

Kathleen Elizabeth DelGiorno

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10010 N. Torrey Pines Rd
La Jolla, CA 92037

EDUCATION

- PhD State University of New York at Stony Brook, Molecular Genetics and Microbiology (2012).**
Dissertation: “Causes and effects of epithelial morphogenesis in pancreatitis and pancreatic cancer”
Committee: Dr. Martha Furie (Chair), Dr. Adrianus van der Velden, Dr. Wei-Xing Zong, Dr. Mikala Egeblad, Dr. Howard Crawford (advisor)
- MS University of Florida, Pharmacy (2008)**
Concentration in Forensic Serology and DNA
- BS The United States Air Force Academy, Biology (2005)**
Minored in Spanish
Graduated with athletic honors

AWARDS

- NIH T32 Fellow**, Salk Institute, March 2016
- Travel award**, SPAC, to attend Biology of Cancer: Microenvironment, Metastasis & Therapeutics, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 2015
- Travel award**, PancWest Conference, Oregon Health and Sciences University, OR, 2014
- NIH T32 Fellow**, Graduate program in Molecular Genetics and Microbiology, 6/2011-2013, NCI training grant 5T32CA9176-33
- Poster of Distinction**, 43rd Annual Meeting of the American Pancreatic Association, 2012
- Service Award**, Graduate program in Molecular Genetics and Microbiology, 2011
- Air Force Achievement Medal**, 2007
- Commissioned as a Second Lieutenant (Officer)**, United States Air Force, 2005

**RESEARCH
EXPERIENCE**

The Salk Institute for Biological Studies, La Jolla, CA, 3/2016
Post-Doctoral Research Fellow, Dr. Geoffrey Wahl Laboratory

- Cellular origins of pancreas cancer
- Metaplasia and tumoral heterogeneity

Fred Hutchinson Cancer Research Center, Seattle, WA, 6/13-03/16
Post-Doctoral Research Fellow, Dr. Sunil Hingorani Laboratory

- Mouse models of pancreas cancer
- Investigation of tumoral interstitial fluid pressure

Mayo Clinic, Jacksonville, FL, 12/2012-06/2013
Post-Doctoral Research Fellow, Dr. Howard Crawford Laboratory

Mayo Clinic, Jacksonville, FL, 11/2011-12/2012
Doctoral Candidate, Dr. Howard Crawford Laboratory

- Mouse models of pancreas cancer
 - o Mouse handling procedures
- Cellular origins of pancreatic metaplasia
 - o Discovery of the pancreatic metaplasia-derived tuft cell
 - o Description of pancreatic, biliary-like metaplasia
- Mouse models of pancreatitis
 - o The study of infection-induced pancreatitis
 - o The role of PI3K p110 α in pancreatitis

State University of New York at Stony Brook, Stony Brook, NY,
6/2008-11/2011
Doctoral Candidate, Dr. Howard Crawford Laboratory

The Translational Genomics Research Institute, Phoenix, AZ, 03/2007-
08/2008. Research Associate II, Genetic Basis of Human Disease
Laboratory of Dr. Elizabeth Stephan, then Dr. Kimberly Bussey

- Study of Adrenocortical Carcinoma (ACC)

Pancreatic cancer biospecimen repository coordinator

- Collection and handling of human pancreas samples
- Organization of data, distribution of samples

Air Force Technical Applications Center (AFTAC), Patrick AFB, FL,
06/2005-03/2007. Second Lieutenant, United States Air Force.

- Research Biologist
- Acquisitions and Laboratory Support Officer
- Project Officer
- Safety Officer

United States Air Force Academy, Colorado Springs, CO, 8/2004-
6/2005. Independent Research Project. Dr. Erick Snellman Laboratory

- Lipase expression in *Acinetobacter*

Los Alamos National Laboratory, Los Alamos, NM, 05/2004-06/2004
Summer Research Internship
- Radiation decontamination in the battlefield

**PROFESSIONAL
TRAINING**

Workshop on Pancreatic Cancer
Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 06/2011

PUBLICATIONS

1. Dufort CC, **DelGiorno KE**, and Hingorani SR. “Mounting pressure in the microenvironment: Fluids, solids, and cells in pancreatic ductal adenocarcinoma”. *Gastroenterology*. *In press*.

2. **DelGiorno KE** and Dufort CC, Carlson MA, Osgood RJ, Zhoa C, Huang Z, Thompson CB, Connor RJ, Thanos CD, Brockenbrough CJ, Provenzano PP, Frost GI, Shepard HM, and Hingorani SR. “Interstitial pressure in pancreatic ductal adenocarcinoma is dominated by a gel-fluid phase”. *Biophysical Journal*, 2016. 110:2106-2119.

3. Liou GY, Doppler H, **DelGiorno KE**, Zhang L, Leitges M, Crawford HC, Murphy MP, and Storz P. “Mutant KRas-induced mitochondrial oxidative stress in acinar cells upregulates autocrine EGFR signaling to drive formation of pancreatic precancerous lesions”. *Cell Reports*, 2016. 14(10):2325-36

4. Whittle MC, Izeradjene K, Rani PG, Feng L, Carlson MA, **DelGiorno KE**, Wood LD, Goggins M, Hruban RH, Chang AE, Calses P, Thorsen SM, and Hingorani SR. “RUNX3 controls a metastatic switch in pancreatic ductal adenocarcinoma”. *Cell*, 2015. 161:1-16.

5. Wu CC, Carpenter ES, Takeuchi KK, Halbrook CJ, Peverley LV, Bien H, Hall JC, **DelGiorno KE**, Pal D, Song Y, Shi C, Lin RZ and Crawford HC. “PI3K regulation of RAC1 is required for Kras-induced pancreatic tumorigenesis”. *Gastroenterology*, 2014. 147:1405-1416.

6. **DelGiorno KE**, Carlson M, Osgood R, Provenzano PP, Brockenbrough S, Thompson CB, Shepard HM, Frost GI, Potter JD and Hingorani SR. “Response to Chauhan et al.: Interstitial pressure and vascular collapse in pancreas cancer – fluids and solids, measurement and meaning”. *Cancer Cell*, 2014. 26: p.16-17.

7. Stromnes I, **DelGiorno KE**, Greenburg PD, and Hingorani SR. “Stromal re- engineering to treat pancreas cancer”. *Carcinogenesis*, 2014. 35: p. 1451-1460.

8. Bailey JM, **DelGiorno KE**, and Crawford HC. “The Secret Origins and Surprising Fates of Pancreas Tumors”. *Carcinogenesis*, 2014. 35: p. 1436-1440.

9. DelGiorno KE and Tam JW, Hall JC, Thotakura G, Crawford HC and van der Velden AWM. “Persistent salmonellosis causes pancreatitis in a murine model of infection”. *PLoS One*, 2014. 9: p.e92807.

10. DelGiorno KE, Hall JC, Takeuchi KK, Pan FC, Halbrook CJ, Washington, MK, Olive KP, Spence JR, Sipos B, Wright CVE, Wells JM, and Crawford HC. “Identification and manipulation of biliary metaplasia in pancreatic tumors”. *Gastroenterology*, 2014. 146: p.233-244 e5.

11. Ali WH, Chen Q, **DelGiorno KE**, Su W, Hall JC, Honqu T, Tian H, Kanaho Y, Di Paolo G, Crawford HC, and Frohman MA. “Deficiencies of the lipid- signaling enzymes phospholipase D1 and D2 alter cytoskeletal organization, macrophage phagocytosis, and cytokine-stimulated neutrophil recruitment”. *PLoS One*, 2013. 8: p.e55325

12. Ardito CM, Gruner BM, Takeuchi KK, Lubeseder-Martellato C, Teichmann N, Mazur PK, **DelGiorno KE**, Carpenter ES, Halbrook CJ, Hall JC, Pal D, Briel T, Herner A, Trajkovic-Arsic M, Sipos B, Liou GY, Storz P, Murray NR, Threadgill DW, Sibilica M, Washington MK, Wilson CL, Schmid RM, Raines EW, Crawford HC and Siveke JT. “EGF receptor is required for KRAS-induced pancreatic tumorigenesis”. *Cancer Cell*, 2012. 22: p.304-317.

13. Bombardelli L, Carpenter ES, Wu AP, Alston N, **DelGiorno KE**, and Crawford HC. “Pancreas-specific ablation of beta1 integrin induces tissue degeneration by disrupting acinar cell polarity”. *Gastroenterology*, 2010. 138: p.2531-40, 2540 e1-4.

TALKS

1. DelGiorno KE, Shi C, and Hingorani SR. (2015) “Interstitial fluid pressure reflects extracellular matrix content and vascular integrity in human pancreas cancers”. Talk presented at Biology of Cancer: Microenvironment, Metastasis, & Therapeutics. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.

ABSTRACTS

1. DelGiorno KE, Osgood R, Carlson M, Zhao C, Huang Z, Provenzano PP, Brockenbrough JS, Thompson, CB, Shepard HM, Frost GI, Thorsen SM, and Hingorani SR. (2014) “Assessing and removing biophysical barriers to therapy”. Poster presented at PancWest conference. Oregon Health and Sciences University, Portland, OR. Awarded a travel grant.

2. DelGiorno KE, Osgood R, Carlson M, Zhao C, Huang Z, Provenzano PP, Brockenbrough JS, Thompson, CB, Shepard HM, Frost GI, Thorsen SM, and Hingorani SR. (2014) “Assessing and removing biophysical barriers to therapy”. Poster presented at American Association for Cancer Research (AACR) conference: Pancreatic Cancer: Innovations in Research and Treatment. New Orleans, LA.

3. Brockenbrough JS, Feng L, Stromnes IM, **DelGiorno KE**, Whittle MC, Cuevas C, Dotson AM, Ryan JS, Thorsen SM, and Hingorani SR. (2014). “Murine clinical trials program”. Poster presented at American Association for Cancer Research (AACR) conference: Pancreatic Cancer: Innovations in Research and Treatment. New Orleans, LA.
4. Takeuchi KK, **DelGiorno KE**, Halbrook CJ, and Crawford HC. (2014) “Acinar cell transdifferentiation sets the stage for early tumor heterogeneity”. Poster presented at American Association for Cancer Research (AACR) conference: Pancreatic Cancer: Innovations in Research and Treatment. New Orleans, LA.
5. **DelGiorno KE**, Hall J, Takeuchi K, Wright CVE, Washington MK, Olive KP, Wells J, and Crawford HC. (2012) “Tumor-associated pancreatic metaplasia assumes a biliary duct gland phenotype”. Poster presented at the 43rd Annual Meeting of the American Pancreatic Association. Miami, FL. Awarded poster of distinction.
6. **DelGiorno KE**, Hall J, Takeuchi K, Wright CVE, Washington MK, Olive KP, Wells J, and Crawford HC. (2012) “Tumor-associated pancreatic metaplasia assumes a biliary duct gland phenotype”. Poster presented at the NIH National Graduate Student Research Conference. Washington D.C.
7. **DelGiorno KE**, Takeuchi K, Hall J, Olive KP, Wells J, and Crawford HC. (2012) “Tumor-associated pancreatic metaplasia assumes a biliary duct gland phenotype”. Poster presented at American Association for Cancer Research (AACR) conference: Pancreatic Cancer: Progress and Challenges. Lake Tahoe, CA.
8. Linnehan CK, Coan KE, Kim J, Wandoloski M, Dastrup E, Rogers E, **DelGiorno K**, Gonzales P, Barrett MT, Von Hoff D, Bussey KJ, and Demeure MJ. (2012) “Inhibition of Polo-like kinase 1 as a strategy in the treatment of adrenocortical carcinoma”. Proffered oral presentation at AACR 103rd Annual Meeting. Chicago, IL.
9. Coan KE, Stephan EA, Sinari S, Barrett M, **DelGiorno K**, Grant CS, Komorowski RA, Gonzales P, Mount D, Bussey KJ, and Demeure MJ. (2012) “Transcriptional profiling of early adrenocortical carcinoma demonstrates that PTTG1 over-expression is associated with poor survival and identifies perturbation of the G2/M transition as therapeutic targets”. Poster presented at the 2012 meeting of the American Association of Clinical Endocrinology meeting, Philadelphia, PA

- 10. DelGiorno KE**, Carpenter E, Takeuchi K, and Crawford HC. (2011) “Pre- neoplastic metaplastic lesions represent epithelial transdifferentiation to a biliary- like phenotype”. Poster presented at the 42nd Annual Meeting of the American Pancreatic Association. Chicago, IL.
- 11. Ali WH, Chen Q, DelGiorno KE**, Hall J, Crawford HC, and Frohman MA. (2011) “Altered PA localization leads to abnormal actin dynamics in innate immune cells from mice lacking phospholipase D isoforms”. Poster presented at: 16th Phagocyte Gordon Research Conference. Davidson NC.
- 12. DelGiorno KE**, Carpenter E, and Crawford, HC. (2011) “Brush cells in pancreatic tumors: Novel implications in disease origin and diagnosis.” Poster presented at The Biology of Cancer: Microenvironment, Metastasis, & Therapeutics. Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.
- 13. Linnehan CK, Coan KE, Kim J-H, Wandoloski M, Dastrup E, Rogers E, DelGiorno K**, Gonzales P, Barrett MT, Von Hoff D, Bussey KJ, and Demeure MJ (2011) “Inhibition of Polo-like kinase 1 as a strategy in the treatment of adrenocortical carcinoma”. Presented at the American Association for Cancer Research 2011 meeting, Chicago IL.
- 14. Bussey KJ, Kim JH, Wandoloski M, Rogers E, DelGiorno K**, Barrett MT, and Demeure MJ (2010) “Characterization of genomic alterations of p53 in ACC and the role of negative regulators of p53 in adrenocortical carcinoma”. Poster presented at the TGEN 2010 Scientific Retreat, Phoenix, AZ
- 15. Kim JH, Bussey KJ, Wandoloski M, DelGiorno K**, Barrett MT, and Demeure MJ (2009) “Genetic variation of TP53 and MDM2 in Adrenocortical carcinoma”. Paper presented at International Association of Endocrine Surgeons Annual Meeting.
- 16. Bussey KJ, Stephan E, Wandoloski M, DelGiorno K**, Brabant M, Sinari S, Mount D, Azorsa DO, Watanabe A, Hostetter G, Trent J, Von Hoff D, and Demeure MJ (2009) “Survivin as a therapeutic target in adrenocortical carcinoma”. Poster presented at the 2009 American Association of Cancer Research meeting. Denver, CO.
- 17. Bussey KJ, Stephan E, Wandoloski M, DelGiorno K**, Brabant M, Sinari S, Mount D, Azorsa DO, Wananabe A, Hostetter G, Trent J, Von Hoff D, and Demeure MJ (2009) “Implication of SIRT1 as Mechanistically Involved in Mitotane Resistance in Adrenocortical Carcinoma”. Presented at Translating the Cancer Genome. Boston, MA, February 2009.

18. Barrett M, Robeson A, Ruiz C, Kiefer J, Yin H, Jimeno A, Hidalgo M, **DelGiorno K**, Demeure M, Trent J, Von Hoff D, and Mousses S (2008) “Deconvolution of the clonal and structural complexity of pancreatic adenocarcinoma genomes reveals coherent disease contexts and clinical vulnerabilities”. AACR Meeting Abstracts 2008.

19. Barrett M, Kiefer J, Yin H, Demeure M, Robeson A, Ruiz C, **DelGiorno K**, Trent J, Von Hoff D, and Mousses S (2008) “High definition clonal analysis of clinical vulnerabilities in carcinoma genomes”. AACR Meeting Abstracts 2008.

20. Rogers E, Stephan E, Wandoloski M, **DelGiorno K**, Brabant M, Sinari S, Mount D, Azorsa D, Gonzales I, Watanabe A, Hostetter G, Demeure M, and Bussey K. (2008) “SIRT1 expression level as a possible indicator of patient response to mitotane treatment”. Poster presentation at the Translational Genomics Research Institute Scientific Retreat, Phoenix, AZ.

21. Demeure M. J, Stephan E, Gonzales P, Han H, **DelGiorno K**, Grant C. S, Gately S, Trent J. M, and Von Hoff, D. D. (2008) “Pre-clinical evidence for nab- paclitaxel efficacy in the treatment of adrenocortical cancer”. Journal of Clinical Oncology 2008 ASCO Annual Meeting Proceedings. Vol 26, No 15S, 2008: 22070.

22. Barrett M, Robeson A, Kiefer J, Que Q, Yin H, Azorsa D, Jimenez A, Hidalgo M, Stephan E, **DelGiorno K**, Demeure M, Han H, Trent J, Von Hoff D, and Mousses S (2007) “Flow-cytometric isolation of neoplastic clones in clinical carcinomas coupled with aCGH enables profiling of novel and previously undetectable genomic aberrations”. AACR Meeting Abstracts 2007:B176