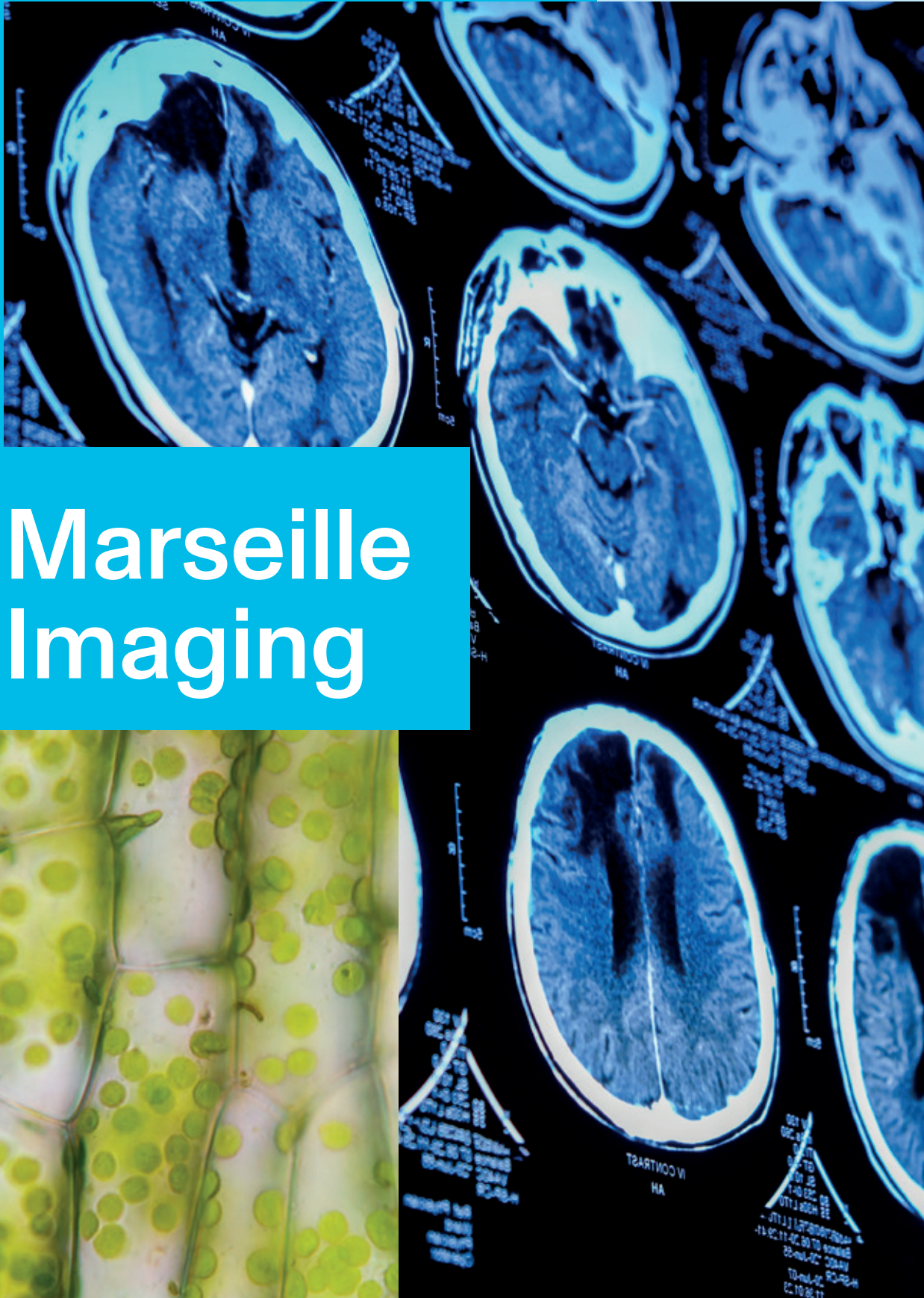




Marseille Imaging



Our main objective: to unite and promote the imaging strengths of the Aix-Marseille site on the international stage

Aix Marseille Université's imaging strengths represent excellence in many biological and medical imaging modalities. It is exceptional to have so many key facilities and research teams of such high calibre on the same site. The priority areas for research and training are ultimate imaging, imaging therapy, imaging for all and emerging and disruptive techniques (AI). The Marseille imaging institute was set up in 2019, bringing together and supporting all the players involved in training and research, with the aim of increasing international visibility and facilitating exchanges with industrial and socio-economic partners. Co-design is the core of our concerns, facilitating interdisciplinarity ranging from instrumental and technological design to medical applications, with data science and image processing as common threads.

Forming a community

25 research units

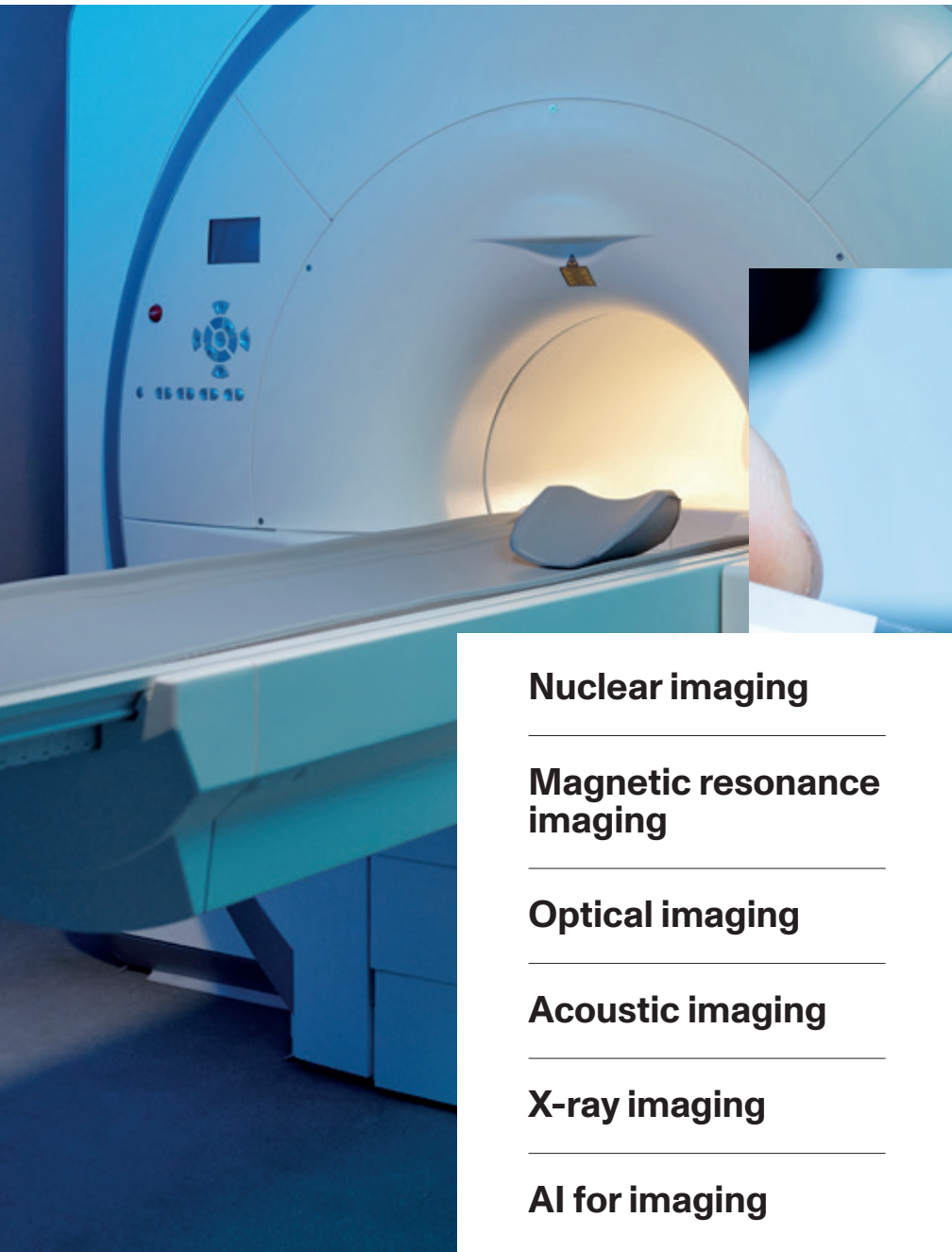
15 imaging platforms

5 doctoral schools

5 faculties

more than 820 staff

more than 440 students (master's and doctoral)



Nuclear imaging

Magnetic resonance imaging

Optical imaging

Acoustic imaging

X-ray imaging

AI for imaging



Bringing disciplines closer together

Advanced science and technology

Data sciences

Life sciences

Health

Pooled key facilities

“Innovation” and
“Co-design” calls
for projects



Training through and for research

Imaging specialised schools

Laboratory immersion internships

Imaging-specific training
(AI, MRI physics, etc.)

Acting internationally

Societal chair and international
cooperations

Student mobilities

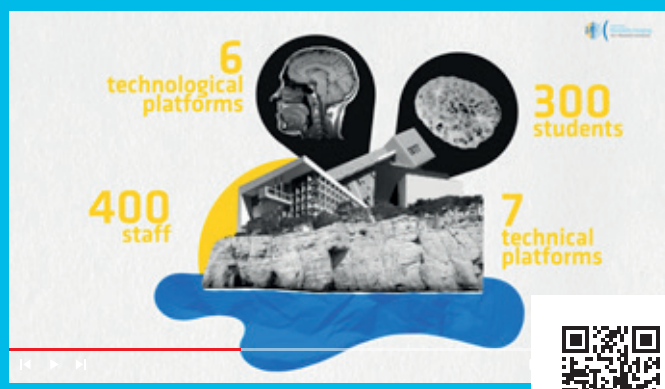
Biomedical Imaging School



Strengthening partnerships

- Multiwave Imaging
- Siemens Healthineers
- General Electric
- Olea Medical
- France Life Imaging
- France Bio Imaging
- ...

Videos



Watch the institute's animated film



The institute as seen by its members

Our executive office

The entire governance team: <http://url.univ-amu.fr/institut-marseilleimaging-gouvernance>



Director:
Monique Bernard



Operations manager:
Cécile Lavoûte



Deputy research
director:
Christian Bénar



Deputy training
director:
Marc Dubois

Contact

Director:
Monique Bernard

Operations manager:
Cécile Lavoûte

marseille-imaging@univ-amu.fr

<https://institut-imaging.univ-amu.fr/>

 **Marseille Imaging**

Focus on our technology platforms

The Marseille imaging institute brings together a large number of key clinical and preclinical facilities in the field of biological and medical imaging, together with around fifteen accredited platforms and technical centres. They are a major strength of the site, providing a focus for research, education and links with the socio-economic world. The platforms benefit from close links with research in instrumentation, chemistry and image processing, on the one hand, and with biology research units and clinical departments on the other.

These platforms and technical centres provide access to cutting-edge equipment for observation of cells and human multi-organ systems under normal and pathological conditions for all existing modalities, including high-field and ultra-highfield magnetic resonance imaging (MRI), nuclear imaging methods (PET CT, SPECT CT), spectral scanning (SPCCT), ultrafast X-ray imaging, magnetoencephalography (MEG), ultrasound and all optical methods (microscopy, non-linear optics, spectral biphoton imaging, endoscopy, etc.)



Training at Marseille Imaging



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



Our training ecosystem

**more than 290
master's students***

5 partner faculties

Faculty of medical and
paramedical sciences (SMPM)

Faculty of sciences

Faculty of pharmacy

Aix-Marseille institute of
technology (IUT)

Marseille polytech

**around 150 PhD
students***

**5 partner doctoral
schools**

Life sciences (ED 658)

Biomedical research (ED 659)

Marseille mathematics and
computer sciences (ED 184)

Physics and science
of matter (ED 352)

Engineering sciences (ED 353)

4 key master's

Signal and image processing (TSI)

Physics, Europhotonics

Health engineering, "Innovative
diagnostic and therapeutic
drug design"(NewDEAL)

Polytech engineering
curriculum, "Biomedical
Engineering" specialisation

**1 interdisciplinary
PhD programme**

* These figures include students enrolled in master's specialisations affiliated with the institute and PhD students enrolled in our partner doctoral schools.

Explore our
full range of
training offers:





Our key actions since 2020

Biennial seasonal school
for biomedical imaging

Biennial R&D seminar
for biomedical imaging

Immersion laboratory
internships lasting
from 4 to 6 months

Interdisciplinary theses

Specific training in artificial
intelligence for imaging

**420 participants in
seasonal schools**

**520 participants
in R&D seminars**

**240 slab
internships**

5 theses

**210 students
receiving specific
training**

"An invaluable grant from the Institute enabled me to take part in its seasonal school that let me acquire useful knowledge about biomedical imaging technologies and their application for research. I was also able to present my doctoral work and discuss it with other highly motivated PhD students from different fields of research."



DUONG Quang Hieu

Contact

Deputy training director:
Marc Dubois

marseille-imaging@univ-amu.fr

<https://institut-imaging.univ-amu.fr/>



Our international training

CIVIS alliance
European civic university

1 Erasmus Mundus Master

FairEmbo societal chair
cooperation with Cambodia,
Senegal, Côte d'Ivoire,
Chad and Cameroon

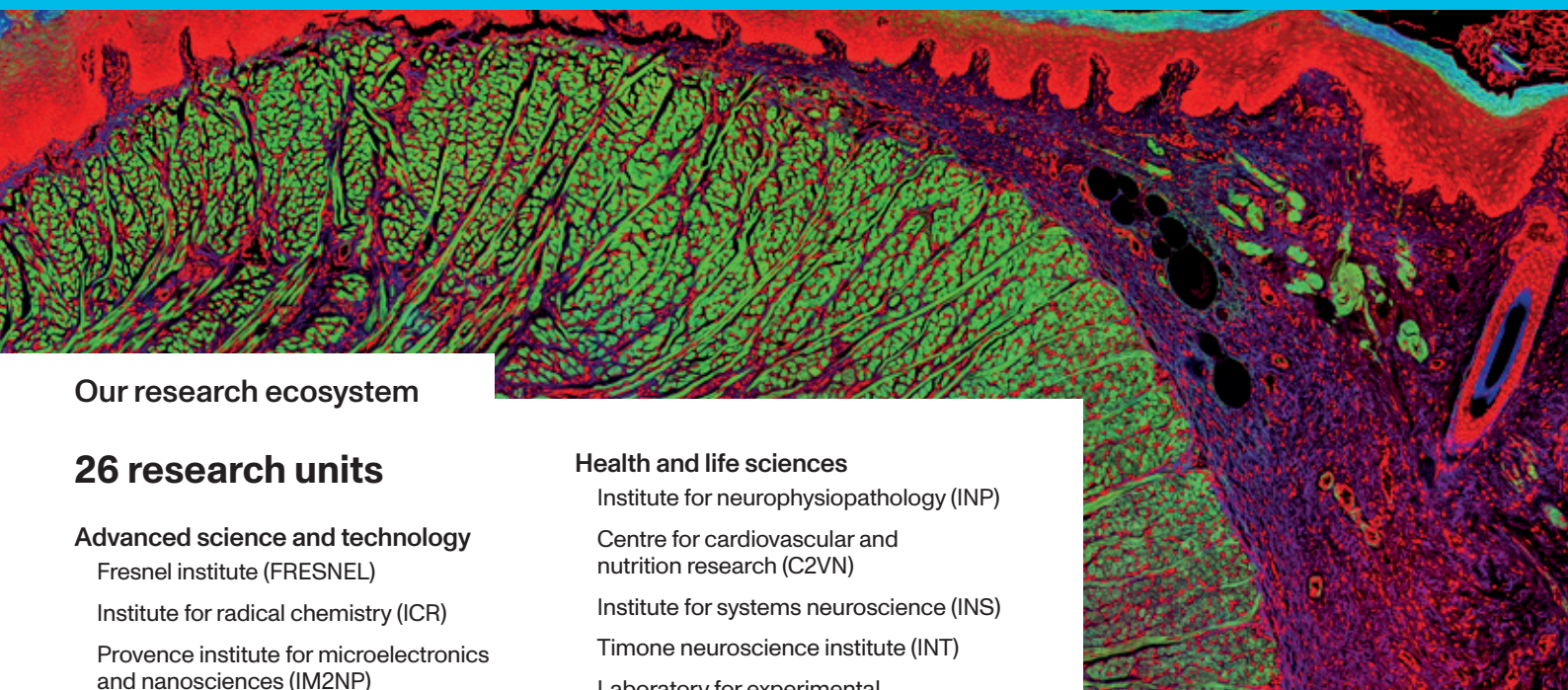
Mobilities
(missions, conferences,
internships) to Europe, US,
UK, Canada, Thailand,
Vietnam, Colombia

**Seasonal imaging
school**
Fully English-
speaking with
more than 10
nationalities

Research at Marseille Imaging



Bringing together the biological and medical imaging strengths of the Aix-Marseille site to consolidate our international scientific position



Our research ecosystem

26 research units

Advanced science and technology

Fresnel institute (FRESNEL)
Institute for radical chemistry (ICR)
Provence institute for microelectronics and nanosciences (IM2NP)
Mechanics and acoustics laboratory (LMA)
Marseille astrophysics laboratory (LAM)
Centre for biological and medical magnetic resonance (CRMBM)
European research centre for medical imaging (CERIMED)
Marseille interdisciplinary centre for nanoscience (CINaM)
Laboratory for plasma lasers and photonic processes (LP3)
Marseille centre for particle physics (CPPM)
Computer science and systems laboratory (LIS)
Marseille institute for mathematics (I2M)

Health and life sciences

Institute for neurophysiopathology (INP)
Centre for cardiovascular and nutrition research (C2VN)
Institute for systems neuroscience (INS)
Timone neuroscience institute (INT)
Laboratory for experimental interventional imaging (LiiE)
Marseille centre for cancer research (CRCM)
Bacterial chemistry laboratory (LCB)
Marseille-Luminy centre for immunology (CIML)
Marseille institute for developmental biology (IBDM)
Mediterranean institute for neurobiology (INMED)
Adhesion and inflammation (LAI)
mRNA, Nanomedicine and Theranostics (RNAoTher)
Dynamics and Nanoenvironmental of biological membranes (DyNaMo)

Humanities

Aix Marseille School of Economics (AMSE)

more than 450 staff

Aix Marseille Université
CNRS
INSERM
Centrale Méditerranée
AP-HM
CEA
IPC



Our key actions since 2020

Support for the structuring and funding of innovative & inter-laboratory research projects

Support for imaging platforms

Scientific events

Coordination of purchases for key facilities

**“Research” call for projects
€757 thousand
38 awardee projects**

**“Platform” call for projects
€430 thousand
30 awardee projects**

33 Conferences and seminars organised or supported

€18 million invested in purchases for key facilities

Our main areas of research

- **Ultimate imaging:** Development and improvement of imaging techniques to achieve the highest possible resolution, enabling detailed and precise observation.
- **Imaging therapy:** Exploring ways of using imaging to target and treat specific areas of the body with specific therapies. For example: precisely guiding surgical operations or targeting specific therapies on precise areas of the body.
- **Imaging for all:** Making imaging accessible to everyone, everywhere, by equipping and training low-income countries, areas with no medical facilities and emergency rooms.
- **Emerging and disruptive techniques:** Development of innovative new imaging technologies with the potential to revolutionise the fields of medical and scientific imaging through novel, high-performance approaches.

Contact

Deputy research director:
Christian Bénar

marseille-imaging@univ-amu.fr

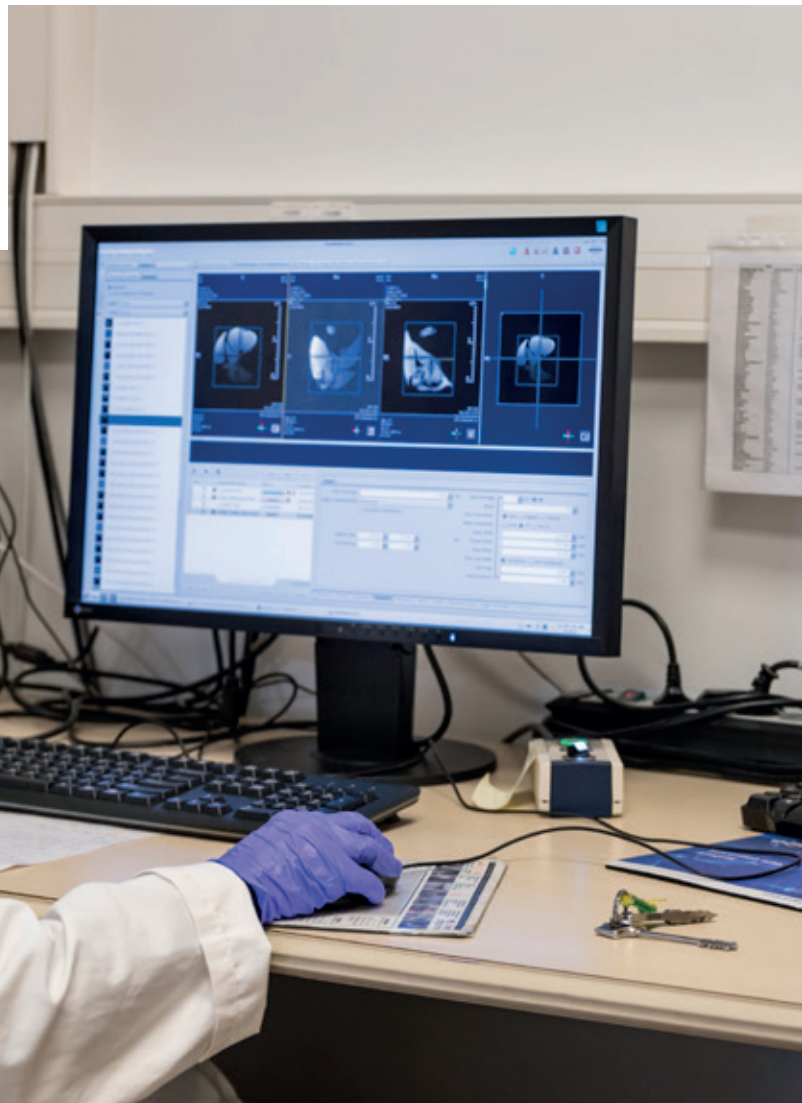
<https://institut-imaging.univ-amu.fr/>





"We are coordinators of the RANKnanodyn project, awardee of the "Research" call for projects, which focuses on the molecular dynamics of the immunological synapse during leukemogenesis using videonanoscopy. The incentive provided by Marseille Imaging has enabled us to successfully apply for the call for projects ITMO Cancer Aviesan PCSI, and INCA PLBIO. A review and an article are currently being written."

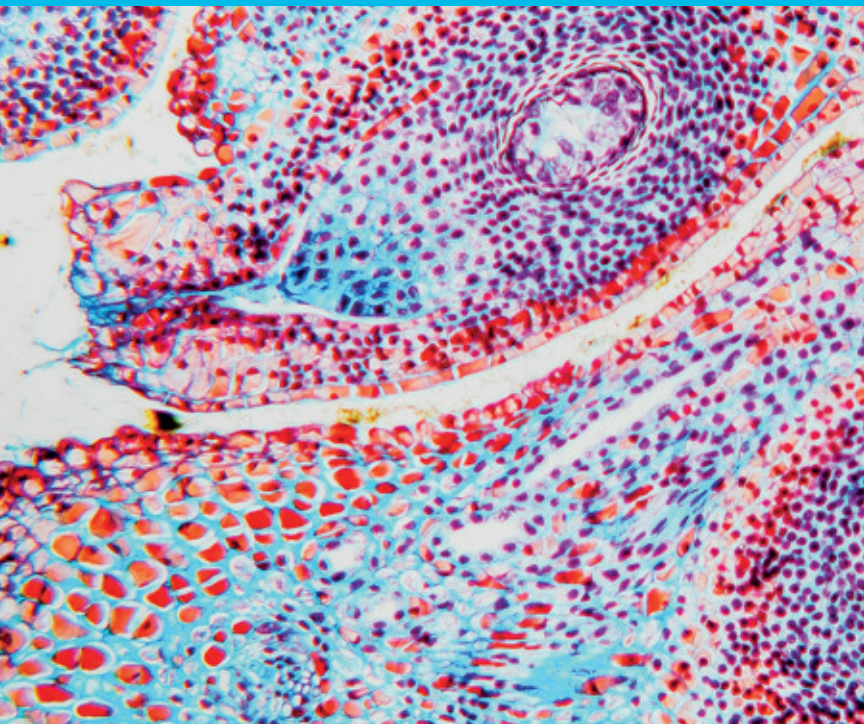
Arnauld Sergé
Teacher-researcher at LAI
Magali Irla
Research director at the CIML



Marseille Imaging partnerships



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



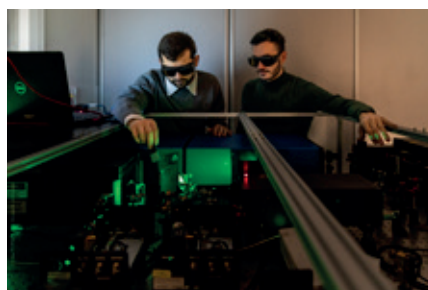
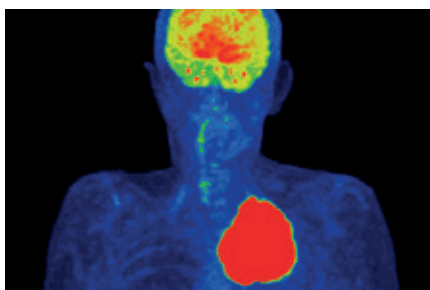
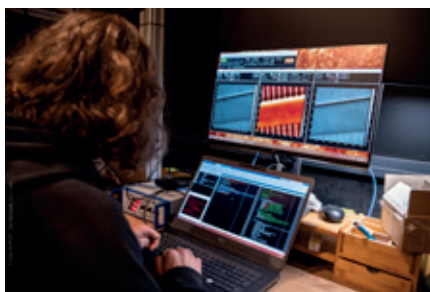
"Multiwave Imaging has benefited from a partnership with the Marseille imaging institute since 2021 through two industrial chairs (2021-2023 and 2024-2028) supported by the Amidex foundation. Our projects focus on the design and validation of breakthrough technologies to democratise access to medical imaging, and more specifically magnetic resonance imaging, for as many people as possible."

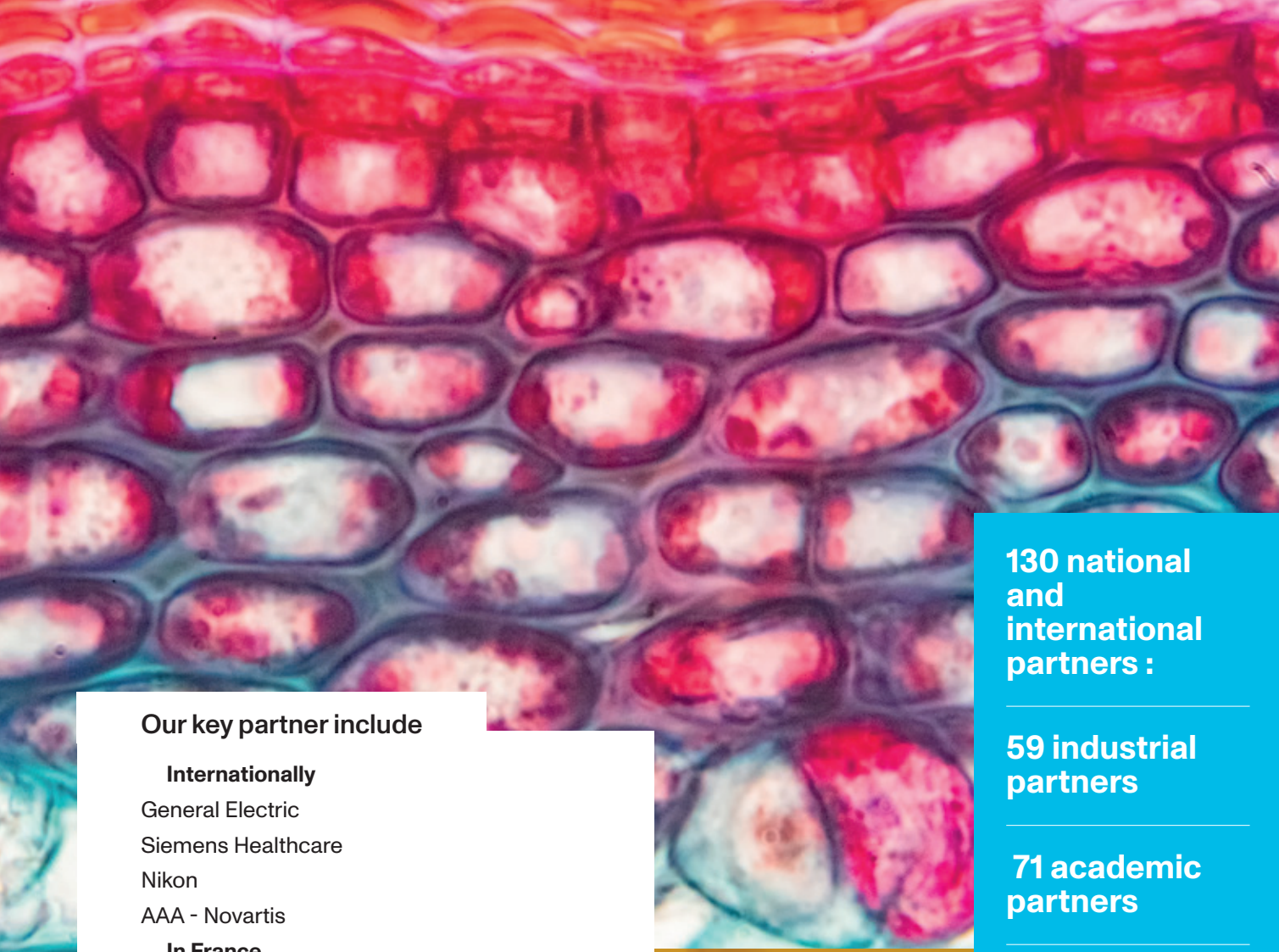


Panos Antonakakis
Chairman of Multiwave technologies

Our key actions since 2020

SIEMENS industrial chair €14 million
FairEmbo societal chair €90 million
MULTIWAVE industrial chair €3 million
R&D seminar 41 partners





Our key partner include

Internationally

General Electric
Siemens Healthcare
Nikon
AAA - Novartis

In France

France Life Imaging
France Bio Imaging
INSERM
CNRS
DEEP COLOR SAS

In the Aix-Marseille area

AP-HM
Institut Paoli-Calmettes
Olea Medical
Multiwave Imaging
Institut Carnot Star
Centrale Méditerranée

**130 national
and
international
partners :**

**59 industrial
partners**

**71 academic
partners**

**including 45
international
universities**

Contact

Director:
Monique Bernard

Operations manager:
Cécile Lavoûte

marseille-imaging@univ-amu.fr

<https://institut-imaging.univ-amu.fr/>





The Marseille Imaging
institute brings together
teams on 7 university
and scientific sites

Marseille Nord Site



Saint-Charles Site



Timone Site



Paoli-Calmettes Site



Château-Gombert Site



Saint-Jérôme Site



Luminy Site



The Aix Marseille Université institutes are coordinated by the Amidex foundation

amidex Aix
Marseille
Université



Aix Marseille Université institutes: facilitators to strengthen the research-training link, interaction with the economic and cultural world, interdisciplinarity and internationalisation around twenty or so strategic fields of research. Their core unifying role: training a new generation of academics to meet the scientific and societal challenges of our time!

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

amU Aix
Marseille
Université



Inserm



Centrale
Méditerranée

sciencespo.aix

Hôpitaux
Universitaires
de Marseille ap
hm

