



## Dr. Flavio Fernando Contreras Torres

Researcher at the Experimental Medicine and Advanced Therapies Unit

Unit

National System of Researchers Level II

### Contact:

✉ [contreras.flavio@tec.mx](mailto:contreras.flavio@tec.mx)

🌐 <https://tec.mx/en/research/institute-obesity-research/experimental-medicine-advanced-therapies-unit>

### Degrees:

- Doctoral – Universidad Nacional Autónoma de México (2007)
- BSc Chemistry – Universidad Central del Ecuador (2000)

### Research areas:

- Nanomedicine and nanotoxicology
- X-ray diffraction
- Computer-aided drug design (CADD)

### Selected publications:

1. A.C. Murrieta, D. Cavazos-Cavazos, C. Flores-Jauregui, P. Sepúlveda, M. Hesiquio, F.F. Contreras-Torres\*. Characterization of hydrothermally synthesized ZnFe<sub>2</sub>O<sub>4</sub> spinel ferrite: Insights into microstructure, inversion degree, and crystal evolution. *Journal of Physics and Chemistry of Solids*, 2023, 183, Art. No. 111659.
2. P. Santos-Aguilar, E. Vázquez-Garza, J. Bernal-Ramírez, L.Y. Vélez-Escamilla, O. Lozano, G. de J. García-Rivas, F.F. Contreras-Torres\*. Synthesis and Characterization of Rutile TiO<sub>2</sub> Nanoparticles for the Toxicological Effect on the H9c2 Cell Line from Rats. *ACS Omega*, 2023, 8 (21), 19024-19036.
3. F.F. Contreras-Torres\*, D. Salas-Treviño, A. Soto-Dominguez, G. de J. García-Rivas. Carbon Nanotubes in Tumor-Targeted Chemotherapeutic Formulations: A Review of Opportunities and Challenges. *ACS Applied Nano Materials*, 2022, 5(7), pp. 8649–8679.
4. F.F. Contreras-Torres\*, A. Rodríguez-Galván, C.E. Guerrero-Beltrán, E. Martínez-Lorán, E. Vázquez-Garza, N. Ornelas-Soto, G. García-García. "Differential cytotoxicity and internalization of graphene family nanomaterials in myocardial cells". *Materials Science and Engineering C*. 2017, 73, 633-642.

### Awards and recognitions:

- Member of the American Chemical Society (USA)
- Member of the International Union of Crystallography (UK)
- Member of the Mexican Society of Biochemistry (MX)

### Current projects:

- In Silico Screening and Bacterial Production of Small Molecules and Peptides
- CADD for MCU Modulators in Heart Failure
- Glycaemia and Heavy Metal Biomarkers in Gestational Diabetes