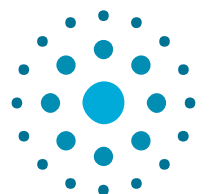


BIOBANKS
& COMPLEX DATA
MANAGEMENT



MASTER OF SCIENCE (MSc) in BIOBANKS AND COMPLEX DATA MANAGEMENT 2021

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 fast development of biobanking and the huge number of biobanks around the world create a high demand of experts in biobanking in the future.

To respond to this increasing necessity, «Biobanks and Complex Data Management» Professional Master of University Côte d'Azur (UCA IDEX Jedi) prepares graduates for high-level positions in biobanking with a strong emphasis on **industrial, technological and international environment**.

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 professionnall 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 be 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.”



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 biothech 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 iBiospy 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 sytems.”



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.”



A Unique European Professional Master linking Biobanking and Data Management

This Professional Master has the ambition to provide **knowledge, experience, and practical skills** that will qualify graduates of the Master for working into the **multidisciplinary field of biobanking** (humans, animals, plants, and other living organisms) **and complex data management**.

The Master Biobank and Complex Data Management is being part of the **international degree programs** offered by the Université Côte d'Azur which emphasize **excellence and innovative pedagogy**. These are a new generation of training programs, which offer a master's level degree, **supported by the Initiative of Excellence (IDEX)**.



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 which benefits from the **UNIVERSITÉ CÔTE D'AZUR label and network**



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

6 ² internships of months in Biobank



100% of courses in **English**

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



High teaching quality

MASTER PROGRAM DETAILS

First year M1

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 months
internship in
Biobank
(60 ECTS)



• A pedagogic team of experts

Students of the Master will benefit teaching from a complete pedagogic team with researchers, biobank managers, quality managers, 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 handling interviews.

• Use of videoconference during courses

• Participation to medical and scientist congresses

• Support to prepare international scientific papers

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

In pair working, 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 in front of 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 levels



Quality management and risk management of biobanks



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

Today, there is an **international challenge in the harmonization of biobanking activities** to guarantee data and sample qualities. Whole the international biobank networks, organizations and societies (including "infrastructure biobanks") as well as superregional biobanks need to be involved in it.

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

In that way, the **Master welcomes applications from candidates of all nationalities** & students benefit from more than **45 experts and well known teachers, including:**



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

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

INDUSTRY PARTNERS



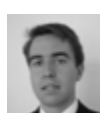
Robert HEWITT
PhD, Founder & manager
Biosample Management Ltd
United Kingdom



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 MFPD MSc
Medical Director
Real World Insights, London, UK



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

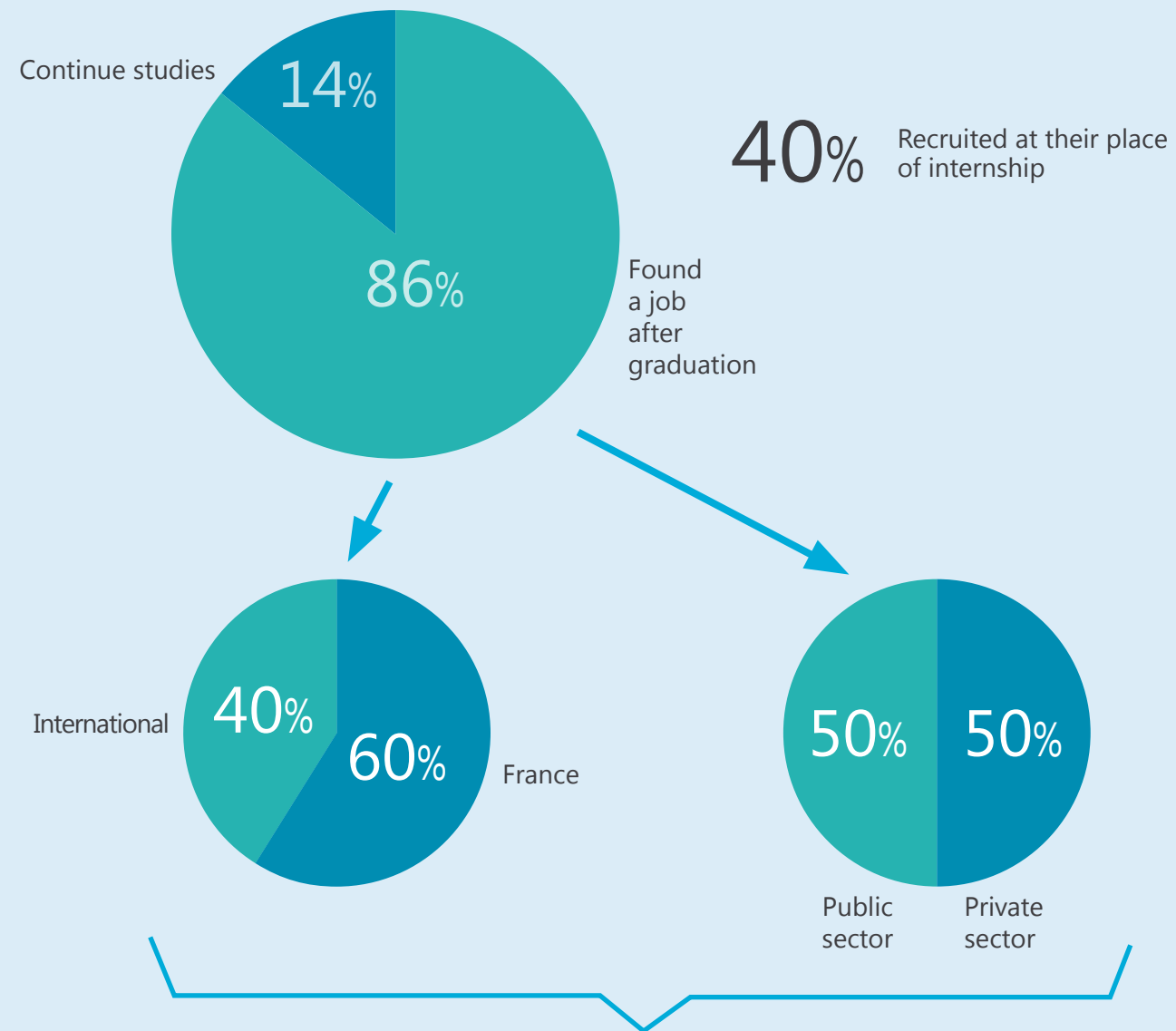


Maria Grazia DAIDONE
Director of the Department of
Experimental Oncology and Molecular
Medicine, INT (Istituto Nazionale
Tumori), Milan, Italy

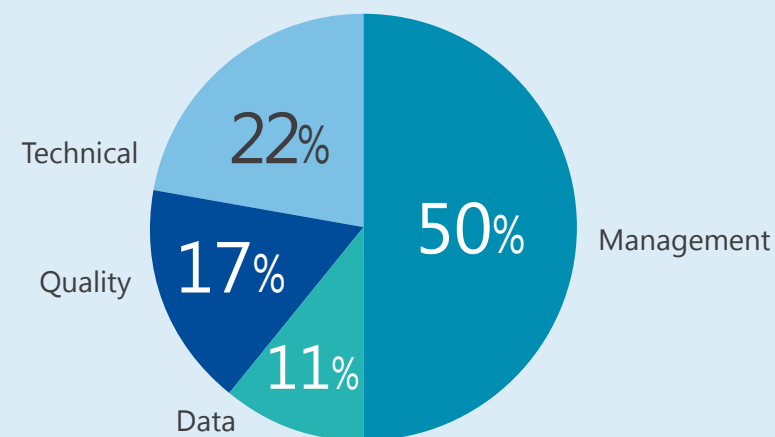


Giorgio STANTA
Professor of Pathology
at the University of Trieste.
Head of the Molecular Histopathology
Laboratory, Italy

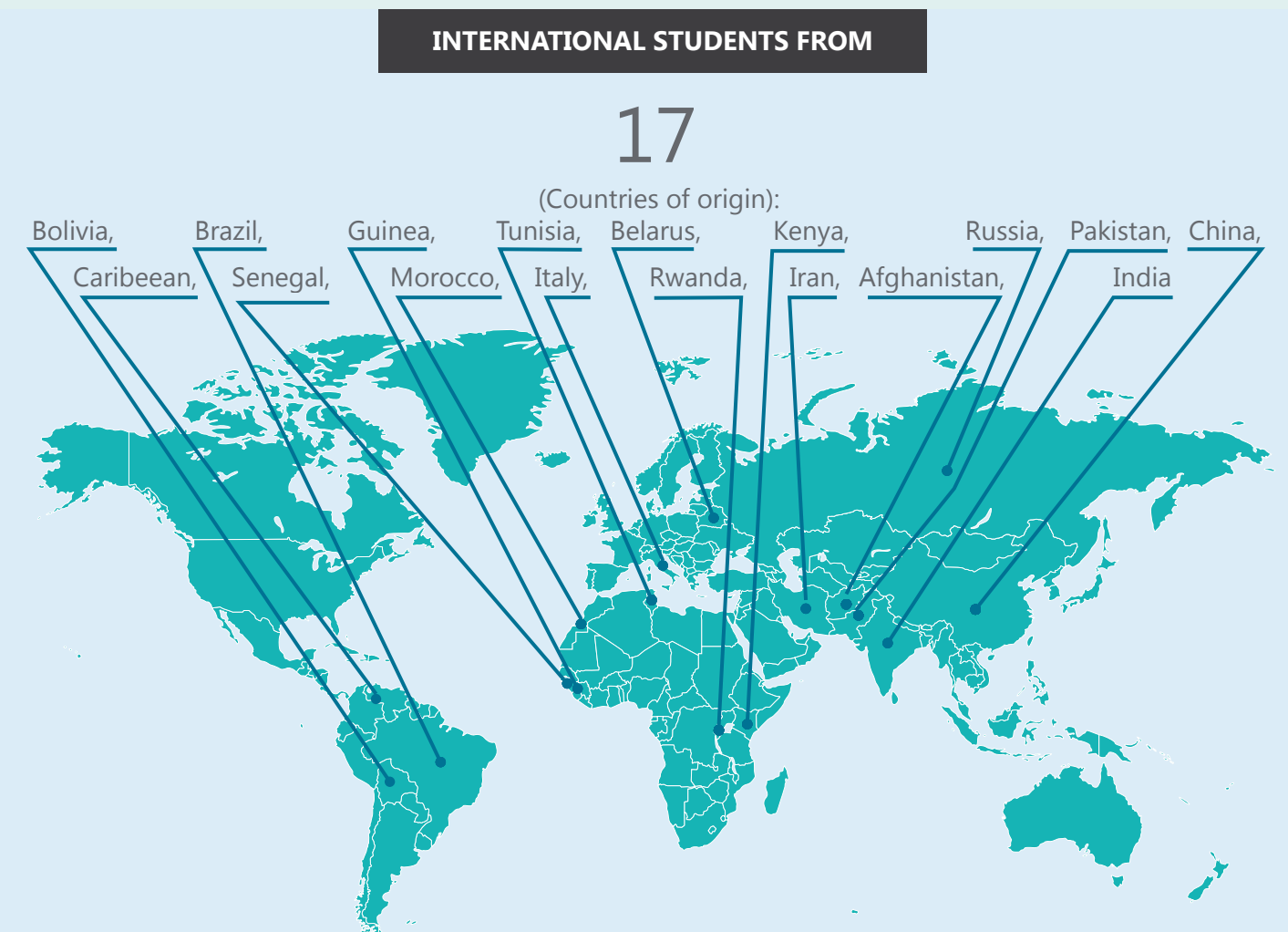
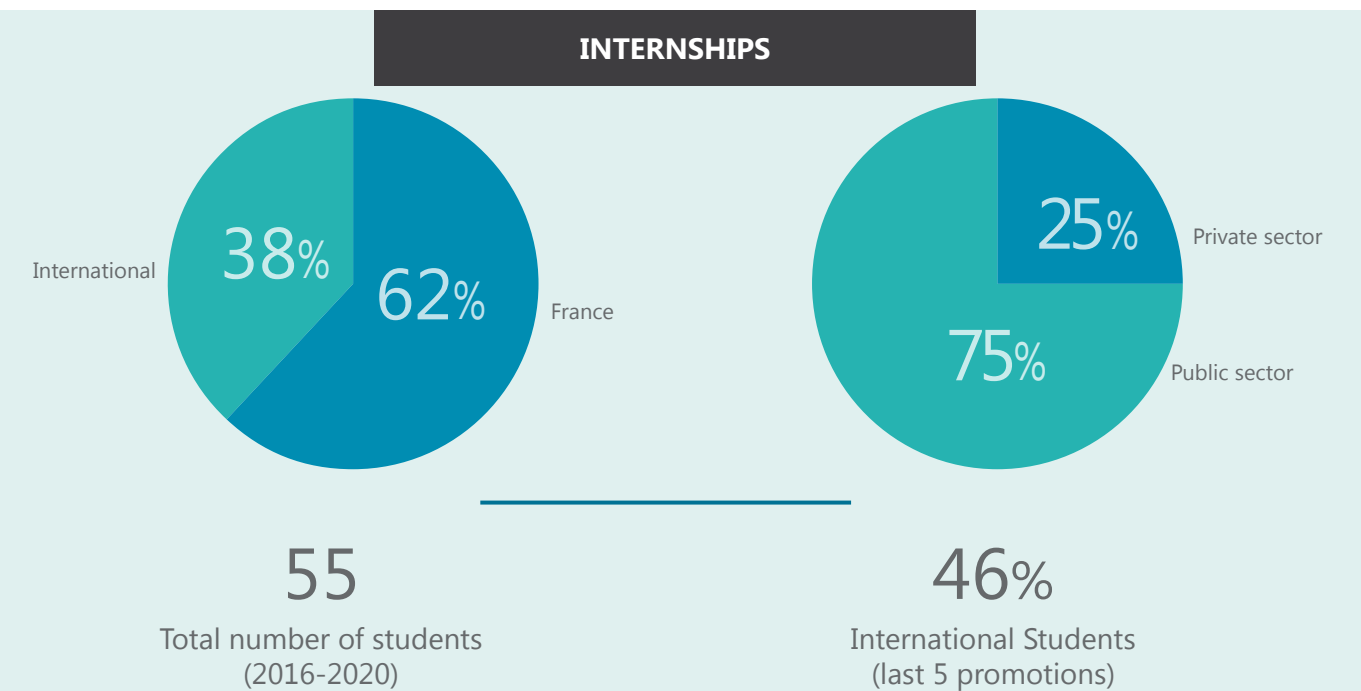
JOB POSITION AFTER GRADUATION



CURRENT JOB POSITION CLASSIFICATION



KEYS FIGURES OF MASTER'S STUDENTS



A KEY ACCESS TO YOUR CAREER

Thanks to the program, graduates could access to **positions with high responsibilities**.
Some examples of **job opportunities** with the diploma of Biobanks and Complex Data Management professional master:



ADMISSION PROCESS

The master is open to high-level graduates holding **Bachelor 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

It is applying for students from French and international institutions:

The selection is a 2 phase process:

A first selection is made, based on the evaluation of your completed application form and supporting documents. Apply online.

Then, pre-selected applicants are invited to a face-to-face or Skype interview. 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 30th, each year.

Admission Results no later than September 10, each year.

TUITION FEES

Contact us for more informations - 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) will be available to students, and other sources of funding will also be available through each training course.

UNIVERSITÉ CÔTE D'AZUR

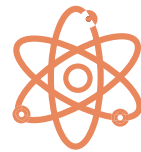
A University of Excellence on an Exceptional Territory

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



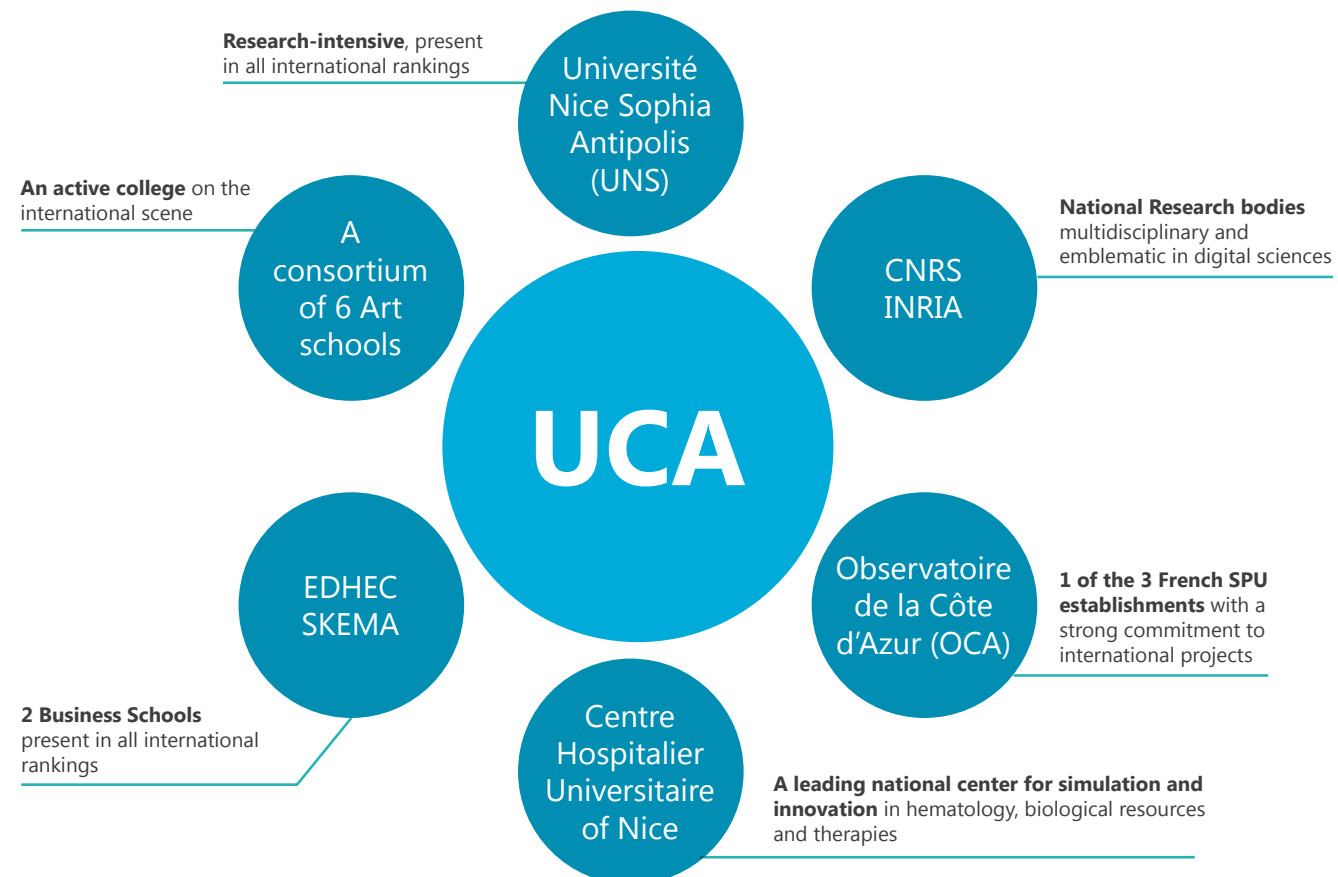
30,000 students:
1,700 Ph.D. students
8,000 Masters students

International



100 Europe funded projects
20% foreign students

13 Outstanding institutions, working together as ONE UNIVERSITY



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Contact Us

MSc in Biobanks & Complex Data Management

Nice, France

Director: Professor Paul Hofman

Deputy Directors: Dr Nicole Arrighi, Professor Marius Ilié & Dr Elodie Long-Mira

@: msc-biobanks@univ-cotedazur.fr

Administrative Secretary

Phone: +33 492 03 74 79

<http://app.univ-cotedazur.fr/biobankscomplexdata>

CAMPUS VALROSE

Faculté des Sciences
Parc Valrose
28, avenue Valrose
06108 Nice

HOPITAL PASTEUR 1

Bâtiment J,
30 Voie Romaine
06000 Nice



@masterbiobank



Master Pro Biobanks and Complex Data Management - UFR Sciences Nice

Partners



Faculté de Médecine



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

www.inra.fr

www.inria.fr

www.canceropole-paca.com/