

Brittany Ellis Jewell



Education

The University of Texas MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences

PhD, Cell and Regulatory Biology Program January 2016 – Present

Baylor University

B.S. Biology and minors Chemistry and Medical Humanities August 2005 – May 2009

Research Experience

The University of Texas Health Science Center at Houston McGovern Medical School

Department of Integrative Biology and Pharmacology

Graduate Research Assistant January 2016 – present

Baylor College of Medicine (BCM)

Department of Pediatric Infectious Disease

Research Assistant April 2012 – February 2015

Department of Molecular Virology and Microbiology

Research Technician II August 2009 – April 2012

Deke Slayton Cancer Center

Independent Research Student

Effects of Cancer on the Doctor Patient Relationship Summer 2007

Effects of Cancer on Patients and Their Caregivers Spring 2004

Awards and Honors

Biochemistry & Cell Biology Program Travel Award 2019

Graduate Student Education Committee Travel Award 2019

Charlene Kopchick Fellowship 2019

NIH T32 Training Interdisciplinary Pharmacology Scientists Fellowship	2018
CPRIT Fellowship in Innovation for Cancer Research	2018
Nominated for the Howard Hughes Medical Institute Gilliam Fellowship	2018
Biochemistry and Cell Biology Program Travel Award	2018
GSBS Travel Award	2018
Nominated for the PEO Scholars Award	2018
Appointed by Texas Governor as Student Regent to the University of Texas Board of Regents	2018
Tzu Chi Scholarship Award for Excellence	2017
GSBS Student Research Day Elevator Speech Finalist	2017
International Travel Award from Fusion Conferences to attend Exploring DNA Repair Pathways as Targets for Cancer Therapy Conference	2017
Cell and Regulatory Biology Program Travel Award	2017
GSBS Travel Award	2017
GSBS Student Research Day Elevator Speech Finalist	2016
Cell and Regulatory Biology Scholar	2015
Recognition by the College of American Pathologists	2011-2012
For Excellence in diagnostic testing	
Special Recognition by the Vaccine Treatment and Evaluation Unit (BCM)	2011
In support of Immunity to Pandemic Influenza Protocol	
Performance Award by the National Institutes of Health	2010
In recognition of extraordinary work in H1N1 influenza research in rapid response to the H1N1 pandemic	
Baylor University Dean's Scholarship	2005

Peer Reviewed Publications

Jewell BE, Liu M, Lu L, Zhou R, Tu J, Zhu D, Huo Z, Xu A, Wang D, Mata H, Jin W, Xia W, Rao, P, Zhao R, Hung MC, Wang LL, Lee DF. Generation of an induced pluripotent stem cell line from an individual with a heterozygous *RECQL4* mutation. *Stem Cell Res.* 2018 October 9; 33: 36-40. doi: 10.1016/j.scr.2018.10.003

Xu A, Zhou R, Tu J, Huo Z, Zhu D, Wang D, Gingold J, Mata H, Rao, P, Liu M, Mohammed AMT, Kong CSL, **Jewell BE**, Xia W, Zhao R, Hung MC, Lee DF. Establishment of a human embryonic stem cell line with homozygous TP53 R248W mutant by TALEN mediated gene editing. *Stem Cell Res.* 2018 Apr 3; 29:215-219. doi: 10.1016/j.scr.2018.04.013.

Zhou R, Xu A, Wang D, Zhu D, Mata H, Huo Z, Tu J, Liu M, Mohamed AMT, **Jewell BE**, Gingold J, Xia W, Rao PH, Hung MC, Zhao R, Lee DF. A homozygous p53 R282W mutant human embryonic stem cell line generated using TALEN-mediated precise gene editing. *Stem Cell Res.* 2018 Jan 26;27:131-135. doi: 10.1016/j.scr.2018.01.035.

Lin YH*, **Jewell BE***, Gingold J*, Lu L, Zhao R, Wang LL, Lee DF. Cancer Etiology of Osteosarcoma: From Inherited Syndromes to Molecular Pathogenesis. *Trends in Molecular Medicine.* 2017 Aug. 23(8):737-755. doi: 10.1016

*co-first authors

Flores AR, **Jewell BE**, Yelamanchili D, Olsen RJ, and Musser JM. A Single Amino Acid Replacement in the Sensor Kinase LiaS Contributes to a Carrier Phenotype in Group A Streptococcus. *Infection and Immunity.* 2015 November. 83(11):4237-46. doi: 10.1128/IAI.00656-15.

Flores AR, **Jewell BE**, Versalovic EM, Olsen RJ, Bachert BA, Lukomski S and Musser JM. Natural Variant of collagen-like protein in serotype M3 group A Streptococcus increases adherence and decreases invasive potential. *Infection and Immunity.* 2015 March. 83(3):1122-9. doi: 10.1128/IAI.02860-14

Flores AR, **Jewell BE**, Shelburne SA, Fittipaldi N, Beres SB, Musser JM. Asymptomatic carriage of group A streptococcus is associated with elimination of capsule production. *Infection and Immunity.* 2014 September. 82(9):3958-67. doi: 10.1128/IAI.01788-14. Epub 2014 Jul 14.

Flores AR, **Jewell BE**, Fittipaldi N, Beres SB, and Musser JM. Human disease isolates of serotype M4 and M22 group A streptococcus lack genes required for hyaluronic acid capsule biosynthesis. *mBio* 2012 November. 3(6):e00413-12. doi:10.1128/mBio.00413-12.

Invited Talks

Biochemistry & Cell Biology Program Retreat September 14, 2018
The University of Texas MD Anderson Cancer Center UTHealth GSBS

2018 Pre-Health Professions Conference February 10, 2018
McGovern Medical School

Poster Presentations

Exploring DNA Repair Pathways as Targets for Cancer Therapy Conference

“Establishing a Model of Rothmund-Thomson Syndrome Associated Osteosarcoma: from iPSCs to Osteoblasts” Poster Presentation February 23, 2019

McGovern Medical School Research Retreat

*“Generation of an induced Pluripotent Stem Cell Line from an Individual with a heterozygous RECQL4 mutation”
Poster Presentation* October 9, 2018

GSBS Graduate Student Research Day

*“Generation of an induced Pluripotent Stem Cell Line from an Individual with a heterozygous RECQL4 mutation”
Poster Presentation* June 28, 2018

McGovern Medical School Research Retreat

*“Bone Tumors in a Dish: A Study of Rothmund-Thomson Syndrome Associated Osteosarcoma”
Poster Presentation* October 9, 2017

GSBS Graduate Student Research Day

*“Bone Tumors in a Dish: A Study of Rothmund-Thomson Syndrome Associated Osteosarcoma”
Poster Presentation* June 22, 2017

Cell and Regulatory Biology Retreat

“Bone Tumors in a Dish” April 21, 2017

Exploring DNA Repair Pathways as Targets for Cancer Therapy Conference

“Bone Tumors in a Dish” Poster Presentation January 13, 2017

Leadership and Outreach

The University of Texas System Student Regent 2018 – Present
Represent over 238,000 students in the University of Texas System on the Board of Regents in governing the fourteen UT institutions. Engage with federal and state leaders to represent UT. Engage with all fourteen campuses and each student body.

UTHealthCares
Executive Co-Director 2018 – Present
Lead the student driven collaborative initiative designed to uniquely address the health concerns of Houston’s underserved population through substantive community engagement and interprofessional collaboration between all six UTHealth schools.

PR Committee 2017 – 2018
Aid in organizing a community-wide health fair run by UTHealth students for the Houston community by engaging and mobilizing students school-wide.

Biochemistry and Cell Biology Student Group
President 2018 – present
Vice-President 2017 – 2018

Student Inter-Institutional Council at UT Health Science Center at Houston 2016 – 2018
Historian, Public Relations Committee Chair, Interfaculty Council Member
Underrepresented Minority Representative
Lead all social media efforts and publications on behalf of Student InterCouncil, including a regularly published newsletter; Established the first student mental health campaign; Oversee advertisement of events; Serve as the liason between faculty government and student government for UTHealth

Tee Time for Autism, a Non-Profit benefitting those with Autism Spectrum Disorders
Founder, President, and Director 2010 – present
Formed 501(c)3 non-profit corporation; Oversee all activities including funding grants, family interviews, fundraising, organize and execute community outreach and education; Manage board of directors, chairpersons, and volunteers; Organization and implementation of events and fundraisers; Provide direct assistance to Autism Spectrum individuals; Webmaster and public relations liaison.

GSBS Student Financial Advisory Committee October 2017

Texas Children’s Hospital Newborn Family Advisory Committee 2017 - present

Teaching/ Mentoring Experience

Graduate Student Association Mentor Summer 2018 - present

Teaching Assistant for The Ethical Dimensions of the Biomedical Sciences Fall 2017

Houston Methodist Research Institution

Mentored Summer Student, Erica Versalovic (currently at BCM) Summer 2012

Mentored Summer Student, Fernanda Pons Faudoa (pursing MD, PhD at el Instituto Tecnológico y de Estudios Superiores de Monterrey) Summer 2013

Conferences Attended

Exploring DNA Repair Pathways as Targets for Cancer Therapy Conference February 2019

New York Stem Cell Foundation October 2018

Exploring DNA Repair Pathways as Targets for Cancer Therapy Conference January 2017

Professional Memberships

Society for the Advancement of Chicanos/ Hispanics and Native American Scientists
2017 - present

American Association for Cancer Research 2017 - present

Houston Stem Cell Club 2017 - present

Clinical Experience

Texas Children's Hospital 2010

Intensive Care Unit and Progressive Care Unit Volunteer

Hillcrest Baptist Medical Center Emergency Room 2007-2009

Assisted staff in critical situations with basic medical techniques and patient care

International Service Learning Medical Mission Trip 2008

Traveled to Juamave, Mexico to provide basic medical care and education