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## Antibacterial activity of *Sepedonium* spp. strains isolated in Chile

A. Casanova-Katny<sup>1</sup>, G. Palfner<sup>2</sup>, J. Binimelis<sup>2</sup>, M.F. Morales<sup>3</sup>, C.A. Lima<sup>3</sup>, A. Inostroza<sup>2</sup>, A. Opazo<sup>3</sup> and G. González-Rocha<sup>3</sup><sup>1</sup>Núcleo de Estudios Ambientales, Universidad Católica de Temuco, Temuco. CHILE;<sup>2</sup>Laboratorio de Productos Naturales, Facultad de Ciencias Naturales y Oceanográficas, U. de Concepción<sup>3</sup>Laboratorio de Investigación en Agentes Antibacterianos, Facultad de Ciencias Biológicas, U. de Concepción. Barrio Universitario S/N, Arco Universidad de Concepción. Casilla 160-C. Concepción. CHILE

The increase in antimicrobial resistance (AMR) during the last two decades and the absence of new antibacterial products in the market has highlighted the importance of searching for compounds active against human and animal pathogenic bacteria. In Chile, this situation is no less worrisome, because many of the most resistant bacteria are present in hospitals and in the community. AMR increases morbidity/mortality, the extension of treatment as well as its total cost, where it has been seen in addition, that more than 25% of the budget of a hospital is dedicated to the cost of antibiotics alone. *Sepedonium* (Hypocreaceae, Ascomycota) infects fruiting bodies of members of the order Boletales, and specimens that produce Peptaibols active against some bacteria have been identified. In this work we studied the antagonistic activity of 28 strains of *Sepedonium* spp., recovered from 7 host species collected from different Chilean sites, against Gram-negative and positive bacteria by the agar diffusion method. *Sepedonium* spp. isolates were recovered from specimens of *Chalciporus*, *Paxillus*, *Xerocomus* and *Suillus* (introduced host species); and from *Boletus* and *Gastroboletus* (endemic host species) collected in Concepcion and St. Juana (Biobio Region), and Angol, Curacautín and Temuco (Araucania Region). Three species were molecularly identified: *S. ampullosporum*, *S. aff. chalcipori*, *S. chrysospermum*. A greater antagonistic activity against Gram-positive bacteria was observed, mainly upon both methicillin-susceptible and resistant *Staphylococcus aureus* and vancomycin-susceptible and resistant *Enterococcus* spp. with inhibition zones >11 mm. No activity was observed against *Escherichia coli*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa* and *Acinetobacter baumannii*. FONDEF ID16110286.

## Biography

G. González-Rocha has completed his PhD in Biological Sciences from Universidad de Concepción, Chile in 2002. He is a Full Professor at Universidad de Concepción, Department of Microbiology, Faculty of Biological Sciences. He has published more than 70 papers in peer reviewed journals, mainly related to antibiotic resistance in pathogenic bacteria.

ggonzal@udec.cl

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