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Exploring the chemical space of natural products from *Streptomyces* using multi-omics approaches

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Michiel T Uiterweerd*, **Isabel Nunez Santiago***, Remco Havenith, Chao Du, Le Zhang, Helga van der Heul, Somayah Elsayed, Adri Minnaard, Gilles van Wezel. Biomimetic total synthesis and paired omics identify an intermolecular Diels-Alder reaction as the key step in lugdunomycin biosynthesis. *ChemRxiv*. (2024). 10.26434/chemrxiv-2024-d4qs8

Isabel Nuñez Santiago*, Nataliia V Machushynets*, Marija Mladic, Doris A van Bergeijk, Somayah S Elsayed, Thomas Hankemeier, Gilles P van Wezel. NanoRAPIDS as an analytical pipeline for the discovery of novel bioactive metabolites in complex culture extracts at the nanoscale. *Commun Chem* **7**, 71 (2024). <https://doi.org/10.1038/s42004-024-01153-y>

Doris A van Bergeijk, Somayah S Elsayed, Chao Du, **Isabel Nuñez Santiago**, Anna M Roseboom, Le Zhang, Victor J Carrión, Herman P Spaink, Gilles P van Wezel. The ubiquitous catechol moiety elicits siderophore and angucycline production in *Streptomyces*. *Commun Chem* **5**, 14 (2022). <https://doi.org/10.1038/s42004-022-00632-4>

Michiel T Uiterweerd, **Isabel Nuñez Santiago**, Helga van der Heul, Gilles P van Wezel, Adriaan J Minnaard. Iso-maleimycin, a Constitutional Isomer of Maleimycin, from *Streptomyces* sp. QL37. *Eur. J. Org. Chem.*, 2020: 5145-5152. <https://doi.org/10.1002/ejoc.202000767>

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Curriculum Vitae

Curriculum Vitae

Isabel Núñez Santiago was born in Madrid, Spain. From an early age, she developed a strong interest in biology, particularly marine biology. However, due to her tendency to experience seasickness on boats, she decided to pursue a degree in Biología Sanitaria at the University of Alcalá de Henares, where she spent some of the most memorable years of her life.

In her fourth year, driven by a desire to explore new countries, she participated in an Erasmus exchange program in Leiden University, where she completed a minor in Molecular Biotechnology. During this time, she was introduced to the world of *Streptomyces* and had the opportunity to complete an internship in this field.

Following this experience, she enrolled in the Microbial Biotechnology and Health master's program at Leiden University. Her first internship allowed her to gain insight into natural products produced by streptomycetes, in the research group of Prof. Gilles van Wezel. For her second internship, she decided to move abroad again, joining the University of Cambridge to work on antimicrobial persisters in *E. coli* under the supervision of Dr. David Summers.

Her passion for *Streptomyces* remained strong, leading her to pursue a PhD in the research group of Prof. van Wezel. After the COVID-19 pandemic, during her third year of PhD and motivated by her enthusiasm for teaching and mentoring students, she decided to complete a distance master's degree in Education at the Universidad del Atlántico Medio. This additional qualification contributed to her obtaining the University Teaching Qualification (BKO) during her PhD.

Currently, she works as a Lecturer and Project Manager at Leiden University.

