





Dr. Marco Antonio Rito Palomares
Director of the Institute for Obesity Research
National System of Researchers Level III

Contact:

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Degrees:

- Postdoctoral fellowship at the Centre for Bioprocessing and Engineering - University of Birmingham (1995)
- Ph.D. in Chemical Engineering, specializing in biotechnology - University of Birmingham (1995)
- M.Sc. in Chemical Engineering - ITESM (1989)
- Biochemical Engineering - Instituto Tecnológico de La Paz (1987)

Research areas:

- Chromatography
- Mass spectrometry
- Cell culture
- Plant biotechnology
- Protein purification

Selected Publications:

1. "Primary recovery strategies of low-molecular-weight toxins from *Crotalus molossus nigrescens* and *Crotalus atrox* using aqueous two-phase and three-phase partition systems" - Journal of Chemical Technology and Biotechnology, 2024.
2. "Characterization of polymer-polymer aqueous two-phase system droplets for 3D culture future applications" - Journal of Chemical Technology and Biotechnology, 2023.
3. "Generation of polyethylene glycol-dextran aqueous two-phase system droplets using different culture media under in vitro conditions" - Food and Bioproducts Processing, 2023.
4. "Laccase-luminol chemiluminescence system: an investigation of substrate inhibition" - Luminescence, 2023.
5. "TMB vs ABTS: Comparison of multi enzyme-based approaches for the colorimetric quantification of salivary glucose" - Journal of Chemical Technology and Biotechnology, 2022.
6. "Aqueous two-phase systems in Latin America: Perspective and Future Trends" - Journal of Chemical Technology and Biotechnology, 2022.

Awards and recognitions:

- 2015: Romulo Garza INSIGNIA Award to the research professor for his career at Tecnológico de Monterrey.
- 2013: Rómulo Garza Research Award to the most cited scientific article in ISI-SCOPUS.
- 2010: Award for teaching and research work, ITESM.
- 2007: Award for Teaching and Research Work, ITESM.
- 2006: National Food Science and Technology Award, granted by CONACyT and sponsored by Coca-Cola (project: Natural colorants).
- 2005: Rómulo Garza Award for Research and Technological Development (second place), ITESM.
- 2003: Jubilee Award, granted by the International Foundation for Science (IFS).
- 2003: Award for Teaching and Research Work, ITESM.
- 2002: Rómulo Garza Award for Research and Technological Development (first place), ITESM.
- 2002: National Award for Food Science and Technology, granted by CONACyT and sponsored by Coca-Cola (project: Development of a process to obtain coconut aroma by fermentation).
- 1999: Romulo Garza Award for Research and Technological Development (third place), ITESM.
- 1998: Young Researcher Award for Research and Technological Development, ITESM.

Current projects:

- Director of Institute for Obesity Research, ITESM
- Clinical Research National Director, Tec Salud
- Lateral flow platforms for the early detection of metabolic disorders and protein biomarkers of pre-obesity in children.
- Novel preventive nanoformulations for obesity in early childhood