

Antonio Martínez-Murcia

Professor/Scientist of Microbiology

Head of Laboratory and Research

Qualification and experience

Antonio Martínez-Murcia is the main promoter of the MDC creation project, starting by the beginning of 2001. He is director of MDC laboratories and administrative partner. He received his B.Sc. on Biochemistry (Valencia 1987), his PhD on phylogeny and genetic diagnostics of bacteria (Reading 1993). A. Murcia currently is Assistant Professor at several universities (University Rovira i Virgili, University of Valencia, University of Alicante) and actually is teaching microbiology at the University "Miguel Hernández", Orihuela, Alicante. He was responsible for the creation of "Unidad de Diagnóstico Molecular" at this university and is involved in several international research projects. He has more than 20 years experience in genetic analysis applied to bacterial phylogeny, evolution, taxonomy, typing, identification and molecular microbial ecology. He is author of the descriptions for 10 new bacterial species and joint research projects with other universities and hospitals. Director of 6 doctoral and master thesis and part of several committees for doctoral tribunals. He is a member of the "Aeromonas Working-group" of the "International Sub-Committee on *Vibrionaceae*, *Aeromonadaceae*, and related genera" (International Committee on Systematics of Prokaryotes), vocal-member of the taxonomy group of the Spanish Society for Microbiology, has been an adviser on genetic techniques for the Commission for Normalization of Microbiological Methods. Dr. Martínez-Murcia is author of almost 60 papers in peer-reviewed journals and book chapters and author of a patented PCR method.

MDC – Molecular Diagnostics Center, Orihuela, Spain

The Molecular Diagnostics Center (MDC) belongs to Biomolecular Technologies, Ltd., an SME created in 2003 that offers services of genetic analysis and technical support for a broad range of companies. The project was supported by the CEEI-Elche (an European Centre for Innovative Enterprises), by local investment partners and promoted by a group of scientist from the University Miguel Hernández, Orihuela, Alicante (Spain). MDC's goals are the provision of rapid diagnosis and analysis by combining the benefits of genetics and recent advances in instrument technology (automatic DNA extractions, real-time PCR, sequencing, micro-arrays, DNA-chips, etc.). MDC has assembled a portfolio of proprietary or licensed platforms to enable cost-effective automation of complex DNA detection, from sample preparation to multi-parametric DNA detection and quantification. Validation and automation of detection technology is of high interest to the SME, since MDC has been involved in National Committees dedicated to validate microbiological methods and, particularly, its director Dr. Antonio Martínez-Murcia has been named expert on genetic techniques.

Research Interest

Understanding of intra-species and inter-species phylogenetic structure of pathogens, based on the genetic history of indispensable single-copy gene and overall genomic organization, and their potential as pathogens based on the virulence factor content, iv) validation and automation of new molecular surveillance methods by molecular biology methods (RT-PCR).