

## **Dr. Benita Ortega-Berlanga**

### **Plant Biotechnology Team**

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#### **ACADEMIC AND RESEARCH CAREER**

Dr. Benita Ortega is a Pharmacobiologist Chemist graduated from Universidad Autonoma de San Luis Potosi (UASLP), Mexico, completed her Master's and Ph.D. studies in Molecular Biology focus on Vegetal Biotechnology at Instituto Potosino de Investigacion Cientifica y Tecnologica (IPICYT), carried out a research stay at Fraunhofer CMB, Newark, Delaware, USA, has 7 publications in journals JCR and more of 10 participations in National and International Congresses; she was recognized with the Potosí Prize for the best research proposal for young scientists by IPICYT. She is currently a member of the National Researchers System (SNI) in Mexico and is attached as a postdoctoral fellow in the research group of Dr. Tomasz Pniewski at Institute of Plant Genetics, Polish Academy of Sciences, in Poland.

#### **MAJOR RESEARCH PROJECTS**

2021-2023: Immunogenicity of plant-produced chimeric Virus-Like Particles formed by HBcAg displaying HBsAg epitopes for potential therapy of chronic hepatitis B.

2018-2020: Assessment of the immunogenicity of a nano-vaccine against Zika virus based on gadolinium nanoparticles

2012-2016: Engineering and expression of a RhoA peptide against respiratory syncytial virus infection in plants

#### **RESEARCH VISITS**

2013: Fraunhofer USA Center for Molecular Biotechnology, Delaware

#### **PUBLICATION (5 MAJOR PUBLICATIONS, LAST 5 YEARS)**

1. Ortega-Berlanga, B., Betancourt-Mendiola, L., del Angel-Olarte, C., Hernández-Adame, L., Rosales-Mendoza, S., & Palestino, G. (2021). An Overview of Gadolinium-Based Oxide and Oxysulfide Particles: Synthesis, Properties, and Biomedical Applications. *Crystals*, 11(9), 1094.
2. Ortega-Berlanga, B., Hernández-Adame, L., del Angel-Olarte, C., Aguilar, F., Rosales-Mendoza, S., & Palestino, G. (2020). Optical and biological evaluation of upconverting Gd<sub>2</sub>O<sub>3</sub>: Tb<sup>3+</sup>/Er<sup>3+</sup> particles as microcarriers of a Zika virus antigenic peptide. *Chemical Engineering Journal*, 385, 123414.
3. Ortega-Berlanga, B., Bañuelos-Hernández, B., & Rosales-Mendoza, S. (2018). Efficient expression of an Alzheimer's disease vaccine candidate in the microalga *Schizochytrium* sp. using the Algevir system. *Molecular Biotechnology*, 60(5), 362-368.
4. Niño, S. A., Martel-Gallegos, G., Castro-Zavala, A., Ortega-Berlanga, B., Delgado, J. M., Hernandez-Mendoza, H., & Zarazúa, S. (2018). Chronic arsenic exposure increases a $\beta$  (1–42) production and receptor for advanced glycation end products expression in rat brain. *Chemical Research in Toxicology*, 31(1), 13-21.
5. Ortega-Berlanga, B., Musiychuk, K., Shoji, Y., Chichester, J. A., Yusibov, V., Patiño-Rodríguez, O., & Alpuche-Solís, Á. G. (2016). Engineering and expression of a RhoA peptide against respiratory syncytial virus infection in plants. *Planta*, 243(2), 451-458.