



Institute of  
Pharmaceutical  
Innovation



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Collaboration

# Formulating the future

**EPIC Conference - 21 June 2007**

*Piers Lincoln, CIC Commercial Manager*



PART FINANCED BY THE EUROPEAN UNION

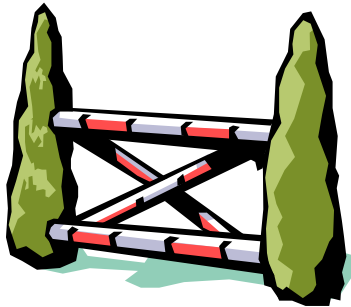


GOVERNMENT OFFICE  
FOR YORKSHIRE AND THE HUMBER

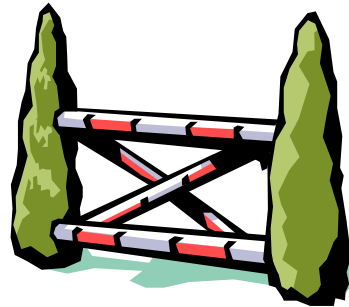


**‘Formulation is the essential step that transforms active compounds into successful products’**

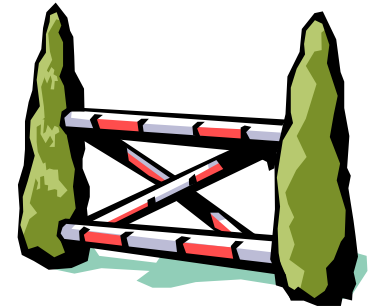
# The hurdles of transforming molecules into efficacious & safe medicines



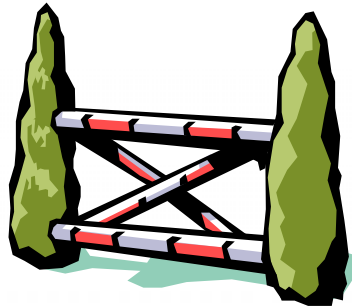
**Chemical Stability**



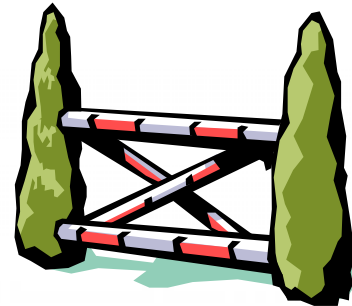
**Physical Stability**



**Processing properties**



**Formulation characteristics**



**Biopharmaceutics (drug absorption)**

These properties need assessing prior to and during Development.

# Meeting the challenges of molecules

- Poor solubility & bioavailability
- Drug deposition in the lungs
- New routes of administration (ocular)
- Controlled release
- Improved delivery to tumours
- Formulation of biologics



# Increasing value and deal flow

- Preformulation packages
  - portfolio risk and prioritisation
- Novel formulations
  - Novel IP, life cycle management
- Solid form selection studies
  - Polymorph studies, salt selection
    - Provision of key data to partners to reduce risk and speed up deal making

# CIC - Interactions with Industry

- 142 projects completed
- Worked with 52 companies
- Repeat business model



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# DanioLabs - Case Study

- Formulation project – aims
  - Very poorly soluble molecule
  - Aqueous formulation for pre-clinical study
- Project results
  - Novel ocular formulation developed for the study
  - Achieved within one month



# Alliance Pharma - Case Study

- Medical delivery systems design– aims
  - Novel DDS required
  - Multi-disciplinary approach required
- Project results
  - Concept to manufacture achieved within six months
  - CE marked device produced



**‘Come and have a chat  
with us afterwards if you  
think we can help you.’**

*ipi*

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