Name Surname
Pedro Antonio Gama López

Doctorate
Nanoscience

Education
- PhD, Science in Nanoscience, Center for Scientific Research and Higher Education at Ensenada, Baja California, Mexico (CICESE)/Center of Nanoscience and Nanotechnology-National Autonomous University of Mexico (CNyN-UNAM), 2019- 2023.
- MSc, Science in Nanoscience, CICESE/CNyN-UNAM, 2017-2019.
- BSc, Biology, Faculty of Science of UNAM-Mexico City, 2012-2017.

Experience
- Postdoctoral Researcher, Nanophotonics and Laser Technology Group, CICESE–Monterrey, Nuevo Leon, Mexico, 2025–2026.
- Postdoctoral Researcher, Biomedical Innovation Group, CICESE–Ensenada, Baja California, Mexico, 2024–2025.
- Lecturer, Graduate Programs (MSc and PhD), Center of Nanoscience and Nanotechnology, UNAM, Mexico, 2024-2025.
- Lecturer, Bachelor of Nanotechnology Program, Center for Nanoscience and Nanotechnology, UNAM, Mexico, 2019.

Research Interests
Primary Research Area:
- Nanoparticle-Based Drug Delivery
- Microfluidic Models for Cancer Research
- Organ-on-a-Chip Technologies
- Nanobiotechnology and Virus-Like Particles (VLPs)

Secondary Research Area:
- Micro- and Nanofabrication
- Lithography-Based Mold Fabrication
- Biocatalysis and Enzyme-Based Therapeutics
- Plant Biofactories for Nanoparticle Production

Additional Interests:
- 3D Printing and Bioprinting for Biomedical Applications
- Tissue Engineering and Cell Culture
- Nanophotonics and Optical Biosensing
- Natural Products and Plant-Derived Compounds
- Bioanalytical and Characterization Techniques

Last 5 Publications

- Brandao-Araiza, S., Medrano-Villagómez, C., Gama P., Ramos-Romero, MP. & Vazquez-Duhalt R. (2026). Targeted virus-based catalase nanoreactors for potential acatalasemia treatment. Frontiers in Virology, (6):1833007. https://doi.org/10.3389/fviro.2026.1833007
- Molina-Solís, J., Gama, P., Chauhan, K., Rodriguez-Hernandez, AG. & Vázquez-Duhalt R. (2025). Virus-based enzymatic nanoreactors with acid alpha-glucosidase for the potential treatment of Pompe disease. Materials Advanced, 6 (5): 1613–1620 http://dx.doi.org/10.1039/d4ma00943f
- Gama, P., Juárez, P., Rodriguez-Hernandez, AG. & Vázquez-Duhalt R. (2023). Glucose oxidase Virus-based nanoreactors for smart breast cancer therapy. Glucose oxidase Virus-based nanoreactors for smart breast cancer therapy. Biotechnology Journal, e2300199. https://doi.org/10.1002/biot.202300199
- Gonzalez-Davis, O., Villagrana-Escarreño, M.V., Trujillo, MA., Gama, P., Chauhan, K. & Vazquez-Duhalt, R. (2023). Virus-like nanoparticles as enzyme carriers for Enzyme Replacement Therapy (ERT). Virology, (580) 73-87. http://dx.doi.org/10.1016/j.virol.2023.01.017
- Gama, P., Cadena-Nava, R.D., Juarez-Moreno, K., Pérez-Robles, J. & Vazquez-Duhalt, R. (2021). Virus-Based Nanoreactors with GALT Activity for Classic Galactosemia Therapy. ChemMedChem (16) 1438-1445. https://doi.org/10.1002/cmdc.202000999

Memberships

- Member of National System of Researchers of Mexico (SNI). National Secretariat of Science, Humanities, Technology and Innovation of Mexico (SECIHTI).

Awards

- Marie Skłodowska-Curie Actions (MSCA) Postdoctoral Fellowship 2026 – 2028.
- Prize of Academic Career of Ixtapan de la Sal. July 27th, 2024. Mexico State, Mexico.