

Resume

A GENERAL INFORMATION					
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5. Sex: <input checked="" type="checkbox"/> Male <input type="checkbox"/> Female		6. Phone: + 507-383-5808			
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B EDUCATION					
	Degree	University/Institution	Country	Date	
1	Master in Project Management	OBS Business School/Universitat de Barcelona	Spain	06/05/2024	
2	Ph.D. in Biotechnology	Acharya Nagarjuna University/INDICASAT-AIP	India/Panama	30/06/2017	
3	Bachelor in Biotechnology	Universidad San Martín	Panama	06/02/2010	
C ACADEMIC HONORS AND AWARDS					
	Honor/Award	Institution	Country	Reason	Date
1	Professor and mentor in the Ph.D. Program of Biosciences And Biotechnology	UTP	Panama	Academic merit	07/2024
2	Single Cell Genomics Course And Single Cell LATAM Symposium: Connecting Communities and Advancing Research. Travel Award.	Wellcome Connecting Science (Wellcome Trust)	United Kingdom	Academic merit	05/2024
3	Global Centres for Climate/ Environment and Health/ Pandemic Prevention (GLAC IER) annual meeting. Travel Award	The German Academic Exchange Service (DAAD)	Germany	Academic merit and Scientific career	10/2022
4	National Researcher II	Sistema Nacional de Investigación	Panama	Scientific career	24/02/2022
5	Innovators Under 35 LATAM	MIT Technology Review	USA	Award in the visionary cate implementation of bioinformatics strategies in the search for drugs and vaccines against pathogens	30/01/2020
6	National Researcher I	Sistema Nacional de Investigación	Panama	Scientific career	20/08/2018
7	INDICASAT Foundation Day Award	INDICASAT-AIP	Panama	Scientific paper published in PLOS One	10/2013
8	A-Star Award	INDICASAT-AIP	Panama	Laboratory Technician Assistant with the Best Performance in 2010	12/2010
9	iGEM Bronze Medal	MIT	USA	Participation in iGEM 2010, designing biobricks for the production of rhamnolipids for bioremediation	11/2010

10	Summa cum laude	Universidad San Martín	Panama	First place in studies Undergraduate studies	06/02/2010
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D	LANGUAGES				
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	Language	Reading	Writing	Listening/ Speaking
1	Spanish	Native	Native	Native
2	English	Excellent	Excellent	Fluent
3	Portuguese	Good	Regular	Regular

E	SCIENTIFIC PRODUCTION				
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	Research Product	Type	DOI/URL	Authorship
1	Baseline gene expression in BALB/c and C57BL/6 peritoneal macrophages influences but does not dictate their functional phenotypes	Article	https://www.ebm-journal.org/journals/experimental-biology-medicine/articles/10.3389/ebm.2024.10377/full	First author
2	Advances in <i>Leishmania</i> Vaccines: Current Development and Future Prospects	Article	https://doi.org/10.3390/pathogens13090812	Corresponding author
3	Comparative Transcriptional Profiling of BALB/c and C57BL/6 Mice Using Single-Cell RNA Sequencing	Poster	Single Cell LATAM Symposium: Connecting Communities and Advancing Research (2024)	Speaker
4	Genómica de <i>Leishmania panamensis</i> : aplicaciones en epidemiología molecular y biotecnología	Seminar	Seminarios de The American Society for Microbiology	Speaker
5	Estudios Postgenómicos en <i>Leishmania panamensis</i>	Seminar	INDICASAT-AIP institutional seminars	Speaker
6	VARIACIONES GENÓMICAS Y PERFILES DE ARN MENSAJERO (ARNM) EN CEPAS DE LEISHMANIA PANAMENSIS CON RESISTENCIA A ANTIMONIO INDUCIDA EN EL LABORATORIO	Oral Communication	XIX Congreso Nacional de Ciencia y Tecnología APANAC 2023	Speaker/First Author
7	CAMBIOS EN LA EXPRESIÓN EN MACRÓFAGOS DERIVADOS DE CEPAS DE RATÓN SUSCEPTIBLES Y RESISTENTES A LA INFECCIÓN POR LEISHMANIA PANAMENSIS	Oral Communication	XIX Congreso Nacional de Ciencia y Tecnología APANAC 2023	First Author
8	DIVERSIDAD GENÓMICA Y VARIACIONES GENÉTICAS DE LEISHMANIA PANAMENSIS EN PANAMÁ Y COLOMBIA	Oral Communication	XIX Congreso Nacional de Ciencia y Tecnología APANAC 2023	Corresponding author
9	DISEÑO Y EVALUACIÓN DE CANDIDATOS VACUNALES PEPTÍDICOS A PARTIR DEL GENOMA DE LEISHMANIA PANAMENSIS	Poster	XIX Congreso Nacional de Ciencia y Tecnología APANAC 2023	Corresponding author
10	METODOLOGÍA DE ALTO FLUJO PARA LA	Poster	XIX Congreso Nacional de Ciencia y Tecnología APANAC 2023	Corresponding author

	EVALUACIÓN DE COMPUESTOS CON POTENCIAL ACTIVIDAD ANTI-LEISHMANIA			
11	Development of <i>Leishmania</i> Species Strains with Constitutive Expression of eGFP	Article	https://dx.doi.org/10.3791/64939-v	Corresponding author
12	Comparison of Cost and Potency of Mesenchymal Stromal Cell Conditioned Medium from 2- and 3-Dimensional Cultures	Article	doi: 10.3390/bioengineering10080930	Co-author
13	Post-genomic studies in <i>Leishmania panamensis</i>	Conference	GLACIER ONE HEALTH Symposium	Speaker
14	Building Programs to Eradicate Toxoplasmosis Part IV: Understanding and Development of Public Health Strategies and Advances Take a Village	Article	https://link.springer.com/article/10.1007/s40124-022-00268	Co-author
15	Building Programs to Eradicate Toxoplasmosis Part III: Epidemiology and Risk Factors	Article	https://link.springer.com/article/10.1007/s40124-022-00265	Co-author
16	Building Programs to Eradicate Toxoplasmosis Part II: Education	Article	https://link.springer.com/article/10.1007/s40124-022-00267	Co-author
17	Building Programs to Eradicate Toxoplasmosis Part I: Introduction and Overview	Article	https://link.springer.com/article/10.1007/s40124-022-00269	Co-author
18	Genomic diversity and genetic variation of <i>Leishmania panamensis</i> within its endemic range	Article	https://doi.org/10.1016/j.meegid.2022.105342	Corresponding author
19	GENOMIC VARIATIONS IN A LABORATORY-INDUCED ANTIMONY-RESISTANT STRAIN OF LEISHMANIA PANAMENSIS	Poster	World-Leish 7	Speaker/First Author
20	GENE EXPRESSION CHANGES IN MACROPHAGES DERIVED FROM MOUSE STRAINS SUSCEPTIBLE AND RESISTANT TO LEISHMANIA PANAMENSIS INFECTION	Poster	World-Leish 7	Speaker/First Author
21	GENOME-WIDE IDENTIFICATION OF T-CELL EPITOPES FOR VACCINE DESIGN AGAINST LEISHMANIA (VIANNIA) SPECIES	Poster	World-Leish 7	Co-author
22	Epidemiological Aspects of Maternal and Congenital Toxoplasmosis in Panama	Article	https://doi.org/10.3390/pathogens10060764	Co-author
23	Diseño de Vacunas	Conference	Curso de Medicamentos Biotecnológicos	Speaker

24	HLA allele and haplotype frequencies in the Panamanian population	Article	https://doi.org/10.1016/j.humimm.2020.11.006	Co-author
25	Performance of a point of care test for detecting IgM and IgG antibodies against SARS-CoV-2 and preliminary seroprevalence in community and healthcare workers of Panama	Article	https://doi.org/10.3389/fmed.2021.616106	Co-author
26	Gene expression patterns associated with <i>Leishmania panamensis</i> infection in macrophages from BALB/c and C57BL/6 mice	Article	https://doi.org/10.1371/journal.pntd.0009225	First author
27	Antileishmanial activity of a new chloroquine analog in an animal model of <i>Leishmania panamensis</i> infection	Article	https://doi.org/10.1016/j.ijpddr.2020.08.002	Co-author
28	GENOMAS DE BETACORONA COMO A INFORMAÇÃO GENÉTICA TEM SIDO UTILIZADA PARA ENFRENTAR BROTES PASSADOS E A ATUAL PANDEMIA DE COVID 19	Conference	"CCTS/UEPB 10 ANOS DE SUPERAÇÃO E TRANSFORMAÇÃO EDUCACIONAL" em comemoração do Décimo aniversário de fundação do Centro de Ciências, Tecnologia e Saúde da Universidade Estadual da Paraíba	Speaker
29	Frequency of <i>Toxoplasma gondii</i> and Risk Factors Associated with the Infection in Stray Dogs and Cats of Panama	Article	https://doi.org/10.3390/microorganisms8060927	First author
30	Betacoronavirus Genomes: How Genomic Information has been Used to Deal with Past Outbreaks and the COVID-19 Pandemic	Article	https://doi.org/10.3390/ijms21124546	Second author
31	Complete Genome Sequence of a Virulent <i>Leptospira interrogans</i> Serovar Copenhageni Strain, Assembled with a Combination of Nanopore and Illumina Reads.	Article	https://doi.org/10.1128/MRA.00200-20	Co-author
32	Detection and Characterization of <i>Leptospira</i> Infection and Exposure in Rats on the Caribbean Island of Saint Kitts.	Article	https://doi.org/10.3390/ani10020350	Co-author
33	Environmental Conditions May Shape the Patterns of Genomic Variations in <i>Leishmania panamensis</i>	Article	https://doi.org/10.3390/genes10110838	First author
34	Desarrollo de un panel de Microsatellites para estudios de Genética poblacional en <i>Leishmania panamensis</i>	Conference	VII Congreso de Estudiantes de Biotecnología de la Universidad Latina de Panamá	Speaker
35	DESARROLLO DE UNA CEPA DE LEISHMANIA PANAMENSIS CON EXPRESIÓN ESTABLE DE EGFP	Poster	XVII Congreso Nacional de Ciencia y Tecnología APANAC 2018	Speaker/First author
36	VianniaTopes: a database of predicted immunogenic peptides	Article	https://doi.org/10.1093/database/bay111	Second author

	for <i>Leishmania (Viannia)</i> species			
37	Genomic Variability among Field Isolates and Laboratory-Adapted Strains of <i>Leptospira borgpetersenii</i> Serovar Hardjo	Article	https://doi.org/10.1155/2018/2137036	Second author
38	Use of AFLP for the study of eukaryotic pathogens affecting humans	Article	https://doi.org/10.1016/j.meegid.2017.09.017	First author
39	DISCOVERY AND DEVELOPMENT OF POLYMORPHIC MICROSATELLITES FROM LEISHMANIA PANAMENSIS USING NEXT GENERATION SEQUENCING, AND PRELIMINARY POPULATION GENETICS ANALYSIS OF FIELD ISOLATES CIRCULATING IN CENTRAL PANAMA.	Poster	6th World Congress on Leishmaniasis	Speaker/First author
40	Estudios Filogenómicos para Esclarecer la Historia Evolutiva Del Serovar Hardjo de <i>Leptospira interrogans</i>	Poster	XVI Congreso Nacional de Ciencia y Tecnología APANAC 2016	Co-author
41	Whole Genome Sequencing Allows Better Understanding of the Evolutionary History of <i>Leptospira interrogans</i> Serovar Hardjo	Article	https://doi.org/10.1371/journal.pone.0159387	Second author
42	Bioinformática	Conference	1er Simposio de la Carrera de Licenciatura en Sistemas y Programación de UMECIT	Speaker
43	Genome-wide discovery and development of polymorphic microsatellites from <i>Leishmania panamensis</i> parasites circulating in central Panama	Article	https://doi.org/10.1186/s13071-015-1153-2	First author
44	The genome of <i>Leishmania panamensis</i> : insights into genomics of the <i>L. (Viannia)</i> subgenus	Article	https://doi.org/10.1038/srep08550	Second author
45	Nuevo Panel de Microsatélites Revela un Sistema Mixto de Reproducción Clonal y Sexual en <i>Leishmania panamensis</i>	Poster	XV Congreso Nacional de Ciencia y Tecnología APANAC 2014	Speaker/First Author
46	Estudios de Variabilidad Genética De <i>Leishmania panamensis</i> Utilizando Marcadores Moleculares del Tipo AFLP	Poster	II Congreso de Estudiantes de Biotecnología de la Universidad Latina de Panamá	Speaker/First Author
47	A Pseudopterane Diterpene Isolated From the Octocoral <i>Pseudopterogorgia acerosa</i> Inhibits the Inflammatory Response Mediated by TLR-Ligands and TNF-Alpha in Macrophages	Article	https://doi.org/10.1371/journal.pone.0084107	Co-author
48	AFLP Polymorphisms Allow High Resolution Genetic Analysis	Article	https://doi.org/10.1371/journal.pone.0073177	First author

	of American Tegumentary Leishmaniasis Agents Circulating in Panama and Other Members of the <i>Leishmania</i> Genus			
49	Heterogeneidad Genética entre Aislados de <i>Leishmania panamensis</i> circulantes en Panamá Determinada por Marcadores AFLP	Poster	XIV Congreso Nacional de Ciencia y Tecnología APANAC 2012	Speaker/First Author
50	Genetic Heterogeneity between <i>Leishmania panamensis</i> isolates circulating in Panama Determined by AFLP markers	Poster	Annual Congress of the American Society for Biochemistry and Molecular Biology	Speaker/First Author
51	DNA Repair Mechanisms as Drug Targets in Prokaryotes	Article	https://d1wqtxs1xzle7.cloudfront.net/52990481/DNA_Repair_Mechanisms_as_Drug_Targets_in20170504-8160-11jxtq.pdf?1493930127=&response-content-disposition=inline%3B+filename%3DDNA_Repair_Mechanisms_as_Drug_Targets_in.pdf&Expires=1630362961&Signature=WNqqlHV	First author
52	Amplified fragment length polymorphisms reveal high intraspecific variability in field isolates of <i>Leishmania panamensis</i>	Article	https://www.indianjournals.com/ijor.aspx?target=ijor:ctbp&volume=5&issue=2&article=012	First author

F EXPERIENCE IN RESEARCH

	Project	Year	Funding (source, amount)	Human Resources formed (estudents, other)
1	CRISPR-cas9 in <i>Leishmania panamensis</i> For drug target identification	2022-present	INDICASAT-AIP, B/.50,000.00	2 undergraduate And 1 PhD students
2	Design and evaluation of peptide antigens for vaccine development derived from the genoma of <i>Leishmania panamensis</i>	2021-2024	SENACYT, B/.60,000.00	1 undergraduate And 1 PhD students
3	Development of a <i>Leishmania panamensis</i> strain with estable expresión of eGFP for its application in vitro and in vivo drug screening assays	2016-2018	SENACYT, B/.20,000.00	2 undergraduate students
4	Study of the genetic determinants of drug resistance in circulating <i>Leishmania panamensis</i> parasites in Panama	2015-2019	SENACYT, B/.65,000.00	1 undergraduate And 1 master students

G TEACHING EXPERIENCE

	Institution	Period	Area	Subject	Academic Level
	Universidad Tecnológica de Panamá (UTP)	July 2024 - present	Biotechnology	Modern and Advance Biotechnology	Ph.D.
1	Universidad de Panamá	April 2023	Parasitology	Seminar II	Master
2	Universidad de Panamá	January-February 2021	Biotechnology and Bioinformatics	Molecular Biology Techniques	Ph.D.
3	Universidad de Panamá	March 2015- January 2016	Medicine	Molecular and Cell Biology I and II	Bachelor
4	Universidad de Panamá	August-October 2015	Bioinformatics	Sequence Analysis and Molecular Evolution	Postgraduate

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PROFESSIONAL EXPERIENCE					
Institution/Enterprise		From (dd/mm/yyyy) to (dd/mm/yyyy)	Position		Area
1	INDICASAT-AIP	16/11/2017 - present	Investigator		Molecular and Cell Biology of Diseases
2	INDICASAT-AIP	16/11/2017 - 16/11/2020	Post-doc		Molecular and Cell Biology of Diseases
3	INDICASAT-AIP	01/06/2010 - 15/04/2011	Research assistant		Molecular and Cell Biology of Diseases
I					
REFERENCES					
N°	Name	Institution	Phone number	E-mail	Position
1	Ricardo Leonart	INDICASAT-AIP	6676-8828	rleonart@indicasat.org.pa	Group Leader
2	Patricia Llanes	INDICASAT-AIP	6151-5447	pllanes@indicasat.org.pa	Group Leader
3	Nidia Sandoval	INDICASAT-AIP	6493-6094	nidia.sandoval@up.ac.pa	Professor