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VALDIVIA SILVA JULIO ERNESTO

GRADO DE DOCTOR EN CIENCIAS BIOLÓGICAS

Calificado como Investigador RENACYT Código RENACYT : P0003244 | Vigencia: 01/10/2019 - 01/10/2022

Experiencia Laboral

- 2018 - 2020 **Director de Bioingeniería e Ingeniería Química** | Sector Público
Universidad de Ingeniería y Tecnología
Gestión de carreras y de lineamientos académicos en Pregrado, posgrado e investigación de las áreas prioritarias
- 2009 - 2018 **Seti - Associate Researcher** | Sector Público
Nasa Ames Research Center
Life Science Division (microgravity, stem cells, cancer, space medicine, synbio) Planetary Sciences & Astrobiology Division (extremophiles, Mars habitability, biomarkers)
- 2017 - 2018 **Coordinador de Bioingeniería** | Sector Privado
Universidad de Ingeniería y Tecnología
Gestión en investigación y proyectos en desarrollo en áreas de Biomedicina y Bioingeniería
- 2015 - 2017 **Investigador Asociado** | Sector Público
Unidad Ejecutora 002 - Inictel-Uni
Proyecto de investigación por el programa de repatriación de investigadores del FINCYT (microgravedad, cancer, biología espacial)
- 2012 - 2014 **Posdoctoral Associate** | Sector Público
Instituto de Investigaciones Biomedicas, Unam
Oncology-Immunology (breast cancer, metastasis, tumor microenvironment, chemokines)
- 2010 - 2012 **Posdoctoral Associate** | Sector Privado
Stanford University, School of Medicine
Cancer Stem Cell Lab (Space Biology, Syn-Biology, cancer Stem cells)
- 2003 - 2004 **Investigador Asociado** | Sector Público
Universidad Nacional San Agustín de Arequipa
Jefe de proyectos en Bioingeniería, Proyectos en Biología Vascular
- 2020 - Presente **Director del Centro de Investigación en Bioingeniería - Bio** | Sector Público
Universidad de Ingeniería y Tecnología
Gestión en investigación Desarrollo de proyectos de investigación

Experiencia Laboral como Docente

- 2017 - Presente **Docente** | Universidad
Universidad de Ingeniería y Tecnología
Ordinario-Principal
- 2017 - 2019 **Docente** | Universidad
Universidad Católica San Pablo
Extraordinario(emerito, honorario y similares)
- 2012 - 2014 **Docente** | Universidad

	<i>Universidad Nacional Autónoma de México (Unam)</i> Extraordinario(emerito, honorario y similares)
2009 - 2012	Docente Universidad <i>Stanford University</i> Extraordinario(emerito, honorario y similares)
2005 - 2009	Docente Universidad <i>Universidad Nacional Autonoma de Mexico</i> Extraordinario(emerito, honorario y similares)
1996 - 2003	Docente Universidad <i>Universidad Nacional San Agusntín de Arequipa</i> Extraordinario(emerito, honorario y similares)

Experiencia como Asesor de Tesis

Junio 2016	Licenciado / Título Unidad Ejecutora 002 - Inictel-Uni
Enero 2016	Licenciado / Título Universidad Nacional Autónoma de México (Unam)
Enero 2015	Licenciado / Título Universidad Nacional Autónoma de México (Unam)
Julio 2010	Licenciado / Título Universidad Nacional de San Agustín
Agosto 2005	Licenciado / Título Universidad Nacional de San Agustín

Formación Académica (Fuente: SUNEDU)

- **Doctorado** | Grado de Doctor en Ciencias Biológicas
Universidad Nacional Autónoma de Mexico
Mexico
- **Licenciado / Título** | Medico Cirujano

Perú
- **Bachiller** | Bachiller en Medicina

Perú

Formación Académica

2005 - 2009	Doctorado Ciencias Biomedicas <i>Universidad Nacional Autonoma de Mexico</i> Mexico
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Producción Científica En Scopus (H Index: 9)

11/2017 Extreme salinity as a challenge to grow potatoes under Mars-like soil conditions: targeting promising

genotypes

International Journal of Astrobiology 2017; () 1-7

01/2017 New approaches in the pathogenesis of pressure ulcers

Piel 2017; ()

01/2016 Microorganisms, organic carbon, and their relationship with oxidant activity in hyper-arid mars-like soils: Implications for soil habitability

Palaios 2016; 31(1) 1-9

06/2015 Chemokine-derived peptides: Novel antimicrobial and antineoplastic agents

International Journal of Molecular Sciences 2015; 16(6) 12958-12985

04/2014 Field method for rapid quantification of labile organic carbon in hyper-arid desert soils validated by two thermal methods

International Journal of Astrobiology 2014; 13(2) 182-189

04/2014 Field method for rapid quantification of labile organic carbon in hyper-arid desert soils validated by two thermal methods

International Journal of Astrobiology 2014; 13(2) 182-189

12/2013 Noachian environments on Mars and the possible emergence of life

Mars: Evolution, Geology and Exploration 2013; () 103-152

12/2013 Noachian environments on Mars and the possible emergence of life

Mars: Evolution, Geology and Exploration 2013; () 103-152

07/2012 Soil carbon distribution and site characteristics in hyper-arid soils of the Atacama Desert: A site with Mars-like soils

Advances in Space Research 2012; 50(1) 108-122

07/2012 Soil carbon distribution and site characteristics in hyper-arid soils of the Atacama Desert: A site with Mars-like soils

Advances in Space Research 2012; 50(1) 108-122

03/2012 Decomposition of sodium formate and L- and D-alanine in the Pampas de la Joya soils: Implications as a new geochemical analogue to Martian regolith

Advances in Space Research 2012; 49(5) 821-833

03/2012 Decomposition of sodium formate and L- and D-alanine in the Pampas de la Joya soils: Implications as a new geochemical analogue to Martian regolith

Advances in Space Research 2012; 49(5) 821-833

01/2012 Variability of organic material in surface horizons of the hyper-arid Mars-like soils of the Atacama Desert

Advances in Space Research 2012; 49(2) 271-279

01/2012 Variability of organic material in surface horizons of the hyper-arid Mars-like soils of the Atacama Desert

Advances in Space Research 2012; 49(2) 271-279

01/2012 Climatological characteristics in the extreme hyper-arid region of Pampas de La Joya, Peru. Astrobiological approach in four years of observation: 2004-2008

International Journal of Astrobiology 2012; 11(1) 25-35

01/2012 Climatological characteristics in the extreme hyper-arid region of Pampas de La Joya, Peru. Astrobiological approach in four years of observation: 2004-2008

International Journal of Astrobiology 2012; 11(1) 25-35

12/2011 Planetary conditions at the hadean and archean transition: Possible scenarios for the origin of life

Planetary Conditions at the Hadean and Archean Transition: Possible Scenarios for the Origin of Life 2011; () 1-92

12/2011 Planetary conditions at the hadean and archean transition: Possible scenarios for the origin of life

Planetary Conditions at the Hadean and Archean Transition: Possible Scenarios for the Origin of Life 2011; () 1-92

- 11/2011** Determination of low bacterial concentrations in hyperarid Atacama soils: Comparison of biochemical and microscopy methods with realtime quantitative PCR
Canadian Journal of Microbiology 2011; 57(11) 953-963
- 11/2011** Determination of low bacterial concentrations in hyperarid Atacama soils: Comparison of biochemical and microscopy methods with realtime quantitative PCR
Canadian Journal of Microbiology 2011; 57(11) 953-963
- 04/2011** Multidisciplinary approach of the hyperarid desert of Pampas de La Joya in southern Peru as a new Mars-like soil analog
Geochimica et Cosmochimica Acta 2011; 75(7) 1975-1991
- 04/2011** Multidisciplinary approach of the hyperarid desert of Pampas de La Joya in southern Peru as a new Mars-like soil analog
Geochimica et Cosmochimica Acta 2011; 75(7) 1975-1991
- 03/2011** Comets and the origin of life: Pioneer of organics for chemical evolution
Comets: Characteristics, Composition and Orbits 2011; () 73-100
- 03/2011** Comets and the origin of life: Pioneer of organics for chemical evolution
Comets: Characteristics, Composition and Orbits 2011; () 73-100
- 04/2010** Actin Cytoskeleton Participation in the Onset of IL-1 Induction of an Invasive Mesenchymal-like Phenotype in Epithelial MCF-7 Cells
Archives of Medical Research 2010; 41(3) 170-181
- 04/2010** Actin Cytoskeleton Participation in the Onset of IL-1 Induction of an Invasive Mesenchymal-like Phenotype in Epithelial MCF-7 Cells
Archives of Medical Research 2010; 41(3) 170-181
- 10/2009** Effect of pro-inflammatory cytokine stimulation on human breast cancer: Implications of chemokine receptor expression in cancer metastasis
Cancer Letters 2009; 283(2) 176-185
- 10/2009** Effect of pro-inflammatory cytokine stimulation on human breast cancer: Implications of chemokine receptor expression in cancer metastasis
Cancer Letters 2009; 283(2) 176-185
- 09/2009** Expression of inflammatory factors and increasing of the intima-media thickness in pre-eclampsia: evidence of maternal and neonatal arteriosclerotic risk | Expresión de factores inflamatorios e incremento del grosor mediointimal en preeclampsia: evid
Clinica e Investigacion en Arteriosclerosis 2009; 21(5) 221-231
- 09/2009** Expression of inflammatory factors and increasing of the intima-media thickness in pre-eclampsia: evidence of maternal and neonatal arteriosclerotic risk | Expresión de factores inflamatorios e incremento del grosor mediointimal en preeclampsia: evid
Clinica e Investigacion en Arteriosclerosis 2009; 21(5) 221-231
- 07/2009** Thermally evolved gas analysis (TEGA) of hyperarid soils doped with microorganisms from the Atacama Desert in southern Peru: Implications for the Phoenix mission
Advances in Space Research 2009; 44(2) 254-266
- 07/2009** Thermally evolved gas analysis (TEGA) of hyperarid soils doped with microorganisms from the Atacama Desert in southern Peru: Implications for the Phoenix mission
Advances in Space Research 2009; 44(2) 254-266
- 02/2009** Effect of early L-arginine therapy on intrauterine growth restriction in preeclampsia. A randomized controlled trial in Latin-American women | Efecto de la terapia temprana con L-arginina en el crecimiento intrauterino restringido en la preclampsia.
Progresos en Obstetricia y Ginecologia 2009; 52(2) 89-98
- 01/2009** Levels of proteinuria and vascular damage in healthy pregnant, preeclamptic, and non-proteinuric hypertensive women, assessed by vascular ultrasonography | Valores de proteinuria y daño vascular en gestantes sanas, preeclámpticas y con hipertensión n

Progresos en Obstetricia y Ginecología 2009; 52(1) 4-13

01/2009 Effect of early L-arginine therapy on intrauterine growth restriction in preeclampsia. A randomized controlled trial in Latin-American women | Efecto de la terapia temprana con L-arginina en el crecimiento intrauterino restringido en la preclampsia.

Progresos en Obstetricia y Ginecología 2009; 52(2) 89-98

01/2009 Levels of proteinuria and vascular damage in healthy pregnant, preeclamptic, and non-proteinuric hypertensive women, assessed by vascular ultrasonography | Valores de proteinuria y daño vascular en gestantes sanas, preeclámpticas y con hipertensión n

Progresos en Obstetricia y Ginecología 2009; 52(1) 4-13

Producción Científica En ORCID

Decomposition of sodium formate and L- and D- alanine in the Pampas de La Joya soils: Implications as a new geochemical analogue to Martian regolith

ResearcherID

Microorganisms and organic carbon distribution in the hyper-arid Mars-like soils of the Pampas de La Joya Desert.

ResearcherID

Physical, geomorphological and petrological studies of the hyper-arid soil of Pampas de La Joya, southern Peru. A recent analogue to Mars

ResearcherID

Soil carbon distribution and site characteristics in hyper-arid soils of the Atacama Desert: A site with Mars-like soils

ResearcherID

08/2019 Guillain–Barre syndrome outbreak in Peru: Association with polymorphisms in IL17 , ICAM1 , and CD1

Crossref

01/2018 New approaches in the pathogenesis of pressure ulcers, Novedades en la patogenia de las úlceras por presión

Scopus - Elsevier

01/2012 Field Method for Quantification of Labile Organic Carbon in Hyper-Arid Soils Validated by Two Thermal Methods

ResearcherID

01/2012 Habitability studies in preparation for future Mars missions: Results from investigations of organics and minerals in the Mars analog site at Mars Desert Research Station (Utah, USA)

ResearcherID

01/2011 Climatological characteristics in the extreme hyper-arid region of Pampas de La Joya, Peru. Astrobiological approach in four years of observation: 2004-2008

ResearcherID

01/2011 Comets and the Origin of Life: Pioneer of Organics for Chemical Evolution

ResearcherID

01/2011 Determination of low bacterial concentrations in hyper-arid Atacama soils: of biochemical and microscopy methods with real-time Quantitative-PCR.

ResearcherID

01/2011 Multidisciplinary approach of the hyperarid desert of Pampas de La Joya in southern Peru as a new Mars-like soil analogue

ResearcherID

01/2011 Nobel insights into the role of inflammation in promoting Breast Cancer development

ResearcherID

01/2011 Olivine: It's Role in Chemical Evolution and in the Origin of Life

ResearcherID

01/2011 Planetary Conditions at the Hadean and Archean Transition: Possible Scenarios for the Origin of Life

ResearcherID

01/2011 Planetary Conditions at the Hadean and Archean Transitions: Possible Scenarios for the Origin of Life

ResearcherID

01/2011 Variability of Organic Material in Surface Horizons of the Hyper-Arid Mars-like soils of the Atacama Desert

ResearcherID

01/2010 Actin cytoskeleton participation in the onset of IL-1beta induction of an invasive mesenchymal-like phenotype in epithelial MCF-7 cells.

ResearcherID

01/2009 Effect of early L-Arginine therapy on intrauterine growth restriction in preeclampsia. A randomized controlled trial in Latin-American women

ResearcherID

01/2009 Effect of pro-inflammatory cytokine stimulation on human breast cancer: implications of chemokine receptor expression in cancer metastasis.

ResearcherID

01/2009 Expression of inflammatory factors and increasing of the intima-media thickness in pre-eclampsia: evidence of maternal and neonatal arteriosclerotic risk

ResearcherID

01/2009 Labeled release experiment (LRx) and the search of Life on Mars

ResearcherID

01/2009 Levels of proteinuria and vascular damage in healthy pregnant, preeclamptic, and non-proteinuric hypertensive women, assessed by vascular ultrasonography

ResearcherID

01/2009 Thermally evolved gas analysis (TEGA) of hyperarid soils doped with microorganisms from the Atacama Desert in southern Peru: Implications for the Phoenix mission

ResearcherID

01/2008 Importance of the tumor microenvironment in Breast Cancer progression

ResearcherID

01/2008 Relationship between the expression of the Hypoxia Inducible Factor -2 alpha and the soluble receptor-1 of the Vascular Endothelial Growth Factor (sFlt-1): Implications in the pathophysiology of the preeclampsia

ResearcherID

01/2007 Via CXCL1/CXCR2 adenosine-mediated pulmonary angiogenesis

ResearcherID

01/2003 Endothelial Dysfunction in preeclampsia (Editor Letter)

ResearcherID

Producción Científica En Alicia

01/2020 Development of an accessible and low-cost micro-fluidic system (lab-on-a-chip) for detecting circulating breast cancer tumor cells

CMP 2020;

01/2013 Angiogénesis pulmonar mediada por adenosina vía CXCL1/CXCR2

UNMSM 2013;

01/2013 Disfunción endotelial en la preeclampsia

UNMSM 2013;

Otras Publicaciones

12/2016 Pampas de a Joya Desert and its astrobiological implications

2016; 0(0)

11/2015 Levels of oxidant activity in Mars-like soils as a predictor of presence of microbial life.

2015; 0(0)

11/2015 Genetic sensors of gravitational waves analyzed in *Drosophila melanogaster* could be important regulators in cancer progression.

2015; 0(0)

11/2015 Gravitational waves are detected by genetic sensors: evidence in *Drosophila melanogaster*.

2015; 0(0)

11/2015 Design and construction of a fluorescence microscope for operation in microgravity conditions.

2015; 0(0)

11/2015 Biological validation of the three-degrees-of-freedom-microgravity machine by analysis of genetic expression in pupae of *Drosophila melanogaster*.

2015; 0(0)

08/2014 Impact of whole body irradiation on the intestinal microbiome considerations for space flight.

2014; 0(0)

10/2013 Noachian environments on Mars and the possible emergence of life

2013; 0(0)

12/2011 Novel Insights into the Role of Inflammation in Promoting Breast Cancer Development

2011; 0(0)

07/2011 Hadean-Archean Transition and Origin of Life

2011; 0(0)

06/2011 Olivine: Its Role in Chemical Evolution and in the Origin of Life.

2011; 0(0)

02/2011 Comets and the origin of life: Pioneer of organics for chemical evolution

2011; 0(0)

01/2011 Planetary Conditions at the Hadean and Archean Transition: Possible Scenarios for the Origin of Life

2011; 0(0)

10/2003 Inmunología en Preguntas

2003; 0(0)

Distinciones y Premios

08/2004	Perú Premios Concytec de Estímulo a la Creatividad
09/2013	Mexico Premio Científico Pfizer
08/2016	Perú Doctorado Honoris Causa
05/2018	Perú Investigador Carlos Monge Nivel 1

Idiomas

Español O Castellano	Lectura:	Avanzado
	Escritura:	Avanzado
	Conversación:	Avanzado
Ingles	Lectura:	Avanzado superior
	Escritura:	Avanzado superior
	Conversación:	Avanzado superior

Proyectos

01/2019 - 01/2022	Proyectos de investigación Diseño e Implementación de un Sistema Wearable no Invasivo Capaz de Realizar Detección Temprana de Cáncer de Mama mediante El Uso de Tecnología de Imágenes por Microondas Universidad Catolica San Pablo
10/2018 - 10/2019	Proyectos de investigación Development of Portable Low Cost Malaria Blood Test Universidad de Ingeniería y Tecnología
01/2018 - 08/2019	Proyectos de investigación Estudio Experimental e in Situ del Efecto de la Superficie Lunar sobre las Biopelículas de Cianobacterias Extremófilas del Perú en un Simulador de Condiciones Lunares y en El Experimento Killalab del Hhk-1 de la Misión Team Indus 2018 Universidad Nacional de Ingeniería Uni
10/2016 - 10/2017	Proyectos de investigación Implementation of a Microfluidic Device Capable to Detect Circulating Immune Cells Bound to Magnetic-Pearls Universidad de Ingeniería y Tecnología
06/2016 - 06/2017	Proyectos de investigación Iya Dx: Point-Of-Care Kit for Diagnosis of Malaria Universidad de Ingeniería y Tecnología
01/2016 - 03/2018	Proyectos de investigación Estudio del Potencial Diferencial de Péptidos Biologicamente Activos del Secretoma de Células Madres Mesenquimales en Regeneración de Tejidos Dañados y Desarrollo de un Procedimiento de Aislamiento y Carga de Estos Péptidos sobre Nanopartículas como Vector de Transporte Al Tejido Dañado Universidad de Ingeniería y Tecnología
03/2015 - 03/2017	Proyectos de investigación Análisis del Transcriptoma por Técnicas de Microarreglos de Células de Cáncer de Mama Sometidas a Condiciones de Microgravedad Simulada. Unidad Ejecutora 002 - Inictel-Uni
10/2012 - 09/2014	Proyectos de investigación Relación de la Producción de Óxido Nítrico y Citocinas Inflamatorias sobre la Expresión de Receptores de Quimiocinas y Su Relación con El

Progreso y Metástasis de Cáncer de Mama

Universidad Nacional Autónoma de México

02/2012 -
01/2014

Proyectos de investigación | Field and Laboratory Studies of Habitability of Evaporitic Minerals Under Mars-Like Conditions

Nasa Ames Research Center

09/2011 -
01/2015

Proyectos de investigación | C.S.I. On Martian Soils With M.S.L.: Search for Life Using Mass Spectrometer Fragmentation Patterns of Sulfates and the Habitability of Aqueous Paleoenvironments

Nasa Ames Research Center

09/2011 -
09/2015

Proyectos de investigación | Habitability and Analog Studies to Guide Rover Operations

Nasa Ames Research Center

05/2011 -
04/2014

Proyectos de investigación | Reaction of Perchlorate and Organics On Mars

Nasa Ames Research Center

04/2011 -
03/2014

Proyectos de investigación | Limits On Organics and Nitrates On Mars From Phoenix TEGA Data

Nasa Ames Research Center