



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



**JORGE ALBERTO BARRIOS PAYAN**

## Datos Generales

**Nombre:** JORGE ALBERTO BARRIOS PAYAN

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 9 años

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## Nombramientos

**Vigente:** PROFESOR ASIGNATURA A TP No Definitivo  
Facultad de Ciencias  
Desde 16-04-2022

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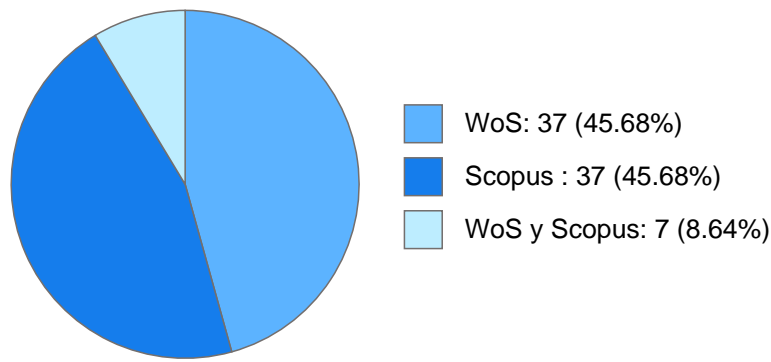
## Estímulos, programas, premios y reconocimientos

SNI I 2018 - 2024

**JORGE ALBERTO BARRIOS PAYAN**

**DOCUMENTOS EN REVISTAS**

**Histórico de Documentos**



| # | Título   | Autores   | Revista  | Año  |
|---|--|---|--|------|
| 1 | Impaired control of <i>Mycobacterium tuberculosis</i> infection in mast cell-deficient Kit <sup>W-sh/Wsh</sup> mice  | JORGE ALBERTO BARRIOS PAYAN LUIS DONIS MATURANO SONIA MAYRA PEREZ TAPIA et al.            | Tuberculosis                                     | 2025 |
| 2 | Effect of IL-17A on the immune response to pulmonary tuberculosis induced by high- and low-virulence strains of <i>Mycobacterium bovis</i>   | YADIRA ROCIO RODRIGUEZ MIGUEZ VASTI LOZANO ORDAZ JORGE ALBERTO BARRIOS PAYAN et al.       | PLOS ONE   | 2024 |
| 3 | Acute lung injury is prevented by monocyte locomotion inhibitory factor in an experimental severe malaria mouse model  | MARTHA JACKELINE PEREZ VEGA ISMAEL MANCILLA HERRERA JORGE ALBERTO BARRIOS PAYAN et al.    | Immunobiology                                    | 2024 |
| 4 | Baculovirus-mediated expression of a <i>Helicobacter pylori</i> protein-based multi-epitope hybrid gene induces a potent B cell response in mice   | JORGE ALBERTO BARRIOS PAYAN ANA RUTH PASTOR FLORES LAURA ALICIA PALOMARES AGUILERA et al. | Immunobiology                                    | 2023 |
| 5 | Beneficial or detrimental activity of regulatory T cells, indoleamine 2,3-dioxygenase, and heme oxygenase-1 in the lungs is influenced by the level of virulence of <i>Mycobacterium tuberculosis</i> strain infection | VASTI LOZANO ORDAZ YADIRA ROCIO RODRIGUEZ MIGUEZ VIRIDIANA SUJHEY HERNANDEZ BAZAN et al.  | FRONTIERS IN CELLULAR AND INFECTION MICROBIOLOGY | 2023 |

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|    |  |   |   |      |
|----|--|---|---|------|
| 6  | Effect of Low Doses of Dexamethasone on Experimental Pulmonary Tuberculosis  | JORGE ALBERTO BARRIOS PAYAN<br>DULCE ADRIANA MATA ESPINOSA<br>VASTI LOZANO ORDAZ et al.                   | Microorganism<br>s  | 2023 |
| 7  | Application of Baculovirus Vectors in the Prevention of Gastrointestinal Diseases  | JORGE ALBERTO BARRIOS PAYAN ANA<br>RUTH PASTOR FLORES LAURA ALICIA<br>PALOMARES AGUILERA et al.           | MOLECULAR<br>THERAPY  | 2023 |
| 8  | Thymic atrophy induced by <i>Plasmodium berghei</i> ANKA and <i>Plasmodium yoelii</i> 17XL infection   | MARTHA JACKELINE PEREZ VEGA<br>ISMAEL MANCILLA HERRERA JORGE<br>ALBERTO BARRIOS PAYAN et al.              | IMMUNOLOGY<br>LETTERS   | 2023 |
| 9  | Close Related Drug-Resistance Beijing Isolates of Mycobacterium tuberculosis Reveal a Different Transcriptomic Signature in a Murine Disease Progression Model | JORGE ALBERTO BARRIOS PAYAN<br>ADRIAN OCHOA LEYVA ROGELIO<br>HERNANDEZ PANDO et al.                       | INTERNATIONAL<br>JOURNAL OF<br>MOLECULAR<br>SCIENCES                                      | 2022 |
| 10 | Effect of Curcumin in Experimental Pulmonary Tuberculosis: Antimycobacterial Activity in the Lungs and Anti-Inflammatory Effect in the Brain                   | JACQUELINE VIRIDIANA LARA<br>ESPINOSA MANUEL OTHONIEL LOPEZ<br>TORRES VASTI LOZANO ORDAZ et al.           | INTERNATIONAL<br>JOURNAL OF<br>MOLECULAR<br>SCIENCES                                      | 2022 |
| 11 | Immune Regulatory Effect of Osteopontin Gene Therapy in a Murine Model of Multidrug Resistant Pulmonary Tuberculosis   | VIRIDIANA SUJHEY HERNANDEZ<br>BAZAN DULCE ADRIANA MATA<br>ESPINOSA VASTI LOZANO ORDAZ et al.              | HUMAN GENE<br>THERAPY   | 2022 |
| 12 | The ctpF Gene Encoding a Calcium P-Type ATPase of the Plasma Membrane Contributes to Full Virulence of Mycobacterium tuberculosis                              | DULCE ADRIANA MATA ESPINOSA<br>MANUEL OTHONIEL LOPEZ TORRES<br>JORGE ALBERTO BARRIOS PAYAN et al.         | INTERNATIONAL<br>JOURNAL OF<br>MOLECULAR<br>SCIENCES                                      | 2022 |
| 13 | Immunotherapeutic effect of adenovirus encoding antimicrobial peptides in experimental pulmonary tuberculosis  | DULCE ADRIANA MATA ESPINOSA<br>MANUEL OTHONIEL LOPEZ TORRES<br>VIRIDIANA SUJHEY HERNANDEZ<br>BAZAN et al. | JOURNAL OF<br>LEUKOCYTE<br>BIOLOGY  | 2021 |
| 14 | Activity of semi-synthetic mulinanes against mdr, pre-xdr, and xdr strains of mycobacterium tuberculosis   | ROGELIO HERNANDEZ PANDO JORGE<br>ALBERTO BARRIOS PAYAN DULCE<br>ADRIANA MATA ESPINOSA et al.              | Metabolites   | 2021 |
| 15 | ETHICAL CONSIDERATIONS IN ANIMAL RESEARCH: THE PRINCIPLE OF 3R'S   | ELENA ZAMBRANO GONZALEZ VICTOR<br>JULIAN VALDES RODRIGUEZ GERARDO<br>GAMBA AYALA et al.                   | REVISTA DE<br>INVESTIGACION<br>CLINICA-CLINIC<br>AL AND<br>TRANSLATIONAL<br>INVESTIGATION | 2021 |

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|    |  |  |   |      |
|----|--|--|---|------|
| 16 | The Cholinergic System Contributes to the Immunopathological Progression of Experimental Pulmonary Tuberculosis  | LEON DAVID ISLAS WEINSTEIN<br>BRENDA NOEMI MARQUINA CASTILLO<br>DULCE ADRIANA MATA ESPINOSA et al.                   | FRONTIERS IN IMMUNOLOGY                     | 2021 |
| 17 | Vaccination with BCG BCG1419c protects against pulmonary and extrapulmonary TB and is safer than BCG   | JORGE ALBERTO BARRIOS PAYAN<br>Aceves-Sánchez M.J. Flores-Valdez M.A. et al.   | SCIENTIFIC REPORTS                          | 2021 |
| 18 | Targeted rna-seq reveals the m. Tuberculosis transcriptome from an in vivo infection model   | DULCE ADRIANA MATA ESPINOSA<br>JORGE ALBERTO BARRIOS PAYAN<br>BRENDA NOEMI MARQUINA CASTILLO et al.                  | BIOLOGY-BASEL                               | 2021 |
| 19 | 16 $\alpha$ -Bromoepiandrosterone as a new candidate for experimental diabetes? tuberculosis co-morbidity treatment  | MANUEL OTHONIEL LOPEZ TORRES<br>BRENDA NOEMI MARQUINA CASTILLO<br>DULCE ADRIANA MATA ESPINOSA et al.                 | CLINICAL AND EXPERIMENTAL IMMUNOLOGY        | 2021 |
| 20 | Monocyte Locomotion Inhibitory Factor confers neuroprotection and prevents the development of murine cerebral malaria  | BRENDA NOEMI MARQUINA CASTILLO<br>JORGE ALBERTO BARRIOS PAYAN<br>SARA HUERTA YEPEZ et al.                            | INTERNATIONAL IMMUNOPHARMACOLOGY            | 2021 |
| 21 | BCG and BCG BCG1419c protect type 2 diabetic mice against tuberculosis via different participation of T and B lymphocytes, dendritic cells and pro-inflammatory cytokines        | BRENDA NOEMI MARQUINA CASTILLO<br>VASTI LOZANO ORDAZ<br>DULCE ADRIANA MATA ESPINOSA et al.                           | Npj Vaccines                                | 2020 |
| 22 | Construction and characterization of the mycobacterium tuberculosis sigE fadD26 unmarked double mutant as a vaccine candidate  | ROGELIO HERNANDEZ PANDO<br>DULCE ADRIANA MATA ESPINOSA<br>BRENDA NOEMI MARQUINA CASTILLO et al.                      | INFECTION AND IMMUNITY                      | 2020 |
| 23 | Antimicrobial peptide against mycobacterium tuberculosis that activates autophagy is an effective treatment for tuberculosis   | MIGUEL ANTONIO COSTAS BASIN<br>TERESA MONTIEL MONTES<br>CHRISTIAN DIENER et al.                                      | Pharmaceutics                               | 2020 |
| 24 | Experimental pulmonary tuberculosis in the absence of detectable brain infection induces neuroinflammation and behavioural abnormalities in male balb/c mice                     | JACQUELINE VIRIDIANA LARA<br>ESPINOSA RICARDO ALBERTO<br>SANTANA MARTINEZ PERLA DEYANIRA<br>MALDONADO JIMENEZ et al. | INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES | 2020 |
| 25 | Hepatocyte growth factor enhances the clearance of a multidrug-resistant Mycobacterium tuberculosis strain by high doses of conventional chemotherapy, preserving liver function | DULCE ADRIANA MATA ESPINOSA<br>JORGE ALBERTO BARRIOS PAYAN<br>BRENDA NOEMI MARQUINA CASTILLO et al.                  | JOURNAL OF CELLULAR PHYSIOLOGY              | 2020 |

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|    |  |   |                                       |      |
|----|--|---|---------------------------------------|------|
| 26 | Evidence for the Effect of Vaccination on Host-Pathogen Interactions in a Murine Model of Pulmonary Tuberculosis by Mycobacterium tuberculosis   | BRENDA NOEMI MARQUINA CASTILLO<br>JORGE ALBERTO BARRIOS PAYAN<br>ADRIAN OCHOA LEYVA et al.          | FRONTIERS IN IMMUNOLOGY               | 2020 |
| 27 | Author Correction: BCG and BCG BCG1419c protect type 2 diabetic mice against tuberculosis via different participation of T and B lymphocytes, dendritic cells and pro-inflammatory cytokines (npj Vaccines, (2020), 5, 1, (21), 10.1038/s41541-020-0169-6) | BRENDA NOEMI MARQUINA CASTILLO<br>VASTI LOZANO ORDAZ DULCE<br>ADRIANA MATA ESPINOSA et al.          | Npj Vaccines                          | 2020 |
| 28 | Involvement of vasopressin in the pathogenesis of pulmonary tuberculosis: A new therapeutic target?  | JORGE ALBERTO BARRIOS PAYAN<br>DULCE ADRIANA MATA ESPINOSA<br>BRENDA NOEMI MARQUINA CASTILLO et al. | Frontiers in Endocrinology            | 2019 |
| 29 | Titanium dioxide nanofibers induce angiogenic markers and genomic instability in lung cells leading to a highly dedifferentiated and fibrotic tumor formation in a xenograft model   | NORMA LAURA DELGADO<br>BUENROSTRO JOSE OCOTLAN FLORES<br>FLORES ROGELIO HERNANDEZ PANDO et al.      | ENVIRONMENTAL SCIENCE-NANO            | 2019 |
| 30 | A significant therapeutic effect of silymarin administered alone, or in combination with chemotherapy, in experimental pulmonary tuberculosis caused by drug-sensitive or drug-resistant strains: In vitro and in vivo studies                             | EDEN MARCELA RODRIGUEZ FLORES<br>DULCE ADRIANA MATA ESPINOSA<br>JORGE ALBERTO BARRIOS PAYAN et al.  | PLOS ONE                              | 2019 |
| 31 | Raw starch microparticles as BCG adjuvant: Their efficacy depends on the virulence of the infection strains  | SILVIA ANDREA MORENO MENDIETA<br>DULCE ADRIANA MATA ESPINOSA<br>JORGE ALBERTO BARRIOS PAYAN et al.  | Vaccine                               | 2019 |
| 32 | Extracellular vesicles released by J774A.1 macrophages reduce the bacterial load in macrophages and in an experimental mouse model of tuberculosis   | JORGE ALBERTO BARRIOS PAYAN<br>DULCE ADRIANA MATA ESPINOSA<br>ROGELIO HERNANDEZ PANDO et al.        | INTERNATIONAL JOURNAL OF NANOMEDICINE | 2019 |
| 33 | Immunotherapeutic effects of recombinant adenovirus encoding interleukin 12 in experimental pulmonary tuberculosis   | BRENDA NOEMI MARQUINA CASTILLO<br>JORGE ALBERTO BARRIOS PAYAN<br>ROGELIO HERNANDEZ PANDO et al.     | SCANDINAVIAN JOURNAL OF IMMUNOLOGY    | 2019 |
| 34 | Dual role of hypoxia-inducible factor 1 $\alpha$ in experimental pulmonary tuberculosis: Its implication as a new therapeutic target   | MARCO ANTONIO DURAN PADILLA<br>JORGE ALBERTO BARRIOS PAYAN<br>DULCE ADRIANA MATA ESPINOSA et al.    | FUTURE MICROBIOLOGY                   | 2018 |

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| 35 | BCG constitutively expressing the adenylyl cyclase encoded by Rv2212 increases its immunogenicity and reduces replication of <i>M. tuberculosis</i> in lungs of BALB/c mice                | BRENDA NOEMI MARQUINA CASTILLO<br>DULCE ADRIANA MATA ESPINOSA<br>JORGE ALBERTO BARRIOS PAYAN et al. | Tuberculosis                               | 2018 |
| 36 | Immune response elicited by two rBCG strains devoid of genes involved in c-di-GMP metabolism affect protection versus challenge with <i>M. tuberculosis</i> strains of different virulence | BRENDA NOEMI MARQUINA CASTILLO<br>JORGE ALBERTO BARRIOS PAYAN<br>ROGELIO HERNANDEZ PANDO et al.     | Vaccine                                    | 2018 |
| 37 | Mutations in ppe38 block PE-PGRS secretion and increase virulence of <i>Mycobacterium tuberculosis</i>   | DULCE ADRIANA MATA ESPINOSA<br>JORGE ALBERTO BARRIOS PAYAN<br>BRENDA NOEMI MARQUINA CASTILLO et al. | Nature<br>Microbiology                     | 2018 |
| 38 | Induction of bone formation in abdominal implants constituted by collagen sponges embedded with plant-based human transforming growth factor family proteins in ectopic dog model          | BRENDA NOEMI MARQUINA CASTILLO<br>JORGE ALBERTO BARRIOS PAYAN<br>ROGELIO HERNANDEZ PANDO et al.     | Journal of<br>Experimental<br>Orthopaedics | 2014 |



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**LIBROS Y CAPITULOS CON ISBN**

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

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**PARTICIPACIÓN EN PROYECTOS**

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

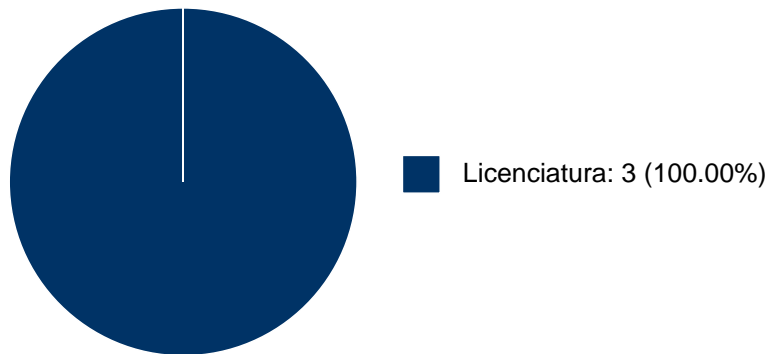
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**PARTICIPACIÓN EN TESIS**

**Histórico de Colaboraciones en Tesis**

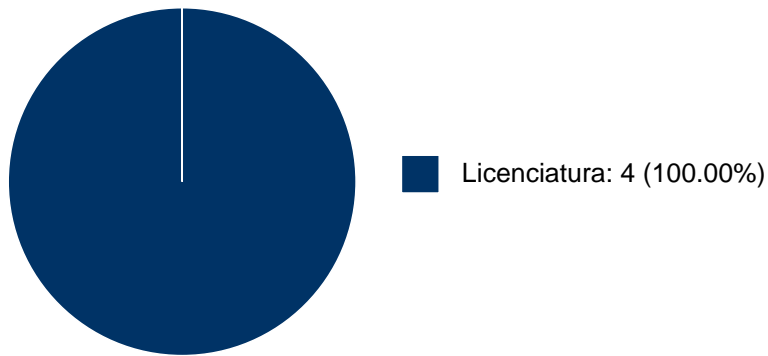


| # | Título del documento  | Tipo de Tesis         | Sinodales                    | Autores                             | Entidad               | Año  |
|---|---|-----------------------|------------------------------|-------------------------------------|-----------------------|------|
| 1 | Evaluación de la cepa mutante de la atpasa de tipo P, CtpF (Mtb?ctpF) de Mycobacterium tuberculosis H37Rv, como nuevo candidato vacunal, en un modelo de ratón BALB/c de tuberculosis pulmonar progresiva | Tesis de Licenciatura | JORGE ALBERTO BARRIOS PAYAN, | Delgado Ibarra, Leonardo Alejandro, | Facultad de Ciencias, | 2022 |
| 2 | Evaluación in vitro del efecto antimicobacteriano e inmunomodulador de la naftoquinona lapazina sobre dos cepas de mycobacterium tuberculosis : una farmacosensible y una drogoresistente                 | Tesis de Licenciatura | JORGE ALBERTO BARRIOS PAYAN, | Méndez Pérez, Daniel,               | Facultad de Ciencias, | 2017 |
| 3 | Efecto del bloqueo de tgf-b y un inhibidor de la cox-2 en un modelo murino de tuberculosis pulmonar progresiva  | Tesis de Licenciatura | JORGE ALBERTO BARRIOS PAYAN, | Arce Hernández, Cristian,           |                       | 2015 |

**JORGE ALBERTO BARRIOS PAYAN**

**DOCENCIA IMPARTIDA**

**Histórico de docencia**



| # | Nivel titulación | Asignatura     | Entidad              | Alumnos | Semestre |
|---|------------------|----------------|----------------------|---------|----------|
| 1 | Licenciatura     | TALLER NIVEL 4 | Facultad de Ciencias | 1       | 2024-2   |
| 2 | Licenciatura     | TALLER NIVEL 3 | Facultad de Ciencias | 1       | 2024-1   |
| 3 | Licenciatura     | TALLER NIVEL 4 | Facultad de Ciencias | 2       | 2024-1   |
| 4 | Licenciatura     | TALLER NIVEL 3 | Facultad de Ciencias | 2       | 2023-2   |



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**JORGE ALBERTO BARRIOS PAYAN**

**PATENTES**

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

**JORGE ALBERTO BARRIOS PAYAN**

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**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 |