



Association Française  
des Sociétés de Services et d'Innovation



Les **membres AFSSI**  
ont la **parole** ”

**WEBINAIRE**



*Le partenaire incontournable de vos innovations*

*Proche de chez vous*





# VIBIOSPHEN

Patricia MARTIN  
VIBIOSPHEN

Labège (31)

Phone: +33 (0)5 61 28 70 34

Email: [patricia.martin@vibiosphen.com](mailto:patricia.martin@vibiosphen.com)

Website: [www.vibiosphen.com](http://www.vibiosphen.com)

Les membres AFSSI  
ont la parole ”

**WEBINAIRE**

Qui suis-je ?  
La réponse  
en 20 min

AFSSI  
Association Française  
des Sociétés de Services et d'Innovation

## NOTRE ACTIVITÉ

Vibiosphen takes part of the efforts that are underway to develop new **anti-infective therapies**, to rejuvenate the antibiotic pipeline, develop novel antibiotics, and discover innovative therapeutic strategies for priority pathogens



## VIBIOSPHEN



- Founded **6 years ago** by Maxime Fontanié
- Support for the **design of preclinical studies** for the development of innovative solutions in the fight against **infectious diseases** (viruses, bacteria, fungi)
- **One Health paradigm**



### Human Health

TACLE INFECTIOUS  
DISEASES



### Animal Health

REDUCE USE  
OF ANTIBIOTICS



### Microbes & Environment

CONTROL MICROBES  
PROLIFERATION /  
DESSIMINATION



### Nutraceuticals

ROLE OF GUT  
MICROBIOTA



## VIBIOSPHEN

### Our team

- **6 members** : microbiologist, pharmacologist, bioengineer, experts in pre-clinical R&D



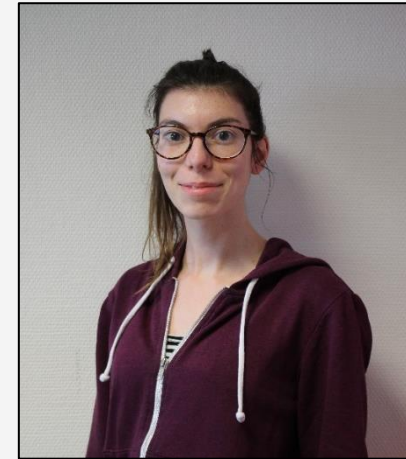
Christophe FREMEZ



Alexandre LAURENT



Annie BEHAR



Julie VIGNAU



Patricia MARTIN



## VIBIOSPHEN

### Our scientific committee

Christian G. Giske



Karolinska Institutet  
Clinical microbiologist  
and associate  
professor

Mariette Ducatez



INRAe  
Virologist  
Research director

Laurent Fraisse



Drugs for Neglected  
Diseases initiative (DNDi)  
R&D Director

Etienne Meunier



IPBS institute  
Immunologist  
Research director



## VIBIOSPHEN

### ➤ R&D 10%



### ➤ CRO 90%

➤ National : 42%

➤ Export : 58%

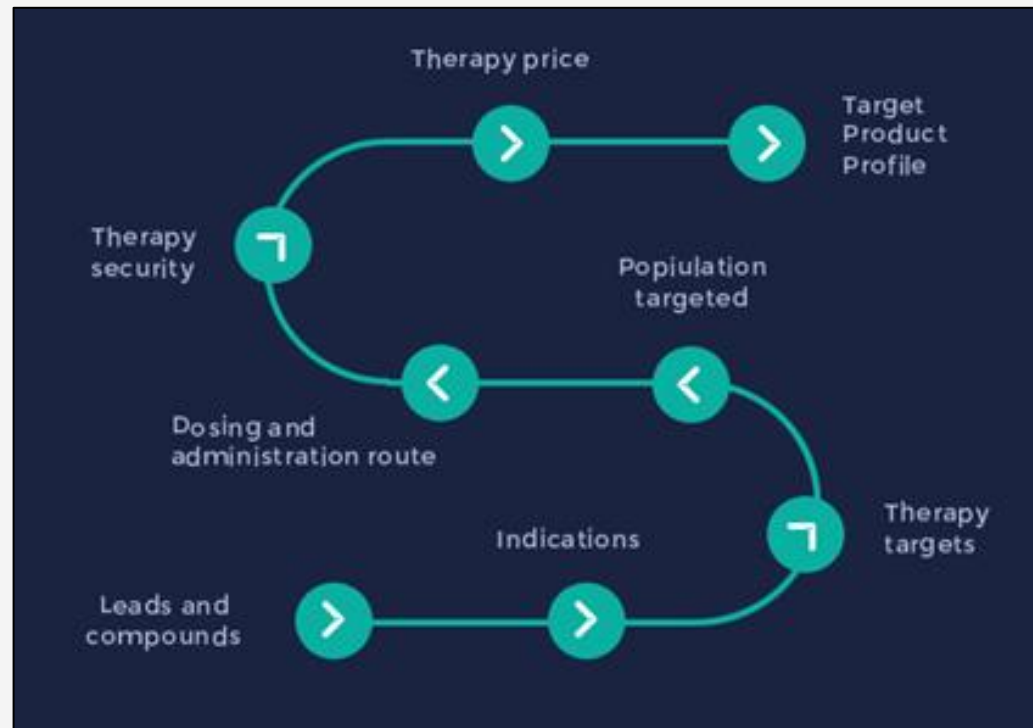
Aelin Therapeutics; Seppic; Merck; Ambiotis; Sanofi-Pasteur; Bayer; DNDi; Limmatech Biologics; Proneem; Life Materials; Synelvia...



## VIBIOSPHEN' STRENGTHS

Partner for **each step** of the therapy road that leads to define the **Target Product Profile**

**Profile (TPP)**

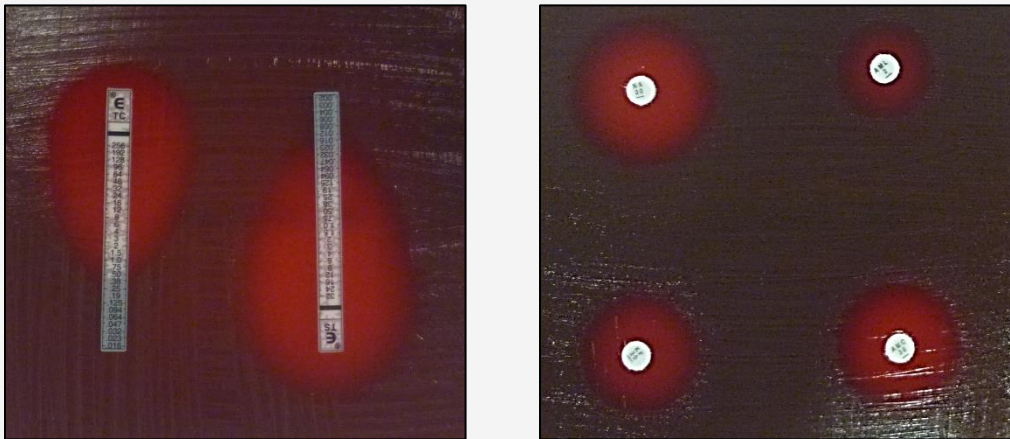


## Support to innovation

- *in vitro* compound efficacy

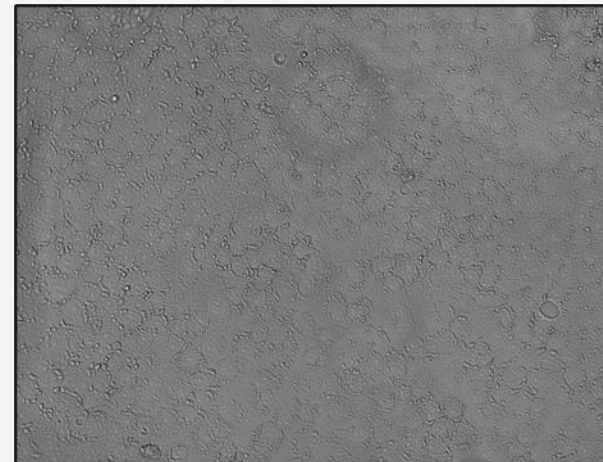
### Bacteria

Minimal Inhibitory Concentration (MIC)  
Antibiogram

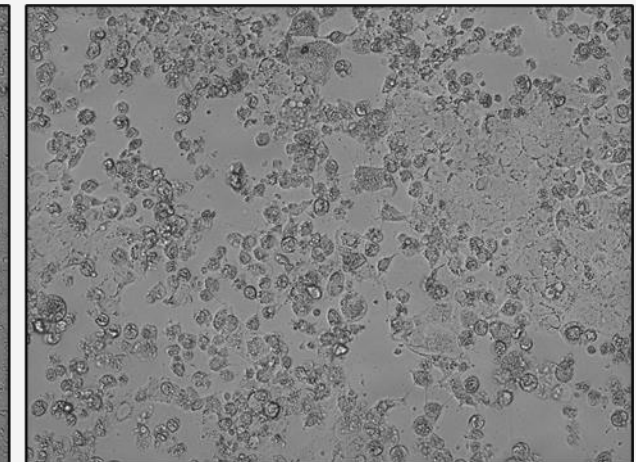


### Virus

No cytopathic effect  
No virus



Cytopathic effect  
virus

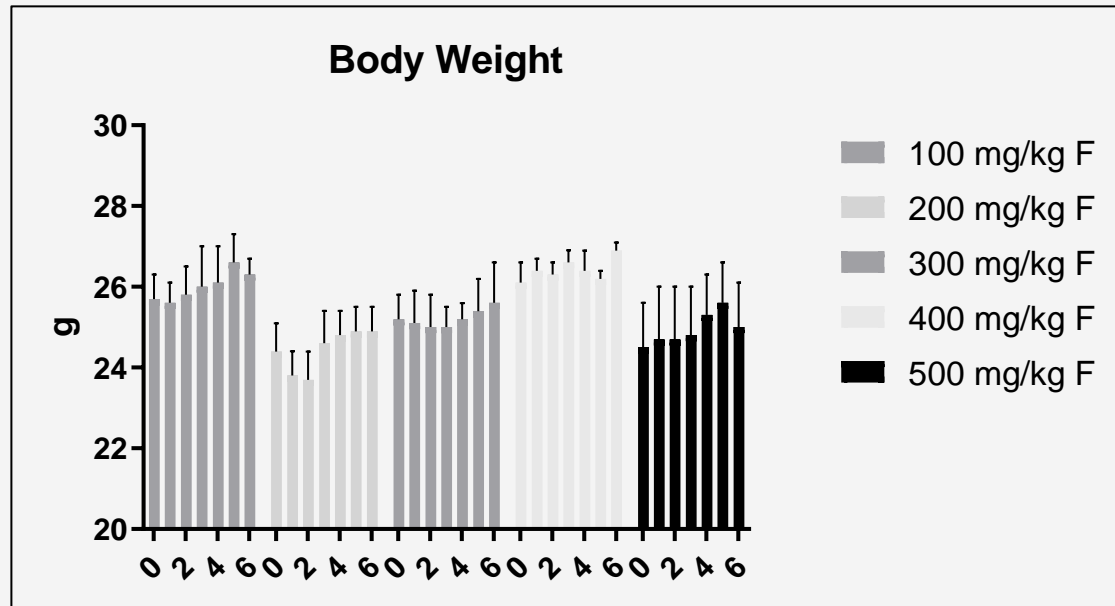




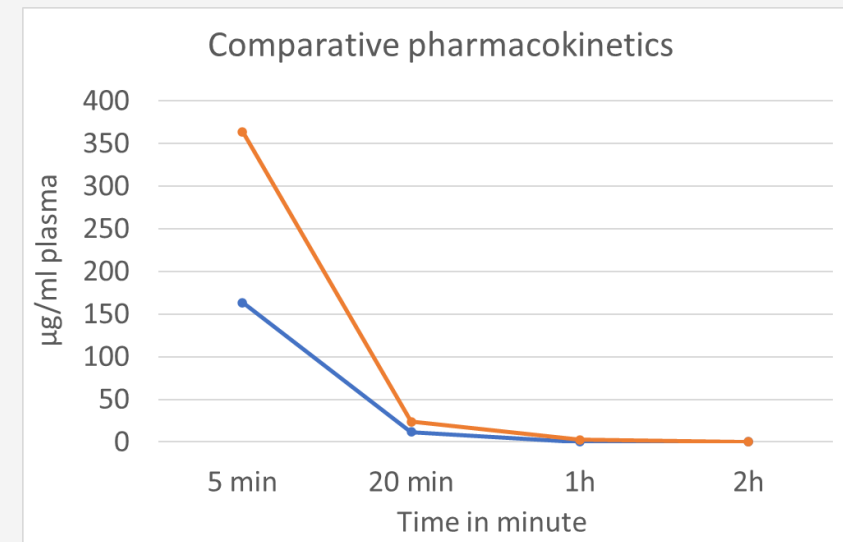


## Support to innovation

- *in vitro* and *in vivo* compound safety
  - Cytotoxicity
  - Maximal tolerated dose

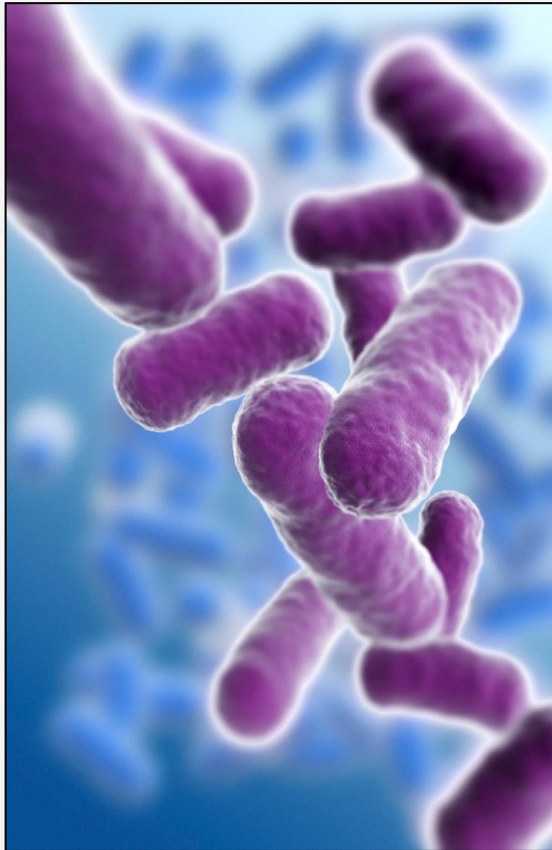


- Pharmacokinetics, Pharmacodynamics

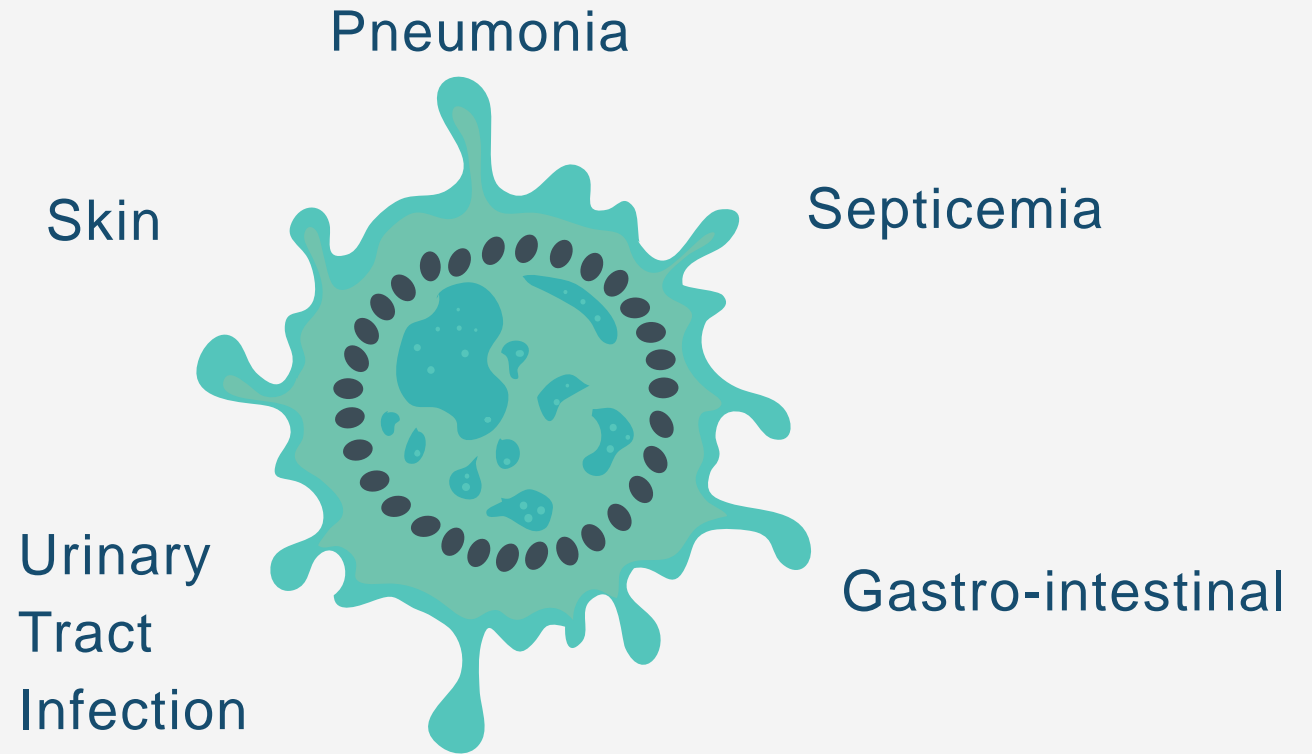




## Support to innovation



- *in vitro* and *in vivo* **bacterial** infectious diseases



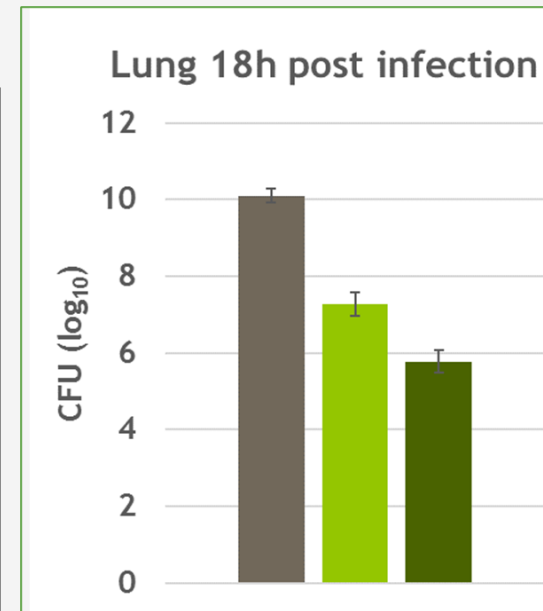
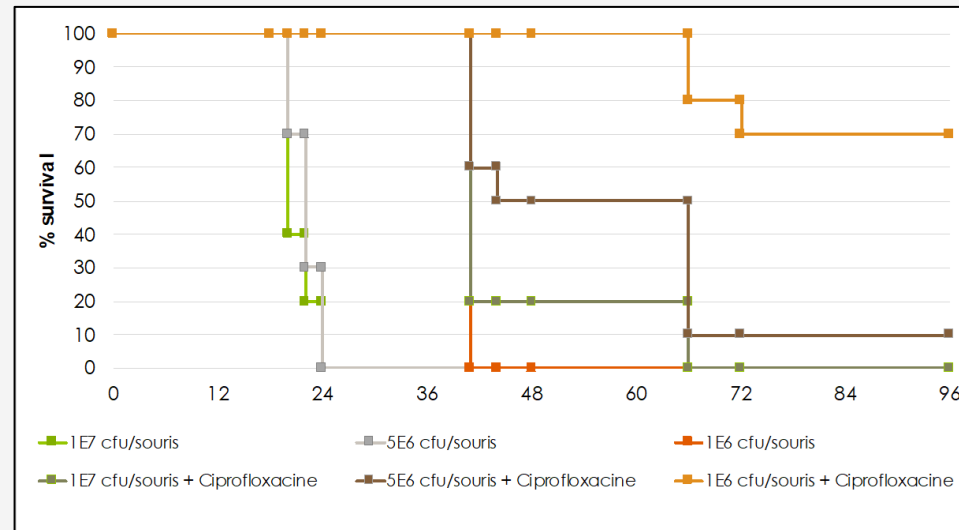


## Support to innovation

- *in vitro* and *in vivo* **bacterial** infectious diseases

### Read-out

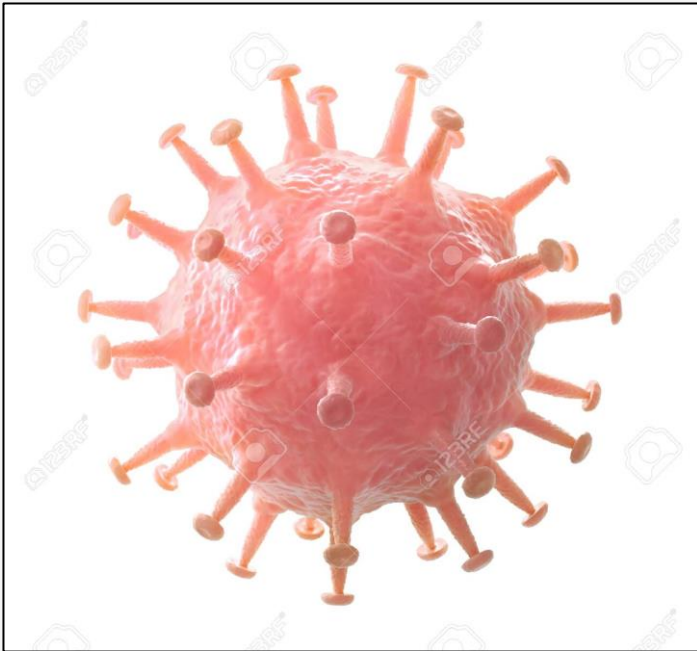
- Clinical symptoms (survival, body weight)
- Bacterial loads (CFU, qPCR)
- Inflammation
- Immune cell quantification
- Histopathological analysis





## Support to innovation

- *in vitro* and *in vivo* **viral** infectious diseases



*Influenza H1N1*

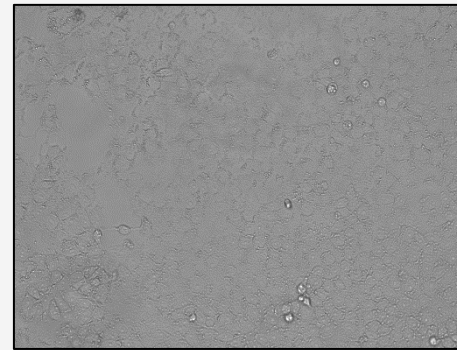
Sars-CoV-2

## Support to innovation

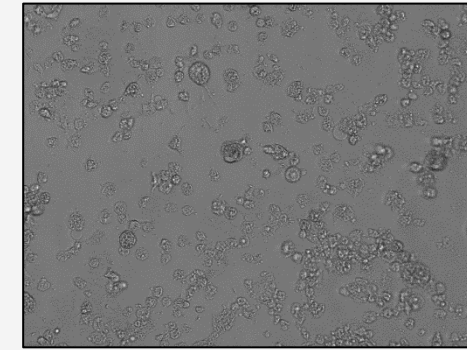
- *in vitro* and *in vivo* **viral** infectious diseases

### Read-out

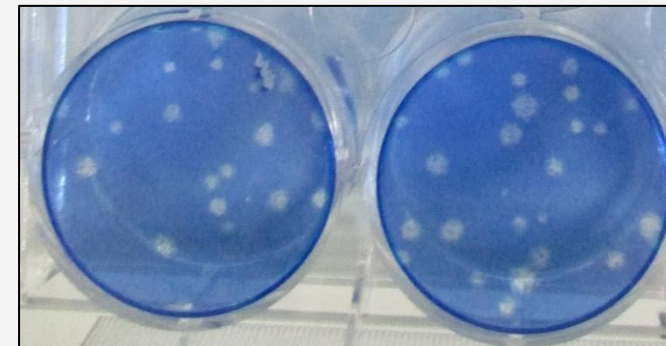
- Clinical symptoms (survival, body weight)
- Viral loads (TCID50, PFU, qPCR)
- Inflammation
- Immune cell quantification in targeted tissue
- Histopathological analysis



Non infected cells



Sars-CoV-2 infected cells



Plaques

## Support to innovation

- *in vitro* and *in vivo* **fungus** infectious diseases

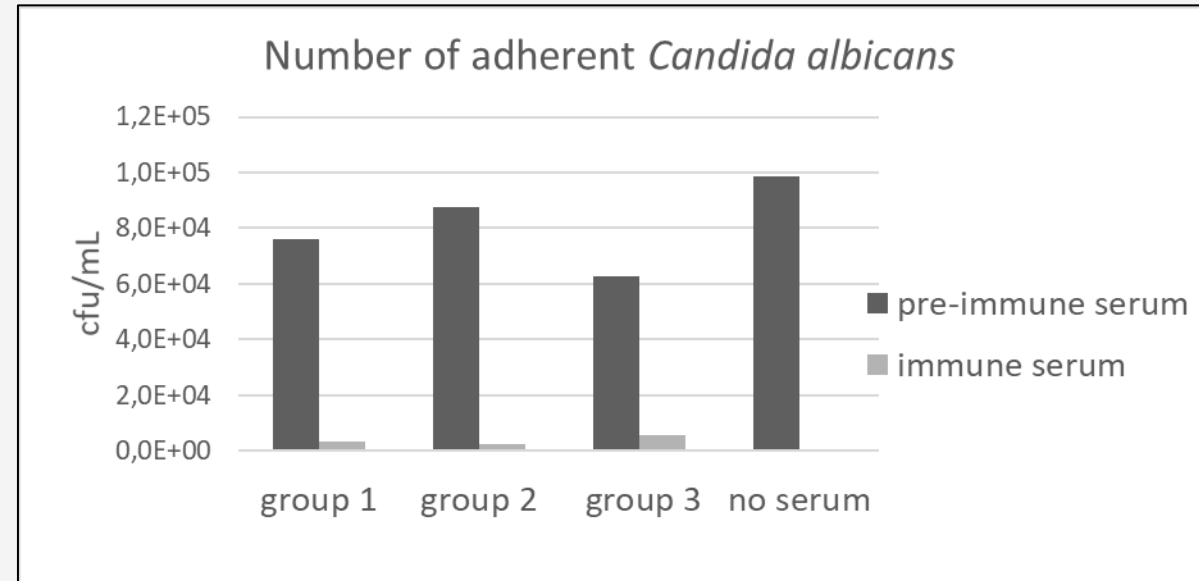
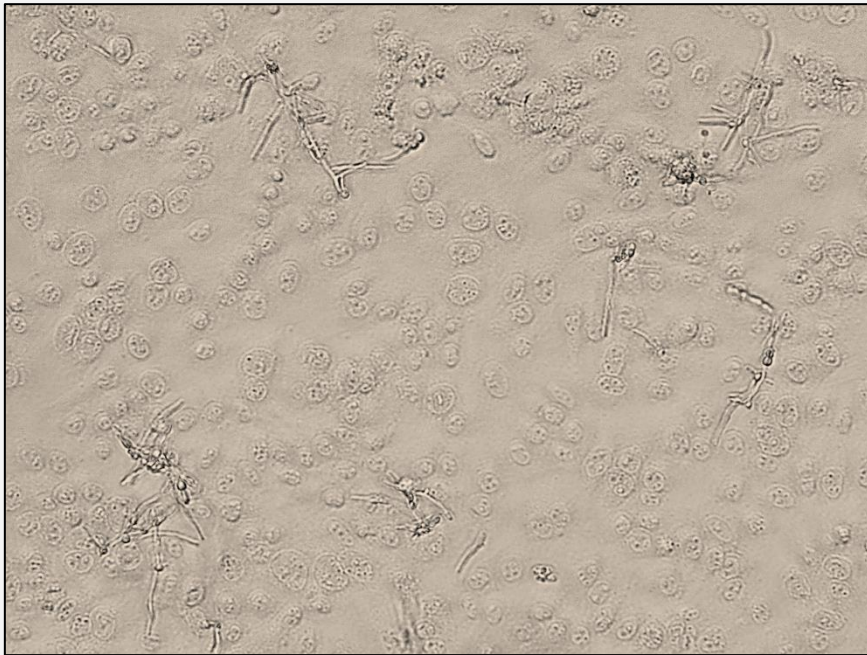


*Candida albicans*

*Aspergillus*

## Support to innovation

- *in vitro* and *in vivo* **fungal** infectious diseases

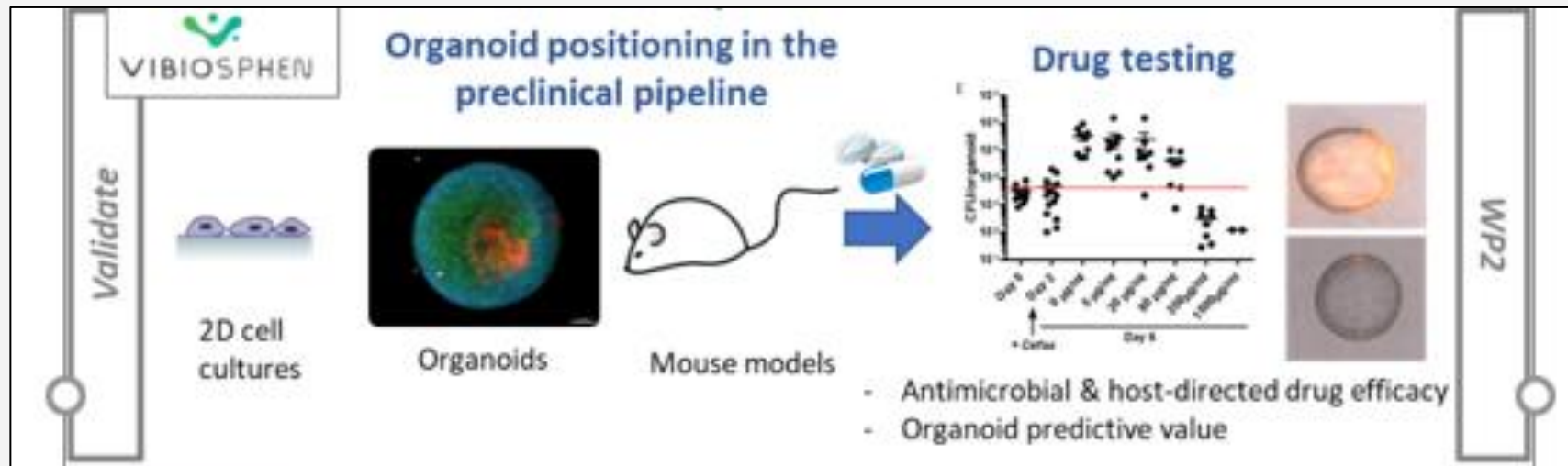


## Vibiosphen's innovation

### □ Development of an **organoid model of pulmonary infection**

PhD student, CIFRE

ANR OrganoFect, Céline COUGOULE, IPBS







**Microbes &  
Environment**

—  
CONTROL MICROBES  
PROLIFERATION /  
DESSIMINATION

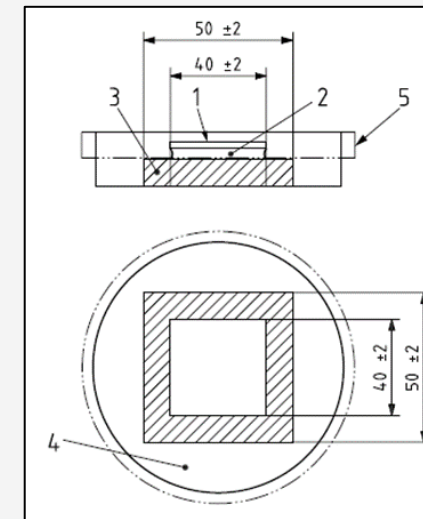
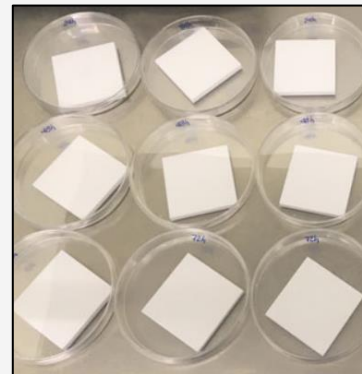
## Vibiosphen's innovation

- Development of the One Health paradigm

Measurement of anti-microbial activity of treatments applied on **abiotic surfaces**

(plastic, fabrics)

- International standards
- Anti-Sars-CoV-2 treatments



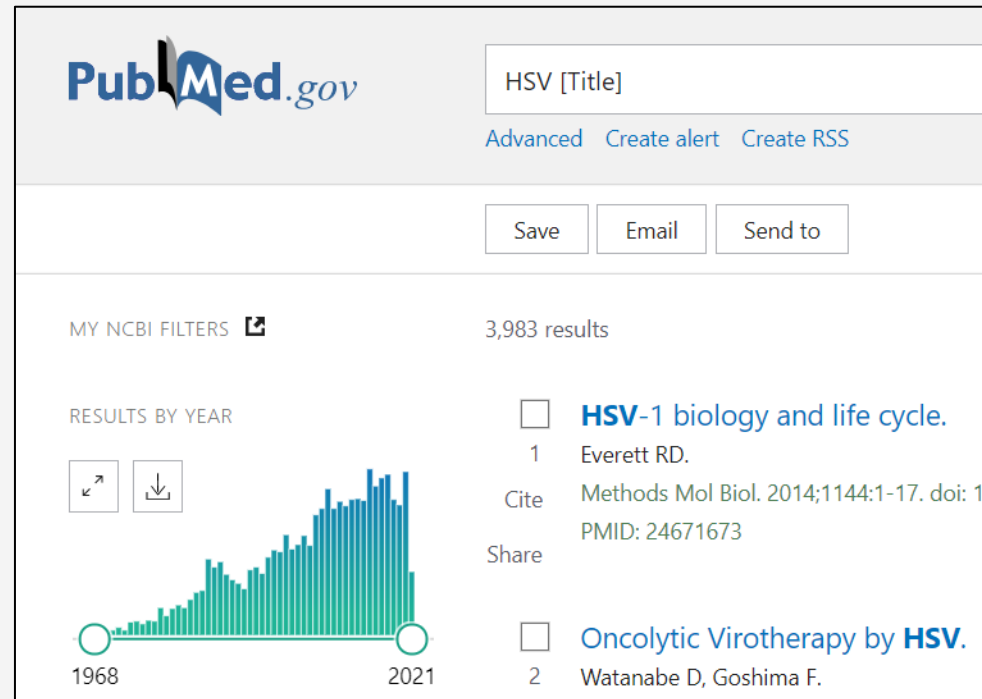
- 1 cover film
- 2 Sars-Cov-2 inoculum
- 3 test specimen
- 4 Petri dish
- 5 lid of Petri dish



## Vibiosphen's innovation

### □ Development of new models

- ✓ Herpes
- ✓ Chlamydia



Les membres AFSSI ont la parole



# THANK YOU FOR YOUR ATTENTION



[www.vibiosphen.com](http://www.vibiosphen.com)