



Dra. Laura Cristina Berumen Segura

Coordinadora de la Maestría en Ciencias Químico-Biológicas

Unidad de Investigación Genética

SNII Nivel 2 (2024-2028)

Perfil PRODEP (vigencia 2027)

Formación Académica:

Doctorado en Ciencias Biomédicas, UNAM

Maestría en Ciencias (Neurobiología), UNAM

Químico Farmacéutico Biólogo, UAQ

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Líneas de Generación y Aplicación del Conocimiento:

QUÍMICA BIOMOLECULAR

Fisiología de Receptores

Líneas de Investigación

- Estudio de la modulación reostática de la señalización por neurotransmisores, hormonas y comunicación paracrina en los distintos procesos biológicos

Formación de recursos humanos:

Nivel	En proceso	Terminada
Licenciatura	1	15
Maestría	-	12
Doctorado	2	5

Publicaciones seleccionadas

1. Luján-Méndez F, García-López P, **Berumen LC**, et al. Phaseolus acutifolius Recombinant Lectin Exerts Differential Proapoptotic Activity on EGFR+ and EGFR- Colon Cancer Cells and Provokes T Cell-Assisted Antitumor Responses in Mice. *Pharmaceuticals (Basel)*. 2025;18(2):213. Published 2025 Feb 5. <https://doi.org/10.3390/ph18020213>
2. Torres-Ortiz D, García-Alcocer G., **Berumen-Segura L.C.**, Estévez M. (2024) Green extraction of secondary metabolites from plants: Obstacles, current status, and trends. *Sustainable Chemistry for the environment*. <https://doi.org/10.1016/j.scenv.2024.100157>
3. Fosado R, Soto-Hernández JE, Núñez-Anita RE, Aceves C, **Berumen LC**, Mendieta I. (2023) Neuroendocrine Differentiation of Lung Cancer Cells Impairs the Activation of Antitumor Cytotoxic Responses in Mice. *Int J Mol Sci*. 2023 Jan 4;24(2):990. <https://doi.org/10.3390/ijms24020990>
4. Becerra E, **Berumen L**, Soto-Ontiveros V, García-Alcocer G. (2022) Specific MRP4 Inhibitor Ceefourin-1 Enhances Apoptosis Induced by 6-Mercaptopurine in Jurkat Leukemic Cells, but Not in Normal Lymphoblast Cell Line CRL-1991. *Medicina (Kaunas)*. 2022 May 24;58(6):695. <https://doi.org/10.3390/medicina58060695>
5. Martínez-Rojo E, **Berumen LC**, García-Alcocer G, Escobar-Cabrera J. The Role of Androgens and Androgen Receptor in Human Bladder Cancer. *Biomolecules*. 2021; 11(4):594. doi: [10.3390/biom11040594](https://doi.org/10.3390/biom11040594)
6. Becerra E, Aguilera-Durán G, **Berumen L**, Romo-Mancillas A, García-Alcocer G. Study of Endogen Substrates, Drug Substrates and Inhibitors Binding Conformations on MRP4 and Its Variants by Molecular Docking and Molecular Dynamics. *Molecules*. 2021 Feb 17;26(4):1051. doi: [10.3390/molecules26041051](https://doi.org/10.3390/molecules26041051).
7. Martínez-Rojo E, Cariño-Cortés R, **Berumen LC**, García-Alcocer G, Escobar-Cabrera J (2020) Stevia eupatoria and Stevia pilosa extracts inhibit the proliferation and migration of prostate cancer cells. *Medicina (Kaunas)*. 2020; 56(2):90 doi: [10.3390/medicina56020090](https://doi.org/10.3390/medicina56020090).
8. Pech-Pool S, **Berumen LC**, Martínez-Moreno CG, et al. (2020) Thyrotropin-Releasing Hormone (TRH) and Somatostatin (SST), but not Growth Hormone-Releasing Hormone (GHRH) nor Ghrelin (GHL), Regulate Expression and Release of Immune Growth Hormone (GH) from Chicken Bursal B-Lymphocyte Cultures. *Int J Mol Sci*. 2020;21(4):E1436. Published 2020 Feb 20. doi: [10.3390/ijms21041436](https://doi.org/10.3390/ijms21041436)
9. Becerra E, **Berumen LC**, García-Gasca T, Escobar J, Moreno U, García-Alcocer G (2020). Antiproliferative and apoptotic interaction between azathioprine and N-acetylcysteine in acute lymphoblastic leukemia Jurkat cells. *Synergy*. 2020 Volume 10, 2020, 100061
10. Rodríguez-Cruz A, Romo-Mancillas A, Mendiola-Precoma J, Escobar-Cabrera JE, García-Alcocer G, **Berumen LC** (2020) Effect of valerianic acid on neuroinflammation in a MPTP-induced mouse model of Parkinson's disease. *IBRO Rep*. 2019 Dec 17;8:28-35. doi: [10.1016/j.ibror.2019.12.002](https://doi.org/10.1016/j.ibror.2019.12.002).
11. Mendoza-Santiago A, Becerra E, Garay E, Bah M, Berumen-Segura L, Escobar-Cabrera J, Hernández-Pérez A, García-Alcocer G. Glutamic Acid Increased Methotrexate Polyglutamation and Cytotoxicity in a CCRF-SB Acute Lymphoblastic Leukemia Cell Line. *Medicina (Kaunas)*. 2019 Nov 26;55(12):758. doi: [10.3390/medicina55120758](https://doi.org/10.3390/medicina55120758).
12. Mendieta I, Nunez-Anita RE, Pérez-Sánchez G, Pavón L, Rodríguez-Cruz A, García-Alcocer G, **Berumen LC** (2018) Effect of A549 neuroendocrine differentiation on cytotoxic immune response. *Endocr Connect*. Pii: EC-18-0145. Doi: [10.1530/EC-18-0145](https://doi.org/10.1530/EC-18-0145).
13. Padilla KM, Quintanar-Stephano A, López-Vallejo F, **Berumen LC**, Miledi R, García-Alcocer G (2018) Behavioral changes induced through adenosine A2A receptor ligands in a rat depression model induced by olfactory bulbectomy. *Brain Behav*. 8(5):e00952.
14. Mendiola-Precoma J, Padilla K, Rodríguez-Cruz A, **Berumen LC**, Miledi R, García-Alcocer G (2017) Theobromine-induced changes in A1 Purinergic receptor gene expression and distribution in a rat brain alzheimer's disease model. *J Alzheimers Dis*. 55(3):1273-1283.

15. Mendiola-Precoma J, **Berumen LC**, Padilla K, García-Alcocer G. (2016). Therapies for prevention and treatment of Alzheimer's disease. *BioMed Res. International*. 2016(2589276):1-17.