



Marco Antonio Rito-Palomares, PhD

Dean of Research and Graduate Studies

Research Areas:

- Downstream processing operations:
 - Chromatography and ATPS
- Scalable and novel bioprocess design
- Early detection technologies for diagnosis
- Synthetic biology

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Professor Marco Rito-Palomares obtained his Bachelor's Degree with Honors in Biochemical Engineering at Instituto Tecnológico de La Paz, B.C.S. in 1987. In 1989, he earned his M.Sc. degree in Chemical Engineering at Tecnológico de Monterrey, Mexico and the Doctorate in Chemical Engineering from University of Birmingham, U.K. in 1995. After working as a Postdoctoral researcher in Centre for Bioprocess Engineering at University of Birmingham and University of Cambridge, he returned to Tecnológico de Monterrey as Full Research Professor of Bioprocess Engineering.

He is editor of Journal of Chemical Technology and Biotechnology, PLOS ONE, Food Bioproducts Processing, and Revista Mexicana de Ingeniería Química. He has published more than 130 scientific publications (articles, book chapters, and books), participated in 270 national and international conferences, and has been granted 7 patents. His current research efforts are focused on the development of bioengineering strategies for the predictive design of bioseparation systems that can be used for the recovery and purification of protein, aroma compounds, virus like-particles, cells, protein-based colorants, and stem cells. Particular emphasis is placed on the understanding of the molecular behavior of PEGylated proteins in liquid-liquid extraction systems. He has conducted 25 masters and 15 doctoral theses in Tec de Monterrey programs.

Dr. Rito-Palomares is member of multiple organizations, including the Scientific Committee of the International Foundation for Science, American Chemical Society, Society of Chemical Industry, International Society of the Molecular Recognition, the Mexican Academy of Sciences, and the National Researchers Council (Level III). He has obtained multiple institutional, national and international awards, including: Rómulo Garza (2015, 2013, 2005, 2003, 2000), Teaching and Research Award (2010, 2007, 2003, 2000, National Award in Science and Food Technology (2002, 2006), Jubilee Award granted by the Swedish government (2003), and the Visiting bye-Fellow from Cambridge University (2001). In 2017 he became Dean of Research and Graduate Studies in the Medical School at Tecnológico de Monterrey.

Publicaciones más recientes:

1. Torres-Acosta M, Pereira JF, Freire MG, Aguilar-Yañez JM, Coutinho JA, **Rito-Palomares M**, Titchener-Hooker NJ. Economic evaluation of the primary recovery of tetracycline with traditional and novel aqueous two-phase systems. *Separation and Purification Technology*. (2018). IF= 3.359. Accepted.
2. Gonzalez-Valdez J, Mayolo-Deloisa K, **Rito-Palomares M**, Novel aspects and future trends in the use of aqueous two-phase systems as a bioengineering tool. *Journal of Chemical Technology and Biotechnology*. (2018). IF= 3.135. In press
3. Vazquez-Villegas P, Torres-Acosta MA, Garcia-Echauri SA, Aguilar-Yanez JM, **Rito-Palomares M**, Ruiz-Ruiz F. Genetic manipulation of microalgae for the production of bioproducts. *Frontiers In Bioscience, Elite*. (2018). 10, 1: 254-275. IF= 2.497
4. González-González M, Mayolo-Deloisa K, Gonzalez-Valdez J, **Rito-Palomares M**, Monolithic chromatography: Insight & practical perspective. *Journal of Chemical Technology and Biotechnology*. 92, 1: 9-13 (2017). IF=3.135. Perspective paper
5. Campos-Pinto I, Espitia-Soloma E, Rosa S, **Rito-Palomares M**, Aguilar O, Aires-Barros R, Azevedo A. Integration of cell harvest with affinity-enhanced purification of monoclonal antibodies using aqueous two-phase systems with a dual tag ligand. *Separation and Purification Technology*. 173: 129-134 (2017). IF= 3.359.

Webpage: https://www.researchgate.net/profile/Marco_Rito-Palomares