Dr. Karla Patricia Mayolo Deloisa
Associate Research Professor at the Bioengineering in Health Unit
National System of Researchers Level II

Contact:

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Degrees:

- PhD in Engineering Science – Tecnológico de Monterrey (2012)
- Master in Biotechnology - Autonomous University of Morelos State (2007)
- Bachelor in Industrial Chemistry – Autonomous University of Morelos State (2004)

Research areas:

- Formulation of protein-based nanoparticles for biomedical applications
- Design of transdermal patches for the release of anti-obesogenic molecules
- Bioprocess engineering and PEGylation of proteins

Selected publications:

1. Sánchez-Trasviña et al. (2024) Transdermal microneedle patches as a promising drug delivery system for anti-obesogenic molecules. https://doi.org/10.3389/fbioe.2024.1380537
2. Sánchez-Trasviña et al. (2024) 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. Kyvik et al. (2023). Antibiofilm surfaces based on the immobilization of a novel recombinant antimicrobial multidomain protein using self assembly monolayers. https://doi.org/10.1039/D2MA00978A

Awards and recognitions:

- 2021 Woman Tec, science category. Tecnológico de Monterrey.
- Tecniospring Industry International Talent grant 2021. MSCA, Horizon 2020 and ACCIÓ. Institute of Materials Science of Barcelona research stay.
- CONACyT grant for postdoctoral stays abroad for the consolidation of research groups 2015 – 2016. Delf University of Technology research stay.
- IChemE Journals 2015. Best Reviewers Award.

Current projects:

- Design and characterization of silk fibroin nanoparticles as delivery system for anti-obesogenic molecules.
- Development of transdermal microneedle patches for the release of bioactive molecules with biomedical applications.
- Design of nanoparticles against antibiotic resistance.