



## MARCO ANTONIO JOSE VALENZUELA

### Datos Generales

**Nombre:** MARCO ANTONIO JOSE VALENZUELA

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 34 años

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### Nombramientos

**Vigente:** INVESTIGADOR TITULAR C TC Definitivo  
Instituto de Investigaciones Biomédicas  
Desde 16-01-2016

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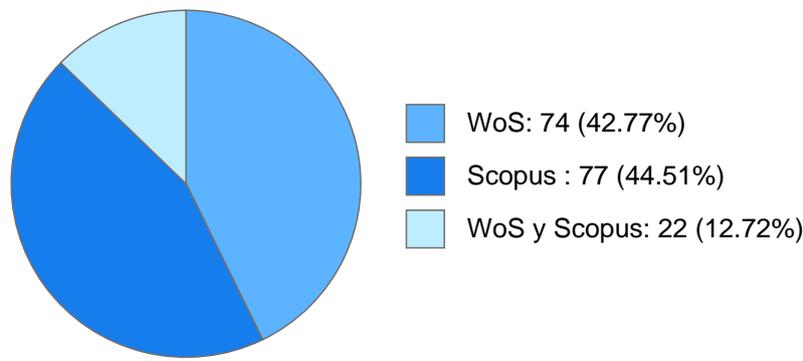
### Estímulos, programas, premios y reconocimientos

SNI III 2024  
SNI II 2020 - 2023  
SNI II 2015 - 2018  
SNI I 2012 - 2014  
SNI II 2009 - 2011  
PRIDE C 2014 - 2024  
PRIDE Fijo 2014  
PRIDE C 2014  
PRIDE Fijo 2014  
PRIDE C 2012 - 2013  
PRIDE Fijo 2012  
PRIDE C 2012  
PRIDE Fijo 2011 - 2012  
PRIDE D - 2011

**MARCO ANTONIO JOSE VALENZUELA**

**DOCUMENTOS EN REVISTAS**

**Histórico de Documentos**



#	Título	Autores	Revista	Año
1	Fragile X mental retardation protein modulates translation of proteins with predicted tendencies for liquid-liquid phase separation	MARCO ANTONIO JOSE VALENZUELA Jurado O. Frixione E.	Biosystems	2025
2	A Proposal for the RNAome at the Dawn of the Last Universal Common Ancestor	MARCO ANTONIO JOSE VALENZUELA Palacios-Pérez M.	GENES	2024
3	From RNA to DNA: Emergence of reverse transcriptases from an ancestral RNA-dependent RNA polymerase	MARCO ANTONIO JOSE VALENZUELA Farias S.T.D. Nunes-Alves A.K.	Biosystems	2024
4	Evolutionary origin of B family DNA-dependent DNA polymerases from retrotranscriptases	MARCO ANTONIO JOSE VALENZUELA Farias S.T.D. Furtado A.N.M. et al.	Biosystems	2023
5	Decoding viruses: An alternative perspective on their history, origins and role in nature	MARCO ANTONIO JOSE VALENZUELA Prosdocimi F. Cortines J.R. et al.	Biosystems	2023
6	Symmetrical distributions of aminoacyl-tRNA synthetases during the evolution of the genetic code	MARCO ANTONIO JOSE VALENZUELA JUAN ROMAN BOBADILLA RODRIGUEZ Gabriel S. Zamudio et al.	THEORY IN BIOSCIENCES	2023
7	Groups of Symmetries of the Two Classes of Synthetases in the Four-Dimensional Hypercubes of the Extended Code Type II	MARCO ANTONIO JOSE VALENZUELA JUAN ROMAN BOBADILLA RODRIGUEZ Eberto R. Morgado	LIFE-BASEL	2023

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8	A Proposal of the Ur-RNAome	MARCO ANTONIO JOSE VALENZUELA Palacios-Pérez M.	GENES	2023
9	The Spike Protein of SARS-CoV-2 Is Adapting Because of Selective Pressures	GERARDO RUBEN LOPEZ HERNANDEZ MARCO ANTONIO JOSE VALENZUELA López-Cortés G.I. et al.	Vaccines	2022
10	The Theory of Chemical Symbiosis: A Margulian View for the Emergence of Biological Systems (Origin of Life)	MARCO ANTONIO JOSE VALENZUELA Prosdocimi F. de Farias S.T.	ACTA BIOTHEORETICA	2021
11	Novel gene signatures for stage classification of the squamous cell carcinoma of the lung	MIGUEL ANGEL JUAREZ FLORES MARCO ANTONIO JOSE VALENZUELA Zamudio G.S.	SCIENTIFIC REPORTS	2021
12	Is it possible that cells have had more than one origin?	MARCO ANTONIO JOSE VALENZUELA Savio Torres de Farias Francisco Prosdocimi	Biosystems	2021
13	Origin of the 16S Ribosomal Molecule from Ancestor tRNAs	MARCO ANTONIO JOSE VALENZUELA Savio Torres de Farias Thais Gaudencio Rego	JOURNAL OF MOLECULAR EVOLUTION	2021
14	From RNA to DNA: Insights about the transition of informational molecule in the biological systems based on the structural proximity between the polymerases	MARCO ANTONIO JOSE VALENZUELA Pereira dos Santos Junior A. Torres de Farias S.	Biosystems	2021
15	Neutral evolution test of the spike protein of SARS-CoV-2 and its implications in the binding to ACE2	ENRIQUE ORTEGA SOTO MARCO ANTONIO JOSE VALENZUELA López-Cortés G.I. et al.	SCIENTIFIC REPORTS	2021
16	The Ancient History of Peptidyl Transferase Center Formation as Told by Conservation and Information Analyses	MARCO ANTONIO JOSE VALENZUELA Francisco Prosdocimi Gabriel S. Zamudio et al.	LIFE-BASEL	2020
17	Anticipation of ventricular tachyarrhythmias by a novel mathematical method: Further insights towards an early warning system in implantable cardioverter defibrillators	MANLIO FABIO MARQUEZ MURILLO MARCO ANTONIO JOSE VALENZUELA Zamudio G.S.	PLOS ONE	2020
18	Information theory unveils the evolution of tRNA identity elements in the three domains of life	MARCO ANTONIO JOSE VALENZUELA Zamudio G.S. Palacios-Pérez M.	THEORY IN BIOSCIENCES	2020
19	Transfer RNA: The molecular demiurge in the origin of biological systems	MARCO ANTONIO JOSE VALENZUELA Savio Torres de Farias	PROGRESS IN BIOPHYSICS & MOLECULAR BIOLOGY	2020

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20	On the Importance of Asymmetry in the Phenotypic Expression of the Genetic Code upon the Molecular Evolution of Proteins	MARCO ANTONIO JOSE VALENZUELA Gabriel S. Zamudio	Symmetry-Basel	2020
21	How to eliminate taeniasis/cysticercosis: porcine vaccination and human chemotherapy (Part 2)	NORMA YANET SANCHEZ TORRES JUAN ROMAN BOBADILLA RODRIGUEZ JUAN PEDRO LACLETTE SAN ROMAN et al.	THEORETICAL BIOLOGY AND MEDICAL MODELLING	2019
22	A neutral evolution test derived from a theoretical amino acid substitution model	MARCO ANTONIO JOSE VALENZUELA Zamudio G.S. Prosdociami F. et al.	JOURNAL OF THEORETICAL BIOLOGY	2019
23	Structural evolution of Glycyl-tRNA synthetases alpha subunit and its implication in the initial organization of the decoding system	MARCO ANTONIO JOSE VALENZUELA de Farias S.T. Antonino D. et al.	PROGRESS IN BIOPHYSICS & MOLECULAR BIOLOGY	2019
24	The evolution of proteome: From the primeval to the very dawn of LUCA	MARCO ANTONIO JOSE VALENZUELA Palacios-Pérez M.	Biosystems	2019
25	Squamous cell carcinoma of the lung: gene expression and network analysis during carcinogenesis	MARCO ANTONIO JOSE VALENZUELA Angel Juarez-Flores	INTERNATIONAL JOURNAL OF CLINICAL AND EXPERIMENTAL MEDICINE	2019
26	Identity Elements of tRNA as Derived from Information Analysis	MARCO ANTONIO JOSE VALENZUELA Zamudio, G.S.	ORIGINS OF LIFE AND EVOLUTION OF BIOSPHERES	2018
27	Phenotypic Graphs and Evolution Unfold the Standard Genetic Code as the Optimal	MARCO ANTONIO JOSE VALENZUELA Zamudio, G.S.	ORIGINS OF LIFE AND EVOLUTION OF BIOSPHERES	2018
28	Multivariate entropy characterizes the gene expression and protein-protein networks in four types of cancer	MARCO ANTONIO JOSE VALENZUELA Angel Juarez-Flores	ENTROPY	2018
29	Symmetrical properties of graph representations of genetic codes: From genotype to phenotype	MARCO ANTONIO JOSE VALENZUELA Zamudio G.S.	Symmetry-Basel	2018
30	A Proposal of the Ur-proteome	FERNANDO ABRAHAM ANDRADE DIAZ MARCO ANTONIO JOSE VALENZUELA Miryam Palacios-Perez	ORIGINS OF LIFE AND EVOLUTION OF BIOSPHERES	2018
31	Mathematical model of the life cycle of taenia-cysticercosis: transmission dynamics and chemotherapy (Part 1)	MARCO ANTONIO JOSE VALENZUELA JUAN ROMAN BOBADILLA RODRIGUEZ NORMA YANET SANCHEZ TORRES et al.	THEORETICAL BIOLOGY AND MEDICAL MODELLING	2018
32	On the Uniqueness of the Standard Genetic Code	MARCO ANTONIO JOSE VALENZUELA Zamudio, G.S.	LIFE-BASEL	2017

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33	Effects of Orthostatism and Hemodialysis on Mean Heart Period and Fractal Heart Rate Properties of Chronic Renal Failure Patients	MARCO ANTONIO JOSE VALENZUELA Echeverría, J.C. Infante, O. et al.	ARTIFICIAL ORGANS	2017
34	A unified model of the standard genetic code	MARCO ANTONIO JOSE VALENZUELA Zamudio, Gabriel S. Morgado, Eberto R.	Royal Society Open Science	2017
35	Peptidyl Transferase Center and the Emergence of the Translation System	MARCO ANTONIO JOSE VALENZUELA de Farias, S.T. Rêgo, T.G.	LIFE-BASEL	2017
36	Origin and Evolution of RNA-Dependent RNA Polymerase	MARCO ANTONIO JOSE VALENZUELA de Farias, Savio T. Junior, Ariosvaldo P. dos Santos et al.	Frontiers in Genetics	2017
37	A proposal of the proteome before the last universal common ancestor (LUCA)	MARCO ANTONIO JOSE VALENZUELA de Farias, Savio Torres Rego, Thais Gaudencio	INTERNATIONAL JOURNAL OF ASTROBIOLOGY	2016
38	Genomic signatures in viral sequences by in-frame and out-frame mutual information	Victor Serrano Solis ADONIS GERMINAL COCHO GIL MARCO ANTONIO JOSE VALENZUELA	JOURNAL OF THEORETICAL BIOLOGY	2016
39	tRNA core hypothesis for the transition from the RNA world to the ribonucleoprotein world	MARCO ANTONIO JOSE VALENZUELA de Farias S.T. Rêgo T.G.	LIFE-BASEL	2016
40	Preserved autonomic heart rate modulation in chronic renal failure patients in response to hemodialysis and orthostatism	GERTRUDIS HORTENSIA GONZALEZ GOMEZ MARCO ANTONIO JOSE VALENZUELA Lerma, Claudia et al.	CLINICAL AND EXPERIMENTAL NEPHROLOGY	2015
41	Symmetrical and Thermodynamic Properties of Phenotypic Graphs of Amino Acids Encoded by the Primeval RNY Code	MARCO ANTONIO JOSE VALENZUELA Gabriel S. Zamudio Miryam PalaciosPerez et al.	ORIGINS OF LIFE AND EVOLUTION OF BIOSPHERES	2015
42	Origin and evolution of the Peptidyl Transferase Center from proto-tRNAs	MARCO ANTONIO JOSE VALENZUELA Farias, Savio T. Rego, Thais G.	FEBS OPEN BIO	2014
43	Evolution of transfer RNA and the origin of the translation system	MARCO ANTONIO JOSE VALENZUELA de Farias S.T. do Rêgo T.G.	Frontiers in Genetics	2014
44	Three-dimensional algebraic models of the tRNA code and 12 graphs for representing the amino acids	MARCO ANTONIO JOSE VALENZUELA JUAN ROMAN BOBADILLA RODRIGUEZ Morgado E.R. et al.	LIFE-BASEL	2014
45	Nonlinear dynamics of heart rate variability in response to orthostatism and hemodialysis in chronic renal failure patients: Recurrence analysis approach	GERTRUDIS HORTENSIA GONZALEZ GOMEZ MARCO ANTONIO JOSE VALENZUELA Infante, Oscar et al.	MEDICAL ENGINEERING & PHYSICS	2013

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46	Human repetitive sequence densities are mostly negatively correlated with R/Y-based nucleosome-positioning motifs and positively correlated with W/S-based motifs	Daniela Sosa MARCO ANTONIO JOSE VALENZUELA Li, Wentian	Genomics	2013
47	Periodic distribution of a putative nucleosome positioning motif in human, nonhuman primates, and archaea: Mutual information analysis	Daniela Sosa PEDRO EDUARDO MIRAMONTES VIDAL VICTOR MIRELES CHAVEZ et al.	INTERNATIONAL JOURNAL OF GENOMICS	2013
48	Flow of Information during an Evolutionary Process: The Case of Influenza A Viruses	Victor Serrano Solis MARCO ANTONIO JOSE VALENZUELA	ENTROPY	2013
49	Mutual information analysis reveals bigeminy patterns in Andersen-Tawil syndrome and in subjects with a history of sudden cardiac death	ELISA NUÑEZ ACOSTA MARCO ANTONIO JOSE VALENZUELA Lerma, Claudia et al.	PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS	2012
50	Genetic Hotels for the Standard Genetic Code: Evolutionary Analysis Based upon Novel Three-Dimensional Algebraic Models	MARCO ANTONIO JOSE VALENZUELA TZIPE SILVIA GOVEZENSKY ZACK Morgado, Eberto R.	BULLETIN OF MATHEMATICAL BIOLOGY	2011
51	Fractional Brownian motion in DNA sequences of bacterial chromosomes: a renormalization group approach	MARCO ANTONIO JOSE VALENZUELA TZIPE SILVIA GOVEZENSKY ZACK JUAN ROMAN BOBADILLA RODRIGUEZ	REVISTA MEXICANA DE FISICA	2010
52	On the evolution of the standard genetic code: Vestiges of critical scale invariance from the RNA world in current prokaryote genomes	MARCO ANTONIO JOSE VALENZUELA TZIPE SILVIA GOVEZENSKY ZACK Jose A. Garcia et al.	PLOS ONE	2009
53	The Genome Project of Taenia solium	JUAN ENRIQUE MORETT SANCHEZ ALEJANDRO ANGEL GARCIA RUBIO GRANADOS RAUL JOSE BOBES RUIZ et al.	INFECTION GENETICS AND EVOLUTION	2009
54	On the Evolution of the Standard Genetic Code: From the RNA World to Current Prokaryote Genomes	MARCO ANTONIO JOSE VALENZUELA TZIPE SILVIA GOVEZENSKY ZACK JUAN ROMAN BOBADILLA RODRIGUEZ	ORIGINS OF LIFE AND EVOLUTION OF BIOSPHERES	2009
55	The Genome Project of Taenia solium	ALEJANDRO ANGEL GARCIA RUBIO GRANADOS RAUL JOSE BOBES RUIZ JULIO CESAR CARRERO SANCHEZ et al.	INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES	2008
56	An extended RNA code and its relationship to the standard genetic code: An algebraic and geometrical approach	MARCO ANTONIO JOSE VALENZUELA TZIPE SILVIA GOVEZENSKY ZACK Morgado E.R.	BULLETIN OF MATHEMATICAL BIOLOGY	2007

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57	The genome project of Taenia solium	JOSE HUGO AGUILAR DIAZ RAUL JOSE BOBES RUIZ JULIO CESAR CARRERO SANCHEZ et al.	PARASITOLOGY INTERNATIONAL	2006
58	HIV-1 dynamics at different time scales under antiretroviral therapy	ADONIS GERMINAL COCHO GIL TZIPE SILVIA GOVEZENSKY ZACK MARCO ANTONIO JOSE VALENZUELA et al.	JOURNAL OF THEORETICAL BIOLOGY	2006
59	A lattice-based model of rotavirus epidemics	ALMA VIRGINIA LARA SAGAHON TZIPE SILVIA GOVEZENSKY ZACK RAFAEL ALBERTO MENDEZ SANCHEZ et al.	PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS	2006
60	Mathematical properties of DNA sequences from coding and noncoding regions	MARCO ANTONIO JOSE VALENZUELA García J.A.	REVISTA MEXICANA DE FISICA	2005
61	Statistical properties of DNA sequences revisited: The role of inverse bilateral symmetry in bacterial chromosomes	MARCO ANTONIO JOSE VALENZUELA TZIPE SILVIA GOVEZENSKY ZACK JUAN ROMAN BOBADILLA RODRIGUEZ	PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS	2005
62	A mathematical analysis for the cardiovascular control adaptations in chronic renal failure	MARCO ANTONIO JOSE VALENZUELA Lerma C. Minzoni A. et al.	ARTIFICIAL ORGANS	2004
63	Statistical analysis of the distribution of amino acids in Borrelia burgdorferi genome under different genetic codes	TZIPE SILVIA GOVEZENSKY ZACK JUAN ROMAN BOBADILLA RODRIGUEZ MARCO ANTONIO JOSE VALENZUELA et al.	PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS	2004
64	Three-base periodicity patterns and self-similarity in whole bacterial chromosomes	MARIA IMELDA LOPEZ VILLASEÑOR MARCO ANTONIO JOSE VALENZUELA Sánchez J.	BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS	2004
65	Rhythms found in human DNA	MARCO ANTONIO JOSE VALENZUELA	PHYSICS WORLD	2004
66	Poincaré plot indexes of heart rate variability capture dynamic adaptations after haemodialysis in chronic renal failure patients	MARCO ANTONIO JOSE VALENZUELA Lerma C. Infante O. et al.	CLIN PHYSIOL FUNCT I	2003
67	Positive cooperativity induces multimodal site and thermodynamic affinity distributions in multivalent proteins	MARCO ANTONIO JOSE VALENZUELA Del Mar Hernández M.	ANALYTICAL BIOCHEMISTRY	2003

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68	Scaling properties and symmetrical patterns in the epidemiology of rotavirus infection	MARCO ANTONIO JOSE VALENZUELA Bishop R.F.	PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES	2003
69	Analysis of bilateral inverse symmetry in whole bacterial chromosomes	MARCO ANTONIO JOSE VALENZUELA Sánchez J.	BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIO NS	2002
70	Inhibitory role of antibodies in the development of Taenia solium and Taenia crassiceps toward reproductive and pathogenic stages	GABRIELA GARCIA PEREZ EDDA LYDIA SCIUTTO CONDE GLADIS DEL CARMEN FRAGOSO GONZALEZ et al.	JOURNAL OF PARASITOLOGY	2001
71	Human tumor growth is inhibited by a vaccinia virus carrying the E2 gene of bovine papillomavirus	VIVIANA DEL CARMEN VALADEZ GRAHAM MARCO ANTONIO JOSE VALENZUELA ALEJANDRO MANUEL GARCIA CARRANCA et al.	CANCER	2000
72	Vaccination against Taenia solium cysticercosis in underfed rustic pigs of Mexico: Roles of age, genetic background and antibody response	EDDA LYDIA SCIUTTO CONDE ADA NELLY MARTINEZ VILLALOBOS RUTILIA MARISELA HERNANDEZ GONZALEZ et al.	VETERINARY PARASITOLOGY	2000
73	Treatment of trichuris infection with albendazole (multiple letters) [2]	MARCO ANTONIO JOSE VALENZUELA Savioli L. Beach M.J. et al.	Lancet	1999
74	Randomised trial of albendazole and pyrantel in symptomless trichuriasis in children	MARCO ANTONIO JOSE VALENZUELA Forrester J.E. Bailar III J.C. et al.	Lancet	1998
75	Probability distributions of thermodynamic affinities for heterogeneous receptor populations	MARCO ANTONIO JOSE VALENZUELA José J.V.	JOURNAL OF THEORETICAL BIOLOGY	1998
76	Limitations of current diagnostic procedures for the diagnosis of Taenia solium cysticercosis in rural pigs	EDDA LYDIA SCIUTTO CONDE JOSE JUAN MARTINEZ MAYA ADA NELLY MARTINEZ VILLALOBOS et al.	VETERINARY PARASITOLOGY	1998
77	Prevalence of infection, mean worm burden and degree of worm aggregation as determinants of prevalence of disease due to intestinal helminths	MARCO ANTONIO JOSE VALENZUELA AGUSTIN RUIZ CABRERA JUAN ROMAN BOBADILLA RODRIGUEZ	Archives Of Medical Research	1997

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78	The degree of age-aggregation of <i>Ascaris lumbricoides</i> in a community after a mass antihelminthic intervention [El grado de agregación de <i>Ascaris lumbricoides</i> según grupos de edad, después de una intervención antihelmíntica de masas]	AGUSTIN RUIZ CABRERA MARCO ANTONIO JOSE VALENZUELA Ocampo G. et al.	SALUD PUBLICA DE MEXICO	1996
79	Oscillatory fluctuations in the incidence of rotavirus infections by serotypes 1, 2, 3, and 4	MARCO ANTONIO JOSE VALENZUELA Bobadv J.R. Bishop R.F.	J DIARRHOEAL DIS RES	1996
80	Ligand binding systems at equilibrium: Specificity, heterogeneity, cross-reactivity, and site-site interactions	MARCO ANTONIO JOSE VALENZUELA	ANALYTICAL BIOCHEMISTRY	1985
81	Alternative interpretation of unusual scatchard plots: contribution of interactions and heterogeneity	MARCO ANTONIO JOSE VALENZUELA CARLOS LARRALDE RANGEL	MATHEMATICAL BIOSCIENCES	1982

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**LIBROS Y CAPITULOS CON ISBN**

**Obras con registro ISBN**

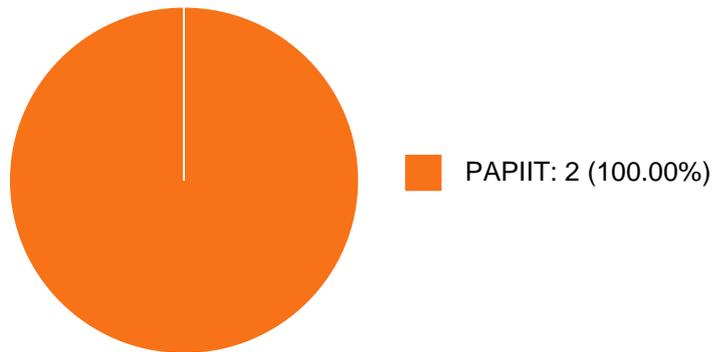


#	Título	Autores	Alcance	Año	ISBN
1	The First Universal Common Ancestor (FUCA) as the Earliest Ancestor of LUCA's (Last UCA) Lineage	MARCO ANTONIO JOSE VALENZUELA Francisco Prosdocimi Savio Torres de Farias et al.	Proceedings Paper	2019	9783030303631
2	Evolution of tRNAs was driven by entropic forces	MARCO ANTONIO JOSE VALENZUELA Zamudio, G.S. Jagus, R.	Capítulo de un Libro	2016	9783319394688
3	Evolution of the Protein Synthesis Machinery and Its Regulation	MARCO ANTONIO JOSE VALENZUELA	Capítulo de un Libro	2016	9783319394688
4	PROBABILITY DISTRIBUTIONS OF GC CONTENT REFLECT THE EVOLUTION OF PRIMATE SPECIES	MARCO ANTONIO JOSE VALENZUELA JUAN ROMAN BOBADILLA RODRIGUEZ Qi Lu et al.	Proceedings Paper	2014	9789814602211
5	Probability Distributions of GC Content Reflect the Evolution of Primate Species	JUAN ROMAN BOBADILLA RODRIGUEZ MARCO ANTONIO JOSE VALENZUELA	Capítulo de un Libro	2014	9789814602211

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**PARTICIPACIÓN EN PROYECTOS**

**Histórico de participación en proyectos**

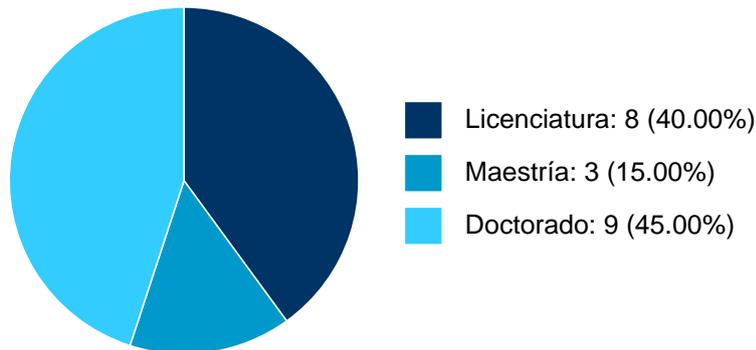


#	Nombre	Participantes	Fuente	Fecha inicio	Fecha fin
1	Evolución del código genético, de tRNAs, y proteomas.	MARCO ANTONIO JOSE VALENZUELA	Recursos PAPIIT	01-01-2019	31-12-2021
2	Escalamiento, simetrías y evolución a nivel molecular y poblacional	MARCO ANTONIO JOSE VALENZUELA	Recursos PAPIIT	01-01-2023	31-12-2025

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**PARTICIPACIÓN EN TESIS**

**Histórico de Colaboraciones en Tesis**



#	Título del documento	Tipo de Tesis	Sinodales	Autores	Entidad	Año
1	Alertas tempranas y redes en cáncer	Tesis de Doctorado	ALEJANDRO MANUEL GARCIA CARRANCA,	MARCO ANTONIO JOSE VALENZUELA, PEDRO EDUARDO MIRAMONTES VIDAL, et al.	Facultad de Ciencias, Instituto de Investigaciones Biomédicas,	2021
2	Modelo probabilístico de evolución de proteínas aunado a la evolución de los códigos del TRNA	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	Zamudio Solórzano, Gabriel,	Instituto de Investigaciones Biomédicas,	2021
3	Evolución del proteoma con base en la evolución del código genético, e incorporación evolutiva de moléculas de RNA	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	Palacios Pérez, Miryam,	Instituto de Investigaciones Biomédicas,	2021
4	Modelo matemático de la dinámica de transmisión de teniosis/cisticercosis y su aplicación para su control y eliminación	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	Sánchez Torres, Norma Yanet,	Instituto de Investigaciones Biomédicas,	2019

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5	Biofísica de la unión de ligandos a receptores	Tesis de Maestría	MARCO ANTONIO JOSE VALENZUELA,	Montes Isunza, Héctor Emilio,	Instituto de Investigaciones Biomédicas,	2019
6	Medidas de centralidad de las redes complejas en 14 tipos de cáncer	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Juárez Flores, Ángel,	Instituto de Investigaciones Biomédicas,	2016
7	Biofísica de la unión de ligandos a receptores : cambios conformacionales distintos de la albúmina ante la unión de diferentes ligandos	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Ramos Valezzi, Marcela Charlotte,	Instituto de Investigaciones Biomédicas,	2016
8	Modelo algebraico del código genético y su representación en gráficas fenotípicas	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Zamudio Solórzano, Gabriel,	Instituto de Investigaciones Biomédicas,	2015
9	Generación de arritmias ventriculares en el síndrome de Andersen-Tawil	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	Nuñez Acosta, Elisa,	Instituto de Investigaciones Biomédicas,	2014
10	Probable proteoma ancestral del mundo de las ribonucleoproteínas	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Palacios Pérez, Miryam,	Instituto de Investigaciones Biomédicas,	2014
11	Caracterización de diferentes patrones de información mutua entre virus de RNA y DNA	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	LUIS PADILLA NORIEGA, Serrano Solís, Víctor Manuel,	Instituto de Investigaciones Biomédicas,	2013
12	Evolución del virus de la inmunodeficiencia humana tipo 1 (HIV-1) a partir de una perspectiva de la teoría de las Cuasiespecies	Tesis de Maestría	MARCO ANTONIO JOSE VALENZUELA,	LUIS PADILLA NORIEGA, Lozada Chávez, Alejandro Nabor,	Instituto de Investigaciones Biomédicas,	2012
13	Identificación de RNA no codificante en el genoma de Taenia solium	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Garcés Flores, Homero,	Instituto de Investigaciones Biomédicas,	2012

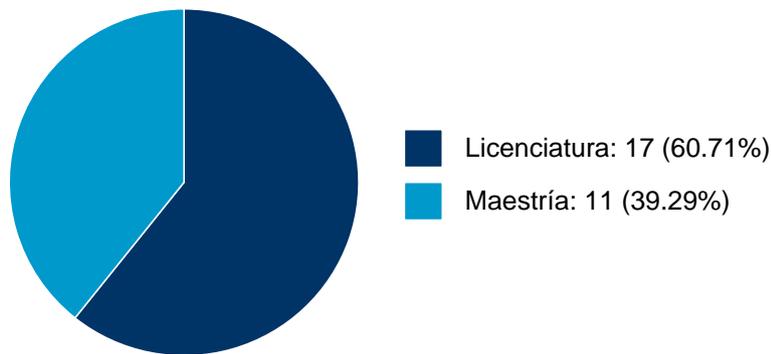
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14	Análisis de algoritmos para la predicción de estructura secundaria de RNA : el caso de la Taenia Solium	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Sánchez Cordero González Sergio Pablo,	Instituto de Investigaciones Biomédicas,	2008
15	Dinamica de la respuesta inmune ante una desnutricion hipoproteica en ratones infectados con Taenia crassiceps	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Higareda Hoyos, Maria Fernanda,		2005
16	Distribuciones de afinidad termodinamica y de sitio en la hemoglobina	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	Hernandez Gazquez, Maria del Mar,		2004
17	Analisis matematico de secuencias de aminoacidos provenientes de genomas bacterianos usando diferentes codigos geneticos	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	García Macías, José Antonio,		2004
18	Analisis de la dinamica no lineal de la variabilidad de la frecuencia cardiaca en pacientes con disfuncion autonómica	Tesis de Doctorado	MARCO ANTONIO JOSE VALENZUELA,	Lerma Gonzalez, Claudia,		2003
19	Simulacion en computadora de un modelo matematico para teniosis-cisticercosis bajo diferentes medidas de control	Tesis de Maestría	MARCO ANTONIO JOSE VALENZUELA,	Castillo Avendaño, Adrián Alfonso,		2000
20	Efecto de una desnutricion proteica en la respuesta inmune durante una infeccion murina de Taenia crassiceps	Tesis de Licenciatura	MARCO ANTONIO JOSE VALENZUELA,	Rivas Carvalho, Amaranta,		1999

**MARCO ANTONIO JOSE VALENZUELA**

**DOCENCIA IMPARTIDA**

**Histórico de docencia**



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	UNIDAD TEORICA 11	Facultad de Medicina	1	2024-2
2	Maestría	TEMAS SELECTOS MODELOS MATEMATICOS EN BIOLOGIA	Facultad de Ciencias	1	2020-2
3	Maestría	TRABAJO DE INVESTIGACIÓN III	Facultad de Química	1	2019-2
4	Maestría	TRABAJO DE INVESTIGACIÓN II	Facultad de Química	1	2019-1
5	Maestría	TRABAJO DE INVESTIGACION III	Facultad de Química	1	2018-1
6	Maestría	TRABAJO DE INVESTIGACIÓN II	Facultad de Química	1	2017-2
7	Maestría	CURSO III-313203	Facultad de Química	4	2017-1
8	Maestría	CURSO IV-313454	Facultad de Química	3	2017-1
9	Licenciatura	UNIDAD TEORICA 11	Facultad de Medicina	2	2015-2
10	Licenciatura	UNIDAD TEORICA 12	Facultad de Medicina	1	2014-2
11	Maestría	TRABAJO DE INVESTIGACION III	Facultad de Química	1	2014-1
12	Maestría	TRABAJO DE INVESTIGACION II	Facultad de Química	1	2013-2
13	Maestría	SEMINARIO DE INVESTIGACION III	Facultad de Química	1	2013-2
14	Maestría	CURSO III	Facultad de Química	1	2012-2
15	Licenciatura	TRABAJO DE INVESTIGACION 4	Facultad de Medicina	1	2011-2
16	Licenciatura	TRABAJO DE INVESTIGACION 3	Facultad de Medicina	1	2011-1
17	Licenciatura	TRABAJO DE INVESTIGACION 8	Facultad de Medicina	1	2010-2
18	Licenciatura	TRABAJO DE INVESTIGACION 7	Facultad de Medicina	1	2010-1
19	Licenciatura	UNIDAD TEORICA 8	Facultad de Medicina	1	2009-2
20	Licenciatura	TRABAJO DE INVESTIGACION 6	Facultad de Medicina	1	2009-2
21	Licenciatura	UNIDAD TEORICA 11	Facultad de Medicina	1	2009-2
22	Licenciatura	TRABAJO DE INVESTIGACION 8	Facultad de Medicina	1	2009-2



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**MARCO ANTONIO JOSE VALENZUELA**

23	Licenciatura	TRABAJO DE INVESTIGACION 8	Facultad de Medicina	1	2009-1
24	Licenciatura	TRABAJO DE INVESTIGACION 5	Facultad de Medicina	1	2009-1
25	Licenciatura	TRABAJO DE INVESTIGACION 7	Facultad de Medicina	1	2009-1
26	Licenciatura	TRABAJO DE INVESTIGACION 7	Facultad de Medicina	1	2008-2
27	Licenciatura	TRABAJO DE INVESTIGACION 6	Facultad de Medicina	1	2008-2
28	Licenciatura	TRABAJO DE INVESTIGACION 5	Facultad de Medicina	1	2008-1



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**Simplificación de la Gestión Institucional**  
**Reporte individual**



**MARCO ANTONIO JOSE VALENZUELA**

**PATENTES**

**No se encuentran registros en la base de datos de patentes asociados a:**

**MARCO ANTONIO JOSE VALENZUELA**

**MARCO ANTONIO JOSE VALENZUELA**

**FUENTES DE INFORMACIÓN**

**Internos**

#	Información	Fuente	Sistema	Periodo
1	Grupos ordinarios y resumen de historias académicas	DGAE	SIAE	2008-2025
2	Nombramientos, datos generales, estímulos, premios y reconocimientos	DGAPA	RUPA	2008-2025
3	Producción Académica	CH	Humanindex	2008-2021
4	Producción Académica	CIC	SCIC	2000-2017
5	Proyectos	DGPO	SISEPRO	2018-2022
6	Tesis	DGB	TESIUNAM	2008-2024
7	Tutorías en Posgrado	CGEP	SIIPosgrado	2008-2021

**Externos**

#	Información	Fuente	Sistema	Periodo
8	Documentos Indexados	Elsevier	Scopus	2008-2025
9	Documentos Indexados	Thomson Reuters	WoS	2008-2025
10	Obras con registro ISBN	INDAUTOR	Agencia ISBN	2008-2025
11	Patentes	IMPI	SIGA	2008-2024