

## BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors.  
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Lauren S Gollahon	POSITION TITLE Professor		
eRA COMMONS USER NAME LAURENGOLLAHON			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Barrington College, Barrington, RI	BA	1981	Marine Biology
Texas A&M University, College Station, TX	MS	1986	Zoology
Texas A&M University, College Station, TX	PhD	1990	Veterinary Anatomy
UT MD Anderson Cancer Center, Smithville, TX	Postdoc	1990-1993	Exp. Carcinogenesis
UT Southwestern Medical Center, Dallas, TX	Postdoc	1993-1997	Human Breast Cancer

### Personal Statement:

My major goals are to be impactful in research, teaching and training. My research focus encompasses understanding the mechanisms of cancer development and identifying differences in cell lineage responses to cancer progression and treatment, developing novel diagnostic techniques, and testing the efficacy of candidate anticancer drugs. Intertwined with these research objectives is the responsibility of training the next generation of biomedical researchers who will be leaders in the field of cancer biology, developing diagnostics and treatment strategies. Exemplary teaching allows me to effectively communicate concepts concerning basic, translational and clinical cancer research to college students, colleagues and the community-at-large. With over 25 years of cancer research experience, I am well qualified to help progress my field in better understanding cancer and discovering new treatments to combat this devastating disease.

Research website: <https://sites.google.com/site/gollahonlab/>

University website: <http://www.depts.ttu.edu/biology/people/Faculty/gollahon/>

### A. Positions and Honors.

#### Positions

1997 – 2003	Assistant Professor, Department of Biological Sciences
1997 – 2012	Coordinator: Human Anatomy and Physiology Program
1997 – present	Member: Graduate Faculty of the Southwest Cancer Center at UMC
2003 – 2013	Director: University Imaging Core Facility
2003 – 2020	Associate Professor, Department of Biological Sciences
2012 – present	Coordinator: Human Physiology Program
2015 – present	Adjunct Associate Professor, Department of Environmental Toxicology
2015 – present	Adjunct Associate Professor, Department of Nutritional Sciences
2016 – present	Obesity Research Institute Advisory Committee
2020 – present	Professor, Department of Biological Sciences
2021 – present	Associate Chair, Department of Biological Sciences

#### Honors/Awards

1986 – 1987	Rotary Foundation Scholarship: Study Abroad: Marseille, France
1991	NIH Postdoctoral Training Scholarship. Histopathobiology of Neoplasia,
1991 – 1993	NIH Postdoctoral Research Training Fellowship. UT MDACC
1994 – 1997	DOD Breast Cancer Research Program Postdoctoral Research Fellowship, UT SWMC
2000	Texas Tech University Ex-Student Association New Faculty Award
2000	Pi Beta Phi Sorority, Texas Gamma Chapter – Outstanding Professor
2003	Member Induction, Texas Tech University Teaching Academy
2004	National Academies Education Fellow in the Life Sciences
2005	National Academies Education Mentor in the Life Sciences

2005	Texas Tech University Presidential Excellence in Teaching Award
2010	Texas Tech University Center for Undergraduate Research Outstanding Faculty Mentor
2011	Texas Tech University President's Excellence in Diversity & Equity Award Nominee
2011	TTU/HHMI Outstanding Graduate Teaching Scholar Mentor
2012	National Academies Education Leader in the Life Sciences
2012, 2016	TTU-TECHSPY Recognized Favorite Professor
2013, 2015	Phi Beta Kappa Society Faculty Appreciation Recognition (Texas Tech University)
2013	Texas Tech University – Professing Excellence Award Recipient
2013	TTU/Teaching Learning & Professional Development Center – Service Learning Fellow
2014 - 2016	Scholarship of Teaching and Learning Fellow of the Science Case Network
2016	NIMBioS Workshop Awardee for Case Study Design in collaboration with Fisk University
2016 - 2018	Faculty Mentor for the STEM Teaching, Engagement and Pedagogy (STEP) Program at Texas Tech University

### Professional Societies

1990-present	American Association for Cancer Research
1995 – present	Women in Cancer Research
2003 – present	Texas Tech University Teaching Academy
2015 – present	AACR Working Group – Tumor Microenvironment (TME)

### B. Peer-reviewed publications, book chapters or manuscripts in press (in chronological order).

1. Peters, E.C., S.D. Cairns, M.E.Q. Pilson, J.W. Wells, W.C. Jaap, J.C. Lang, C.E. Vasleski and **L.S. Gollahon**. (1988). Nomenclature and biology of *Astrangia Pocolata* (=A. Danae, =A. Astreiformis) (Cnidaria:Anthozoa). Proc. Biol. Soc. Wash. 101(2): 234-250.
2. Irvin, T.R., P. Iyer, **L.S. Gollahon**, K. Stevens and J.E. Martin. Prenatal toxicity of aflatoxins: Applications of mammalian cell culture systems to characterize the developmental toxicity of aflatoxins. In: Pennington Series Volume 1: Mycotoxins, Cancer and Health, Part 3 Comparative aspects of toxicity. Eds: Bray and Ryan, Chapter 3, LSU Press, 1991:167-182.
3. Aldaz, C.M., A. Chen, **L.S. Gollahon**, J. Russo and K. Zappler. (1992). Nonrandom abnormalities involving chromosome 1 and Ha-ras-1 alleles in rat mammary tumor progression. Cancer Res. 52:4791-4798.
4. **Gollahon, L.S.** and C.M. Aldaz. (1992) Chromosomal localization of the Ha-ras-1 gene by *in situ* hybridization. Cell Genet. Cytogenet. 61:123-124.
5. Aldaz, C.M., **L.S. Gollahon** and A. Chen. Comparative alterations in rat mammary tumor progression. In: Comparative Molecular Carcinogenesis. Eds.: A.J.P. Klein-Szanto, M. Anderson, J.C. Barrett and T.J. Slaga. John Wiley & Sons Press, New York, 1992:137-155.
6. Aldaz, C.M., Gollahon, L.S. and A. Chen. Chromosome alterations in rat mammary tumor progression. Prog Clin Biol Res. 1992;376:137-53. <http://www.ncbi.nlm.nih.gov/pubmed/1528918>
7. Aldaz, C.M., **L.S. Gollahon** and A. Chen. (1993). Systematic H-ras amplification in ovary-independent mammary tumors: Correlation with progressively anaplastic phenotypes. Cancer Res. 53:5339-5344.
8. Wilson, S.E., J. Weng, E.L. Chwang, **L.S. Gollahon**, A.M. Leitch and J.W. Shay. (1994). Hepatocyte growth factor (HGF), keratinocyte growth factor (KGF), and their receptors in human breast cells and tissues: Alternative receptors. Cell. and Mol. Biol. Res. 40(4):337-350.

9. **Gollahon, L.S.**, A. Chen and C.M. Aldaz. (1995). Loss of heterozygosity at chromosome 1q loci in rat mammary tumors. *Mol. Carcinog.* 12:7-13.
10. Shay, J.W., G. Tomlinson, M.A. Piatyszek and **L.S. Gollahon**. (1995). Spontaneous *in vitro* immortalization of breast epithelial cells from a patient with Li-Fraumeni Syndrome. *Mol. Cell. Biol.* 15(1):425-432.
11. Hiyama, E., **L.S. Gollahon**, T. Kataoka, K. Kuroi, T. Yokoyama, A.F. Gazdar, K. Hiyama, M.A. Piatyszek and J.W. Shay. (1996). Telomerase activity in human breast tumors. *Jour. Natl. Cancer Inst.* 88(2):116-122.
12. Hiyama, E., **L.S. Gollahon**, T. Kataoka, K. Kuroi, T. Yokoyama, A.F. Gazdar, K. Hiyama, M.A. Piatyszek and J.W. Shay. (1996). Telomerase activity in human breast tumors. Correspondence: *Jour. Natl. Cancer Inst.* 88(12):839-840.
13. Holt, S.E., **L.S. Gollahon**, T. Willingham, M.S. Barbosa and J.W. Shay. (1996) p53 levels in human mammary epithelial cells expressing wild-type and mutant human papillomavirus type 16 (HPV-16) E6 proteins: Relationship to reactivation of telomerase and immortalization. *Int. Jour. Oncology* 8:263-270.
14. **Gollahon, L.S.** and J.W. Shay. (1996) Immortalization of human mammary epithelial cells transfected with mutant p53 (273<sup>his</sup>). *Oncogene.* 12:715-725.
15. Coursen, J.D., W.P. Bennet, **L.S. Gollahon**, J.W. Shay, and C.C. Harris. (1997). Genomic instability and telomerase activity in human bronchial epithelial cells during immortalization by human papillomavirus-16 E6 and E7 genes. *Exp. Cell Res.* 235(1):245-253.
16. **Gollahon, L.S.**, S. Pearson, N. O'Neal, H.M. Saboorian, J.W. Shay and T. Fahey. (1998) Detection of telomerase activity in breast masses by fine needle aspiration. *Ann. of Surg. Onc.* 5(2):186-193.
17. Yashima, K., S. Milchgrub, **L.S. Gollahon**, A. Maitra, M.H. Saboorian, J.W. Shay and A.F. Gazdar. (1998). Telomerase expression during the multistage pathogenesis of breast carcinoma. *Clin. Cancer Res.* 4(1):229-234.
18. **Gollahon, L.S.** E. Kraus, T.-A. Wu, S.O. Yim, L.C. Strong, J.W. Shay and M.A. Tainsky. (1998). Telomerase activity during spontaneous immortalization of Li-Fraumeni Syndrome fibroblasts. *Oncogene.* 17:709-719.
19. Gazdar, A.F., V. Kurvari, A.K. Virmani, **L.S. Gollahon**, M. Sakaguchi, M. Westerfield, D. Kodagoda, V. Stasny, H.T. Cunningham, I.I. Wistuba, G. Tomlinson, V. Tonk, R. Ashfaq, A.M. Leitch, J.D. Minna and J.W. Shay. (1998). Characterization of paired tumor and non-tumor cell lines established from patients with breast cancer. *Int. J. Cancer.* 78:766-74.
20. Savre-Train ,I., **L.S. Gollahon** and S.E Holt. (2000). Expression of telomerase activity in immortal and tumor-derived cell lines is regulated by telomere shortening. *Proc. Soc. Exp. Biol. and Med.* 223:379388.
21. Duarte, X., T. Anderson, M. Grimson, R. Strauss, **L.S. Gollahon**, M.J. San Francisco. (2000). *Erwinia chrysanthemi* can kill mammalian cells in culture. *FEMS Microbiol. Lett.* 190:81-86.
22. **Gollahon, L.S.**, and S.E. Holt. (2000). Alternative methods of extracting telomerase activity from human tumor samples. *Cancer Lett.* 159(2):141-149.

23. Martinez, G.M., **L.S. Gollahon**, K. Shafer, S.K. Oomman, C. Busch and R. Martinez-Zaguilan. (2001). Fluorescent pH probes, Fluorescent Proteins, and Intrinsic Cellular Fluorochromes are Tools to Study Cytosolic pH (pH<sub>cyt</sub>) in Mammalian Cells. *Proc. Soc. Int. Opt. Engin. SPIE.* 4259:144-156.
24. Elmore, L.W., K.C.Turner, **L.S.Gollahon**, M.R.Landon, A.Akalin, C.K.Jackson-Cook, and S.E.Holt. (2002). Telomerase protects cancer-prone cells from chromosomal instability and spontaneous immortalization. *Cancer Biology and Therapy.* 1(4): 391-397.
25. Berg J. M., M. Holtz, S. Gangopadhyay, J. Wilhelm, Y.-L. Su, R. Bunuan, **L. Gollahon**, R. Gale, T. Dallas and H. Temkin, (2003). Towards integrating research and education using œinternal internships,12 Proceedings of the 2003 International Conference on Engineering Education, ICEE-2003, Valencia, Spain.
26. Berg, J., M. Holtz, Y. Su, R. Bunuan, J. Wilhelm, T. Dallas, R. Gale, L. **Gollahon**, S. Gangopadhyay and H. Temkin. (2004). Towards integrating graduate research and education with internal research internships: Experiences and Assessment. *INEER Special Volume*, Pages 1 – 11.
27. Du Z., N. Colls, K.H. Cheng, M.W. Vaughn and **L.S. Gollahon**. (2006). Microfluidic-based diagnostics for cervical cancer cells. *Biosensors and Bioelectronics*, 21(10):1991 – 1995.
28. Du Z, K.H. Cheng M.W. Vaughn, N.L.Collie and **L.S. Gollahon**. (2007). Recognition and capture of breast cancer cells using an antibody-based platform in a microelectromechanical systems device. *Biomed Microdevices.* 9(1):35-42.
29. Wankhede S.P., Z. Du, J.M. Berg, M.W. Vaughn, T. Dallas, K.H. Cheng, and **L.S. Gollahon**. (2008). Cell detachment model for an antibody-based microfluidic cancer screening system. *Biotechnol. Prog.* 22(5):1426 – 1433. DOI: 10.1021/bp060127d
30. Pan Z. and **L. Gollahon**, (2010). Taxol directly induces endoplasmic reticulum-associated calcium changes that promote apoptosis in breast cancer cells. DOI: 10.1111/j.1524-4741.2010.00988.x\_2010 Wiley Periodicals, Inc., 1075-122X/10. *The Breast Journal.* 17(1): 56–70.
31. **Gollahon, L.S.**, Y. Jeong, V. Finckbone, K. Lee, and J-S. Park. (2011). The natural product, NI-07, is effective against breast cancer cells while showing no cytotoxicity to normal cells. *The Open Breast Cancer Journal.* 3:31- 44. DOI: 10.2174/1876817201103010031
32. Lee, J. and **L.S. Gollahon**. (2013). Nek2-targeted ASO or siRNA pretreatment enhances anticancer drug sensitivity in triple-negative breast cancer cells. *Int. J. Oncol.* 42:839-847.
33. Pan, Z. and **L. Gollahon**. (2013). Paclitaxel attenuates Bcl-2 resistance to apoptosis in breast cancer cells through an endoplasmic reticulum-mediated calcium release in a dosage dependent manner. *Biochemical and Biophysical Research Communications.* 432(3):431–437.
34. Lee, J. and **L.S. Gollahon**. (2013). Mitotic perturbations induced by Nek2 overexpression require interaction with TRF1 in breast cancer cells. *Cell Cycle.* 12(23): 1-16. <http://dx.doi.org/10.4161/cc.26589>
35. **Gollahon, L.S.**, K. Lee, V. Finckbone, Y. Jeong. (2013). The natural product NI-07 demonstrates effective anti-cancer properties against numerous cancer cell types. *Journal of Solid Tumors.* 3(5):30-45. URL: <http://dx.doi.org/10.5430/jst.v3n5p30>

36. Sotero-Caio, C.G., M. Volleth, **L.S. Gollahon**, F. Beiyuan, W. Cheng, B. Ng, F. Yang and R.J. Baker. (2013). Chromosomal evolution among leaf-nosed nectarivorous bats - evidence from cross-species chromosome painting, (Phyllostomidae: Chiroptera). *BMC Evolutionary Biology*, 13:276-288. doi:10.1186/1471-2148-13-276.
37. Pan, Z., A. Avila and **L. Gollahon**. (2014). Paclitaxel induces apoptosis in breast cancer cells through different calcium—regulating mechanisms depending on external calcium conditions. *Int. J. Mol. Sci.* 15(2), 2672-2694; doi:10.3390/ijms15022672.
38. Lee, K. and **L. S. Gollahon**. (2014). Zscan4 interacts directly with human Rap1 in cancer cells regardless of telomerase status. *Cancer Biology and Therapy* 15:8, 1-12: August. Epub: <http://dx.doi.org/10.4161/cbt.29220>.
39. Webb, S., Zychowski, G., Bauman, S., Higgins, B., Raudsepp, T., **Gollahon, L.S**, Wooten, K., Cole, J., Godard-Coding, C. (2014). Establishment, characterization, and toxicological application of Loggerhead Sea Turtle (*Caretta caretta*) primary skin fibroblasts. *Environ. Sci. Technol.* 48 (24), pp 14728–14737. **DOI:** 10.1021/es504182e
40. Lee, K. and L.S. **Gollahon**. (2015). ZSCAN4 and TRF1: A functionally indirect interaction in cancer cells independent of telomerase activity. *Biochemical and Biophysical Research Communications* Volume 466, Issue 4, 30 October 2015, Pages 644–649. doi:10.1016/j.bbrc.2015.09.107
42. Ma, H. and **L.S. Gollahon**. (2016). Estrogen receptor alpha mediates estrogen-induced expression of metastasis suppressor gene BRMS1. *Int. J. Mol. Sci.* 2016, 17, 158; doi:10.3390/ijms17020158.
43. Colomer-Lluch, M., **Gollahon, L.S.**, and R. Serra-Moreno. (2016). Exploiting the roles of restriction factors to contain HIV replication and spread. *Current HIV Research*, 14(3) pp175-82.
44. Li, Q., Yang, X., Weisstein, A. and **L.S. Gollahon**. (2017). Can Applied Math Extend Life (CAMEL). [http://sciencecases.lib.buffalo.edu/cs/collection/detail.asp?case\\_id=902&id=902](http://sciencecases.lib.buffalo.edu/cs/collection/detail.asp?case_id=902&id=902).
45. Rogowski, M., **Gollahon, L.**, Chellini, G., and F. Assadi-Porter. (2017)) Uptake of 3-iodothyronamine hormone analogs by cancer cells inhibit their cell growth and viability. In press: *FEBS Open Bio*. **DOI:**10.1002/2211-5463.12205.
46. D’Costa, B.M., Moustaid-Moussa, N., and **L.S. Gollahon**. (2017). The role of exosomes in breast cancer: What have we learned in ten years? In: Triple-Negative Breast Cancers: Biomarkers, Emerging Therapeutic Strategies and Clinical Challenges. Editor: Marion Montgomery. Nova Science Publishers, Inc. Hauppauge, NY. Pages 1-61. ISBN:978-1-53612-372-2.
47. Al-Jawadi, A., Moussa, H., Ramalingam, L., **Gollahon, L.**, Dharmawardhane, S., Gunaratne, P., Rahman, R., and N. Moustaid-Moussa. (2017) Protective properties of n-3 fatty acids and implications in obesity associated cancer. *Journal of Nutritional Biochemistry*. 53 pp 1-8. DOI: 10.1016/j.jnutbio.2017.09.018
48. Schuster C, Mo H, Shen CL, Gollahon L (2017) RANK/RANKL/OPG: The Axis of Breast Cancer Bone Metastasis Evil? *Ann Breast Cancer Res* 2(1): 1008.
49. Munir, M., Ponce, C., Powell, C., Tarafdar, K., Yanagita, T., Choudhury, M., **Gollahon, L.**, and S. Rahman. (2018). The contribution of cholesterol and epigenetic changes to the pathophysiology of breast cancer. *Journal of Steroid Biochemistry and Molecular Biology*. On-line May 2018. <https://doi.org/10.1016/j.jsbmb.2018.05.001>

50. Ahmmed, S.M., Bithi, S.S., Pore, A.A., Mubtasim, N., Schuster, C., Gollahon, L.S., and S.A. Vanapalli (2018). Multi-sample deformability cytometry of cancer cells. *APL Bioengineering: Special Issue: Bioengineering in Cancer*. 2, 032002; <https://doi.org/10.1063/1.5020992>
51. Khandelwal S, Boylan M, Spallholz JE, Gollahon L. Cytotoxicity of Selenium Immunoconjugates against Triple Negative Breast Cancer Cells. *Int J Mol Sci*. 2018 Oct 26;19(11). [https://doi: 10.3390/ijms19113352](https://doi.org/10.3390/ijms19113352). PubMed PMID: 30373175; PubMed Central PMCID: PMC6274915.
52. Al-Jawadi A\*, Rasha FA\*, Ramalingam L, Alhaj S, Moussa H, Gollahon L, Dharmawardhane S, MoustaidMoussa N (2020). Protective Effects of Eicosapentaenoic Acid in Adipocyte-Breast Cancer Cell Cross Talk. *The Journal of Nutritional Biochemistry*, Volume 75, 108244, (\*Co-first author). <https://doi.org/10.1016/j.jnutbio.2019.108244>
53. Kim, N., Alabady, M., and **L.S. Gollahon**. Invasive ductal breast carcinoma promotes transient migration of normal mammary epithelial cells through upregulation of matrix metalloproteinase-1 (MMP-1). Submitted August 2019 to *Cell Communication and Signalling*. MS: 1225620662018035
54. Rasha FA, Ramalingam L, Gollahon L, Rahman RL, Rahman SM, Menikdiwela KR, Moustaid-Moussa N (2019). Mechanisms Linking the Renin-Angiotensin System, Obesity, and Breast Cancer. *Endocrine related Cancer*, Volume/Issue: Volume 26: Issue 12, Page Range: R653–R672. DOI: <https://doi.org/10.1530/ERC-19-0314>
55. Rasha FA, Ramalingam L, Moussa H, Menikdiwela KR, Gollahon L, Rahman RL, Moustaid-Moussa N (2020). Renin-Angiotensin System Inhibition Attenuates Adipocyte-Breast Cancer Cell Interactions. *Experimental Cell Research* Volume 394, Issue 1, 1 September 2020, 112114. <https://doi.org/10.1016/j.yexcr.2020.112114>
56. Khandelwal S, Boylan M, Kirsch G, Spallholz JE, Gollahon LS (2020). Investigating the Potential of Conjugated Selenium Redox Folic Acid as a Treatment for Triple Negative Breast Cancer. *Antioxidants* 9(2), p138. doi:10.3390/antiox9020138
57. Xu, H., Liu, Q., Casillas, J. et al. Prediction of cell viability in dynamic optical projection stereolithography-based bioprinting using machine learning. *J Intell Manuf* (2020). <https://doi.org/10.1007/s10845-020-01708-5>
58. Munir, M.T., Ponce, C., Santos, J.M. et al. (2020). VD3 and LXR agonist (T0901317) combination demonstrated greater potency in inhibiting cholesterol accumulation and inducing apoptosis via ABCA1-CHOP-BCL-2 cascade in MCF-7 breast cancer cells. *Mol Biol Rep* 47, 7771–7782 <https://doi.org/10.1007/s11033-020-05854-0>
59. Hazera Binte Sufian, Julianna Maria Santos, Zeina Shreen Khan, Maliha Tabassum Munir, MD Khurshidul Zahid, Ahmed Al-Harrasi, Lauren S. Gollahon, Fazle Hussain, Shaikh Mizanoor Rahman. (2021). Parthenolide Inhibits Migration and Reverses the EMT Process in Breast Cancer Cells by Suppressing TGF $\beta$  and TWIST1. *Research Square*. DOI:10.21203/rs.3.rs-706964/v1
60. Williamson, M., Moustaid-Moussa, N., Gollahon, LS. (2021). The Molecular PasaDoble: The Fast-Paced Dance of Cellular pH Regulation and Its Implications to Disease. *Front. Mol. Med*. 1:777088. doi: 10.3389/fmmed.2021.777088
61. Schuster, C., Moustaid-Moussa, N., Gollahon, L.S. (2021). The Potential of Combinatorial Small Molecules as Effective Breast Cancer Treatments: A Clinical Approach in Recent Developments in Medicine and Medical Research Vol. 15, Chapter 9, pages 84-119. DOI: 10.9734/bpi/rdmmr/v15/1527B

62. Mubtasim, N., Moustaid-Moussa, N., Gollahon, L.S. (2022). The Complex Biology of the Metastasis-Promoting, Obesity-Induced Tumor Microenvironment in Breast Cancer. In revision, IJMS Antioxidants Special Issue Molecular Oncology. Feb 2022
63. Schuster, C., Wolpert, N., Moustaid-Moussa, N., Gollahon, L.S. (2022). Combinatorial Effects of the Natural Products Arctigenin, Chlorogenic Acid and Cinnamaldehyde Commit Oxidation Assassination on Breast Cancer Cells. Submitted to Antioxidants. In review. Feb 2022

### **Graduate Work Directed at Texas Tech University**

Ph.D. Students Trained: Total – 19, Graduated - 14, Current – 5

M.S. Students Trained: Total – 18, Graduated – 17, Current – 1

### **Postdoctoral Fellows Directed: - 4**

### **C. Presentations: National and International Meetings (last 5 years)**

Caroline Schuster, Naima Moustaid-Moussa and **Lauren Gollahon**, (Dec 2019). Investigating the Synergistic Anti-Cancer Effects on Mitochondrial Function in Breast Cancer Cells Using Arctigenin, Cinnamaldehyde, and Chlorogenic Acid Individually and in Combination. San Antonio Breast Cancer Symposium, San Antonio Texas, USA. Dec 10-14.

**Lauren Gollahon**, Soni Khandelwal, Mallory Boylan and Julian Spallholz, (June 2018). SelenoTrastuzumab is Cytotoxic to Triple Negative Breast Cancer Cells. 34th Annual Meeting of the German Society for Minerals and Trace Elements (GMS) Jena, Germany, June 7th to 9th 2018.

Julian Spallholz, Soni Khandelwal, Mallory Boylan, Gilbert Kirsch, and **Lauren Gollahon**, (June 2018). Selenofolate is Cytotoxic to Triple Negative Breast Cancer Cells. 34th Annual Meeting of the German Society for Minerals and Trace Elements (GMS) Jena, Germany, June 7th to 9th 2018.

Soni Khandelwal, **Lauren Gollahon**, Julian E. Spallholz, Mallory Boylan, and Maria Del Mar GarciaHernandez (April 4, 2017). *Cytotoxicity of Selenium Trastuzumab (Herceptin®) and Bevacizumab (Avastin®) Immunoconjugates against Triple Negative Breast Cancer Cells (TNBC) in Vitro*. AACR Annual Meeting 2017, Washington D.C., USA.

Soni Khandelwal, **Lauren Gollahon**, Mallory Boylan, Maria Del Mar Garcia-Hernandez and Julian E. Spallholz (August 2017). *Synthesis and efficacy of conjugated selenium ADC monoclonal antibodies in vitro*. The 11<sup>th</sup> International Symposium on Selenium in Biology and Medicine and the 5<sup>th</sup> International Conference on Selenium in the Environment and Human Health, Karolinska Institutet, Stockholm (Abstract accepted).

Soni Khandelwal, Maria Del Mar Garcia-Hernandez, **Lauren Gollahon**, Mallory Boylan and Julian E. Spallholz (August 2017). *Catalytic redox activity of selenium compounds generating superoxide assessed by chemiluminescence and dihydroethidium*. The 11<sup>th</sup> International Symposium on Selenium in Biology and Medicine and the 5<sup>th</sup> International Conference on Selenium in the Environment and Human Health, Karolinska Institutet, Stockholm (Abstract accepted).

Soni Khandelwal, Gilbert Kirsch, **Lauren S. Gollahon**, Mallory Boylan, Julian E. Spallholz (August, 2017). *In vitro Generation of Superoxide by Selenofolate in MDA-MB-468 Breast Cancer Cells*. The 11<sup>th</sup> International Symposium on Selenium in Biology and Medicine and the 5<sup>th</sup> International Conference on Selenium in the Environment and Human Health, Karolinska Institutet, Stockholm (Abstract accepted).

Al-Jawadi, Arwa, Ouertani, Meriam, Siriwardhana, Nalin, Scoggin, Shane, **Gollahon, Lauren**, Dharmawardhane, Surangani, Moustaid-Moussa, Naima (Leader), Experimental Biology, *Adipocyte-breast cancer cell interactions: Preventive effects of omega 3 fatty acids*, American Society for Nutrition, Boston, MA. (April 2015).

Rashid, Al, Chowdhury, Kafil Uddin Ahammed, Moustaid-Moussa, Naima, **Gollahon, Lauren**, Moussa, Hanna, Health Physics Society Annual Meeting, *Radiation Effects of obesity-Associated Breast Cancer*, Health Physics, Indianapolis. (July 16, 2015).

Li, Qingxia, Yang, Xinyao and **Lauren Gollahon**. *Using Math to Outrun Death ( $\mu$ MOD)*. BioQuest / QUBES / HHMI Quantitative Biology Consortium. Harvey Mudd College, June 2015.

#### **D. PATENTS AND OTHER INTELLECTUAL PROPERTY**

(i) U.S. Provisional Patent Application Serial No. 62/725,095 entitled SYNTHESIS AND METHOD OF PREPARATION OF 4-AMINO-4-R-5-R'-2H-PYRAN-3(4H)-ONES, filed on August 30, 2018, Inventors: William P. Duncan, **Lauren S. Gollahon**, William C. Putnam.

(ii) U.S. Provisional Patent Application Serial No. 62/740,047 entitled AQUEOUS EXTRACTION PROCESS OF PLANTS, METHOD THEREOF, AND PRODUCT BY PROCESS, filed on October 2, 2018, Inventors William P. Duncan, **Lauren S. Gollahon**, William C. Putnam.

(iii) U.S. Provisional Patent Application Serial No. 62/768,261 entitled TOPICAL CREAM-BASED COSMETIC AND WOUND HEALING FORMULATIONS AND METHODS filed on 11/16/2018, Inventors William P. Duncan, **Lauren S. Gollahon**, William C. Putnam.