Novel Pleuromutilin Antibiotics

OCR Number: OCR 7106

Description:

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

- About the Pleuromutins
  - Bacterial protein synthesis inhibitor
  - Pleuromutins approved/in the clinic
    - Approved (retapamulin; Altabax®) for topical use (impetigo)
    - Phase 3: Iferomycin (oral) various bacterial indications
- Current production Pleuromutins
  - >3000 semisynthetic derivatives prepared modulated at C14
  - Little other exploration due to synthetic difficulties
- Future Production/Novel Pleuromutins
  - 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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