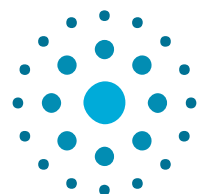


BIOBANKS
& COMPLEX DATA
MANAGEMENT



MASTER OF SCIENCE (MSc) BIOBANKS AND COMPLEX DATA MANAGEMENT 2023

UNIVERSITÉ **CÔTE D'AZUR**



University labeled Initiative of Excellence (**IDEX**)

BIOBANKS
& COMPLEX DATA
MANAGEMENT



OUR AMBITION: TRAINING THE NEXT GENERATION OF BIOBANKERS

"The high-level training of the professional master's degree in «Biobanks and Complex Data Management» opens immediate career opportunities with high responsibility in a variety of sectors such as human health, pharmaceutical and biotechnology industrial laboratories, and agricultural industry. This training of excellence will allow integrating French, European or international companies and academic institutions."

Paul HOFMAN,
Director of the MSc in Biobanks and Complex Data
Management (UCA IDEX Jedi).



The rapid growth of biobanking and the proliferation of biobanks globally has resulted in a significant demand for biobanking experts in the coming years.

To meet this increasing need, the "Biobanks and Complex Data Management" Professional Master's program at the University Côte d'Azur (UCA IDEX Jedi) trains graduates for high-level positions in biobanking, emphasizing the **industrial, technological, and international aspects of the field.**

Nisrine SOLTANI
Promotion 2017-2019
«Next-Generation Biobanking»

“ My name is Nisrine Soltani and I am an Biobank Engineer in the Paris-Sud Biobank.

As part of my first year of the master Biobank and Complex Data Management program I completed a six month internship in this facility.

I worked on my own project with the methods validation of an aliquoting robot. I have also chosen to perform my 2nd year internship working on the laboratory information management system in the International Agency for Research on Cancer's Biobank.

Following my graduation, I was hired in the Paris-Sud Biobank where I am currently working on the valorization of the biological resources with a focus on increasing material transfer agreement and provision of high quality samples only to name just a few.

I can say that my first year working as an Engineer was challenging with the COVID-19 pandemic where I was mobilized since March 2020, to help coordinate and process more than five research protocols.

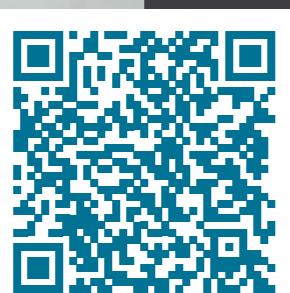
Finally, I recommend this master for all the knowledge and practice it gave me. Also I highly encourage students to choose internships that could be beneficial for them.”



Laurent ONIVOGUI
Promotion 2017-2019
«Next-Generation Biobanking»

“ After achieving my internship training in Pasteur Institute of Guinea from January to July 2019, I have been recruited. Since, October 2019, I am biobank and quality assurance Manager of Pasteur Institute of Guinea. I am in charge to set up the governance of the biobank and implement the quality management system according to ISO 9001:2015 and ISO 20386:2018.

During the COVID19 pandemic in Guinea, I have actively participated to collect and storage the bioresources from COVID19 patients in biobank of Pasteur Institute. Despite the difficulties related to biobank management and obtaining of ethics and regulatory associated data, I have prepared all the associated the documents related to the biological samples stored in biobank of Pasteur Institute of Guinea.”



Andrés GALLARDO
Promotion 2018-2020 «JEDI»

“ My name is Andrés Gallardo, actually a Master 2 student in Biobank and Complex Data Management.

During my scholarship I had the opportunity to be trained by a lot of professional people in the Biobank field, coming from high-level Biobanks around the world. I also had the opportunity to perform two 6-month internship in two Biobanks of reference; (i) Biobank Côte d'Azur in Nice, where I learned all the dynamic and important technical processes within a Biobank and I performed at the same time a clinical and data project about biomarkers in Lung Cancer field. (ii) HCB-IDIBAPS Biobank in Barcelona, where I was able to specialize my training and I was more focused in data management and its quality, I performed a data management project about two multicentric large-collections of DIABETES in SPAIN.

I decided to continue in the data line, I would like to establish myself in Barcelona and work as a data manager because it is a very extensive field of knowledge and I really want to learn more about clinical or medical data management inside a Biobank”

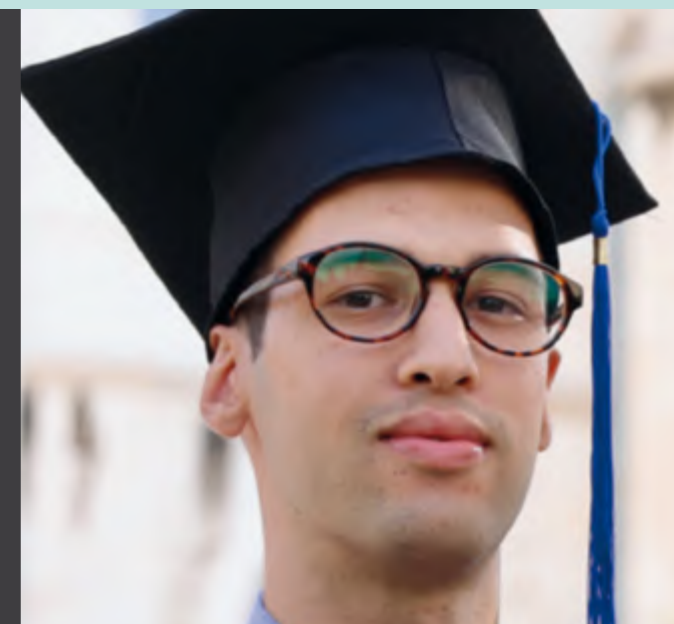


Mehdi KARABORNI
Promotion 2016-2018 «Biobank06»

“ My first experience in biobanking kicked off in Nice. What better place to start in this field than a biobank integrated in an internationally recognized pathology lab with versatile and brilliant people trained in several fields. Two projects animated this amazing internship: The first one was the management of an encapsulated dried DNA collection and its duplication into mirror distant collections. The second one was the overview and optimization of the economic model of the biobank. Both projects resulted in two publications. A great start, a great end...my first experience was successful.

Following my graduation, I started to work in one of the largest and cutting edge biobank in Europe, Biobank Graz (Austria). Valorizing the biological collections for the benefit of research was the main mission I had been given. After 2 years of internship and work in Graz, I learned a new culture, expanded my skills and brought out the best in myself.

Always on the lookout for new challenges, I afterwards moved to Belgium to work at «Hôpital Erasme - Université Libre de Bruxelles» as biobanking coordinator. This environment is home to world-class biomedical research conducted by top investigators in their fields. My main missions have been to harmonize the biobanking initiatives and support the researchers in their specific needs. I continue to do my work everyday with the same enthusiasm fuelled by my desire to contribute to the future of research for the benefit of patient healthcare”



Qian CEN
Promotion 2016-2018 «Biobank06»

“ My internship content was mainly focused on the establishment and optimization of paraffin block in a tumor biobank, to understand how a biobank works and to optimize the FFPE blocks management system.

I found that the division of the workflow in LPCE biobank is very detailed and efficient.

My second internship (M2) content mainly has the following three parts:
1) Learning the daily operation and management of the biobank in CNGB, including sample reception, pre-processing and storage processes, quality management, etc.

2) I'm in charge of the information construction of the sample sharing of the CNGB. Provide the IT development team with the design requirements of the sample sharing platform and be responsible for the daily operation of the platform.

3) I'm responsible for organizing biobank technical training, including course design, training program planning and event organization

Since my graduation in September 2018, I am a project manager at China National Genebank, I am responsible for technical service projects, including biobank construction consulting and biobank management training services

Up to now, I have completed many international and domestic projects.”



Djemila KOHIL
Promotion 2018-2020 «JEDI»

“ MedianTechnologies in 2019.

I am Djemila Kohil, after years in pharmaceutical development company I had the opportunity to join the Master of Biobank and then to integrate Median Technologies company for the first internship of the Master. It represents a considerable change, and very motivating experience to acquire new knowledge, question the knowledge existing and find connections in health science.

MedianTechnologies is located in Sophia Antipolis, and is biotech company providing solution for healthcare development using Artificial Intelligence (AI) tool based on Medical Images Phenotyping.

I have done my internship under the supervision of Corinne Ramos Director of iBiopsy clinical research service, among a friendly dynamic team. One target was to organise the availability of data collection of medical images and samples with well-documented phenotypic data. It allows me to understand the approach for imaging biomarker development using Artificial Intelligence supporting medical decision.

In the context of clinical research contracts for AI development I started to work on a project for data sharing and security aspects, data quality impacting regulatory aspect, role of standards for controlling preanalytical parameters of biosample collection.

I am very happy to apprehend this new field and take account of transformative potential that biobanks can bring in participating to AI development in healthcare systems.”



A Unique European Professional Master linking Biobanking and Data Management

The MSc in Biobank and Complex Data Management equips graduates with the necessary **knowledge, experience, and practical skills** to work in the **multidisciplinary field of biobanking and data management** for humans, animals, plants, and other living organisms.

The MSc Biobank and Complex Data Management is one of Université Côte d'Azur's many **international degree programs** that prioritize **innovative pedagogy and excellence**. These training programs, **supported by the Initiative of Excellence (IDEX)**, offer a new generation of master's level degrees.



JORF n°0068 du 19 mars 2020

Text n° 26

Order of March 17, 2020 relating to the awarding of the master's degree to certain diplomas issued by Université Côte d'Azur.

NOR: ESR51935609A

ELI: <https://www.legifrance.gouv.fr/eli/arrete/2020/3/17/ESRS1935609A/jo/texte>

MSc labelled by the French Society of Cancer Immunology



A Master that benefits from the **UNIVERSITÉ CÔTE D'AZUR Label and Network**



A **2** year Professional Master (UCA IDEX Jedi)

6 ² internships of months in Biobanks



100% of courses in **English**

A **wide network** of International academic and industry partners



High teaching quality

MASTER PROGRAM DETAILS

First year M1

Human Health & Agro-environment 6

ECTS Quality in Biobanking 6 ECTS

Bioethics in Biobanking 6 ECTS

Safety and Security in Biobanking 6 ECTS

Project Management 3 ECTS

Technical Unit at the BioBank06 3 ECTS

Second year M2

Biobankonomic 6 ECTS

Big Data for Biobanking 6 ECTS

Networking in Biobanking 3 ECTS

Professional Integration 6 ECTS

Marketing, Communication & English 6 ECTS

"Success Story" in Biobanking 3 ECTS

2X
6 month
internships in
a biobank
(60 ECTS)



• A Pedagogic Team of Experts

Students of the benefit from a complete instruction by a pedagogical team of researchers, biobank managers, quality managers and medical doctors from recognized structures

• Internship Market Workshops

Internship market workshops aim to better prepare students for their internship search and cover topics like CV presentation, assessment centers and interviews.

• Use of videoconference during courses

• Participation to medical and scientific congresses

• Support preparing international scientific papers

• Hands-On Seminars (students oral session, SOS)

Through pair work, students will dedicate themselves to group-based studies. They will be asked to defend their analysis of a concrete, current issue raised by a biobank. Their recommendations will be presented before faculty members.

• Internship report

Students must write each years of training, an internship report (after 6 months of internship), followed with an oral defense. It represents an important component of the Master's learning experience. The objective of writing internship report and those 2 oral defense, is to explore cutting-edge research implementation in daily practice within a highly competitive biobanking environment.

Key knowledge and skills



Organization and Implementation of Biobanks at the National and International Scale



Biobank Quality Management and Risk Management



Infrastructure of a Biobank, Budgeting and Biobank Sustainability or 'Biobankonomic'



Sample Management and Ethical, Legal, and Societal Aspects of Biobanking



Management of Complex Data Associated to Biological Samples



European and International Biobanking Networks



Professional Development and Marketing



AN INTERNATIONAL MASTER

Currently, there is a **global challenge to standardize biobanking practices** to ensure the quality of data and samples. This involves the participation of international biobank networks, organizations, and societies (including "infrastructure biobanks"), as well as superregional biobanks.

This is the reason why the Biobanks and Complex Data Management Master's of Science at the University Côte d'Azur (UCA IDEX Jedi) has integrated an international cursus.

As such, the **Master welcomes candidates of all nationalities.** Furthermore, students benefit from over **45 experts and well-known teachers, including:**

FRANCE

Jean-Louis PHAM
PhD, Research coordinator IRD, Montpellier
Plant geneticist Senior scientist

Christian CHABANNON
MD, PhD.
Cell Biology at Aix-Marseille University School of Medicine.
Board-certified in Hematology and Medical Oncology

Bruno CLÉMENT
Scientific Director of Infrastructure Biobank, Inserm UMR 991 ("Liver, Metabolisms and Cancer")
University of Rennes I, France

George DAGHER
PhD Deputy Director, Clinical Research Dpt, INSERM, Paris

Pierre LAURENT-PUIG
Professor, University of Paris Descartes Medical school, Paris
Responsible for the Clinical Oncogenetic Unit into the Department of Biochemistry at the European Georges Pompidou Hospital

Emmanuelle RIAL-SEBBAG
PhD in Health Law, Lawyer
Researcher in health law and bioethics, Toulouse



A **100%** program in English

Wide International network of academic and industry partners



1 compulsory internship abroad



High-qualified speakers from all around the world

INDUSTRY PARTNERS

Robert HEWITT
PhD, Founder & manager Biosample Management Ltd
United Kingdom

Alexis PERISIC
PhD.
Global Scientific Director for Foundation Medicine Inc./Roche

Gilles ERB
PhD.
Global Scientific Director for Foundation Medicine Inc./Roche

Thomas DI MAIO
Head of Oncology Diagnostic AstraZeneca, Paris, France

Philippe VAGLIO
PhD.
Scientific Director - Modul-Bio France

Jean Guillaume BAUMANN
MD, Business development Manager Agilent Technologies, Inc., Switzerland

INTERNATIONAL

Karl-Friedrich BECKER
PhD
Head the Laboratory for Experimental Pathology
Institute of Pathology Technical University of Munich, Munich, Germany

Michael H. ROEHL
M.D., Ph.D.,
Director of the Precision Pathology Center
Memorial Sloan Kettering Cancer Center, New York City

Ben BRAY
MBChB MD MRCP MFPH MSc
Medical Director
Real World Insights, London, UK

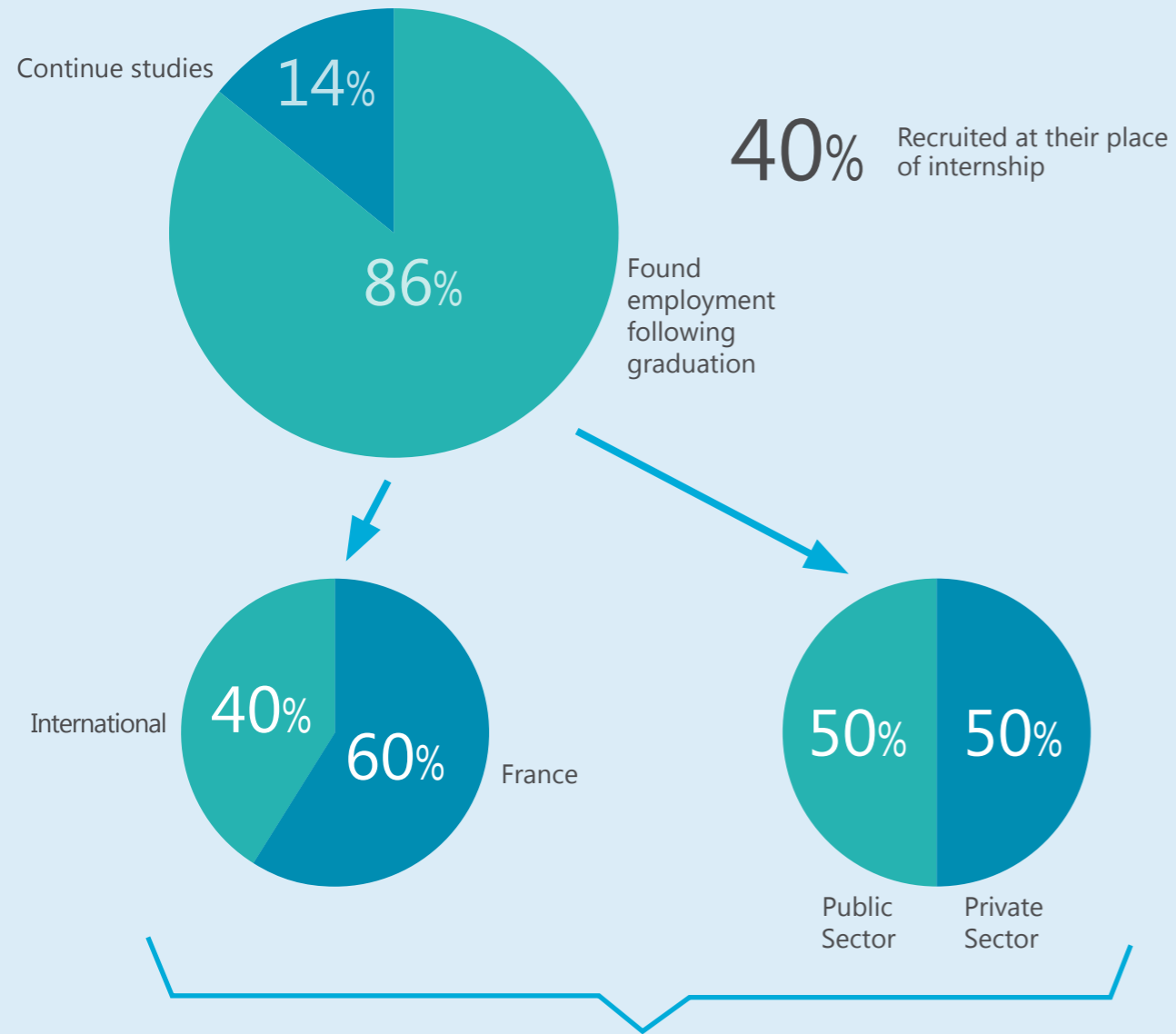
Maria Grazia DAIDONE
Director of the Department of Experimental Oncology and Molecular Medicine, INT (Istituto Nazionale Tumori), Milan, Italy

Giorgio STANTA
Professor of Pathology at the University of Trieste.
Head of the Molecular Histopathology Laboratory, Italy

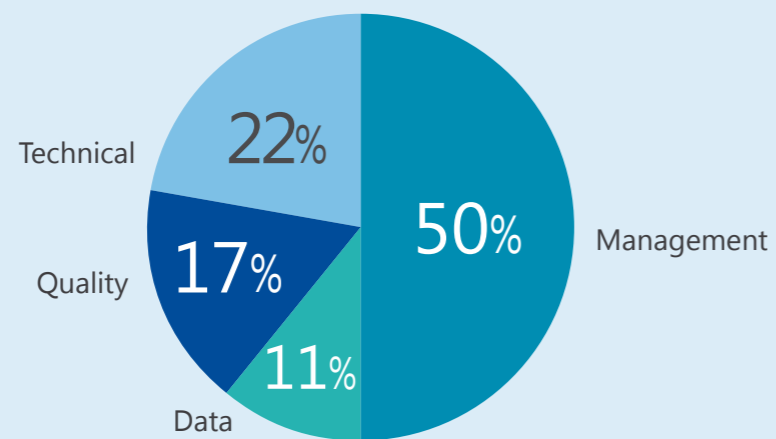
Kurt ŽATLOUKAL
Prof. of Pathology, Deputy Head Dept. of Pathology - Medical University of Graz, Austria

Karine SARGSYAN
MD, Managing Director International Biobanking and Education at Medical University of Graz, TEDx Organizer
Graz, Austria

JOB POSITION AFTER GRADUATION

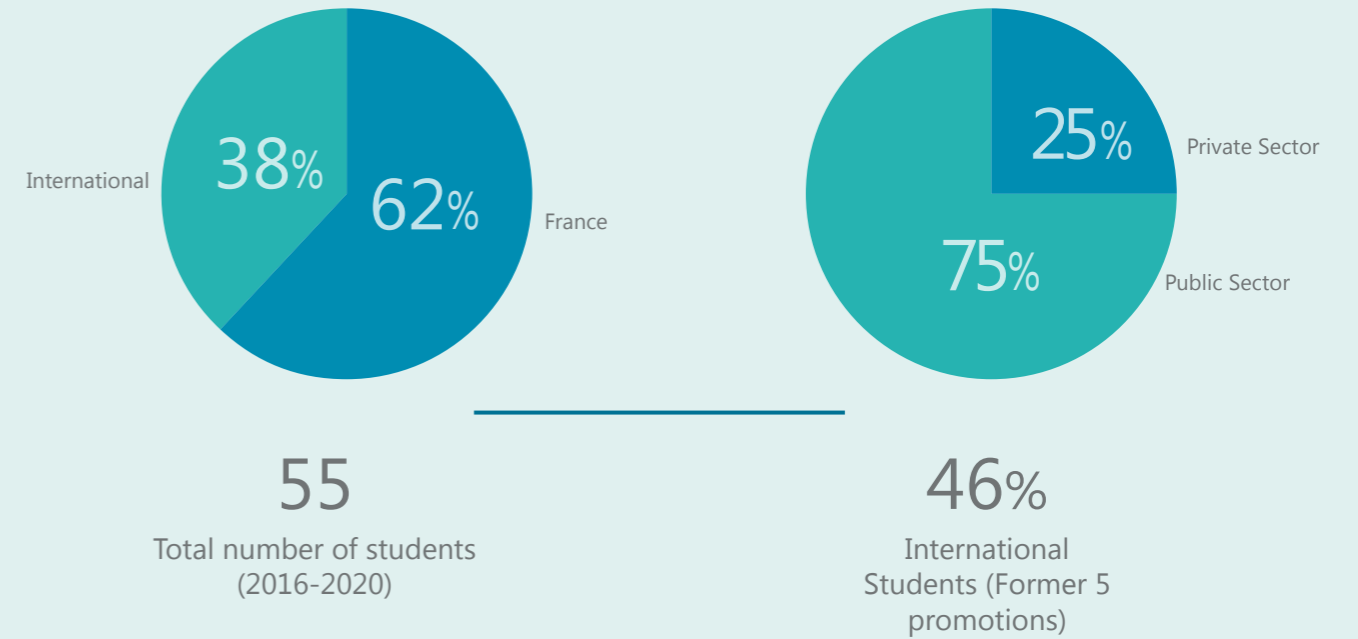


CURRENT JOB POSITION CLASSIFICATION

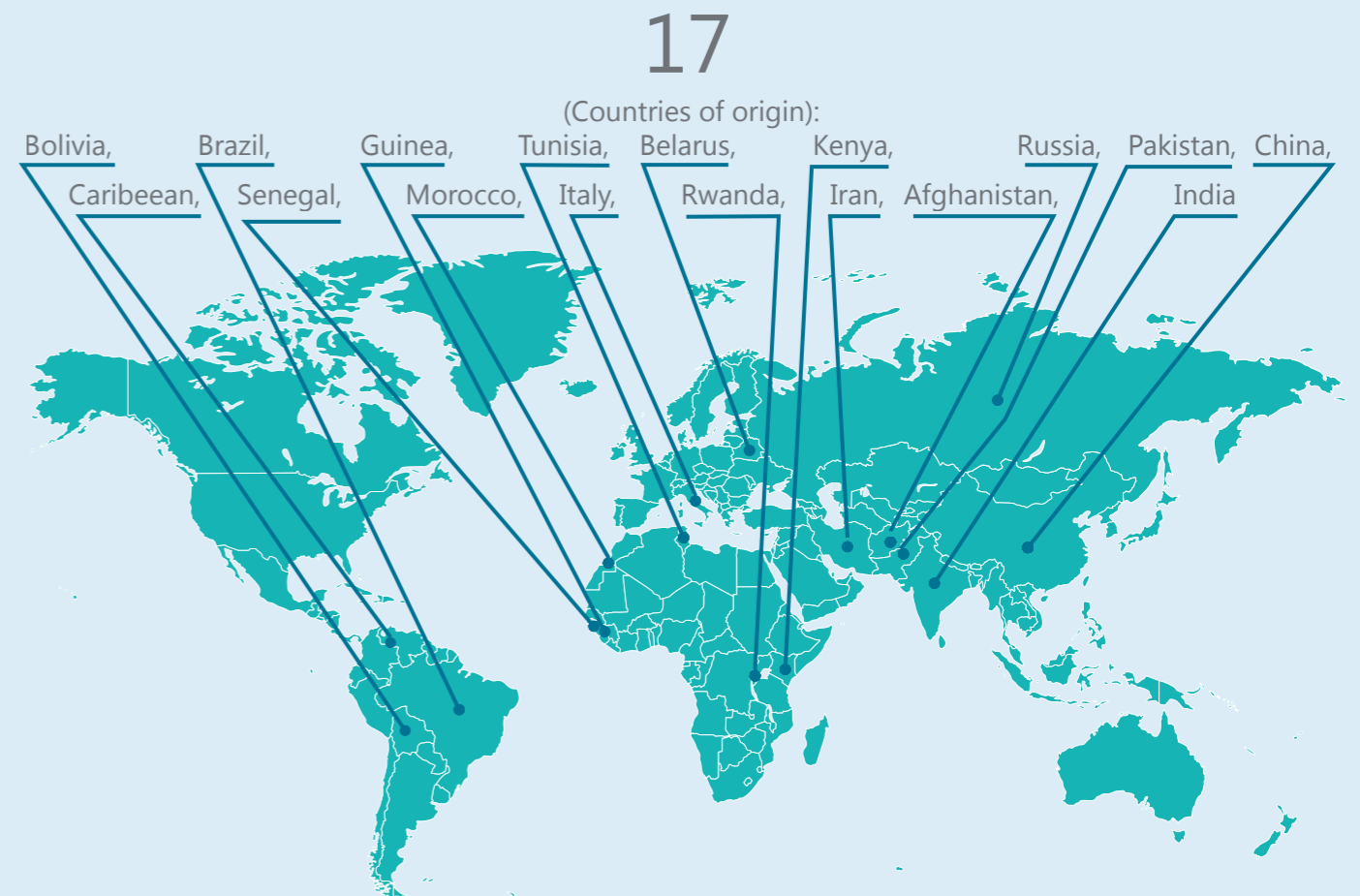


KEYS FIGURES OF MASTER'S STUDENTS

INTERNSHIPS



INTERNATIONAL STUDENTS FROM



A KEY ACCESS TO YOUR CAREER

Thanks to the program, graduates gain access to **high responsibility positions**.

Some examples of **job opportunities** with the diploma of Biobanks and Complex Data Management Professional Master's:



INTO



ADMISSION PROCESS

The master is open to high-level graduates holding a **Bachelor's degree +3** from an academic institution in the field of Life Sciences (biology, pharmacy, biotech etc.), who have interest in the field of biobanking or wish to specialize or broaden their professional knowledge in biobanking.

APPLICATION PROCESS

The selection is a 2 phase process.

A first selection is made based on the evaluation of a complete application form and supporting documents. Applications online only.

Pre-selected applicants are invited to an online interview in English where they are encouraged to discuss their unique background, motivation, interests, and goals during this interview.

The Master welcomes applications from candidates of all nationalities who are fluent in English. A Language Certificate may be required. You are able to commit at least 6 months internship abroad (M1, M2 or both).

Application deadline no later than June 15th, each year.

Admission Results no later than September 10, each year.

TUITION FEES

Contact us for more information - The tuition fee may vary according to your residence status, namely if you are a resident of an EU country or of a country outside the EU.

In addition, financial aid (need-based or merit-based scholarships) may be available to students, and other sources of funding through each training course.

UNIVERSITÉ CÔTE D'AZUR

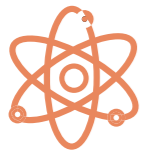
A University of Excellence on an Exceptional Territory

Université Côte d'Azur is a recently created **cluster of higher education establishments** on the French Riviera that brings together the major players in higher education and research on the Côte d'Azur. Université Côte d'Azur aims to develop a new, 21st-century model for French universities, based on new interactions between disciplines, a new form of coordination between research, teaching, and innovation, and strong partnerships with the private sector and local authorities.



In January 2016, Université Côte d'Azur won a prestigious "IDEX" award from the French government for its UCA Jedi project, placing it among the top 10 world-class, comprehensive universities in France.

Research



4,218 persons involved in research in A or A+ ranked laboratories

76 national and **48** international prizes and awards

Education



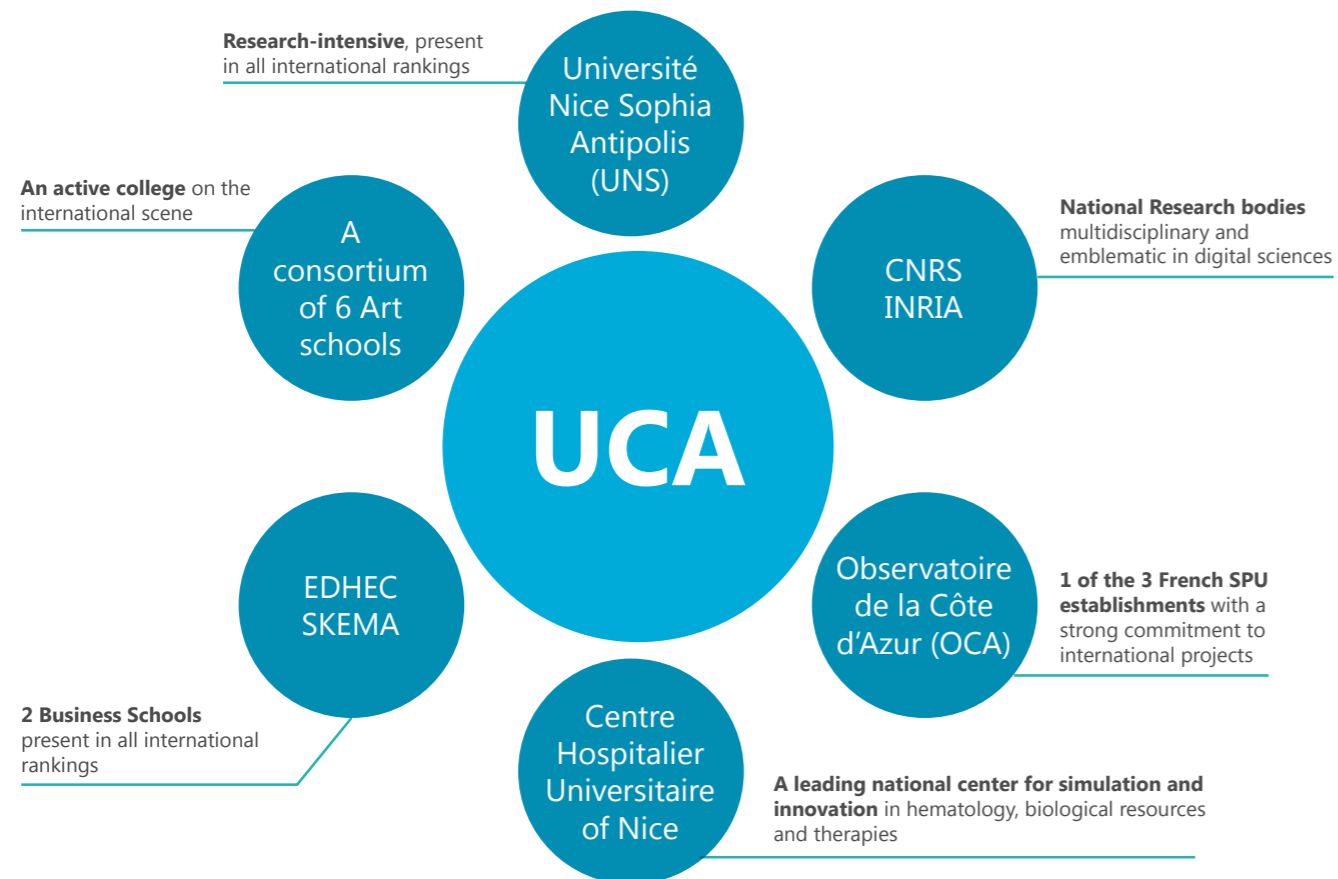
30,000 students:
1,700 Ph.D. students
8,000 Masters students

International



100 Europe funded projects
20% foreign students

13 Outstanding institutions, working together as ONE UNIVERSITY



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Contact Us

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Nice, France

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<https://univ-cotedazur.eu/msc/biobanks-complex-data-management>

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Partners



<http://unice.fr/faculte-de-medecine/presentation>

