Dr. Jorge Alejandro Benavides Lozano
Associate Research Professor at the Bioengineering and Medical Devices Unit
National System of Researchers Level III

Contact:

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https://tec.mx/en/research/institute-obesity-research/bioengineering-medical-devices-unit

Degrees:

- PhD in Engineering Sciences – Tecnológico de Monterrey (DCI, 2006)
- MSc in Biotechnology – Tecnológico de Monterrey (MBI, 2003)
- Bachelor in Chemical Engineering – Universidad Auntónoma de Nuevo León (IQ, 2001)

Research areas:

- Bioprocess engineering: Synthetic biology, production and upstream processing
- Identification, characterization and rational design of bioactives
- Development of novel bioactive-based products and formulations

Selected publications:

1. Insights into the mechanism of crotamine and potential targets involved in obesity-related metabolic pathways. https://doi.org/10.1016/j.compbiomed.2024.109049
2. Primary recovery strategies of low-molecular-weight toxins from Crotalus molossus nigrescens and Crotalus atrox using aqueous two-phase and three-phase partition systems. https://doi.org/10.1002/jctb.7580
3. Therapeutic Plants with Immunoregulatory Activity and Their Applications: A Scientific Vision of Traditional Medicine in Times of COVID-19. https://doi.org/10.1089/jmf.2022.0038

Awards and recognitions:

- Three times winner of the National Award for Food Science and Technology, Technology division.
- Member of the Mexican Academy of Sciences (AMC).

Current projects:

- Development of therapeutic formulations, based on animal bioactives, for the treatment of obesity.
- Use of microalgae for the production of bioactive compounds with potential application as prebiotics and nutraceutics.