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Research interests

G protein coupled receptors (GPCRs) represent the largest gene family in the human genome and the largest class of drug targets. My research is focused on the study of the structure and function of these important membrane receptors through molecular modeling, molecular dynamics simulations studies and also by using different experimental approaches which include biochemical and pharmacological assays to characterize some members of this super family of proteins.

Research outputs

In Silico Screening of Drugs That Target Different Forms of E Protein for Potential Treatment of COVID-19

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The Advantage of Using Immunoinformatic Tools on Vaccine Design and Development for Coronavirus

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The Advantage of Using Immunoinformatic Tools on Vaccine Design and Development for Coronavirus

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Unveiling the G4-PAMAM capacity to bind and protect Ang-(1-7) bioactive peptide by molecular dynamics simulations

Chi, L. A., Asgharpour, S., Correa-Basurto, J., Bandala, C. R. & Martínez-Archundia, M., Sep 2022, In: *Journal of Computer-Aided Molecular Design*. 36, 9, p. 653-675 23 p.

The β_2 -Subunit (AMOG) of Human Na^+ , K^+ -ATPase Is a Homophilic Adhesion Molecule

Roldán, M. L., Ramírez-Salinas, G. L., Martinez-Archundia, M., Cuellar-Perez, F., Vilchis-Nestor, C. A., Cancino-Diaz, J. C. & Shoshani, L., Jul 2022, In: *International Journal of Molecular Sciences*. 23, 14, 7753.

Searching Epitope-Based Vaccines Using Bioinformatics Studies

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Liver disorders in COVID-19, nutritional approaches and the use of phytochemicals

Vargas-Mendoza, N., García-Machorro, J., Angeles-Valencia, M., Martínez-Archundia, M., Madrigal-Santillán, E. O., Morales-González, Á., Anguiano-Robledo, L. & Morales-González, J. A., 14 Sep 2021, In: *World Journal of Gastroenterology*. 27, 34, p. 5630-5665 36 p.

Drug repositioning to target NSP15 protein on SARS-CoV-2 as possible COVID-19 treatment

Sixto-López, Y. & Martínez-Archundia, M., 15 May 2021, In: *Journal of Computational Chemistry*. 42, 13, p. 897-907 11 p.

Current advances in mass spectrometry-based proteomic studies on childhood acute lymphoblastic leukemia

Bermudez-Lugo, J. A., Martinez-Archundia, M., Correa-Basurto, J. & Zapata-Tarres, M. M., 2021, In: *Current Topics in Peptide and Protein Research*. 22, p. 1-15 15 p.

Repositioning of ligands that target the spike glycoprotein as potential drugs for sars-cov-2 in an in silico study

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Acetylcholinesterase Inhibition (Potential Anti-Alzheimer Effects) by Aminobenzoic Acid Derivatives: Synthesis, in Vitro and in Silico Evaluation

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Calva-Candelaria, N., Meléndez-Camargo, M. E., Montellano-Rosales, H., Estrada-Pérez, A. R., Rosales-Hernández, M. C., Fragoso-Vázquez, M. J., Martínez-Archundia, M., Correa-Basurto, J. & Márquez-Flores, Y. K., Dec 2018, In: *Biomedicine and Pharmacotherapy*. 108, p. 852-864 13 p.

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