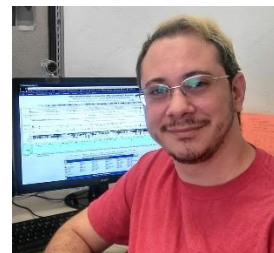


Curriculum Vitae
Gaius J. Augustus
gaiusjaugustus@email.arizona.edu



Personal Information

Tucson, AZ

Language English
Citizenship USA

Education

- 2014 – curr. Cancer Biology Graduate Interdisciplinary Program, University of Arizona. GPA: 3.80
2010 – 2014 B.S. in Integrative Studies with a focus in Chemistry and Biology. Kennesaw State University. GPA: 3.84
2003 – 2006 Studied Film & Television. Savannah College of Art and Design.

Honors & Awards

- 2017-2019 Cancer Biology GIDP Training Grant (T32 CA009213)
2017 Scholar-in-Training Award, AACR
2017 Travel Award, The Geographic Management of Cancer Health Disparities Program (GMaP)
2016 Full Registration & Travel Scholarship, Summer Institutes for Statistical Genetics, University of Washington
2015 Scholar-in-Training Award, AACR
2014 Department of Biology & Physics Student of the Year Award
2012 – 2014 Safe Space Endowed Scholarship
2012 – 2013 Student Life Organization of the Year (for N/A*)
2012 – 2013 Charles S. Wollmer Memorial Scholarship, August C. Krueger Memorial Endowed Scholarship
2011 – 2012 New Organization of the Year (for N/A*)
2011 – 2012 Gertrude Ely Richardson Stillwell Scholarship
2010 – 2012 National Science & Mathematics Access to Retain Talent (SMART) Grant
2003 – 2006, Spring 2010-Fall 2011 Helping Outstanding Pupils Educationally (HOPE) Scholarship

Publications

- Augustus G.J., Roe D.J., Jacobs E.T., Lance P., Ellis N.A. Is increased colorectal screening effective in preventing distant disease? *PLOS ONE*. 2018:13(7):e0200462. doi: 10.1371/journal.pone.0200462.
- Augustus G.J., Ellis N.A. Colorectal Cancer Disparity in African Americans: Risk Factors and Carcinogenic Mechanisms. *Am J Pathol*. 2018:188(2):291-303. doi: 10.1016/J.AJP.2017.07.023.
- Yazici, C., Wolf, P.G., Kim, H., Cross, T.W.L., Vermillion, K., Carroll, T., Augustus, G.J., Mutlu, E., Tussing-Humphreys, L., Braunschweig, C., Xicola, R.M., Jung, B., Llor, X., Ellis, N.A., Gaskins, H.R. Race-dependent association of sulfidogenic bacteria with colorectal cancer. *Gut*. 2017:66(11). doi:10.1136/gutjnl-2016-313321.

Publications (cont'd)

Tulenko F. J., Augustus G. J., Massey J. L., Sims S. E., Mazan S., Davis M. C. HoxD expression in the fin-fold compartment of basal gnathostomes and implications for paired appendage evolution. *Sci. Rep.* 2016:6, 22720. doi: 10.1038/srep22720.

Submitted Publications

Xicola R.M., Manojlovic Z., Augustus G.J., Kupfer S.S., Emmadi R., Alagiozian-Angelova V., Triche T. Jr., Salhia B., Carpten J., Llor X., Ellis N.A. Absence of APC somatic mutation is associated with early-onset colorectal cancer in African Americans. 2018. Manuscript is under review at *Carcinogenesis*.

Published Abstracts, Presentations, & Posters

- 2017 Augustus, G.J., Roe D.J., Jacobs E.T., Lance P., Ellis N.A. Paradoxically Increasing Proportion of Distant Colorectal Cancer, University of Arizona Cancer Center Phoenix Retreat (Invited Poster).
- 2017 Augustus, G.J., Ellis, N.A. Copy neutral loss of heterozygosity is decreased in African American colorectal cancers, AACR Cancer Health Disparities Conference (Poster).
- 2015 Augustus, G.J., Xicola, R.M., Manojlovic, Z., Carpten, J., Llor, X., Ellis, N.A. Homologous Recombination Drives African American Colorectal Carcinogenesis, AACR Cancer Health Disparities Conference (Poster & Presentation)
- 2015 Cooper, K., Augustus, G.J., McNeal, J.R. Primer design for population genetics of Beaked dodder (*Cuscuta rostrata*), Regional meeting of Association for Southeastern Biologists
- 2015 Massey J.L., Augustus, G.J., Tulenko, F.J., Mazan, S., Davis, M.C. Expression of 5' HoxD Cluster Genes in the American Paddlefish *Polyodon spathula*, National meeting of Society for Integrative & Comparative Biology

Lectures & Educator Experience (also see Employment)

- Aug 26, 2017 Software/Data Carpentry Workshop on R (Co-Instructor), *University of Arizona/Cyverse*
- Mar 31, 2017 Software/Data Carpentry Workshop on git/GitHub (Helper), *University of Arizona*
- Feb 25-26, 2017 Python Software Carpentry Workshop (Helper), *University of Arizona*
- Apr 18, 2014 (A)spirituality, *Kennesaw State University*
- Nov 5, 2013 Acceptance & Identity, *Kennesaw State University*
- Oct 18, 2013 Beyond the Binary: Sex, Love, and Romance, *Kennesaw State University*
- 2013 Student Safe Space, *Kennesaw State University*

Research Experiences

- Mar 2015 – current **Ongoing Graduate Work**
University of Arizona, Cancer Biology GIDP
Faculty Mentor: Nathan Ellis, PhD, naellis@email.arizona.edu
Project: Genetics of colorectal cancer in African Americans

Research Experiences (cont'd)

- Jan 2015 – Mar 2015 **Graduate Rotation**
University of Arizona, Arizona Biological & Biomedical Sciences; Faculty Mentor: Justina McEvoy, PhD
Project: Validation of antibodies for epigenetic profiling of Rhabdomyosarcomas
- Oct 2014 – Jan 2015 **Graduate Rotation**
University of Arizona, Arizona Biological & Biomedical Sciences
Faculty Mentor: Nathan Ellis, PhD
Project: Testing reproducibility and accuracy of FFPE-Blood DNA genotypes
- Aug 2014 – Oct 2014 **Graduate Rotation**
University of Arizona, Arizona Biological & Biomedical Sciences
Faculty Mentor: Tim Bolger, PhD, tbolger@email.arizona.edu
*Project: Characterization of mutant Ded1 translation in *Saccharomyces cerevisiae**
- Spring 2013 – 2014 **Undergraduate Researcher**
Kennesaw State University Dept. of Biology and Physics
Faculty Mentor: Marcus Davis, PhD, mdavi144@kennesaw.edu
*Project: Analysis of Hox gene expression in paired fins of paddlefish (*Polyodon spathula*)*
- Spring 2012 – 2014 **Undergraduate Researcher**
Kennesaw State University Dept. of Biology and Physics
Faculty Mentor: Joel McNeal, PhD, jmneal7@kennesaw.edu
*Project: Primer design for population genetics of Beaked Dodder (*Cuscuta rostrata*)*
- Summer 2013 **NSF Funded Research Assistant**
Kennesaw State University, Dept. Of Biology and Physics
Faculty Mentor: Marcus Davis, PhD, mdavi144@kennesaw.edu

Research Skills

Genomic Techniques

Processing of microarray data, primer design, gene sequence preparation for submission to GenBank, visualization of sequencing data, copy number analysis, differential methylation analysis, differential expression analysis

Statistical Techniques

Parametric and non-parametric comparisons of 2 categorical or continuous variables, logistic & linear regression, machine learning (clustering and classification techniques), adjusting for multiple testing

Wet Techniques

DNA isolations, RNA isolations, agarose gel electrophoresis, PCR, microsatellite identification, preparation of GeneScan reactions, field work (collecting tissue samples), planting and caring for specimens, histological techniques for skeletal staining, cDNA synthesis, gel purification, ligation into vector, bacterial transformation, plating and cultures techniques, restriction endonuclease digestion, transcription reaction, *in situ* hybridization

Computer Skills

Languages: Intermediate – R; Basic – Python

Web application development: Proficient in HTML5 standards, CSS3, PHP

Database implementation: SQL, MySQL

Employment

Mar 2018 – curr.	Multimedia Coordinator University of Arizona, Cancer Center Supervisor: Anna Christensen, achristensen@email.arizona.edu
Jan 2014 – May 2014	Physics Learning Assistantship Kennesaw State University, Dept of Biology & Physics Supervisor: Taha Mzoughi, PhD
Jan 2012 – Oct 2013	Tutor of Chemistry, Biology, Physics, and Mathematics Kennesaw State University, Student-Athlete Success Services Supervisor: Tyler Pede, tpede@kennesaw.edu
2011 – 2013	Freelance Web Design
2007 – 2009	Freelance Portrait Photography
Dec 2005 – Dec 2010	Head Photo Specialist & Certified Pharmacy Technician Walgreens
Jan 2005 – Dec 2005	Sales Associate & Lab Technician Wolf Camera
Nov 2004 – Jan 2005	Cookie Cake Decorator Great American Cookie Company

Leadership Experiences & Organization Memberships

2018	Public Affairs & Marketing Network
2017 – curr.	National Association of Science Writers
2015 – curr.	American Association for Cancer Research
2012 – curr.	Golden Key International Honour Society
2013 – 2014	Campus Climate & Culture Assessment Task Force
2013 – 2014	Society for Integrative and Comparative Biology, Student-In-Training Member
2012 – 2014	Student Government Association (Senator for Registered Student Organizations)
2012 – 2014	American Medical Student Association
2012 – 2014	Presidential Commission for Gender and Work/Life Balance
2012 – 2013	National Organization of Gay and Lesbian Scientists and Technical Professionals
2012	Presidential Commission for GLBTIQ Initiatives
2011 – 2014	Non-Normative Anti-Assimilationist Students of KSU (N/A*)

Future Research Questions

My research focus is on how the interaction of biology and environment can lead to health disparities. Several questions that I am interested in pursuing include:

What differences in tumor biology explain unique clinicopathological traits in African American colorectal cancer?

What is unique in the etiology of colorectal cancer patients who present young?

Contacts

Nathan Ellis, PhD
 Cellular and Molecular
 Medicine
 Director, Cancer Biology
 Program
 University of Arizona
 Tucson, AZ, USA
 520-626-7979
 naellis@email.arizona.edu

Marcus Davis, PhD
 Dept of Molecular and Cellular
 Biology
 Assoc. Dean for Research,
 College of Science and Math.
 Kennesaw State University
 Kennesaw, GA, USA
 470-578-6591
 mdavi144@kennesaw.edu

Joel McNeal, PhD
 Dept of Ecology,
 Evolution, and Organismal
 Biology
 Asst. Professor of Biology
 Kennesaw State University
 Kennesaw, GA, USA
 470-578-3561
 jmcneal7@kennesaw.edu

Math & Science Courses

Undergraduate		
Elementary Statistics	Biological Principles	Cell & Molecular Biology
Biostatistics	Evolutionary Biology	Human Anatomy & Physiology
Calculus II	Genetics	Physiological Psychology
Principles of Physics	Medical Genetics	Molecular Biosciences Seminar
General Chemistry	Immunology	Genomics & Systems Biology (audit)
Modern Organic Chemistry	Bioinformatics	Quantitative Analytical Chemistry
Biochemistry		
Graduate		
Cancer Biology	Grant Writing	Art of Scientific Discovery
Problems in the Biology of Complex Diseases	Science, Society & Ethics	Experimental Design
Genetic & Molecular Networks	Biostatistics for Research	Molecular & Cellular Neurobiology

Art Courses

Survey of Western Arts I	Survey of Western Arts II	Roman Art & Archaeology
History of Film	Drawing I	Drawing II
Life Drawing I	2-D Design	3-D Design
Color Theory	Intro to Video Production	Intro to Film Production
Adv. Survey of Computer Applications	Preproduction	Lighting & Field Production Techniques
Intro to Sound Design	Intermediate Sound Design	Location Sound
Postproduction Techniques	Advanced Postproduction	Directing the Narrative
Writing Fundamentals for Screen & Stage	Screenwriting	

Independent Coursework

Year, Course	Medium	Institution
2016-2018, Python Programmer Track	DataCamp	
2015-2017, R Programming Track	DataCamp	
2016-2017, Data Manipulation with R Track	DataCamp	
2016, Association Mapping: GWAS and Sequencing Data	Summer Institute for Statistical Genetics	University of Washington, Department of Biostatistics
2016, Introduction to Pathway and Network Analysis	Summer Institute for Statistical Genetics	University of Washington, Department of Biostatistics
2016, Bayesian Statistics for Genetics	Summer Institute for Statistical Genetics	University of Washington, Department of Biostatistics
2016, Cleaning Data in R	DataCamp	
2016, Data Visualization with ggplot2	DataCamp	
2016, Command Line Tools for Genomic Data Science	Coursera	Johns Hopkins University
2015, Reporting with R Markdown	DataCamp	
2015, Intro to Statistics with R: Introduction	DataCamp	
2015, Introduction to Metagenomics Data Analysis	Summer Institute for Modelling of Infectious Disease	University of Washington, Department of Biostatistics
2015, Population Genetics Data Analysis	Summer Institute for Statistical Genetics	University of Washington, Department of Biostatistics
2015, Gene Expression Profiling	Summer Institute for Statistical Genetics	University of Washington, Department of Biostatistics
2015, Introduction to R Programming	Summer Institute for Statistical Genetics	University of Washington, Department of Biostatistics
2015, Statistical Inference	Coursera	Johns Hopkins University
2015, R Programming	Coursera	Johns Hopkins University
2015, The Data Scientist's Toolbox	Coursera	Johns Hopkins University
2015, HTML5	SoloLearn	
2014, Python	Codecademy	
2014, PHP	Codecademy	

2014, PHP	SoloLearn	
2014, HTML & CSS	Codecademy	
2014, Learning How to Learn: Powerful mental tools to help you master tough subjects	Coursera	University of California, San Diego
2013, Epigenetic Control of Gene Expression	Coursera	The University of Melbourne