Novel Pleuromutilin Antibiotics

OCR Number: OCR 7106

Description:

**Total Synthesis and Synthetic Route for Novel Antibiotics**

- About the Pleuromutilins
  - Bacterial protein synthesis inhibitor
  - Pleuromutilins approved/in the clinic
    - Approved (retapamulin; Altamab®) for topical use (impetigo)
    - Phase 3: Ivermectin (oral) various bacterial indications

- Current production Pleuromutilins
  - >3000 semisynthetic derivatives prepared modulated at C14
  - Little other exploration due to synthetic difficulties

- Future Production/Novel Pleuromutilins
  - Total synthesis at high efficiency
    - Commercially viable routes; high overall yield, short convergent synthesis
    - Ability to modulate ring size, introduce atomic substitutions, conduct deep SAR
    - Complete stereocontrol
    - Total synthesis facilitates novel chemistry

- OCR7106 IP Status:
  - Accepted to *Science*
  - Provisional patents filed
  - Both available under CDA

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