Open R&D: Sanofi Access Platform

Carole Fages, Early-To-Candidate department
Our Purpose
Extending Life & Relieving Suffering

We act as one to discover and develop therapies that prevent, treat and cure disease

One R&D
to prevent, treat and cure disease
Our Focus
We Are Where Diseases & Needs Are

Priority Areas of Research

- Oncology
- Vaccines
- Diabetes
- Ophthalmology
- Multiple Sclerosis
- Immuno-Modulation
- Infectious Diseases
- Rare Diseases
- Degenerative Diseases
- Renal Diseases
- Cardiovascular & Metabolism
- Animal Health
“THE OPEN INNOVATION MINDSET”

Fully Integrated Pharmaceutical Company
“Closed Innovation”

- We discover, develop, manufacture and distribute innovations ourselves in an integrated model
- Expertise must exist inside of our company
- If we invent and fund everything internally we will win

Fully Integrated Pharma Network
“Open Innovation”

- Most great ideas come from elsewhere
- Access to science, innovation and talented individuals
- Greater agility: try things, access resources, expand capacity without adding to infrastructure

Adapted from Open Innovation, by Henry Chesbrough
Expertise Mapping Across the Discovery Landscape

The value of relationships between pharmaceutical industry and academia lies in the difference of both partners and in their complementary competencies.

SANOFI Research & Development
Access Platform
Transforming the way we collaborate
ACCESS PLATFORM

- **Objectives & Strategy**
  - Translate innovative biology coming from academic or private researchers into leads/tools compounds with clear therapeutic track
  - Open Innovation Model: Risk and reward sharing approach
  - Facilitate academic researchers to spend time in Access Platform sites

- **Different Geographical Locations**
  - Strasbourg FR, Tucson US & Asia

- **Input**
  - Targets, novel phenotypic assays or tool compounds
  - Shared resources and expertise, joined team to conduct the research project

- **Opportunity**
  - Pharmaceutical tools/leads/candidates, publication, IPs, ...
  - Joint inventions will be co-owned (50/50)
THE PARTNERS

Partners with Institutes and not only individual PI for fostering long term dialogue and know how exchange
Mutual Benefits

**Academic Institutes**
- Access know-how and skills in pharmaceutical drug discovery through a fully operational and integrated platform
- Valorise project with pharma standards
- Funding mechanism

**Sanofi**
- Strengthen portfolio with innovative biology from academia & small biotech
- De-risking approach by making use of existing expertise and operational modalities

50/50 joint relationship
Project Example: target to lead

**Partner**
- Primary assay validated *
- Cells, proteins or plasmids
- Secondary assay identified *
- Relevant indication related secondary assay
- POC (in vitro, vivo if decided) *

**Sanofi**
- Upscaling of material
- Readout modification (384 wells)
- Drug Design
- HTS/MTS

* Shared between both partners

**Lead selection**

*Chemistry*  
*Early ADME*  
*Selectivity profile*  
*Patentability*
HTRF Technology applied for kinase inhibitor along the screening tree

**PRIMARY SCREENING**

**HTRF Technology: first choice for kinase inhibitor screening**
- Higher sensitivity & robustness compared to alternative technology (e.g. ATP assay consumption)
- Strong correlation between HTRF and standard radiofiltration technology

![Inhibition HTRF vs Inhibition filtration graph]

False positive due to inhibition of antibody with their respective epitope easily eliminate in counterscreening selection

**SECONDARY SCREENING**

**HTRF Technology for intracellular kinase activity**

1. Potent and Selective Kinase Inhibitors
2. Intracellular Phosphorylation
3. Functional Read-out
4. Recombinant Cells
5. Cell Proliferation (ATP content)
6. Cytokine Release (HTRF)
7. Insulin Secretion (HTRF)
Thank You!

«Strategy is useless without innovation, innovation is directionless without strategy.»
(J. Cao)