



ARTEMISININ PROCESSING SESSION

Dr Tian Nan-hui, Beijing Jin Ke Group

- Single extraction with Ethanol – 41%
- Ethanol primary extraction plus Silica Gel
41% + 22% from mother liquor
- Super Critical CO₂ – 85% but cost

Duong Ngoc Van, Saokim Pharma – 48%

Botanical Extracts EPZ, Nigel Bremner

- 25T/yr up to 60T/yr, 46-48% rising to 55% end '09
- Challenge is in crystallisation - removal of impurities

Fundacion Mundo Sano, Christian Desmarchelier

- PE, 200lt scale





ARTEMISININ PROCESSING SESSION

- **Sensapharm Ltd, Dr Neil Sullivan/Dr Lapkin**
HPLC sensor comparison - RI, ELSD v's UV
Set up reference lab with LC MS MS
Fast, accurate test of artemisinin in leaf
- **HFC – 134a Kamtech Technologies**
Dr Bhupinder Khambay
- **Bioniqs Ltd, Dr Neil Sullivan - Ionic Liquids**
- **Cranfield Health, Dr Yi Ge – Polymers**
- **Colin Hill - Derivatisation**



ARTEMISININ PROCESSING SESSION

- **The introduction of new extraction/purification technologies is related to the selling price of artemisinin i.e. will the costs of higher technology be outweighed by higher efficiency e.g. HFC/scCO₂? Need clear costs of new technologies.**
- **Need for multi extraction processing plants**
- **Higher efficiency through use of silica gel in China**
- **Development of new solvents which are more efficient, safer and environmentally friendly – in existing infrastructure**
- **Improvements in purification/crystallisation methods to improve efficiency and meet variability in plants**
- **Integration of extraction/purification technologies**
- **Need to improve accuracy and repeatability of analysis**
- **Development of new, more efficient derivitisation techniques, using “greener” chemicals.**

