



**IM2B**

**amU** Microbiology, bioenergies  
and biotechnology institute  
Aix Marseille Université



*Forming a community*

*Training through and for research*

*Connecting disciplines*

*Strengthening partnerships*

*Acting internationally*

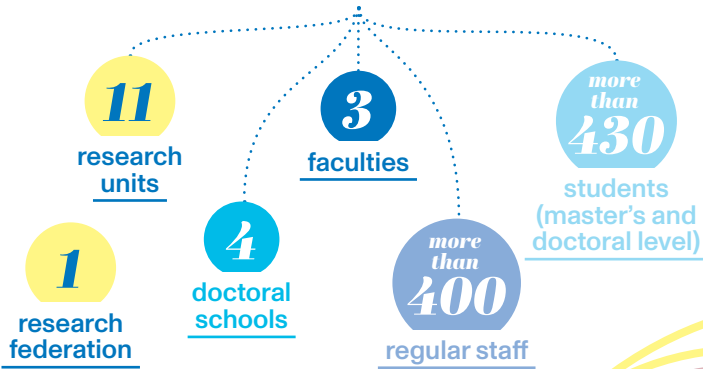


# IM2B

**Our goal: develop a network of internationally recognised laboratories to strengthen interdisciplinary research and teaching in microbiology and its applications.**

Understanding the diversity and functioning of microorganisms, at the molecular, cellular and ecosystem levels, and their interactions with their environment, is essential for tackling the complexity of the microbial world, exploring its adaptive capacities and developing biotechnological solutions in the fields of energy, the environment and health. The Institute for microbiology, bioenergies and biotechnology (IM2B) brings together research and training players in this field at the Aix-Marseille site, as well as a network of leading technology platforms. It catalyses the initiation of innovative interdisciplinary research, the development of innovative, internationally oriented training courses and the structuring of technology clusters.

## Forming a community



- Biodiversity
- Microorganisms
- Molecular machines
- Photosynthetic organisms
- Catalytic mechanisms
- Metabolism

## Training through and for research

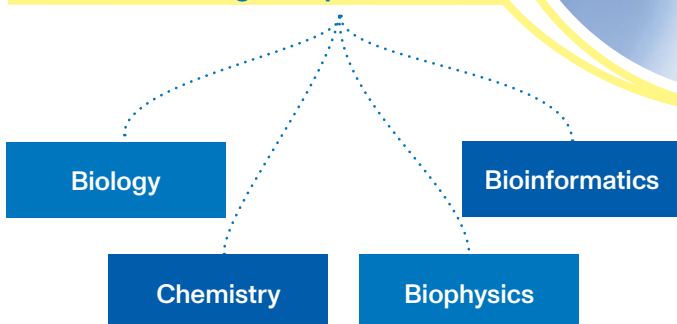
- ▶ Training in cutting-edge technologies on technology platforms
- ▶ An interdisciplinary doctoral programme in microbiology
- ▶ Funding for jointly supervised theses



## Acting internationally

- ▶ Outgoing internship support for students
- ▶ Grants for PhD and postdoctoral students to take part in international conferences
- ▶ Support for the organisation of international conferences

## Connecting disciplines



## Strengthening partnerships

- ▶ Public research bodies
- ▶ Competitive clusters
- ▶ Research infrastructure
- ▶ European universities
- ▶ Energy and environment sector companies

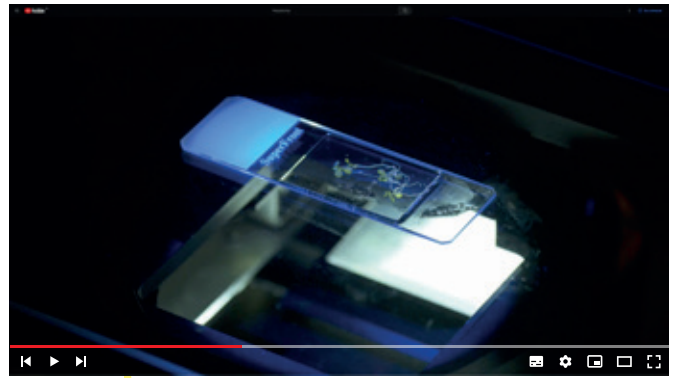
**A network of technology platforms structured around 6 clusters**

**Incentive calls for projects**

**Grouping teams according to key investments**



Watch the institute's animated film



IM2B institute - A network of cutting-edge life sciences facilities



## Meet our executive office



Co-director:  
**Marie-Thérèse  
Giudici-Ortoni**



Co-director:  
**David Pignol**



Deputy research director:  
**Eric Cascales**



Deputy training co-directors:  
**Bruno Faure**



Deputy training co-directors:  
**Christophe Laloi**



Technology platforms and  
development deputy  
co-director:  
**Déborah Byrne**



Technology platforms  
and development deputy  
co-director, Project manager:  
**Agnès Kammoun**

Discover the entire governance team: <http://url.univ-amu.fr/institut-im2b-gouvernance>

## Focus on our network of platforms

IM2B federates a network of 28 technological platforms, open to national and international collaborations, to understand the diversity and operation of living organisms and particularly the microbial world. Using cutting-edge technologies, some of which are unique in France, sixty engineers who are experts in their field are committed to research, training and innovation. These platforms are used to culture a wide range of organisms, produce and purify different types of biomolecules, reveal their interactions, dynamics and structure, observe living organisms using imaging, and conduct large-scale multi-omics studies for in-depth analysis and understanding of biological systems.



## Contact

Co-directors: Marie-Thérèse Giudici-Ortoni & David Pignol  
Project manager: Agnès Kammoun

[im2b-direction@univ-amu.fr](mailto:im2b-direction@univ-amu.fr)

[www.univ-amu.fr/im2b](http://www.univ-amu.fr/im2b)



# Training at IM2B

**amU** Microbiology, bioenergies  
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*Training for, through and in research,  
with continuity from master's to doctorate level*

Training for, through and in research,  
with continuity from master's to doctorate level

## Our ecosystem

more than  
**380**

master's students<sup>1</sup>

around  
**150**

PhD students<sup>2</sup>

**3**

partner faculties

- ▶ Faculty of sciences (FS)
- ▶ Marseille polytech
- ▶ Faculty of pharmacy

**4**

partner doctoral schools

- ▶ Life sciences (ED 658)
- ▶ Biomedical research (ED 659)
- ▶ Chemical sciences (ED 250)
- ▶ Environmental sciences (ED 251)

**5**

key master's

- ▶ Microbiology
- ▶ Structural biology, genomics
- ▶ Life chemistry
- ▶ Agricultural, food and environmental science and technology
- ▶ Biological engineering studies at Marseille polytech

**1**

Plinius course interdisciplinary doctoral programme

Consult our doctoral programme:



<sup>1</sup> students enrolled in Marseille Polytech master's and engineering specialisations, under the auspices of the institute

<sup>2</sup> doctoral students enrolled in our partner doctoral schools

## Our key actions

- ▶ Funding for interdisciplinary theses or theses carried out in partnership with a company
- ▶ Funding of M2 internships on technology platforms to develop new methodologies or technologies
- ▶ Practical training in cutting-edge technologies
- ▶ iGEM international competition for synthetic biology
- ▶ Internship mobility grants

2020-2023

**15**

platforms taking part in training courses

**9**

internships on technology platforms

**4**

entries (all award-winning) to the iGEM competition

**10**

inter-laboratory theses

**2**

partnership theses

Plinius course doctoral programme

**70**

training courses

**210**

students trained

**14**

outgoing internship mobility grants

## Our international training initiatives

CIVIS alliance  
European civic university

3 international seasonal schools, as part of CIVIS alliance,

2 diplomas in international partnership with the University of Rome - La Sapienza

WUT-AMU Franco-Chinese Institute:  
1 double diploma in Microbiology

30% of PhD students funded by the IM2B are international



**Josiane Azizi**  
M2 Biotechnology, Lebanese University, Lebanon  
MIO/LISM doctoral student

"An incoming mobility grant from the IM2B institute in 2021, enabled me to do my Master 2 internship in Marseille in the BBF laboratory. This international experience enabled me to build up a scientific network and continue my scientific career in Marseille, as part of a thesis co-funded by the IM2B institute."

## Contact

Deputy training co-directors: Bruno Faure and Christophe Laloi

im2b-direction@univ-amu.fr

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# Research at IM2B

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*Bringing together the strengths in microbiology  
of the Aix-Marseille site to consolidate  
our international scientific position*



*Bringing together the strengths in microbiology of the Aix-Marseille site to consolidate our international scientific position*

## Research ecosystem

**11**  
research  
units

### Energy

- ▶ Fungal biodiversity and biotechnology lab (BBF)
- ▶ Aix-Marseille biosciences and biotechnologies institute (BIAM)
- ▶ Bioenergetics and protein engineering (BIP)

### Environment

- ▶ Mediterranean institute of oceanography (MIO)

### Health and life sciences

- ▶ Architecture and function of biological macromolecules (AFMB)
- ▶ Genomic & structural information (IGS)
- ▶ Bacterial chemistry laboratory (LCB)
- ▶ Laboratory for macromolecular systems engineering (LISM)
- ▶ Membranes and therapeutic targets (MCT)

### Advanced science and technology

- ▶ Marseille institute for molecular science (ISM2)
- ▶ Mechanics, modelling and clean processes laboratory (M2P2)

**1**  
research  
federation

- ▶ Mediterranean institute for microbiology

*"I am the coordinator for the FeShijack project, supported by the IM2B Institute and winner of the A\*Midex 2021 Interdisciplinarity call for projects. This collaborative project, led by 3 teams from the BIP, IGS and LCB laboratories, is exploring the role of iron-sulphur centres in giant viruses. IM2B has been a real catalyst in launching this emerging theme and positioning us for future calls for projects."*



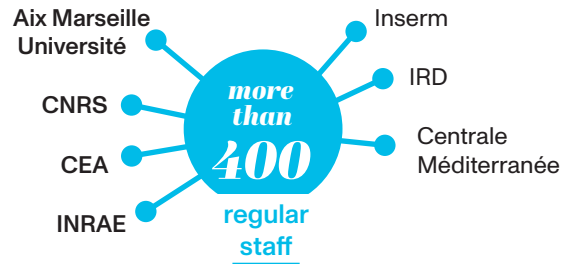
**Bénédicte Burlat**  
Senior lecturer, AMU

## Contact

Deputy research director: Eric Cascales

im2b-direction@univ-amu.fr

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## Our main areas of research

- ▶ Biodiversity, molecular mechanisms and machines
- ▶ Diversity of metabolisms and cellular approaches
- ▶ Inter-organism dialogue (micro/macro-organisms)
- ▶ Biotechnologies: bioenergy, environment, health

## Our key actions

- ▶ Support for new inter-laboratory collaborations to develop interdisciplinary issues
- ▶ Launching new research areas
- ▶ Support for innovation and technology transfer
- ▶ Scientific events organised by and for IM2B members
- ▶ International scientific conferences jointly organised and supported by the institute

2020-2023

**10**

"Interdisciplinarity"  
awardee projects

**23**

"Newcomer"  
winners

**2**

"Proof of concept"  
awardee projects

**10**

scientific  
events

**21**

international  
scientific  
conferences

## Strengthening and developing special links with academic and institutional players and the socio-economic and cultural world

"IM2B has always been an active member of the community of companies and research laboratories run by the competitiveness cluster.

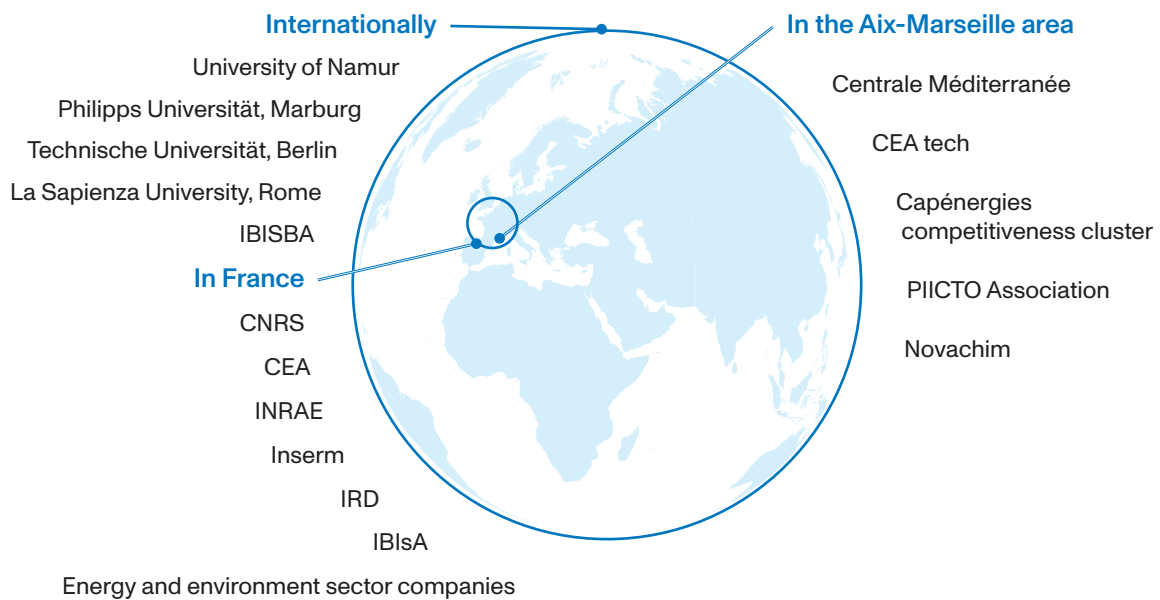
This is reflected in project certifications, organisation of joint events and our very interesting participation in the institute's Scientific ADVISORY Board.

We appreciate the ambition, high level of research and interdisciplinary approach."

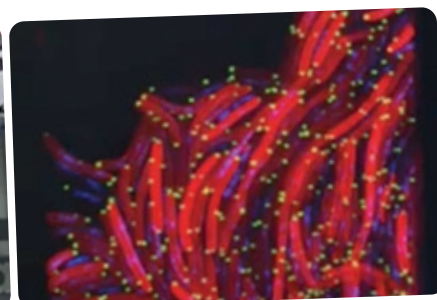


Anne-Marie Perez  
Managing Director of Capenergies

### Our key partners include



### Our key actions



### Contact

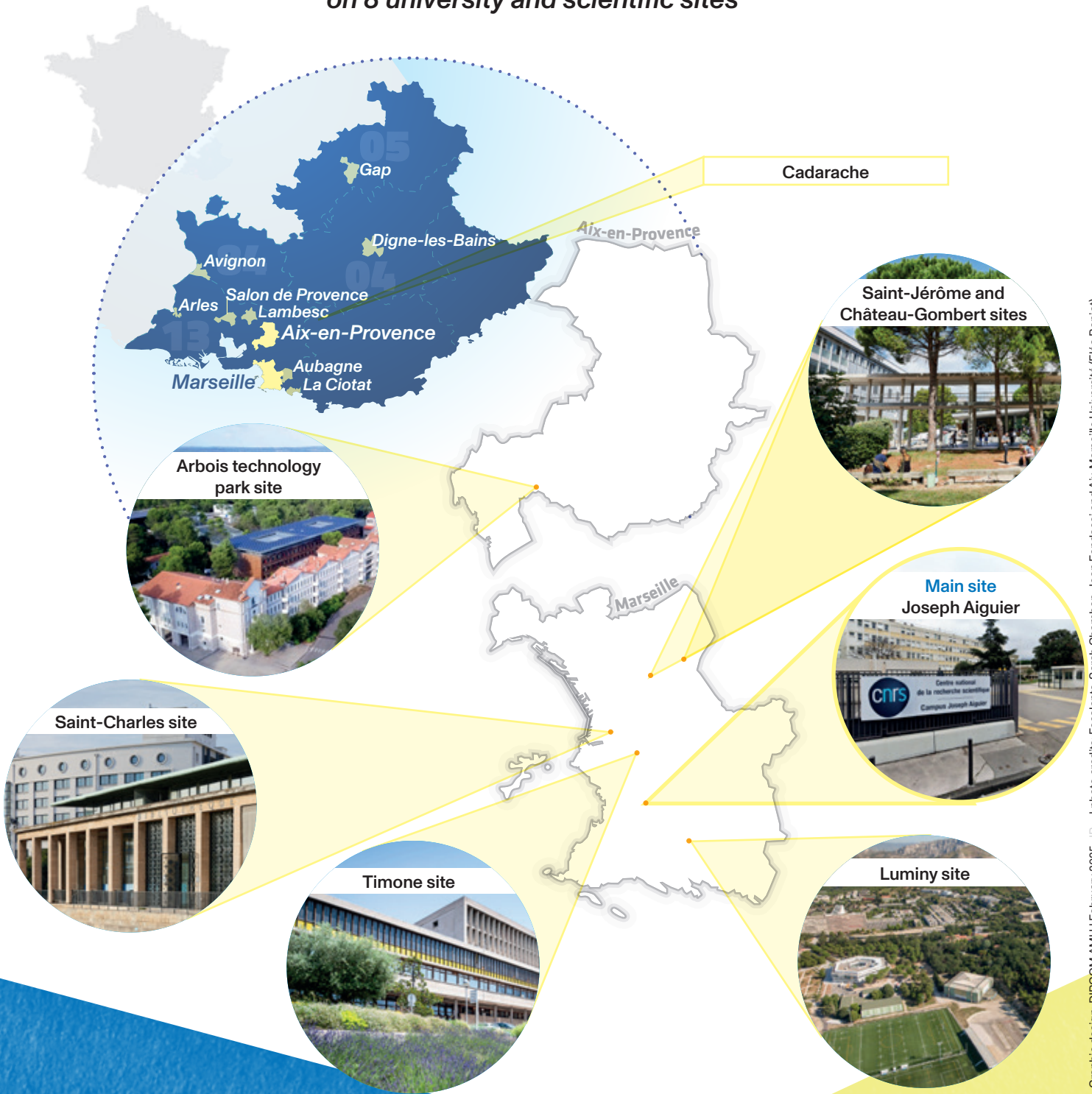
Technology platforms and development deputy co-directors: Déborah Byrne and Agnès Kammoun  
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*The IM2B institute brings together teams  
on 8 university and scientific sites*



The Aix Marseille Université institutes are coordinated by the Amidex foundation



The Aix-Marseille Excellence Initiative, a consortium between Aix Marseille Université and 8 partners

