Public-private partnership for innovative drug discovery

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Novel Approaches to Solving the Anti-infective Crisis: The Combined Role of Government, Universities and Industry
Asclepia – Virtual Discovery Company

• Preclinical discovery and development group founded in 2009

• Provides medicinal chemistry research and services by designing and delivering innovative, therapeutically relevant compounds for drug discovery and development

• Asclepia is involved in multiple research collaborations (recently announced examples):
  – **BioVersys**: switching off drug resistance within bacterial pathogens and restoring the efficacy of approved antibiotics
  – **iTeos Therapeutics**: cancer immunotherapy
  – **Oncodesign**: biologically active macrocyclic small molecules with unique properties (Nanocyclix technology platform)
  – **ENABLE**: European programme funded by the Innovative Medicines Initiative targeting novel antibiotics for serious, drug-resistant Gram-ve infections
Asclepia Services

Essential services for drug discovery

- Design and provision of exclusive or non-exclusive novel discovery molecules
- Focused compound libraries are offered (with or without screening data)
- Critical Structure-Activity analysis and recommendations
- Patent drafting and strengthening, detailed IP analysis
- Tailored literature surveys

Asclepia MedChem Solutions is your partner for speed and best progress in drug discovery
Business model – discovery program

- Asclepia is responsible for coordination (medchem design + outsourcing to CRO’s)

- All IP rights are owned by the customer

- Flexible business model based upon a flat fee per project + limited downstream success-based milestones (to be discussed on project basis)

- Consultancy fee for service (per hour, half a day or a day)

- Full exclusivity on target(s)

Flexible business model, no IP rights claimed by Asclepia MedChem Solutions
Complementary roles of academia and Industry

How to close the gap to generate innovation and value for patients?
Drug Research Involves Hundreds of Assays

Lead Discovery

- Viable Leads
- Tractable SAR
- Animal Model Proof-of-Concept

Lead Optimization

- Biology
- Medicinal Chemistry
- DMPK (Metabolism)
- Pharmacology (Animal Models)
- Toxicology (Safety)

Preclin Dev.

Development Candidates

YEAR 1
- Q1
- Q2
- Q3
- Q4

YEAR 2
- Q1
- Q2
- Q3
- Q4

YEAR 3
- Q1
- Q2
- Q3
- Q4

YEAR 4
- Q1
- Q2
- Q3
- Q4

Total Number of Different Experiments Required: 100s-1000s
Key Roles For Complementary partners

**Academia**
- IDEA
- Target Enablement
- Screening

**CRO Market or Consortia**
(example ENABLE)

**Pharma Partner**

**Tech Transfer, Collaboration Model**

**Deliverable**
"Research Asset or program"

**Lead Discovery**
- Viable Leads
- Tractable SAR

**Lead Optimization**
- Animal Model Proof-of-Concept

**Preclin Dev.**
- EDC
- INDC

YEAR 1
Q1 Q2 Q3 Q4

YEAR 2
Q1 Q2 Q3 Q4

YEAR 3
Q1 Q2 Q3 Q4

YEAR 4
Q1 Q2 Q3 Q4

**Development Candidates**

**BIO International Convention**
The Global Event for Biotechnology

convention.bio.org
The ND4BB initiative is a series of Projects designed to directly address some of the scientific challenges associated with antibacterial drug discovery and development. Specifically the ND4BB Topic 3 (ENABLE) goals are focused on the:

- Creation of an integrated drug discovery platform with capacity to support an antibacterial pipeline
- Optimise a variety of programmes to deliver novel leads, candidates and a phase 1 asset
Unique Selling Proposition

• Our technical excellence and focus on valuable outcomes
• The Asclepia team has collectively over 40 years of experience in medicinal chemistry, pharmacology, preclinical development, business development and research outsourcing
• Strong biotech spirit (lean, out-of-the-box, fast decision making)
• Exceptional Medicinal Chemistry knowledge and expertise in inflammation, oncology, neuroscience and anti-infective diseases
• Asclepia values teamwork, respect for people and business integrity
• Excellent communication skills
THANK YOU

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