

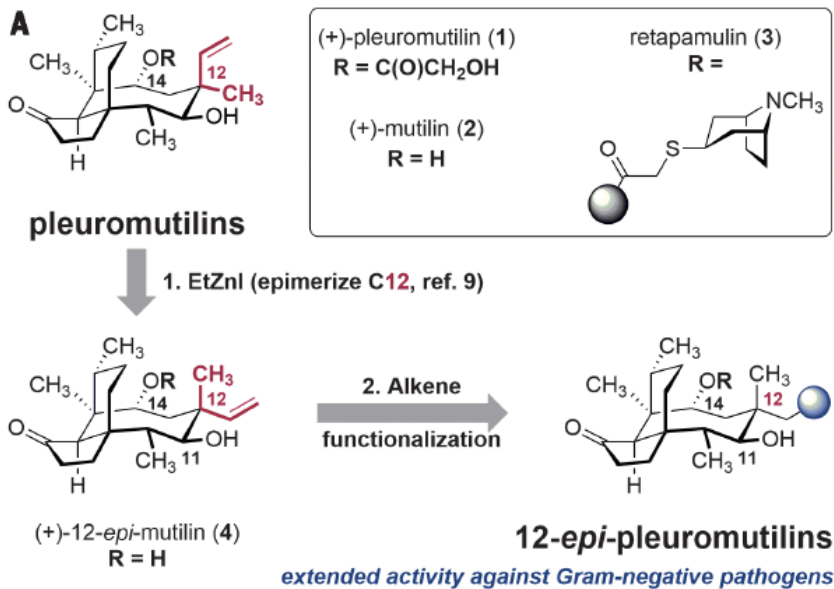
# Total synthesis of pleuromutilin antibiotics

Murphy, S. ; Zeng, M.; Herzon, S. "A modular and enantioselective synthesis of the pleuromutilin antibiotics" *Science*. 2017, 356, 956–959.

A new class of antibacterials that inhibit the growth of various gram-negative pathogens.

- Binding to the highly conserved peptidyl transferase center of the bacteria ribosome.
- Resistance is slow to develop and it displays minimal cross-resistance with existing antibiotics.

• This work represents a flexible strategy to access pleuromutilin and overcome the inherent limitations of semi-synthetic modification of (+)-pleuromutilin.



# Retrosynthetic analysis of mutilin scaffold

**B**

