CE**. 2013. *Effects of implementing problem-based learning in an undergraduate setting*. ASM-CUE Science Case Network Conference, Denver, CO
- Stoffel S*, Farhat A*, Strathman LM*, **Cutucache CE**. 2013. *A pilot study: The aquatic microbial landscape of Heron Haven Nature Center*. UNO 5th Annual Student Research and Creative Activity Fair Proceedings.
- Dahlquist LM*, **Cutucache CE**. 2013. *Effects of implementing problem-based learning in an undergraduate setting*. UNO 5th Annual Student Research and Creative Activity Fair Proceedings.
- Dahlquist LM*, **Cutucache CE**. 2013. *Do undergraduate students learn material faster, better, and retain it longer if the material is presented using problem-based learning strategies?* Conference on Applied Learning in Higher Education.
- Dahlquist LM*, **Cutucache CE**. 2013. *Effects of implementing problem-based learning activities in an undergraduate setting*. Conference on Applied Learning in Higher Education.
- Dahlquist LM*, **Cutucache CE**. 2013. *The outcomes of using problem-based learning activities as supplement to didactic lecture in an undergraduate microbiology classroom*. SigmaXi Conference
- Chaturvedi N, Ahrens A, Shukla A, **Gilling CE**, Mittal AK, Bierman P, Weisenburger DD, Lu R, Joshi SS. 2012. *Stromal Tumor Microenvironment in CLL: Regulation of Leukemic Progression*. Blood, 120; 1781.
- Mittal AK, Iqbal J, **Gilling CE**, Moragues M, Bociek RG, Aoun P, Weisenburger DD, Joshi SS. 2011. *The aggressive molecular signature of peripheral blood chronic lymphocytic leukemia (CLL) cells from patients with bulky lymphadenopathy closely resembles that of CLL from lymph nodes*. Blood, 118:3868
- Gilling CE**, Mittal A, Nganga V, Palmer V, Weisenburger DD, Bierman PJ, Bociek RG, Swanson PC, Joshi SS. 2010. *Molecular determinants of lymph node microenvironment induced immune tolerance in CLL: Role for CAV1, PTPN6, and PKCbeta in the process*. Blood, 116:1367.
- Mittal AK, **Gilling CE**, Iqbal J, Bociek RG, Aoun P, Bierman PJ, Joshi SS. 2009. *Clinical heterogeneity of CLL: Role for immune dysregulation by the lymph node microenvironment*. Blood, 114:1243.
- Peters HL, Wang S, Nordgren TM, **Gilling CE**, Joshi SS, Yan Y, and Solheim JC. *Ewing's sarcoma cell lines advantageously elevate amyloid precursor-like protein 2 (APLP2) to survive lysis by lymphocyte-activated killer cells*. Midwest Student Biomedical Research Forum, February 2011

Peters HL, Wang S, Nordgren TM, **Gilling CE**, Joshi SS, Yan Y, and Solheim JC. *Ewing's sarcoma cell lines advantageously elevate amyloid precursor-like protein 2 (APLP2) to survive lysis by lymphocyte-activated killer cells*. AAI – Immunology HP, San Francisco, 2011

Nystuen AM, Yuan Y, **Gilling CE**, Haider NB. *Strain Background Influences on Gene Expression: Implications in Retinal Morphology and Function*. ARVO 2009 Annual Meeting, Fort Lauderdale, FL May 2009

Shaffer J, Falconer J, **Gilling CE**. *Goals and realities in successful student research programs: prospectives from administration, faculty, and students*. Applied Learning in Higher Education, pg. 20. 2008.

Gilling CE, Kim K-S, Carlson K. *Stability of a foreign protein in chimeric CVB3: Vector for Gene Delivery*. Proceedings of the Nebraska Academy of Sciences, pg 38. 2008.

Gilling CE, K Carlson. *Stability of a foreign protein in chimeric CVB3: Potential Vector for Gene Delivery*. National Conference of Undergraduate Research. 2008.

Gilling CE, Carlson K. *The effect of OTK18 upregulation in U937 cells on neuronal survival*. Proceedings of the Nebraska Academy of Sciences, pg. 65. 2007.

Gilling CE, Carlson K. *The Effect of OTK18 Upregulation in U937 Cells on Neuronal Survival*. National Conference of Undergraduate Research. 2007.

Gilling CE, Kim K-S, Carlson K. *Stability of a foreign protein in chimeric CVB3: Vector for Gene Delivery*. SigmaXi Proceedings of the Annual Meeting. 2007.

II. Oral Presentations

- Partnerships for Change: The NE STEM 4U spans K-16. Coalition of Urban Metropolitan Universities (CUMU), Syracuse, NY, 2014
- International Association for Research on Service-Learning and Community Engagement, Omaha, NE, Nov, 2013
- Computational Modeling: Bridging Biological Processes in the Classroom and After School with Applied Learning and Novel Technology, Nebraska Association of Teachers in Science, Omaha, NE Sept, 2013
- Keynote for the Annual INBRE Meeting, Grand Island, NE, August 2012
- American Association of Anatomists Experimental Biology Meeting, San Diego, CA April 2012
- Midwest Student Biomedical Research Foundation (MSBRF) Annual Meeting, Omaha, NE February 2012
- Centers for Research on Leukemia and Lymphoma, Omaha, NE March 2012
- Midwest Student Biomedical Research Foundation (MSBRF) Annual Meeting, Omaha, NE February 2011
- Midwest Student Biomedical Research Foundation (MSBRF) Annual Meeting, Omaha, NE February 2010
- BRIN/INBRE Annual Meeting, Grand Island, NE August 2008
- Nebraska Academy of Sciences, Lincoln, NE April 2008
- National Conference of Undergraduate Research, Salisbury, MD April 2008

- Student Research Day, Kearney, NE March 2008
- Conference on Applied Learning in Higher Education, St. Joseph's, MO February 2008
- SigmaXi Scientific Research Society Annual Meeting, Orlando, FL November 2007
- BRIN/INBRE Annual Meeting, Grand Island, NE August 2007
- Video and Radio interview for involvement in Research for BRIN August 2007
- National Conference of Undergraduate Research, San Francisco, CA April 2007
- Nebraska Academy of Sciences April 2007
- Fall Student Research Symposium, UNK, September 2006
- Scholar's Day, UNK, October 2006 (informed high school students about research)
- Senior Thesis Presentation, UNK, December 2006

Invited Talks

- Invited keynote speaker for the Expanded Learning Opportunities (ELO) Policy Summit, Lincoln NE October 20, 2015
- Invited speaker for the INBRE Conference, Lincoln, NE, August 4, 2015 *Academia: a house deck of cards*
- Presenter for the College of IS&T, UNO Roundtable Seminar, April 11, 2014
- Keynote Speaker for the Midwest Science and Engineering Fair, March 7/8, 2014
- Presentation to the Immunology Interest Group (UNMC): *In silico* and *in vivo*: A dual approach to understanding the influence of *CAVI* on lymphocytes December, 2013
- Presentation for the Nebraska Association of Teachers in Science (NATS) on *Computational Modeling: Bridging Biological Processes in the Classroom and After School with Applied Learning and Novel Technology*. Fremont, NE September, 2013
- Presentation regarding science pedagogy in Microbiology at the Case Study and PBL in STEM Education Conference (combined with the annual American Society of Microbiology conference), Denver, CO May 2013
- Presentation regarding novel techniques in science education at the NIH SciEd Conference, Omaha, NE May 2013
- Presentation for Women's History in Science for the Department of Homeland Security, Lincoln, NE April 2013
- Annual INBRE Meeting, Grand Island, NE August 2012
- Nebraska Board of Regents Meeting; to inform them on the importance of undergraduate research; presentation held at UNK, Kearney, NE May 2011
- Center for Research on Leukemia and Lymphoma, Omaha, NE, March 2011

II. Poster Presentations

Galt NJ, Bergan-Roller HW, **Cutucache CE**, Dauer JT, Helikar T. *The use of interactive computational network modeling in life science courses to increase students' mechanistic reasoning about biological systems*. ICSB 2015, Singapore

Shuster R, Grandgenett N, Tapprich W, **Cutucache CE**, Rodie S. *Using authentic research experiences to improve STEM education in the K-12 environment*. GSA Annual Meeting, Baltimore, MD, 2015.

Herek T*, Dahlquist LM*, Helikar T, **Cutucache CE**. 2014. *The cell collective promotes student understanding and interest: A pilot study*. Conference on Applied Learning in Higher Education, St. Joseph's, MO

Larson JJ, Iqbal J, **Cutucache CE**. 2013. *A CAV1-Dependent Gene Expression Signature in Chronic Lymphocytic Leukemia Indicates Activation of the Immune Response*. SigmaXi International Conference Proceedings, Research Triangle Park, NC

Dahlquist LM*, **Cutucache CE**. 2013. *Effects of problem-based learning in an undergraduate setting*. UNO's 5th Annual Research and Creative Activity Fair

Farhat A*, Strathman L*, Stoffel S*, **Cutucache CE**. 2013. *A pilot study: The aquatic microbial landscape of Heron Haven Nature Center*. UNO's 5th Annual Research and Creative Activity Fair, Omaha, NE

Mittal AK, Iqbal J, **Gilling CE**, Moragues M, Bociek RG, Aoun P, Weisenburger DD, and Joshi SS. 2011. *The Aggressive Molecular Signature of Peripheral Blood Chronic Lymphocytic Leukemia (CLL) Cells From Patients with Bulky Lymphadenopathy Closely Resembles That of CLL Cells From Lymph Nodes*. American Society of Haematology, San Diego, CA

Gilling CE, Mittal A, Palmer VL, Nganga V, Opavska J, Bierman P, Opavsky R, Swanson P, Joshi S. 2011. *Characterization of the immunophenotype and tolerogenic signature in the E μ -TCL1 mouse model of Chronic Lymphocytic Leukemia*. INBRE Annual Meeting, Grand Island, NE

Gilling CE, Mittal A, Palmer VL, Nganga V, Opavska J, Bierman P, Opavsky R, Swanson P, Joshi S. 2011. *Characterization of the immunophenotype and tolerogenic signature in the E μ -TCL1 mouse model of Chronic Lymphocytic Leukemia*. IDEA Regional Meeting, Omaha, NE

Gilling CE, Mittal AK, Nganga V, Palmer VL, Weisenburger DD, Bierman PJ, Bociek RG, Swanson P, Joshi S. 2010. *Molecular Determinants of Lymph Node Microenvironment Induced Host Immune Tolerance in CLL: Role for CAV1, PTPN6, and PKC β in the Process* American Society of Hematology, Orlando, FL

Gilling CE, Mittal A, Palmer V, Aoun P, Weisenburger DD, Bierman P, Swanson P, Joshi S. 2010. *Molecular Determinants of Lymph Node Microenvironment-Mediated Tolerance Against Chronic Lymphocytic Leukemia* INBRE Annual Meeting, Grand Island, NE

Mittal A, **Gilling CE**, Iqbal J, Bociek RG, Aoun P, Bierman P, Weisenburger DD, Joshi S. 2009. Equally contributing authors. *Clinical Heterogeneity of CLL: Role of Immune Dysregulation Mediated by the Lymph Node Microenvironment*. American Society of Hematology, New Orleans, LA

Gilling C, Mittal A, Persinger A, Eudy J, Aoun P, Weisenburger DD, Bierman P, Bociek RG, Vose J, Joshi S. 2009. *Clinical Heterogeneity of CLL: Role of Immune Dysregulation Mediated by the Lymph Node Microenvironment*. BRIN/INBRE Annual Meeting, Grand Island, NE

Nystuen AM, Yuan Y, **Gilling CE**, Haider NB. 2009. *Strain Background Influences on Gene Expression: Implications in Retinal Morphology and Function*. ARVO, Annual Meeting, Fort Lauderdale, FL May 2009

Gilling CE, Yuan Y, Nystuen AM, Haider NB. 2008. *Genetic modification of Nr2e3^{rd7/rd7}* Midlands Chapter of the Society for Neuroscience Annual Grass Lecture and Poster.

Gilling CE, Carlson KA. 2007. *Effect of OTK18 on Differentiated Neurons*. Student Research Day

Gilling CE, Carlson KA. 2006. *Effect of OTK18 Upregulation on Neuronal Survival* Student Research Day

Awards & Honors

- Invited Guest Co-Editor (with Dr. Pierluigi Porcu, Ohio State University Cancer Center) for *Frontiers Oncology*, including hosting my research topic of choice: Mouse models of lymphoid leukemias and lymphomas (Aug 2015-Aug 2016)
- Awarded to NE STEM 4U: 2014 Outstanding Student Organization (Role: Founding member & faculty mentor)
- Awarded to NE STEM 4U: 2014 “We Are All In this Together” Award from the AMS and Allies Trust (Role: Founding member & faculty mentor)
- Elected Counselor to the Council of Undergraduate Research-Biology Division. 3 year term, 2014-2017
- Invited for Dimensions of Success (DoS) training provided by PEAR (Program in Education, After school, and Resiliency) - a partnership between Harvard University, McLean Hospital, and the National Science Foundation to train fellows in Dimensions of Success for the evaluation of pedagogy in school programs. 2013. Training funded by the Nebraska Children’s Learning Center Network NOYCE grant.
- Invited appointment, UNO STEM Leadership Committee, 2013
- Invited appointment, UNO OPS Partnership Committee, 2013
- Awarded the Presidential Graduate Fellowship by the Nebraska University President (President Milliken) 2012
- Invited Member to serve on the Committee on Communications and Publications for SigmaXi, including the American Scientist 2012
- Invited speaker for the Nordic Chapter of SigmaXi, Third Annual Meeting and Research Conference in Oslo, Norway May 2012
- American Association of Anatomists Travel Award for the Experimental Biology meeting, San Diego, CA, April 2012

- Invited speaker for the Nebraska Board of Regents to inform them on the importance of undergraduate research; presentation held at UNK, Kearney, NE May 2011
- 4th-place award at the Midwest Student Biomedical Research Forum (MSBRF), Awarded for my oral presentation, Omaha, NE February 2010
- 1st-place medal at the SigmaXi Scientific Research Conference, Awarded for being most knowledgeable about my research subject matter, Orlando, FL, November of 2007

Contributions to National/International Professional Organizations & Conferences

- Science Olympiad, Disease Detectives, Judge & Exam Preparer, 2013
- Breakout session organizer, NIH SciEd, 2013
- Poster presentation judge, INBRE Meeting, 2011
- Organizing Committee Member for the IDeA Networks Regional Meeting, Omaha, NE May, 2011
- Chair of keynote selection committee for the annual IDeA Networks symposium 2010-2011
- International Student Research Forum (INSRF) Abstract Reviewer/Judge 2010

Teaching Experience

University of Nebraska at Omaha, Cancer Biology (BIOL4030/8060) Lecture; 100% online. Fall semesters 2014-present

University of Nebraska at Omaha, Discipline-based education research (DBER) Methods (BIOL8060) Lecture; 100% online. Spring semesters 2015-present

University of Nebraska at Kearney, Immunology (BIOL830-P) for Distance Masters Students, June-July, 2013

University of Nebraska at Omaha, Microbiology (BIOL2440) Lecture and 2 laboratory sections Summer 2013

University of Nebraska at Omaha, Microbiology (BIOL2440) Lecture and 4-5 laboratory sections (depending on the semester); offered every semester; Fall 2012-present.

University of Nebraska at Omaha, Directed Readings in Biology (BIOL4040), Fall, 2013-present. Students mentored: Ali Andrews (Spring 2013) Topic: viruses infecting the heart; Abe Farhat (Spring 2013) Topic: Legislation affecting healthcare in Nebraska; Lydia Cole (Fall 2012) Topic: pediatric oncology; Kate Millott (Fall 2012) Topic: Vaccines

*University of Nebraska at Omaha, Supervised Research in Biology (BIOL 4050), Fall 2013-present. Students mentored: Brittany Conroy (Spring 2013) Topic: hematological malignancies; Hannah Wyble (Spring 2013) Topic: hematological malignancies; Lauren Dahlquist (Fall 2012-Fall 2013) Topic: Discipline-based educational research; Kayla Wiese (Fall 2012) Topic: Pathophysiological effects of *Cav1*-/-*

University of Nebraska at Omaha, *Biology of Human Diseases Lecturer*, Fall 2011, Director: Dan Monaghan, PhD

University of Nebraska Medical Center, *PAMM857 Medical Immunology Teaching Assistant*, Fall 2010 & Fall 2011, Directors: Thomas McDonald, PhD & Geoffrey Theile, PhD

YWCA-Interprofessional Service Learning, Immunological principles/vaccination for Victims of Domestic Violence, 2010-2011.

University of Nebraska Medical Center, *GCBA949 Medical Histology Teaching Assistant*, Fall 2009

Heartland Chapter of the Red Cross, Instructor for the HIV/AIDS and Blood borne pathogen courses, Fall 2008-2012.

History of Research Students Mentored

(*indicates undergraduate, otherwise all are undergraduate)

Student	Time Period	Current Position	Conf. Pres.	Manuscript(s) Published	Project
L. Dahlquist	2012-2015	Nursing Student UNMC	X	X	<i>Impact of PBL on undergraduate biology education</i>
B. Conroy	2012-2014	Pre-PA student UNO	X	X	<i>The role of Cav1 on the function of T helper cells</i>
H. Wyble	2012-2014	Post-bacc, pre-med UNO	X		<i>Influence of Cav1 on epithelial cells of the retina</i>
T. Herek*	2013-present	UG Biology major-UNO; M.S. Biology 2014-2016 in my lab; Ph.D. 2016-present in my lab	X	X	<i>Impact of modeling modules on biology education</i> <i>M.S. Thesis: Meta-analysis mature T-cell lymphomas and characterization of a CAVI-associated gene expression profile</i>
J. Larson*	2013-2014	M.S., UNO	X	X	<i>GEP of CAVI signatures in T cell malignancies</i>
A. Farhat	2013	Post-Bacc, UNO	X	X	<i>Role of telehealth on Nebraska healthcare</i>
S. Stoffel	2012-2013	Cert Nurs. Asst., Pre-PA	X	X	<i>Microbiota at Heron Haven</i>
L. Strathman	2012-2013	Scientific Communicator	X	X	<i>Microbiota at Heron Haven</i>
H. Chen	2013-2014	Pre-med UNO		X	<i>Cancer biology modeling modules for undergraduate education</i>
P. Farivari	2013-2014	Pre-med UNO	X		<i>Microbiota at Heron Haven</i>
T. Shew	2014-2016	Pre-PA	X	X	Bioinformatics approach of mature T cell lymphoma meta-analysis.
H. Spurgin	2014-present	Education (Science) Major, UNO	X	X	Bioinformatics approach of mature T cell lymphoma meta-analysis.
T. Boham	2015-2016	Pre-med UNO	X	<i>In preparation</i>	Youth perceptions of STEM concepts-enthusiasm and content
R. Brohimer	2015-2016	Education (Science) Major, UNO	X	<i>In preparation</i>	Impact of the NE STEM 4U afterschool intervention on science content knowledge of middle schoolers
K. Nelson*	2015-present	Ph.D. student (UNL)	X	X	Impact of the NE STEM 4U pre-professional training program on life science majors

J. Robinson	2016-present	Pre-grad studies			Characterization of immunophenotype of <i>Cav1</i> ^{-/-} mice
C. Patten	2016-present	Pre-med			Characterization of the role of <i>Cav1</i> in splenic marginal zone lymphoma
S. Garudeswaran *	2016-present	M.S. student			Meta-analysis of a <i>CAVI</i> -associated signature in mature B-cell lymphomas

Awards won by mentored students (2012-present):

- R. Brohimer**, Second place, Presentation at UNO's RCAF 2016
- T. Herek**, National Science Foundation Graduate Research Fellowship Program, 2015-2020
- T. Herek**, GRACA Award, 2015
- H. Spurgin**, UNO FUSE Award, 2015
- T. Boham**, UNO FUSE Award, 2015
- A. Hall**, UNO FUSE Award, 2015
- R. Brohimer**, UNO FUSE Award, 2015
- T. Shew**, UNO FUSE Award, 2014
- H. Chen**, UNO FUSE Award, 2014
- B. Conroy**, UNO FUSE Award, 2014
- T. Herek**, Outstanding Biology Student, 2014
- B. Conroy**, 1st-place medal in Physiology and Immunology, SigmaXi International Student Research Conference, 2013
- B. Conroy**, SigmaXi Grant-in-Aid of Research Award, 2013
- B. Conroy**, UNO FUSE Award, 2013
- H. Wyble**, UNO FUSE Award, 2013
- L. Dahlquist**, 2nd place International SigmaXi Conference, 2012, Oral Presentation

Professional Activities

Society Memberships

- 2007-present. SigmaXi Scientific Research Society, Member
- 2007-2012. UNMC Delegates, Member
- 2009-2012. Immunology Interest Group, Member
- 2009-2012. Hematological Malignancies Research and Oncology Section Seminar Group
- 2009-2011. Health Science High School Alliance, Founding Member
- 2009-2011. UNMC Student Senator representing Graduate Studies
- 2010-present. UNMC Student Delegates, Founding Member

2010-2011. UNMC Legislative Committee Student Representative
2010. UNMC Scholar's Day Graduate Student Representative
2010-2011. UNMC High School Alliance, Mentor and Chair of Mentor Committee
2010-2011. UNMC High School Alliance, Student Engagement Student Representative
2011. UNMC Health Science High School Alliance, Interviewer
2011-present. American Association of Anatomists, Member
2012. Elected member of the SigmaXi Committee on Communication & Publication, including *American Scientist*
2012-present. UNO Biology, UG Scholarship Committee, Member
2012-present. UNO, Pre-Med Committee, Member
2012-2014. UNO Digital Measures Champion, Member.
2015-present. American Association for Laboratory Animal Science (AALAS) Member.
2015-present. American Association of Immunologists, Member.
2015-present. Clinical Immunology Society, Member.

Continuing Education (Formal & Informal)

- Dimensions of Success (DoS) Certification, PEAR 2014
 - UNO Community of Practice, "Chemistry DBER" 2014-present
 - UNO Research Triangle, "Discipline-based Educational Research in STEM" 2013-2014
 - UNO Teaching Circles, "Biology Pedagogy" 2012-2013

 - UNO Service Learning Seminar, February 8, 2013
 - Hematological Malignancies Research 2009-2012
 - Courses offered by the Research Commercialization and SBIR Center:
 - The Business of Bioscience: What goes into making a Biotechnology Product?
 - Government Research Funding Program Series
-

Service to Community

- Assisted the NU Foundation and UNO Biology to attract and secure funds from the Hubbard Foundation in support of hiring a STEM Instructor for the Glacier Creek Preserve
 - STEM Ecosystem Founder & member 2014-present
 - Lights On After School Time presenter, 2013-present (annually)
 - Science Olympiad Volunteer Judge, 2013-present (annually)
 - Collaborated with Treestar (owner of FlowJo flow cytometry software) to provide access to all undergraduate students at UNO (\$21,000/year savings to the University)
 - Volunteer Instructor, EMPOWER-UNMC Professional Student Service Learning Program, Omaha, NE, 2010-2012
 - Activities coordinator, UNMC-Genetics, Cell Biology, and Anatomy Department, Omaha, NE, 2008-2012
 - HIV/AIDS Instructor and Curriculum Developer, Red Cross and Omaha Community Planning, Omaha, NE, 2008-present
 - Volunteer, Mobile Environmental Laboratory, Buffalo County Fairgrounds 4-H, Kearney, NE, 2007
 - Biology and Math Tutor, Omaha, NE, 2007
 - Volunteer, Kidz Explore, Kearney, NE, 2007
-

Professional Service

- Virtual Presentations NCUR Task Group 2014-present
- Elected CUR Councilor 2014-2017
- CUR Councilor, Biology Division, Mentorship Award Selection Committee, 2015
- Elected CUR Nomination Vetting Committee 2014-2017
- OPS STEM Education Committee (appointed by SVC) 2013-present
- OSTEM Committee Member 2014-Present
- UNO STEM Leadership Committee co-Chair 2014-Present
- UNO Pre-medical Committee Member 2012-present
- UNO Digital Measures Ambassador, 2012-2013.
- Editorial Board Member for *American Scientist* 2012
- Member of the STEM Out-of-School Time (OST) Committee for Nebraska

Media Contributions:

1. UNO STEM Chairs Brochure for NU Foundation Campaign Celebration (September-October, 2014)
 2. Nebraska STEM OST Interview from Gallup: <http://www.youtube.com/watch?v=ANRL3hCUIM0>
 3. Lights On After School, UNO NE STEM 4U, October 25, 2014:
<http://www.wowt.com/home/headlines/Program-Sheds-Light-on-After-School-Programs-280436552.html>
& <http://www.ketv.com/news/omaha-students-come-together-saturday-to-bolster-afterschool-programs/29339250>
 4. STEM Awareness Week. 2015. Invited featured program at the Nebraska Capitol for discussions with Senators
 5. University of Nebraska Foundation. 2015. <https://nufoundation.org/-/article-first-haddix-community-chair-of-science-creating-strong-bonds-with-omaha-and-its-young-people>
-