

BIOGRAPHICAL SKETCH

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NAME: Chamala, Srikar

eRA COMMONS USER NAME (credential, e.g., agency login): schamala

POSITION TITLE: Associate Professor, Director of Center for Pathology Informatics & Data Science

EDUCATION/TRAINING TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Brigham Young University, Provo, UT	BS	12/2006	Bioinformatics
University of Illinois, Urbana-Champaign, Illinois	MS	10/2008	Bioinformatics
University of Florida, Gainesville, Florida	PhD	08/2014	Biology/Bioinformatics

A. Personal Statement

I have an extensive experience in Bioinformatics and Genomics and in leading Bioinformatics and Biostatistics core as part of multi-institutional center grants focused on cancer disparities. I have made several original contributions in the areas of alternative splicing, comparative genomics, genome sequencing and annotation, genome evolution, genetic marker development, and genetic variant calling in very high impact journals like Science, Nature, Genome Biology, etc. One of my current research interests is in understanding the genetic basis for human cancers using genomics technologies. I moved to University of Southern California (USC) with joint appointment at Children's Hospital Los Angeles (CHLA) at end of 2021. I am an Associate Professor of Clinical Pathology housed at USC Keck School of Medicine's Department of Pathology. I also, have an appointed at CHLA as the Director for Pathology Informatics and Data Science. Prior to coming to USC/CHLA, I served as a Director for Biomedical Informatics at University of Florida (UF) Health's Department of Pathology, Immunology and Laboratory Medicine. At UF, I led bioinformatics and data management efforts in type 1 diabetes (PO1 Award # AI042288), and NCI-supported grants, Florida-California CaRE2 Health Equity Center (U54 Award # CA233444) and NCI-EGRP supported Prostate Cancer Transatlantic Consortium (CaPTC) (<http://epi.grants.cancer.gov/capct/>). Past accolades include working on and organizing large international and inter-institutional projects including cancer disparities involving institutions in US and West Africa. I have extensive experience in leading clinical bioinformatics and biomedical informatics efforts at Pathology in developing clinical genomic or precision medicine tests (in cancer, germline, and pharmacogenomics), clinical bioinformatics data analysis & management workflows, clinical genomic variant data interpretation, solutions for integrating genomic data into health information systems, pathology analytics and quality assurance (e.g., CAP Cancer Reporting Protocols). One of my primary research focuses is in developing and applying computational tools to investigate the contribution of host biological factors (e.g., DNA mutations, gene expression, epigenetics, etc) and their interaction with other relevant factors (e.g., diet, environment, microbiome, etc) to cancer health disparities. In addition to conducting cancer health disparities research, I have strong interest and experience in cancer genome informatics training focusing on cancer precision genomics medicine and health disparities.

Ongoing and recently completed projects that I would like to highlight include:

U54 CA233444

Odedina & Wilkie (MPIs); Role: UF Bioinformatics Core Leader

09/17/2018-08/31/2023

NIH/NCI

2/3 Florida-California Cancer Research, Education & Engagement (CaRE2) Health Equity Center

1R21MH129682-01

Angell (PI), Role: Co-Investigator

03/14/2022-02/28/2023

NIH/NIMH

Using Machine Learning with Real-World Data to Identify Autism Risk in Children

Sync for Genes Program

Chamala (PI), Role: Principal Investigator

07/01/2022-06/30/2027

Office of the National Coordinator for Health Information Technology (ONC)

Sync for Genes Phase 5: Standardizing Genomic Variant Sharing and Interpretation for Clinical Knowledge

P01 AI042288

Atkinson (PI); Role: Co-Investigator, Core A

06/20/2018-05/31/2023

NIH

Immune Function and the Progression to Type 1 Diabetes.

1838316

Lele (PI), Role: Co-Investigator

08/01/2018-07/31/2020

NSF

RoL:FELS:EAGER Rules for cellular adaptation to the mechanical properties of their environment

2018PG-T1D071

Brusko (PI), Role: Co-Investigator

04/01/2018-03/31/2021

Helmsley Charitable Trust

Human Atlas of Neonatal Development and Early-Life Immunity

B. Positions, Scientific Appointments, and Honors

Positions and Scientific Appointments

2021 -	Associate Professor and Director of Pathology Informatics and Data Science, Department of Pathology and Laboratory Medicine, CHLA, Los Angeles, CA
2021 -	Courtesy Appointment – Clinical Assistant Professor, Department of Pathology, Immunology, and Laboratory Medicine, UF, Gainesville, FL
2018 -	Member, American Medical Informatics Association
2017 - 2021	Clinical Assistant Professor and Director of Biomedical Informatics, Department of Pathology, Immunology, and Laboratory Medicine, UF, Gainesville, FL
2016 -	Member, Association for Molecular Pathology
2016 - 2018	Member, Health Level Seven International
2016 - 2017	Assistant Scientist (Clinical Bioinformatics), Department of Pathology, Immunology, and Laboratory Medicine, UF, Gainesville, FL
2014 - 2016	Bioinformatics Scientist, Dr. Patrick Concannon Lab, University of Florida, Gainesville, FL

2014 - 2016	Bioinformatics Scientist, Dr. Patrick Concannon Lab, University of Florida, Gainesville, FL
2014 - 2016	Lead Bioinformatician, RAPID Genomics, Gainesville, FL
2013 - 2013	Bioinformatics Research Scientist (intern), RAPID Genomics, Gainesville, FL
2011 - 2014	Graduate Research Assistant, Dr. Brad Barbazuk Lab, University of Florida, Gainesville, FL
2009 - 2011	Biological Scientist, Dr. Brad Barbazuk Lab, University of Florida, Gainesville, FL
2008 - 2008	Functional Architect (co-op), Monsanto, St. Louis, MO
2007 - 2007	Programmer Analyst, Michigan Information Technology (Consultant), Lansing, MI
2007 - 2008	Bioinformatics Research Assistant, Dr. Matthew Hudson lab, University of Illinois, Urbana, IL
2006 - 2006	Research Assistant, Dr. David Belnap lab, Brigham Young University, Provo, UT
2005 - 2006	Research Assistant, Dr. David McClellan lab, Brigham Young University, Provo, UT
2005 - 2006	Software Programmer, Brigham Young University, Provo, UT
2004 - 2004	Research Trainee, Dr. Satyabrata Nandi lab, University of California, Berkeley, CA

Honors

2019	Exemplary Teaching Award UF College of Medicine
2013	Best graduate student paper award (Honorable Mention), UF, Gainesville, FL
2011 – 2013	Grinter Fellowship, UF, Gainesville, FL
2007 – 2008	Graduate Student Research Assistant Grant, UIUC, Urbana, IL
2006	Honors Thesis Research Grant, BYU, Provo, UT
2005 – 2006	Clarence Cottam Memorial Scholarship, BYU, Provo, UT
2005	Brigham Young Academic Scholarship, BYU, Provo, UT
2003 – 2004	Honors Academic Merit Award, Berkeley City College, Berkeley, CA

C. Cancer Related Contributions to Science

1. Cancer Genome Informatics

Over the past four years as part of the Florida-California CaRE² Health Equity Center (U54 Award # CA233444) and the NCI-EGRP supported Prostate Cancer Transatlantic Consortium (CaPTC) grants I have been studying the genetics of cancer health disparity using multi-omics and bioinformatics approaches. Additionally, I develop precision genomic cancer bioinformatics pipelines for clinical utility of cancer molecular tests.

§ Indicates co-senior author

** Indicates co-first author

- a. Cameron, M. E., Hakimjavadi, H., Riner, A. N., Herremans, K. M., Underwood, P. W., Judge, A. R., Odedina, F., Carpten, J. D., Wilkie, D. Reams, R. R., Han, B., Agyare, E., **§Chamala, S.**, & **§Trevino, J. G.** Unique Genetic Signatures Underlie Divergent Biology in Ethnically Diverse Patients with Pancreatic Cancer. Submitted and under review at *Cancer Epidemiology, Biomarkers, and Prevention*.
- b. **†Hakimjavadi, H.**, **†George, S.H.**, Taub, M., Dodds, L.V., Sanchez-Covarrubias, A. P., Huang, M., Pearson, M.J., Slomovitz, B.M., Kobetz, E.N., Gharaibeh, R.G., Sowamber, R., Pinto, A., **§Chamala, S.**, & **§Schlumbrecht, M.** The Vaginal Microbiome is Associated with Endometrial Cancer Grade and Histology. *Cancer Research Communications* (2022) 2 (6): 447–455.
- c. Jiang J., Hakimjavadi, H., Bray, J.K., Gosling, A., daSilva L., Bulut, G., Perkins, C., Ali, J., Setiawan, V.W., Campbell-Thompson, M., **§Chamala, S.**, **§Thomas Schmittgen, T.** (2022). Transcriptional profile of human pancreatic acinar ductal metaplasia. *Cancer Research*, 82 (12_Supplement), pp.780-780.
- d. da Silva, L., Jiang, J., Perkins, C., Atanasova, K.R., Bray, J.K., Bulut, G., Azevedo-Pouly, A., Campbell-Thompson, M., Yang, X., Hakimjavadi, H. and **Chamala, S.**, Ratnayake, R., Gharaibeh, R.Z., Li, C., Luesch, H., & Schmittgen, T. D. (2022). Pharmacological inhibition and reversal of pancreatic acinar ductal metaplasia. *Cell death discovery*, 8(1), 1-10.
- e. George, S. H., Omotoso, A., Pinto, A., Mustapha, A., Sanchez-Covarrubias, A. P., Umar, U. A., Umar, A.B., Oluwasola, T.A., Okolo, C.A., Anthony, U.U., Ukekwe, F.I., Bakari, M.A., Dahiru, A.M.C., Abdullahi, H.I., Abimiku, B.A., Abdurrahman, A., Usman, A., Ahmed, S.A., Usman, H.A., Kabir, A., Eleje, G.U., Chiemeka, M.E., Nzeribe, E., Nweke, I., Kadas, S., Suleiman, D.E., Ekanem, E., Uche, U.M., Paul, J., Agwu, U.M.,

Edegbe, F.O., Anorlu, R.I., Banjo, A., Ajenifuja, K.O., Fawole, A.A., Kazeem, I.O.O., Magaji, F., Silas, O., Athanasius, B.P., Tamunomie, N.K., Bassey, E., Abudu, K., Ango, I.G., Abdullahi, K., Lawal, I., Kabir, S.A., Ekanem, V., Ezeanochie, M., Yahaya, U.R., Castillo, M.N., Bahall, V., Chatrani, V., Brambury, I., Bowe, S., Halliday, D., Bruney, G., Butler, R., Ragin, C., Odedina, F., **Chamala, S.**, Schlumbrecht, M., & Audu, B. (2021). An Assessment of Ovarian Cancer Histotypes Across the African Diaspora. *Frontiers in oncology*, 11: 732443.

- f. Gruber-Mösenbacher, U., Katzell, L., McNeely, M., Neier, E., Jean, B., Kuran, A., **Chamala, S.** Digital Pathology in Cameroon. *JCO Global Oncology* no. 7 (2021) 1380-1389.
- g. ****Chamala, S.**, ****Maness, H. T. D.**, Brown, L., Adams, C. B., Cogle. Building a Precision Oncology Workforce by Multidisciplinary and Case-Based Learning. *BMC Med Educ.* 21(1), 1-6, 2021.
- h. **Chamala, S.**, Mishra, S.N., Newsom, K.J., Majety, S., Gothi, R.N., Dolin, R.H., Walton, N.A., and Starostik, P. (2020). Indispensability of Clinical Bioinformatics for Effective Implementation of Genomic Medicine in Pathology Laboratories. *Applied Clinical Informatics Open*, 4(02), e167-e172.
- i. Riner, A. N., Underwood, P. W., Yang, K., Herremans, K. M., Cameron, M. E., **Chamala, S.**, Qiu, P., George, T.J., Permuth, J.B., Merchant, N.B., & Trevino, J. G. (2020). Disparities in Pancreatic Ductal Adenocarcinoma—The Significance of Hispanic Ethnicity, Subgroup Analysis, and Treatment Facility on Clinical Outcomes. *Cancer Medicine*, 9(12), 4069-4082 PMID: PMC7300394.

Complete List of Published Work in MyBibliography:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/srikar.chamala.1/bibliography/40163595/public/?sort=date&direction=ascending>