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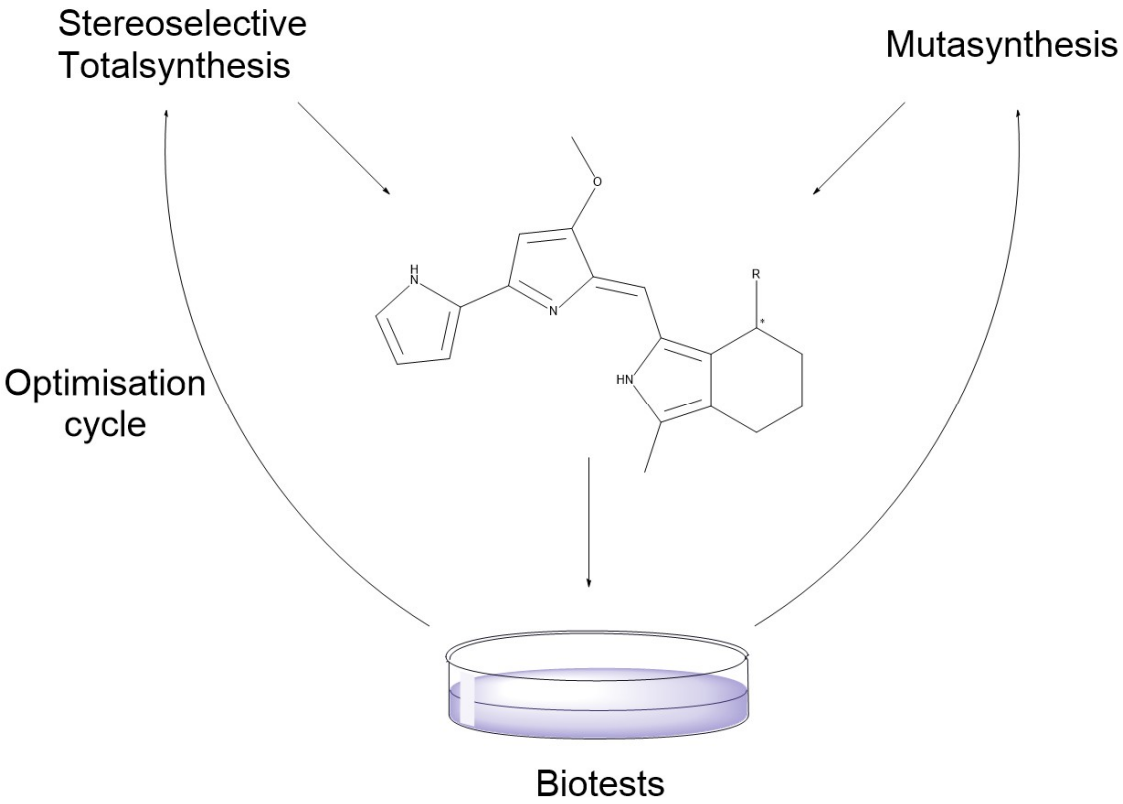
Stereoselective synthesis of cyclic prodigiosin derivatives for use in the therapy of multidrug-resistant bacterial diseases



Bacterial infections were considered a solved problem after the discovery and widespread use of antibiotics in the population. However, due to excessive and preventive use, more and more resistant multi-resistant strains are formed. Cycloprodigiosin not only shows enhanced antibiotic activity compared to linear prodigiosins but also maintains it against a variety of multidrug-resistant bacterial strains. With this in mind, a simpler stereoselective synthesis will be developed and used to synthesize derivatives. These will be tested and optimized against multi-resistant strains. In addition, analyses on the mutasynthetic production of cycloprodigiosins will be performed in collaboration with cooperation partners.

Matthias Bleser is working in the Institute of Bioorganic Chemistry (RG J. Pietruszka).

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