





# Your NHP expert partner for preclinical research





### Joachim Confais, PhD

Chief Scientific Officer Cynbiose / Cynbiose Respiratory

joachim.confais@cynbiose.com

www.cynbiose.com / www.cynbiose-respiratory.com



#### **ACTIVITIES**

Specialty CROs providing preclinical research services to assess pharmacological profiles, early safety and efficacy studies of drug candidates.

Core expertise on the non-human primate model.





- Incorporated in 2008, based near Lyon (France)
  - Preclinical CRO with a core expertise on the non-human primate model
- Offer : *in vivo* preclinical services, customized PoC models
- Business model : Fee for Services, R&D programs
- BSL-3 animal facility in France, approved for BSL-2 GMO
- GLP-like quality management system, accredited AAALAC since 2015
- Building a state-of-the-art facility (available from 2022)



 $\bullet$ 



cynbiose



# **Cynbiose Respiratory**

- Spin-off from the CEPR (Research Center for Respiratory Diseases INSERM UMR 1100), F. respiratory Rabelais University (Tours)
- Incorporated in 2017, based in Tours (France)

- Preclinical CRO dedicated to respiratory diseases & aerosol therapies
- Offer : *in vitro* & *in vivo* (rodent and NHP) preclinical services
- Business model : Fee for Services, R&D programs





# **OVERVIEW OF OUR PRECLINICAL OFFER**

### **Preclinical services**

#### Inhaled formulations & aerosol devices

Aerosol characterization

Deposition studies to refine the in vivo protocol

#### Pharmacology

- Pharmacokinetics : Blood, CSF, BAL...
- Biodistribution
- Pharmacodynamics

#### Early safety

#### Efficacy – PoC

- Clinically relevant models
- Available or on-demand
- Pharmacological validation



#### Sponsors

- Start-ups, biotechs and big pharmas
- Academic research teams

#### Main type of products

- Biologics, immunotherapies, ...
- Vaccines
- Gene and cell therapies
- Small molecules

#### Main therapeutic areas (PoC models)

- Central Nervous System
- Auto-immune diseases & inflammation
- Cardiovascular diseases
- Infectious & respiratory diseases
- Bone and musculoskeletal disorders



# Focus on innovative solutions for preclinical research in infectious diseases

- Efficacy models of bacterial, human viral, parasitic and co-infection
  - Catalogue of NHP models for tropical infections
  - Innovative NHP models for respiratory viral infections : hRSV, hMPV
  - Rodent models of acute and chronic bacterial & viral lung infection
  - On-demand infection models (BSL 1-3)
- On-going collaborative R&D projects : Covibiose (hSARS-CoV-2), sepsis model
- Cynbiome<sup>™</sup>: the 1<sup>st</sup> preclinical network of excellence for microbiome and infectious diseases based on the NHP model (PIA3)



# Les membres AFSSI ont la parole







# Focus on innovative solutions for aerosol therapies



In vitro services	In vivo services	Nose-to-brain delivery
<ul> <li>Inhaled formulations</li> <li>Aerosol devices</li> <li>Aerosol characterization</li> <li>Nasal / Pulmonary deposition in anatomical models (3D casts)</li> <li>Bioequivalence studies</li> </ul>	<ul> <li>Animal models of PK &amp; biodistribution after inhalation/aerosolization</li> <li>⇒ Pulmonary microdialysis</li> <li>⇒ Scintigraphy</li> <li>Efficacy models</li> <li>Pulmonary toxicity</li> <li>&gt; Respiratory function : lung function measurement and bioanalysis</li> </ul>	<ul> <li>Full exploratory package:</li> <li>Complete <i>in vivo</i> CNS PK and Biodistribution</li> <li>Sampling of blood, cerebrospinal fluid, cerebral microdialysis</li> <li>Efficacy models</li> <li>Neurotoxicity <ul> <li>Observation grid</li> <li>Behavioral tasks</li> <li>Imaging</li> </ul> </li> </ul>





# 5 take-home messages

- De-risk your lead candidates and maximize your IND with a clinically relevant species
- Scientific and technical advice
- Design of complex protocols, high added-value data in a robust QMS
- Experienced teams, flexibility and agility
- Strong customer relationship

### Bridge the gap between preclinical and clinical research





# Thank you for your attention!

# FOLLOW

**Cynbiose & Cynbiose Respiratory** @

CONTACT

# **Cynbiose & Cynbiose Respiratory**

www.cynbiose.com

www.cynbiose-respiratory.com



in

Cécile Durand

Business development and marketing manager

cecile.durand@cynbiose.com

+33 (0)6.08.41.21.86



Association Française des Sociétés de Services et d'Innovation www.afssi.fr