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New antibacterial agents against gram-negative pathogens from a Fundacion MEDINA's Microbial natural products collection screening

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New antibacterial agents for treating Gram-negative bacteria are one of the main unmet medical needs because bacterial resistance represents a major issue for all classes of antibiotics. In this regard and considering that the majority of the antibiotics in the marketplace or clinical development derive from screening approaches with natural products, we developed a high throughput discovery program with the Fundación MEDINA's microbial natural products collection. This collection contains more than 131,000 extracts and covers an uncommonly unexplored broad chemical space resulting from a variety of fermentation products. From that screening, several new compounds have been identified with activity against Gram-negative pathogens possessing a previously unreported chemical scaffold. They may represent a starting point for the development of a novel treatment of infections. These new compounds (MDN-057, MDN-0114, MDN-0116 and MDN-0119) with unprecedented structures with molecular weights ranging from 282 to 544 Da and with MICs (Minimal Inhibitory Concentration) in the 40-128 µg/ml range against *Acinetobacter baumannii* and other resistant clinical strains are described in this work

Biography

Caridad Díaz completed his Degree in Biochemistry and Biology at the Granada University and she has worked as Researcher in the screening and target validation department from Fundación MEDINA since 2010. She has published more than 5 papers in reputed journals and has presented more than 10 communications in international congress.

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