

## ***Dr. Maykel Hernández-Mesa. Biography:***

My research career began in the research group Quality in Food, Environmental and Clinical Analytical Chemistry (FQM302; UGR) when I was granted a scholarship by the Ministry of Education (Spain) to carry out a research collaboration (2009). In 2012, I obtained a pre-doctoral fellowship (University Research Plan, UGR) to conduct a doctoral thesis under the supervision of Prof. A.M. García-Campaña and Prof. C. Cruces-Blanco (FQM302). I defended my PhD thesis on 4 March 2016, obtaining the highest grade and being awarded with 'Premio Extraordinario de Tesis Doctoral'. My thesis research was based on three pillars: development of analytical methods [e.g. capillary electrophoresis (CE), capillary electrochromatography (CEC), and liquid chromatography coupled to mass spectrometry (MS)] for residues determination; development of green sample treatments (solid phase extraction, etc.); and their application to food, environmental and clinical matrices. In 2014, I carried out a 4-months pre-doctoral stay at the 'Consiglio Nazionale delle Ricerche (CNR)' (Rome, Italy) for learning about CEC-MS hyphenation. After my PhD thesis, I obtained a 6-months postdoctoral contract (University Research Plan, UGR) to continue my research in the group FQM302. In October 2016, I joined Prof. Bruno Le Bizec's group (LABERCA-ONIRIS), where I enjoyed a 2-years postdoctoral fellowship funded by 'Fundación Ramón Areces' (Spain) and I evaluated the potential of ion mobility spectrometry (IMS) coupled to MS for steroidomics in the food safety framework. In October 2018, I was awarded with a postdoctoral fellowship (University Research Plan, UGR) and I joined the 'Biopolymères Interactions Assemblages (BIA)' unit headed by Dr. H. Rogniaux ('Institut National de la Recherche Agronomique (INRA)'; Nantes, France), where I acquired knowledge of IMS-MS for glycomics. In this context, I have coordinated and executed an inter-laboratory collaboration (LABERCA, BIA-INRA, Waters Corporation, 'Université de Genève') for the implementation of the collision cross section (CCS) as identification parameter in IMS-MS analyses for food safety purposes. I am currently granted a Marie Skłodowska-Curie Actions – Individual Fellowship (MSCA-IF) at LABERCA for applying metabolomics approaches based on IMS-MS and CE-MS to risk assessment. From a food safety perspective, my research interest at mid-to-long term is focused on the exposure to chemicals and their risks for the consumers. As a result of my research, I have published 21 articles in journals of high impact factor such as *Anal. Chem.*, *Talanta* or *Food Chem.* and 3 book chapters. I have presented 14 oral and 27 poster communications in national and international scientific meetings, receiving two prizes for oral communications (2013, 2017), and two poster awards (2014, 2019). I was also granted the AGRO New Investigator Award in 2017. My teaching experience includes 4 practical subjects (120 hours) and the supervision of three bachelor students (in Chemistry) and one master student (in Food Quality and Technology) at the UGR. Since 2017, I participate as lecture in the School for Advanced Residue Analysis in Food annually held at LABERCA. I am currently directing the Master Thesis of a student from the 'Université de Nantes'. I am accredited by the 'Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA)' as assistant professor and associate professor (i.e. 'profesor contratado' and 'profesor de universidad privada'). Source ORCID: [ORCID Dr. Maykel Hernández-Mesa](#)