

EDGARDO CASTRO-PÉREZ, PH.D.**Current Positions:****Professor & Researcher**

**Department of Genetics and Molecular Biology
University of Panama**

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Languages:

Spanish: mother tongue

English: excellent read, written and conversational

Cancer researcher

**Centre for Cellular and Molecular Biology of
Diseases, Scientific Research Institute
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Member, National Research System (NIS), SENACYT: 2021 - present

ACADEMIC PROFILES AND PUBLICATIONS ACCESS:

ORCID: <https://orcid.org/0000-0003-4884-9479>

Google Scholar: <https://scholar.google.com/citations?hl=en&tzom=300&user=f6ASvd4AAAAJ>

ResearchGate: https://www.researchgate.net/profile/Castro_Perez

LinkedIn: <https://www.linkedin.com/in/edgardo-castro-perez-phd-807954192/>

OBJECTIVES

Contribute to the progress and development of the country with research in the areas of cancer, genomics, induced pluripotent stem cells, neuroscience, cell biology, molecular and genetics. In addition, contribute to the training of students and theses in higher education programmes at undergraduate and postgraduate level.

TRAINING AND ACADEMIC QUALIFICATIONS**Secondary School:**

Bachelor of Science, Instituto José Dolores Moscote, Panama City, MEDUCA, Panama.

Pre-graduate (Bachelor' s degree)

2004 Bachelor of Biology with orientation in Microbiology and Parasitology. University from Panama, Campus Central, Octavio Méndez Pereira, Panama City.

Thesis Mentor: Dr. Carlos Ramos. **Areas of Research and Expertise in Bachelor' s Degree:** Evolutionary molecular phylogenetics, human population genetics in mestizos and Amerindians Ngabe and Emberá, population forensic genetics. Ancestral racial mixture. PCR, molecular cloning using plasmid vectors, DNA analysis with agarose and polyacrylamide electrophoresis, DNA digestion with endonucleases, genotyping of alleles. Sequencing, sequence processing and bioinformatics analysis.

Graduate (Doctorate, Ph.D.)

2014 Ph.D. in Biology, specializing in Cellular and Molecular area with emphasis on Neuroscience. University of Puerto Rico, Campus of Río Piedras and Medical Sciences, San Juan, Puerto Rico, United States of America.

Thesis Mentor: Dr. Sandra Peña de Ortiz. **Areas of Research and Doctoral Expertise:** Use of wild rodent models and transgenic in cellular and molecular cognitive neuroscience, behavior and learning. Mechanisms of long-term memory formation. Mechanisms of DNA repair and recombination in the brain during memory formation. Structural synaptic plasticity of the hippocampus in memory. Changes in genetic expression of the brain using functional genomics with microarrays, real-time PCR, Western blot, immunofluorescence. Intracranial surgery and molecular silencing of genes in the brain using antisense oligonucleotides.

Post-Graduate

2019 **Postdoctoral Fellow (2015-2019), Department of Dermatology, School of Medicine, University of Wisconsin, Madison, Wisconsin, USA.**

Mentor: Dr. Vijay Setaluri. Areas of Research and Post-Doc Expertise: Mechanisms of cancer resistance to treatments through studies of transcriptomes and mechanisms of cell plasticity and trans-differentiation in cancer, and intracellular signal transduction mechanisms. Reprogramming of somatic cells to induced pluripotent stem cells. Characterization of induced pluripotent stem cells, differentiation of stem cells into 3 germ layers, differentiation into neurons and melanocytes. Tumour induction in Cre-lox-inducible transgenic mouse models. Development and differentiation of in vitro organoids in 2-D and 3-D from induced pluripotent stem cells. Research into nano-biosensors for the detection and diagnosis of cancer cells in blood. Genetic and molecular disparity and risk in prostate cancer disease with pluripotent stem cell models and next generation genomic sequencing strategies. Gene delivery and silencing with siRNA, shRNA, lentivirus production, protein expression and EGFP reporter generation by molecular cloning and human cell expression. Isolation and cell culture of human and mouse tissues and tumors. Molecular cloning in plasmids. Determine genetic expression by new generation genomic techniques (RNA-seq), with immunofluorescence, Western blot and real-time PCR.

2022 **Post-Graduate in Higher Education, from the Specialized University of the Americas (UDELAS), Panama City.**

CURRENT APPOINTMENTS AND POSITIONS

2020- **Researcher in the area of cancer and induced pluripotent stem cells (iPSC).** Center for Cellular and Molecular Biology of Diseases, INDICASAT-AIP, City of Knowledge, Clayton, Panama. Short description: Mechanisms of malignant melanoma resistance to drugs. Several projects in genomics of different types of tumours. Use of iPSC stem cells in modelling the cancer study.

2019- **Part-time Special Teacher and Researcher.** Department of Genetics and Molecular Biology, Universidad de Panamá, Campus Central Octavio Méndez Pereira, Panama City. Short description: Professor of Molecular Biology at undergraduate level for students from various majors: Medicine, Medical Technology, Nutrition, Biology, etc. In addition, researcher in molecular genetics, genomics, population genetics and phylogenetics. In addition, advisor and co-advisor of thesis on several projects in Bachelor, Master and PhD.

COURSES IN POSTGRADUATE PROGRAMMES

2019- **Master's Programme in Molecular Biology.** Department of Genetics and Molecular Biology, University of Panama, Octavio Méndez Pereira Central Campus, Panama City.

Courses (collegiate): Recombinant DNA, Cell Biology, Molecular Biology.

2021- **Doctoral Program for Physicians (MD-PhD Program),** Faculty of Medicine, University of Panama. Course (collegiate) "Techniques in Molecular Biology" (2021).

2020- **Master's Program in Toxicology,** Faculty of Medicine, University of Panama. Course (collegiate) "Molecular Biology" (2020).

2024- **Professor of the PhD programme in biosciences and biotechnology between INDICASAT, SENACYT and the Technological University of Panama.**

Short description: Professor of collegiate courses, principal adviser and co-advisor (jury) of doctoral theses.

2024- **Master's Program in Biomedical Sciences,** Faculty of Medicine, University of Panama. Course (collegiate) "Molecular biology applied to biomedical sciences" (2024) and the course (collegiate) "Introduction to biomedical sciences" (2024).

PREVIOUS APPOINTMENTS AND POSITIONS

- 2014-2015 **Assistant Professor and Researcher (full-time)**. Department of Biology. School of Natural Sciences and Technology, Ana G. Méndez University, Puerto Rico, United States. Short description: Courses taught at undergraduate level: Neurobiology, Biotechnology, Bioinformatics, General Biology. Courses taught at Master's and PhD level: Environmental Health. Research Areas: Neurobiology of Alzheimer's and its relationship to the high-fat diet.
- 2007-2010 **Laboratory technician (part-time)**. Laboratory of Cellular and Molecular Cognition, University of Puerto Rico, Rio Piedras Campus. Short description: Use of wild and transgenic rodent models in cellular and molecular cognitive neuroscience, behavior and learning. Mechanisms of long-term memory formation in the brain. Structural synaptic plasticity of the hippocampus in memory. Mentor: Dra. Sandra Peña de Ortiz.
- 2011-2014 **Laboratory technician (part-time)**. Functional Genomics Research Center, University of Puerto Rico, Rio Piedras Campus. Mentor: Dra. Sandra Peña de Ortiz. Short description: Use of microarrays for RNA-level gene expression analysis (gene expression microarrays), and comparative genome hybridization (DNA) microarrays. RNA extraction, DNA and quality and concentration analysis using Bioanalyzer and Nano Drop.
- 2006 **Assistant Laboratory Professor (Middle Time)**. Department of Genetics and Molecular Biology, University of Panama, Octavio Méndez Pereira Central Campus, Panama City. Short description: Biology laboratory classes for undergraduate students in Biology; and students of the Medical Technology Degree from the Faculty of Medicine.
- 2005-2006 **Research Assistant (full-time)**. Molecular Biology Laboratory, Smithsonian Tropical Research Institute, Panama City. Research Areas: molecular phylogenetics and population genetics of insects and the bacteria Wolbachia. PCR, electrophoresis, DNA sequencing, genotyping. Mentor: Dr. Donald Windsor.
- 2004-2005 **Research Assistant (full-time)**. Laboratory for Bioprospecting and Drug Search, Smithsonian Tropical Research Institute, Panama City. Research Areas: molecular phylogenetics and population genetics of insects and the bacteria Wolbachia. PCR, electrophoresis, DNA sequencing, genotyping. Mentor: Dr. Donald Windsor. Research Areas: Drug search, bioassay against infectious diseases and cancer. Culture and isolation of micro-organisms, chemistry of natural extracts. Mentores: Dr. Phyllis D. Coley y Dr. Thomas A. Kursar.
- 2001-2002 **Research Assistant (full-time)**. Molecular Biology Laboratory, Smithsonian Tropical Research Institute, Panama City. Research Areas: molecular phylogenetics and population genetics of insects. PCR, electrophoresis, DNA sequencing, genotyping. Mentor: Dr. Chris Jiggins (Birmingham Laboratory).
- 2000-2003 **Research Assistant (full-time)**. Instituto del DNA y del Genoma Humano, Universidad de Panamá, Campus Central Octavio Méndez Pereira, Panama City. Research Areas: Human Biology, Human Ancestral Racial Mixture in the Panamanian Mestizo Population and Amerindian Genetics and its relationship with susceptibility and risk to cardiovascular diseases, cerebrovascular diseases and cancer. Genetics of human populations using microsatellites and insertion/deletion markers and forensic genetics. Mentors: Dr. Tomás D. Arias, Dra. Lucía Jorge, Dr. Carlos Ramos.

PUBLICATIONS: Articles, books and book chapters

2025

29. Zúñiga-Núñez D, Gunther G, Querini Sanguillen WS, Otero Gonzalez JM, García M, Miranda Montenegro M, **Castro-Pérez E**, Ramos C. Toluidine Blue O Demethylated Photoproducts as Type II Photosensitizers. *Photochemistry and Photobiology*, 2025, Jan 20. Doi: <https://doi.org/10.1111/php.14066>

28. Visuete E, Diez TA, **Castro-Pérez E**, de Chial M, Tejada AE, Ramos D. CW. Determination of the pro12al polymorphism in peroxisome proliferator-activated receptor gamma-2 in patients with type 2 diabetes mellitus. *Technoscience*, January 3, 2025; 27(1):125-44. <https://doi.org/10.48204/j.tecn.v27n1.a6641>

27. Fuentes W, **Castro-Pérez E**, Samudio R, de Chial M, Ramos Delgado CW. Coronavirus prevalence in bats from Panama. *Journal of Zoonotic Diseases*, 2025; 9(2): 738-751. doi: <https://doi.org/10.22034/jzd.2024.63733.1307>

2024

26. de la Guardia V, **Castro-Pérez E**, Porcell AI, de Tena-Dávila SG, Pacheco M. Atypical cellular neurothekeoma: a case report with a novel NF1 mutation. *Diagn Pathol.* 2024 Nov 22;19(1):151. Doi: <https://doi.org/10.1186/s13000-024-01578-y>
25. Díaz-Ferguson E, Ramos CW, Pineda Y, Gutiérrez-Pineda KM, **Castro-Pérez E** y Méndez-Carvajal PG. (2024). Genetic Approach of the Coiba Island howler monkey *Alouatta coibensis coibensis* from Panama, and its conservation implications. *Tecnociencia*, 26(1), pp. 112-128. doi: 10.48204/j.tecno.v26n1.a4653.
24. LIBRO: **Castro-Pérez E**, De Chial M, Chen O, Mayorga B, Ramos Delgado C. 2025 Genetic structure of the Panamanian population Ancestral genes and biomedical implications. Editorial Portobelo. Published: 2024-11-30 Edition number:1 Pages number:248 Size:17.78x25.04cm. ISBN 978-9962-15-187-6. DOI: <https://doi.org/10.5281/zenodo.15121745>; <http://isbn.binal.ac.pa/risbn53/catalogo.php?mode=detalle&nt=27595>.

2023

23. **Castro-Pérez E**, Singh M, Sadangi S, Mela-Sánchez C, Setaluri V. Connecting the dots: Melanoma cell of origin, tumor cell plasticity, trans-differentiation, and drug resistance. *Pigment Cell Melanoma Res.* 2023;36(5):330-347. doi: <https://doi.org/10.1111/pcmr.13092>

2022

22. Singh MK, Krishnan A, Bhasker AI, Rodriguez CI, **Castro-Perez E**, Ndiaye M, Ahmad N, Khan H, Schieke SM, Setaluri V. 652 EPAC-mTORC1 signaling regulates proliferation of primary melanoma cells and loss of dependence on EPAC signaling correlates with melanoma progression. *Journal of Investigative Dermatology*, Vol. 142, Issue 8, Supplement, August 2022, Page S112. [https://www.jidonline.org/article/S0022-202X\(22\)01104-6/fulltext#relatedArticles](https://www.jidonline.org/article/S0022-202X(22)01104-6/fulltext#relatedArticles)
21. Krishnan A, Bhasker A, Singh M, Rodriguez C, **Castro-Pérez E**, Altameemi S, Lares M, Khan A, Ndiaye M, Ahmad N, Schieke S, and Setaluri V. 2022. EPAC Regulates Growth of Primary Melanoma Cells by Stimulating mTORC1 Signaling and Loss of Dependence on EPAC Signaling Correlates with Melanoma Progression. *Mol Cancer Res.* 2022 Jul 14;mcr.22.0026. DOI: <https://doi.org/10.1158/1541-7786.MCR-22-0026>.
20. Escudero-Sanjur S, **Castro-Perez E**, Acosta de Patiño H, Rastogi I, Ramos CW. 2022. Genetic diversity of Medically Important Scorpions of the genus *Centruroides* (Buthidae) from Panama including two endemic species. *Journal of Genetics* **101**, 32 (2022). <https://doi.org/10.1007/s12041-022-01374-x> <https://link.springer.com/article/10.1007/s12041-022-01374-x>
19. Sadangi S, Milosavljevic K, **Castro-Pérez E**, Lares M, Singh M, Altameemi S, Beebe D, Ayuso J, Setaluri V. (2022) Role of skin microenvironment in melanomagenesis: Epidermal keratinocytes and dermal fibroblasts promote BRAF oncogene-induced senescence escape in melanocytes. *Cancer*, **14** (5), 1233; <https://doi.org/10.3390/cancers14051233>

2021

18. Capítulo de Libro: **Castro-Pérez E**, Sadangi S, Singh M, Setaluri V. 2021. Chapter 9 - Melanoma-derived induced pluripotent stem cells: a model for understanding melanoma cell of origin and drug resistance. In: *Cell Sources for iPSCs Volume 7*; Pages 191-219. In *Advances in Stem Cell Biology*. Alexander Birbrair, Editor. Elsevier/Academic Press. 300pp. <https://www.sciencedirect.com/science/article/pii/B9780128221358000124?via%3Dihub>

2019

17. **Castro-Pérez E**, Rodríguez CI, Mikheil D, Siddique S, McCarthy A, Newton MA, Setaluri V. Melanoma Progression Inhibits Pluripotency and Differentiation of Melanoma-Derived iPSCs Produces Cells with Neural-like

Mixed Dysplastic Phenotype. *Stem Cell Reports*. 2019 Jul 9;13(1):177-192.

<https://www.ncbi.nlm.nih.gov/pubmed/31231022>

16. Anu Prathap, **Castro-Pérez E**, JA Jiménez-Torres, V Setaluri, S. Gunasekarana. A flow-through microfluidic system for the detection of circulating melanoma cells. *Biosensors and Bioelectronics* Volume 142, 1 October 2019.

<https://www.ncbi.nlm.nih.gov/pubmed/31336226>

15. A Bhaskar, D Krishnan, A, Mikheil, **Castro-Pérez E**, V Setaluri. 836: EPAC2/RABGEF4 promotes cell cycle progression selectively in primary melanoma cells by regulating cellular and mitochondrial metabolism. *Journal of Investigative Dermatology* 139 (5), p.S144.

[https://www.jidonline.org/article/S0022-202X\(19\)31103-0/fulltext](https://www.jidonline.org/article/S0022-202X(19)31103-0/fulltext)

14. **Castro-Pérez E**, Rodríguez CI, Mikheil D, Siddique S, McCarthy A, Newton MA, Setaluri V. Melanoma Progression Inhibits Pluripotency and Melanoma-Derived iPSC Differentiate Predominantly to Neural-like Cells. *Pigment Cell and Melanoma Research* 2019; 32(1):187.

<https://onlinelibrary.wiley.com/doi/10.1111/pcmr.12747>

2018

13. Ramos CW, **Castro-Pérez E***, Molina-Jiron C, DE Trejos. Analysis of 30 INDEL Polymorphic Markers in the Panamanian Population: Gene Admixture Estimates, Population Structure and Forensic Parameters. *J Forensic Res* 2018, 9:1, 413. *Co-primer autor y autor de correspondencia.

<https://www.hilarispublisher.com/open-access/analysis-of-30-indel-polymorphic-markers-in-the-panamanian-population-gene-admixture-estimates-population-structure-and-forensicpar-2157-7145-1000413.pdf>

DOI: 10.4172/2157-7145.1000413

12. Rodríguez CI, **Castro-Pérez E**, Longley BJ, Setaluri V. Elevated Cyclic AMP levels promote BRAFCA/Pten-/- mouse melanoma growth but pCREB is negatively correlated with human melanoma progression. *Cancer Lett*. 2018 Feb 1;414:268-277.

<https://pubmed.ncbi.nlm.nih.gov/29179997/>

11. **Castro-Pérez E*** and Vijayasradhi Setaluri. DTC-Genetics and Individualized Genomics: Emerging Challenges of Bringing Forensic Science and Clinical Tests for the General Population. *J Crim Forensic studies* 2018, 1(1): 180002.*Primer autor y autor de correspondencia.

[https://www.researchgate.net/publication/338375899_DTC-](https://www.researchgate.net/publication/338375899_DTC-Genetics_and_Individualized_Genomics_Emerging_Challenges_of_Bringing_Forensic_Science_and_Clinical_Tests_for_the_General_Population)

[Genetics_and_Individualized_Genomics_Emerging_Challenges_of_Bringing_Forensic_Science_and_Clinical_Tests_for_the_General_Population](https://www.researchgate.net/publication/338375899_DTC-Genetics_and_Individualized_Genomics_Emerging_Challenges_of_Bringing_Forensic_Science_and_Clinical_Tests_for_the_General_Population)

2017

10. Rodríguez CI, **Castro-Pérez E**, Prabhakar K, Wisinski JA, Block L, Bowler S, Longley JB, Kimple ME, Setaluri V. EPAC-RAP1 axis mediated switch in response of melanoma cells to cyclic AMP signaling during melanoma progression. *Mol Cancer Res*. 2017 Dec;15(12):1792-1802.

<https://www.ncbi.nlm.nih.gov/pubmed/28851815>

9. **Castro-Pérez E*** and Vijayasradhi Setaluri. Derivation of induced pluripotent stem - like cells from melanoma cell lines. *Pigment Cell and Melanoma Research*. Vol 30, (5) September 2017 e100.

<https://onlinelibrary.wiley.com/doi/full/10.1111/pcmr.12622>

8. Rodríguez CI, **Castro-Pérez E**, Prabhakar K, Wisinski JA, Block L, Bowler S, Longley JB, Kimple ME, Setaluri V. EPAC - RAP1 axis - mediated switch in the response of primary and metastatic melanoma cells to cyclic AMP signaling. *Pigment Cell and Melanoma Research* 2017; Vol 30, (5) e52.

<https://onlinelibrary.wiley.com/doi/full/10.1111/pcmr.12622>

2016

7. **Castro-Pérez E**, Soto-Soto E, Pérez-Carambot M, Dionisio-Santos D, Saied-Santiago K, Ortiz-Zuazaga HU, Peña de Ortiz S. Identification and Characterization of the V(D)J Recombination Activating Gene 1 in Long-Term Memory of Context Fear Conditioning. *Neural Plasticity*, Vol 2016; 2016:1752176. doi: 10.1155/2016/1752176.

<https://www.ncbi.nlm.nih.gov/pubmed/26843989>

6. **Castro-Pérez E***, DE Trejos, T Hrbek, V Setaluri, CW Ramos. Genetic Ancestry of the Panamanian Population: Polymorphic Structure, Chibchan Amerindian Genes; and Biological Perspectives on Diseases. The Internet Journal of Biological Anthropology. 2016 Volume 9 Number 1.
<https://ispub.com/IJBA/9/1/44045>

2012

5. **Castro-Pérez E**, M. Pérez-Carambot, A. Vázquez-Montes, K. Saied, D.A. Dionisio-Santos, E. Soto-Soto, S. Peña de Ortiz. Context fear conditioning rapidly and transiently induces amygdalar recombination activating gene 1 (rag1) expression, which is required for long-term memory. European Journal of Neurology. 2012; 1;19.

<https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1468-1331.2012.03889.x>

4. M. Perez-Carambot, A. Vazquez, N.Y. Ocasio, **Castro-Pérez E**, K.P. Betancourt, V. Rivera, S. Peña de Ortiz. Apurinic/apurimidinic endonuclease 1 (Apex1) plays a role in long-term memory of context fear conditioning. European Journal of Neurology. 2012; 1;19.

<https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1468-1331.2012.03889.x>

3. Ramos CW, **Castro-Pérez E**, Ramadugu C, Gomez J, Villalaz J, Aviles M. Phylogenetic Relationships among Species of Protothaca from Panama Based on Cytochrome C Oxidase I (COI) Sequences. Bol. Inst. Oceanogr. Venezuela, 51 (1): 11-16 (2012).

https://www.researchgate.net/publication/289253934_PHYLOGENETIC_RELATIONSHIPS_AMONG_SPECIES_OF_PROTOTHACA_FROM_PANAMA_BASED_ON_CYTOCHROME_C_OXIDASE_I_COI_SEQUENCES

2007

2. **Castro-Pérez E**, DE Trejos, V Berovides, TD Arias and CW Ramos. Genetic Polymorphism and Forensic Parameters of Nine Short Tandem Repeat Loci in Ngöbé and Emberá Amerindians of Panama. Human Biology, October 2007, vol. 79, no. 5, pp. 563 – 577.

<https://www.ncbi.nlm.nih.gov/pubmed/18478971>

2002

1. Arias TD, **Castro-Pérez E**, E Ruiz, R Barrantes and L Jorge-Nebert. The Racial Admixture of Panamanian Population. Rev Med Panama, Vol 27, 2002.

<https://www.ncbi.nlm.nih.gov/pubmed/16737193>.

PRESENTACIÓN DE AFICHES

M. Poveda, B. Di Biase, C. Herrera, **E Castro-Pérez**. Secuenciación genómica revela factores de riesgo genético a enfermedades no transmisibles en la población panameña. Jornada de Iniciación Científica (JIC) 2023; APANAC-SENACYT.

C. Mela, V. Setaluri, G. Espino, E. Castro-Pérez. The role of cancer stem cell pathways in Melanoma drug resistance. Congreso IESTEC-UTP, 19 de octubre 2022, Panama.

Castro-Pérez E. Resumen de Investigaciones y Proyectos en Curso. Primer Encuentro de Estudiantes e Investigadores Networking I+D UP. Centro de Convenciones, Ciudad del Saber, Mayo 31, 2022, 10:00am-2:00pm. Organizado por SENACYT.

Castro-Pérez E, Rodríguez CI, Mikheil D, Siddique S, McCarthy A, Newton MA, Setaluri V. Melanoma Progression Inhibits Pluripotency and Melanoma-Derived iPSC Differentiate Predominantly to Neural-like Cells. Joint the Montagnia Symposium on the Biology of Skin/Panamerican Soc. For Pigment Cell and Melanoma Res.2018, Oregon.

Castro-Pérez E, Vijayasaradhi Setaluri. Derivation of Induced Pluripotent Stem-Like Cells from Melanoma Cell Lines. 24th International Pigment Cell Conference (IPCC). Denver, CO, July 2017.

Castro-Pérez E, Rodríguez CI, Prabhakar K, Wisinski JA, Block L, Bowler S, Longley JB, Kimple ME, Setaluri V. EPAC - RAP1 axis - mediated switch in the response of primary and metastatic melanoma cells to cyclic AMP signaling. 24th International Pigment Cell Conference (IPCC). Denver, CO, July 2017.

Curriculum Vitae

Castro-Pérez E, Pereira L, Melot JJ, Moran C. The effects of metabolic syndrome in the brain structures and its implications in the pathogenesis of neurodegenerative disease. Society for Neuroscience Conference 2015, October. Chicago, IL. Session Number: 040; Session Title: Alzheimer's Disease: Beyond Abeta and Tau; Oct 17, 2015.

Castro-Pérez E, Laguna-Torres JY, Santos-Soto IJ, Goenaga Y, Lago C, Ortiz-Zuazaga H and S. Peña de Ortiz. Behavioral, Cellular and Molecular Effects of DNA ligase Inhibition During Context Fear Conditioning. Society for Neuroscience Congress & Molecular and Cellular Cognition Society Meetings, Washington DC, Nov 2008.

Castro-Pérez E, Laguna-Torres JY, Lago C, Fernández JR, Santiago V, Ortiz-Zuazaga H and S. Peña de Ortiz. DNA ligase function and context fear conditioning behavioral cellular and molecular studies. Society for Neuroscience Congress & Molecular and Cellular Cognition Society Meetings, San Diego, CA Nov 2007.

ENTREVISTAS

Mentes Brillantes, Telemetro Canal 13:

<https://www.telemetro.com/especiales-treporta/mentes-brillantes-edgardo-castro-genetista-n5964886>

Podcast Centro de Investigación e Innovación Médica (CIIMET), Hospital Nacional, en Spotify

PRESENTACION DE CONFERENCIAS, SEMINARIOS Y DIPLOMADOS DICTADOS

- Conferencia Origen Celular y Molecular del melanoma, células madre cancerígenas y resistencia a tratamientos. Jornada Académica: Avances de la Investigación y Prevención del Cáncer de Piel. Biblioteca Simón Bolívar, Universidad de Panamá. Septiembre, 2024.
- Profesor del Diplomado de Actualización en Biología, para profesores de Biología del MEDUCA. Módulo desarrollado: Medicina Regenerativa y Cáncer. Organizado por la SENACYT y la Universidad de Panamá. Marzo-Julio 2023.
- Presentador Invitado. Título: Cancer Stem Cell Pathways in BRAFi-Resistant Melanoma. Presentado en el Seminario-Taller: “Challenges in Basic and Translational Cancer Research” . Taller Internacional financiado por SENACYT y organizado por INDICASAT. Enero, 2023.
- Presentador Invitado. Título: "iPSC strategy in the study of cancer stem cell pathways in melanoma" Congreso IESTEC-UTP, octubre, 2022.
- Presentador Invitado. Título: Seminario Introducción a las Ciencias Ómicas, Departamento de Genética y Biología Molecular, Universidad de Panamá. Agosto, 2022.
- Presentador Invitado. Título: Prueba de ADN no humana (animal) en casos de hurto pecuario. Conceptos y avances en biología molecular y celular. Instituto de Medicina Legal y Ciencias Forenses. Ministerio Público, Julio, 2022, Panamá
- Presentador Invitado a Webinar, Título: El Papel de la Investigación en Tiempos de Pandemia. Llevada a cabo el día 12 de abril de 2022, en la Universidad Especializada de las Américas UDELAS, Panamá.
- Profesor del Diplomado de Actualización en Biología, para profesores de Biología del MEDUCA. Módulo desarrollado: Medicina Regenerativa y Cáncer. Organizado por la SENACYT y la Universidad de Panamá. Febrero-mayo 2022.
- Presentador Invitado a Conferencia: Facultad de Medicina. Título: Técnicas Avanzadas de DNA Recombinante y Aplicaciones Biotecnológicas en Medicina Regenerativa y Terapia Génica. 1 de diciembre de 2021.
- Presentador Invitado a Conferencia, SENACYT. Título: Causas Asociadas al Cáncer, Tratamientos, Investigación, Factores de Riesgo y Prevención. 20 de octubre de 2021.
- Presentador Invitado a Conferencia DNA Recombinante e Ingeniería Genética. Programa MD/PhD, Facultad de Medicina, Universidad de Panamá. Febrero 26, 2021.
- “Rol de la mutación Oncogénica BRAFV600E en Reprogramación iPSC y Plasticidad Neural en Melanoma Resistente a Tratamientos” “XXX Congreso Científico Nacional 2021” , y será presentada el martes 5 de octubre.

Curriculum Vitae

- Presentador Invitado a Conferencia: Programa de Maestría en Biología Molecular, Universidad de Panamá. Título: Biología molecular, celular e investigación del cáncer y células madre pluripotentes inducidas. 30 de julio de 2021.
- Melanoma-iPSC como modelos para comprender mecanismos de resistencia a tratamientos y plasticidad en melanoma. Congreso APANAC 2021. 24 de junio, 2021.
- Diferenciación de células madre iPSC en organices prostáticos como modelos de disparidad genética en cáncer de próstata. Congreso APANAC 2021. 24 de junio, 2021.
- Diversidad genética del género Centruroides en Panamá a partir de secuencias parciales de los genes mitocondriales ARNr 16S y Citocromo oxidasa I.
- Presentador Invitado a Conferencia: Facultad de Medicina. Título: Prevención, Tratamientos e Investigación del Cáncer. 2 de junio de 2021.
- Presentador Invitado a Conferencia: Facultad de Medicina Título: Bases genéticas y moleculares del cáncer. 26 de mayo de 2021.
- Presentador Invitado a Conferencia: Webinar Centro Hemato Oncológico Panamá, Ciudad de Panamá. Título: Desarrollo e Investigación de Nuevas Terapias en Oncología. 13 de enero 2021.
- Profesor Invitado a Curso: Reforzamiento Académico MEDUCA-Universidad de Panamá, Facultad de Medicina. 2 módulos. 2020.
- Regulación de la Expresión Génica, Programa de Maestría en Toxicología, Facultad de Medicina, Universidad de Panamá, 2020.
- Presentador Invitado a Conferencia: Webinar Centro Hemato Oncológico Panamá, Ciudad de Panamá. Título: Investigación pre-clínica del cáncer y oportunidades de investigación en cáncer en Panamá. 30 de septiembre 2020.
- Presentador Invitado a Conferencia: INDICASAT-AIP, Ciudad del Saber. Título: “iPSC Approaches in Cancer Stem cells, Plasticity and drug Resistance in Melanoma” . Enero 8, 2020.
- Presentador Invitado a Conferencia: INDICASAT-AIP, Ciudad del Saber. Título: “In vitro differentiation of iPSC into prostate-like organoids as models to study genetic risk disparity of prostate cancer in African-American males. Diciembre 11, 2019.
- Presentador Invitado a Conferencia: INDICASAT-AIP, Ciudad del Saber. Título: “Mechanisms of DNA repair in the brain during long-term memory” . 27 de noviembre 2019.
- Presentador Invitado a Conferencia: INDICASAT-AIP, Ciudad del Saber. Título: "Induced pluripotent stem cells as models to study cancer neural plasticity, drug resistance, and cáncer disparities." 20 de noviembre 2019.
- Presentador Invitado a Conferencia: Stem Cell & Regenerative Medicine Center, School of Medicine and Public Health, UW Madison. Título: “Reprogramming Melanoma Cells as a Model to Study Melanoma plasticity and drug-Resistance” . Octubre 17, 2017, Estados Unidos

Traducción:

Centro de Células Madre y Medicina Regenerativa, Facultad de Medicina y Salud Pública, Universidad de Wisconsin, Madison, WI, E.U.A. Título: Reprogramación de células de melanoma como modelo para estudiar plasticidad y resistencia a drogas del melanoma. Octubre 17, 2017. Add Supporting Letter of Dr. Setaluri.

- Presentador Invitado a Conferencia: Facultad de Medicina, Universidad de Panamá. Título: “Induction and Differentiation of Stem Cells from Somatic Cells” . Diciembre 2016, Ciudad de Panamá.
- Presentador Invitado a Conferencia: Facultad de Medicina, Universidad de Panamá. Título: Characterization of DNA Recombination and DNA Repair Mechanisms in Long-Term Memory. Diciembre 2016, Ciudad de Panamá.

HONORES Y PREMIOS

- 2024 Miembro del Sistema Nacional de Investigación (SNI), SENACYT-PANAMA, Categoría I, 2024-2027.
- 2021 Miembro del Sistema Nacional de Investigación (SNI), SENACYT-PANAMA, Categoría I, 2021-2024.
- 2014 Beca Puerto Rico-INBRE para estudiantes Doctorales, 2011-2014.
- 2012 Premio fondos para viaje, Decanato de Ciencias Naturales, Universidad de Puerto Rico.
- 2012 Beca de Honor y Mérito para estudiantes Doctorales, Decanato de Estudios Graduados e Investigación, Universidad de Puerto Rico.
- 2009 Beca fondos para viaje, Decanato de Estudios Graduados e Investigación, Universidad de Puerto Rico.

- 2008 Beca fondos para viaje, Programa Graduado, Departamento of Biología Universidad de Puerto Rico.
- 2008 Beca para Estudiantes Doctorales, Decanato de la Facultad de Ciencias Naturales, Universidad de Puerto Rico.
- 2007 Beca Doctoral, Decanato de Ciencias Naturales, Universidad de Puerto Rico.

CURSOS DE ACTUALIZACION Y PERFECCIONAMIENTO Y CONGRESOS ASISTIDOS

- 2024 Seminario-Taller de Proteómica Aplicado a las Ciencias Biomédicas. Facultad de Medicina, Universidad de Panamá, 80 horas.
- 2024 Seminario-Taller de Fotoquímica y Fotobiología Aplicada. Facultad de Ciencias Naturales, Exactas y Tecnología, Universidad de Panamá, 40 horas.
- 2023 Seminario taller de CANVA titulado: “ELABORACIÓN DE MATERIALES DIDÁCTICOS EN CANVA” , Universidad de Panamá, 24-28 de abril, 2023.
Taller en: “Challenges in Basic and Translational Cancer Research” . Taller Internacional financiado por SENACYT y organizado por INDICASAT. 40 horas, Enero, 2023.
- 2022 Asistente al Congreso IESTEC-UTP, Octubre, 2022.
- 2022 Seminario-Taller: Introducción a las Ciencias Ómicas, Departamento de Genética y Biología Molecular, Universidad de Panamá, agosto, 2022.
- 2021 Virtual-Regional Training Course on Scaffolds, Irradiated tissue and biomaterial. International Atomic Energy Agency. 15-19 noviembre 2021. 40 horas.
- 2021 Congreso Expo Bioterios Virtual. 40 horas.
- 2021 Curso de capacitación en experimentación con animales de laboratorio para trabajar en el bioterio de INDICASAT. INDICASAT, 40 HORAS
- 2021 Curso para uso del programa R para análisis moleculares y estadísticos. Departamento de Genética y Biología Molecular, Universidad de Panamá. Pendiente entrega del certificado. 40 horas.
- 2021 Taller de Escritura y Preparación de Proyectos. SENACYT. 40 horas.
- 2021 Curso Principios Básicos de Ética de la Investigación con animales. Comité de Ética de la Investigación y el Bienestar de los Animales, Universidad de Panamá (CEIBAUP). 40 horas.
- 2021 Taller de elaboración de propuestas de investigación científica. SENACYT. 40 horas.
- 2020 Seminario taller de actualización en Análisis de Secuencias de ADN y Proteínas. Departamento de Genética y Biología Molecular, Universidad de Panamá. 40 horas.
- 2020 Uso de la Plataforma UPVirtual (Moodle) Nivel Básico, Universidad de Panamá. Panamá, 27 de julio al 22 de agosto. 40 horas.
- 2020 Primera Jornada Científica en Línea: El SARS-Cov2, su Impacto y Desafíos. Instituto Conmemorativo Gorgas de Estudios de la Salud. 17 -al 19 de agosto. 6 horas.
- 2020 Curso de Buenas Prácticas Clínicas Online. Instituto Nacional de Abuso de Drogas de Estados Unidos. 15 de agosto. 6 horas.
- 2020 Seminario de Actualización en Citometría de Flujo y Clasificación Celular con Énfasis en Investigación, Facultad de Medicina-UP, Panamá. 20 de julio – 3 de septiembre, 40 horas.
- 2020 Congreso Internacional de Medicina Legal y Ciencias Forenses. Instituto de Medicina Legal y Ciencias Forenses, Ministerio Público, Panamá. 1-3 de octubre de. 40 horas.
- 2020 Seedings Neuroscience Workshop IBRO-LARC 2020: Translating Research and Drug Discovery or Neurodegeneration: Challenges for Latinoamerica” . INDICASAT-AIP. 27-29 de enero. 40 horas.
- 2019 I Curso Internacional NeuroSur-CYTED: Nuevas rutas de Señalización en Neurodegeneración” . INDICASAT-AIP, Panamá. 40 horas.