

Curriculum Vitae

NAME:

Erica Kinney Cassimere, Ph.D.
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Texas Southern University
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EDUCATION:

B.S. Biology

University of Maryland-Eastern Shore, MD (2001)
Summa cum laude

Ph.D. Medicinal Chemistry & Molecular Pharmacology (Biochemistry and Molecular Biology Interdisciplinary Program) (2008)

Purdue University, West Lafayette, IN

Mentor: Dr. Daitoku Sakamuro

Project: The role of the Bin1 tumor suppressor in E2F1-
mediated apoptosis in response to DNA damage

POSTDOCTORAL TRAINING:

Postdoctoral Research Fellow (2009-2013)

University of Texas Health Science Center-Houston

Dept. of Integrative Biology & Pharmacology

Mentor: Dr. Catherine Denicourt

Project: The role of p27^{kip1} in the DNA damage response

CURRENT APPOINTMENT:

**Assistant Professor-Department of Biology-Texas Southern University (October
2017-present)**

- Instruct General Biology I (BIOL131) and Cell Biology (BIOL231) courses
- Design course syllabi and experiments for introductory Biology lab (BIOL111) and Cell Biology lab (BIOL211)
- Serve as lab coordinator for the department of Biology teaching labs
- Provide advising and mentorship to biology majors within department

PREVIOUS TEACHING EXPERIENCE:

Visiting Assistant Professor-Department of Biology-Texas Southern University (August 2014-September 2017)

- Instruct General Biology I (BIOL131) and Cell Biology (BIOL231) courses
- Design course syllabi and experiments for introductory Biology lab (BIOL111) and Cell Biology lab (BIOL211)
- Serve as lab coordinator for introductory biology labs (BIOL111)
- Provide advising and mentorship to biology majors within department

Adjunct Professor of Biology-Department of Biology-Texas Southern University (August 2013-July 2014)

- Designed course syllabus for introductory biology courses
- Served as instructor for General Biology I & II (BIOL131 and BIOL132)
- Organized lectures using visual presentation and study guides

Sunday School Teacher-Wheeler Avenue Baptist Church (October 2012-October 2014)

- Generated weekly lesson plans for 5th grade class
- Implemented additional visuals and demonstrations to enhance learning

Instructor-Presentation Skills Course for UT Postdoctoral Certification Program (Fall 2010) University of Texas Health Science Center-Houston

- Designed evaluations to judge oral presentations for a class of 10 students
- Engaged students in critical discussions to improve presentation skills
- Re-evaluated presentations to assess overall improvement

Judge- Research Poster Competition Graduation Student Education Committee (2010) University of Texas Health Science Center-Houston

Graduate student/undergraduate mentor- Purdue University, IN (2002-2007)

- Assisted 2 undergraduate, 3 graduate, and 3 summer students in the laboratory of Dr. Daitoku Sakamuro
- Demonstrated hands-on cellular and molecular biology laboratory techniques for given research projects
- Evaluated completion of experiments and provided troubleshooting techniques when appropriate
- Helped students to effectively organize lab notebooks
- Assisted in design of oral presentation at the end of student's term

Tutor- General Biology 101- University of Maryland Eastern Shore (Fall 2000)

- Provided assistance to 5 students to aid in success of weekly quizzes

COURSES TAUGHT:

- Non-Majors (Survey of Life Sciences)
- Undergraduate Biology Majors
 - Biological Sciences I
 - Biological Science II
 - Cell Biology
- Graduate Biology Program (Topics in Biology)

THESIS ADVISORY COMMITTEES:

- Anthony Harris, M.S. Biology (August 2017) “Analyses of Select Immune Related Genes Associated with Triple Negative Breast Cancer and other Breast Tissues”
- Kayla Burrell, M.S. Biology (May 2016) “Characterization of the Transcripts in Triple Negative Breast Cancer”

SERVICE (TEXAS SOUTHERN UNIVERSITY):

- Thomas F. Freeman Honors College Faculty Fellow (2016-2017)
- College of Science Engineering and Technology Summer Undergraduate Research Program (SURP) Mentor (Summer 2014; Summer 2017)

RESEARCH EXPERIENCE:

- **Postdoctoral Fellow**, Catherine Denicourt, Ph.D. (Mentor), Department of Integrative Biology and Pharmacology, University of Texas Health Science Center-Houston, TX (2009-2013)
- **Graduate Research Assistant**, Daitoku Sakamuro, Ph.D. (Thesis advisor), Department of Medicinal Chemistry and Pharmacology, Purdue University West Lafayette IN (2002-2008)
- **Research Intern**, Dennis Taub, Ph.D. (Mentor), Department of Immunology, National Institute on Aging, Baltimore, MD (Summer 2001)
- **Research Intern**, Abhay Satoskar, Ph.D. (Mentor), Department of Microbiology, Ohio State University, Columbus OH (Summer 2000)
- **Research Intern**, Prabhu Reddi, Ph.D., Department of Pathology (Mentor), University of Virginia, Charlottesville, VA (Summer 1998)

PUBLICATIONS:

Cassimere EK, Mauvais C, Denicourt C. p27kip1 is required to mediate a G1 cell cycle arrest downstream of ATM following genotoxic stress. *PLoS One*. (2016) Sep 9;11(9):e0162806.

Kumari A, Iwasaki T, Pyndiah S, **Cassimere EK**, Palani CD, Sakamuro D. Regulation of E2F1-induced apoptosis by poly(ADP-ribosyl)ation. *Cell Death and Differentiation* (2015) 22(2) 311-322

Castle CD, **Cassimere EK**, and Denicourt C. Las1L interacts with the mammalian Rix1 complex to regulate ribosome biogenesis. *Molecular and Cellular Biology* (2012) 23:716-728

Lundgaard G.L., Daniels N.E., Pyndiah S., **Cassimere E.K.**, Ahmed K.M., Rodrigue A., Kihara D., Post C.B., Sakamuro D. Identification of a novel effector domain of BIN1 required for cancer suppression. *Journal of Cellular Biochemistry*. (2011); 112(10):2992-3001

Pyndiah S., Tanida S., Ahmed K.M., **Cassimere E.K.**, Choe C., and Sakamuro D. c-Myc suppresses BIN1 to release Poly(ADP-Ribose) Polymerase1: A mechanism by which cancer cells acquire cisplatin resistance. *Science Signaling* (2011); (166):ra19

Castle C.D, **Cassimere E.K.**, Lee J. and Denicourt C. Las1L is a nucleolar protein involved in ribosome biogenesis. *Molecular and Cellular Biology* (2010); 30(18): 4404-4414

Cassimere E.K., Pyndiah S. and Sakamuro D. The c-Myc-interacting pro-apoptotic tumor suppressor BIN1 is a transcriptional target for E2F1 in response to DNA damage. *Cell Death and Differentiation* (2009) 16(12):1641-1653

Kinney, E.L., Tanida, S., Rodrigue, A.A., Johnson, J.K., Tompkins, V.S. and Sakamuro, D. Adenovirus E1A oncoprotein liberates c-Myc activity to promote cell proliferation through abating Bin1 expression via Rb inactivation. *Journal of Cellular Physiology* (2008) 216(3): 621-631

FELLOWSHIPS:

- Susan G. Komen Postdoctoral Fellowship (2010-2013)
- National Institutes of Health (F31) Ruth L. Kirshstein Pre-Doctoral Fellowship (2004-2007)
- Purdue University Pre-Doctoral Fellowship (2002-2004)
- Bowen Minority Fellowship (2001-2002)

FUNDING:

Texas Southern University Seed Grant (Award \$7500) January 2018-December 2018

HONORS AND AWARDS:

- AACR Minorities in Cancer Research Travel Award (2004)
- National Dean's List, Purdue University (2001-2002)
- Minority Access to Research Careers Undergraduate
- Student Training in Academic Research (MARC U*STAR) Scholar (2000-2001)
2nd Place, Undergraduate Research Symposium in Biological and Chemical Sciences, University of Maryland Baltimore County (2000)
- University of Maryland Eastern Shore Honors Program (1998-2001)

AFFILIATIONS:

- American Association for Cancer Research (AACR)
- National Postdoctoral Association (2009-2013)
- University of Texas Health Science Center-Houston Postdoctoral Association (2009-2013)

RESEARCH SKILLS:

Cell-Based Assays: Mammalian cell (including stem cell) culture, eukaryotic gene transfection, siRNA transfection, shRNA lentiviral infection, retroviral-mediated gene transfer, colony formation assays, BrdU labeling, Fluorescent activated cell sorted (FACS) analysis, immunofluorescence, apoptosis assays, cell migration assay

Biochemical Assays: Restriction endonuclease digestion, DNA sub-cloning, agarose gel electrophoresis, bacterial transformation, luciferase reporter assays, genomic DNA isolation, RNA isolation, qualitative and quantitative reverse transcriptase polymerase chain reaction (qRT-PCR), Chromatin Immunoprecipitation assay (ChIP), Western immunoblotting, Comet DNA damage assay, Radioresistant DNA synthesis (RDS) assay

Computer-based proficiencies: Adobe Photoshop and Illustrator, FlowJo and FACS Diva flow cytometric analysis software, Microsoft Word, Excel and PowerPoint

PRESENTATIONS

Cassimere, EK. and Denicourt C. (2017) “Role of p27kip1 in radioresistance of breast cancer stem cells,” Texas Southern University Honors College Lecture Series, Houston, TX.

Cassimere, EK. and Denicourt C. (2013) “Role of p27kip1 in radioresistance of breast cancer stem cells,” University of Texas Health Science Center Cellular and Regulatory Biology Retreat, Hempstead, TX.

Cassimere, EK. and Denicourt C. (2009) “Identification of Novel p27^{kip1}- Interacting Proteins in Breast Carcinoma Cells,” University of Texas Health Science Center Cellular and Regulatory Biology Retreat, Hempstead, TX.

Kinney, E.L. and Sakamuro, D. (2004) “Role of Bin1 in E2F1-Dependent Apoptosis in Prostate Cancer Cell Lines,” American Association for Cancer Research (AACR) Special Conference “Cell Cycle and Cancer”, Fort Lauderdale, FL.

Kinney, E.L. and Sakamuro, D. (2004) “Role of Bin1 in E2F1-Dependent Apoptosis in Prostate Cancer Cell Lines,” Indiana University Cancer Research Symposium, Indianapolis, IN.

Kinney, E.L., Ahmed, K.M., and Sakamuro, D. (2003), “Possible Role of Bin1 in Starvation Stress-Associated Growth Arrest in Androgen-Independent Prostate Cancer Cell Line DU145,” Purdue Cancer Center Annual Retreat, West Lafayette, IN.

Kinney, E.L. and Sakamuro, D. (2003) “Role of Bin1 in E2F1-Dependent Apoptosis in Prostate Cancer Cell Lines,” Walther Cancer Institute Scientific Retreat, West Lafayette, IN.

Kinney, E.L., Kalehua, A., and Taub, D. (2001), “The Biological and Molecular Effects of D, L-Homocysteine on Human T Lymphocytes,” National Institute on Aging Poster Session, Baltimore, MD.

Kinney, E.L. and Satoskar, A. (2000) “Immunological Basis of Differential Susceptibility of Inbred Mice to *L. major* and *L. mexicana*,” 3rd Annual Undergraduate Research Symposium in Biological and Chemical Sciences, Baltimore, MD.

Kinney, E.L. and Satoskar, A. (2000) “Immunological Basis of Differential Susceptibility of Inbred Mice to *L. major* and *L. mexicana*,” National Minority Research Symposium, Washington, DC.