



2021 Training Calendar

INSTITUTO
DE INVESTIGAÇÃO
E INOVAÇÃO
EM SAÚDE
UNIVERSIDADE
DO PORTO

01

JANUARY

20-22 JANUARY

TARGET:

This course is particularly aimed at researchers responsible for designing and/or carrying out animal experiments.

FORMAT:

ONLINE COURSE

Course in Experimental Design and Analysis of Data for Research with Animals | 3rd Ed.

LABORATORY ANIMAL SCIENCE

This course aims at making researchers sufficiently knowledgeable on experimental design and statistics to make results from animal experiments more reliable, robust and reproducible, while avoiding animal waste and complying with the 3Rs of animal research, with particular emphasis on Reduction and Refinement.

Introductory Training Laboratory Animal Science 29th Ed.

Species Specific: Mice and
Rats or Zebrafish or Seabass

LABORATORY ANIMAL SCIENCE

Covers function A and D - Directive 2010/63/EU/
species specific: Mouse, Rat, Zebrafish
and Seabass

This course aims to give new researchers the necessary preparation to do experiments with animals. The legislation (European Directive 2010/63/EU, Decreto-Lei n.º 113/2013) requires that all persons involved in research using animals shall be adequately educated and trained before they perform procedures on animals. This course covers functions: (A) - carrying out procedures on animals / (D) - killing animals and is species specific: mice and rats or zebrafish or seabass.

01

JANUARY

JANUARY

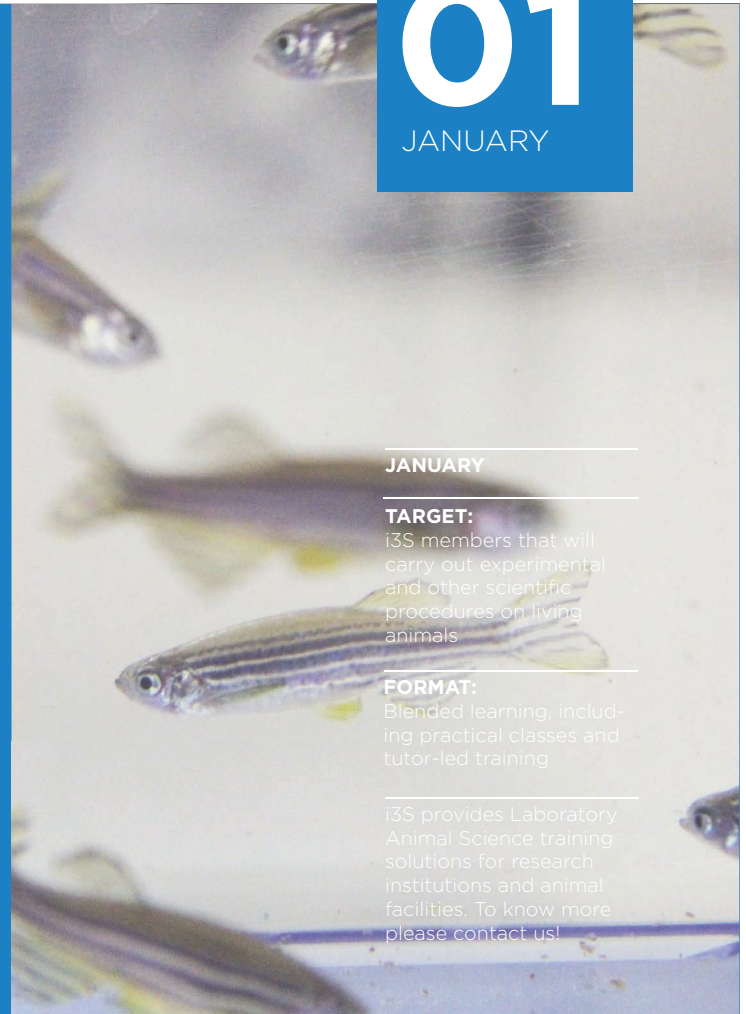
TARGET:

i3S members that will carry out experimental and other scientific procedures on living animals

FORMAT:

Blended learning, including practical classes and tutor-led training

i3S provides Laboratory Animal Science training solutions for research institutions and animal facilities. To know more please contact us!





02

FEBRUARY

1, 2 FEBRUARY

TARGET:

All scientific community

FORMAT:

CLASSROOM COURSE

Good Practices in *in vitro* Research Workshop

IN VITRO RESEARCH METHODS AND ETHICS

Good cell culture practices (GCCP) and principles are critical to consider in all stages of *in vitro* testing. In this workshop, the application of GCCP in different stages of the development of *in vitro* testing will be explored.

Participants will attend lectures with different experts in the field. The workshop includes a optional session with interactive exercises.

This workshop was supported by the REMODEL project (EU Research and Innovation Programme - grant agreement No 857491).

Animal facility training webinars 1st Ed.

LABORATORY ANIMAL SCIENCE

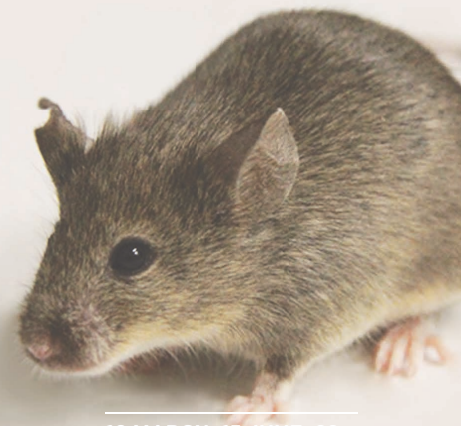
The facility webinars are organised by the i3S Animal facility, with the aim of addressing themes related to laboratory animal science with impact on animal welfare or promoting good practices that lead to better scientific results.

Every 3 months a new theme is discussed and a question session will also be available.

Session duration: 1-2 hours

03

MARCH



16 MARCH, 15 JUNE, 28
SEPTEMBER AND 14
DECEMBER

TARGET:

All scientific community

FORMAT:

ONLINE TRAINING



03

MARCH

16, 17 & 31 MARCH

TARGET:

i3S Final-year PhD students.

FORMAT:

CLASSROOM COURSE

I have a PhD! What's next?

TRANSFERABLE SKILLS FOR SCIENTISTS

This workshop will help final-year PhD students to find their very own career, based on their scientific qualifications and personal motivation. They will reflect about their feelings about following the academic path or jobs beyond it; working together in the next steps to take whatever is their decision. After the workshop they will have a set of tools to find and step onto a career path that combines their interest, values and skills with the needs of the employers.

This workshop is supported by the REMODEL project (EU Research and Innovation Programme - grant agreement No 857491).

Course in Optical Microscopy Imaging for Biosciences

| 12th Ed.

BIOIMAGING

Imaging living cells is pivotal in understanding the biological processes. In 2021 edition, the Course on Optical Microscopy Imaging for Biosciences aims at introducing the researchers to the state-of-art light microscopy techniques applied to study live cells and subcellular structures into different contexts (e.g., 2D and 3D culture systems, tissue, small model organisms, etc...).

The course includes theoretical lectures taught by specialists in the field and hands-on practical modules that give participants the opportunity to work with cutting-edge microscopes (e.g., lattice light-sheet), learn how to deal with the live samples under the microscope and to get initiated into multidimensional image data analysis.

04

APRIL

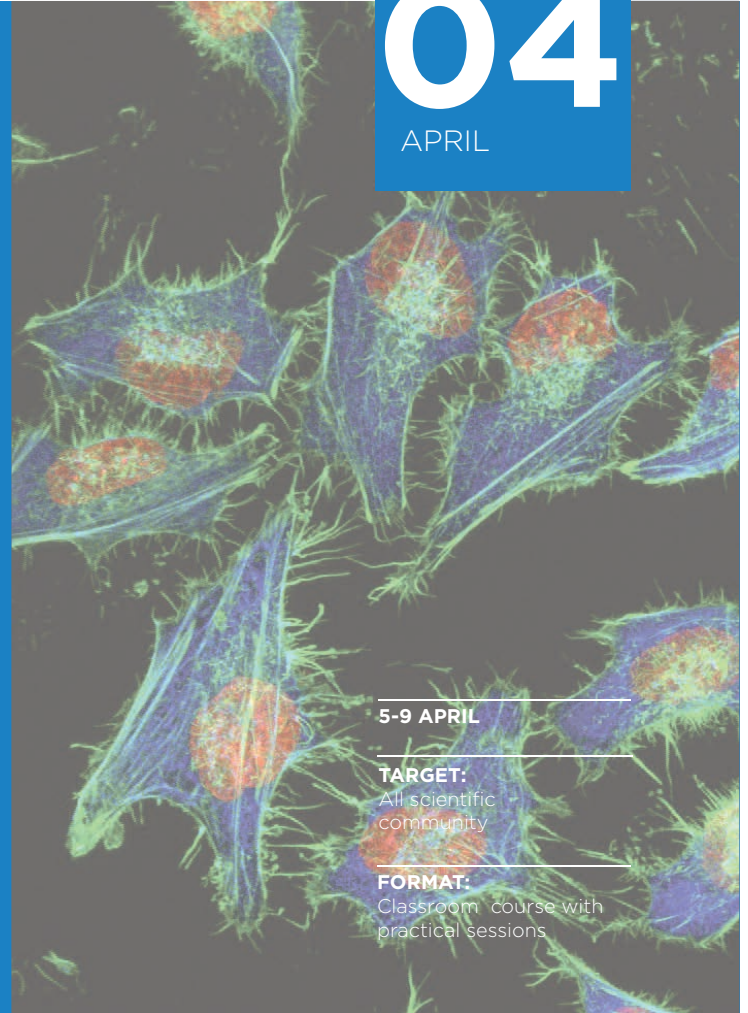
5-9 APRIL

TARGET:

All scientific community

FORMAT:

Classroom course with practical sessions



A background image showing laboratory glassware, including a beaker with a pipette and other flasks, in a soft-focus setting.

04

APRIL

15-16 APRIL

TARGET:

All scientific community

FORMAT:

CLASSROOM COURSE

Open Science Workshop

TRANSFERRABLE SKILLS FOR SCIENTISTS

Open Science represents a new approach to the scientific process based on cooperative work and new ways of diffusing knowledge by using digital technologies and new collaborative tools. This workshop intends to explore the following topics:

- Open Data
- Open Reproducible Science
- Open Science Tools
- Open Access

Lectures will be held by FOSTER experts in all fields. There will be an extra module of half a day with a hands-on training on how to explore and write a Data Management Plan.

This workshop was supported by the REMODEL project (EU Research and Innovation Programme - grant agreement No 857491).

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The theorico-practical course aims to equip participants with basic skills in managing research projects. It is primarily intended for postdocs and junior researchers. Topics addressed will include scheduling (milestones, tasks, and charts); time management (personal and project), financial management (budget management and reporting); communication and dissemination; work organization and task distribution as well as basic. Talks will be complemented with group exercises in a project management platform.

04
APRIL

TARGET: Postdocs, Junior and Assistant Professors / All scientific community

FORMAT:
CLASSROOM COURSE

Course in Research: Ethics & Integrity

ETHICS & INTEGRITY

Due to a growing number of scientific fraud reported cases, research ethics and integrity have been the focus of regulation by the European Community. However, the answer to this problem cannot be restricted to norms and regulatory measures, since without reflective training, this normative approach will fall short of its objectives. Therefore, this 28-hours course aims at promoting the discussion of research ethics/integrity issues experienced in the daily life of scientists and to develop key reasoning skills that can have a positive impact on the scientific quality of research.

Without due training in research ethics/integrity, misconduct and questionable practices are likely to go on, destroying trust in science and scientists and without trust science cannot move forward.

04

APRIL

21, 28 APRIL;
5, 12, 19, 26 MAY;
2, 9, 16 JUNE

TARGET:

PhD students enrolled in the doctoral programmes of MCbiology and BiotechHealth (all years).

FORMAT:

Blended course (self-study and classroom lecture)





05

MAY

3-14 MAY

**FELASA ACCREDITED
COURSE**

TARGET:

Researchers responsible for designing and/or carrying out animal experiments/ All scientific community

FORMAT:

Classroom course (including lectures, e-learning, practical sessions, group assignments and assessment);

DURATION

Approx. 80-h over two consecutive weeks

Laboratory Animal Science Course | 30th Ed.

LABORATORY ANIMAL SCIENCE

Appropriate training in animal biology, experimental techniques, and other relevant topics are a prerequisite for responsible conduct with animals in research. In Europe, the standard for such training is set by FELASA (Federation for European Laboratory Animal Science Associations). To be considered competent to work with animals, a researcher should have a degree in a life sciences discipline and have participated in a Laboratory Animal Science course. This course covers Functions A, B, and D of the European Directive 2010/63 for the animal species mouse, rat, zebrafish and fish. IBMC/i3S runs the only FELASA accredited course in Portugal since 2008, and in 2018 with the renewal, training is now aligned with the structure defined in article 23 of the aforementioned Directive.

The course will give you the necessary training to obtain a permit to work with animals in most European countries.

BioImage Analysis for High Content Screening Course

SCREENING & BIOIMAGE ANALYSIS

High Content Screening generates massive amount of image-based data in the biosciences field. Images contain diverse and valuable quantifiable data, however, many researchers lack the knowledge to extract those data in a practical, fast and repetitive way. Fundamentally practical, in this modular course, participants will get acquainted with several open-source image analysis software (ImageJ/Fiji, ilastik, CellProfiler, CellProfiler Analyst, Cytoscape and IDEAS®) designed to deal with large amounts of images. Experimental data will be used as datasets for image segmentation and quantification.

This course is organized in modules. Therefore, participants are free to choose the image analysis tools more convenient to their own work.

05

MAY

25-28 MAY

TARGET:

All scientific community

FORMAT:

CLASSROOM COURSE

06

JUNE

JUNE

TARGET:

i3S members that will carry out experimental and other scientific procedures on living animals

FORMAT:

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Organoids Systems for the Study of Infection

**ORGANOIDS/ CELL CULTURE/
MICROBIOLOGY**

Host-pathogen interactions can be studied using a great variety of models, either simple or complex. Organoids systems are currently being developed for infection studies, offering a 3D microenvironment that can mimic the complexity of host-immune interactions, and that at the same time, modeling human specific pathogenesis and exploring infection associated carcinogenesis. This workshop will explore organoids as models for infection, with one day of theoretical classes covering organoids methods for infection using bacteria and virus, and hands-on-classes where students will learn different techniques to infect organoids.

This workshop is supported by the REMODEL project (EU Research and Innovation Programme - grant agreement No 857491).

07

JULY

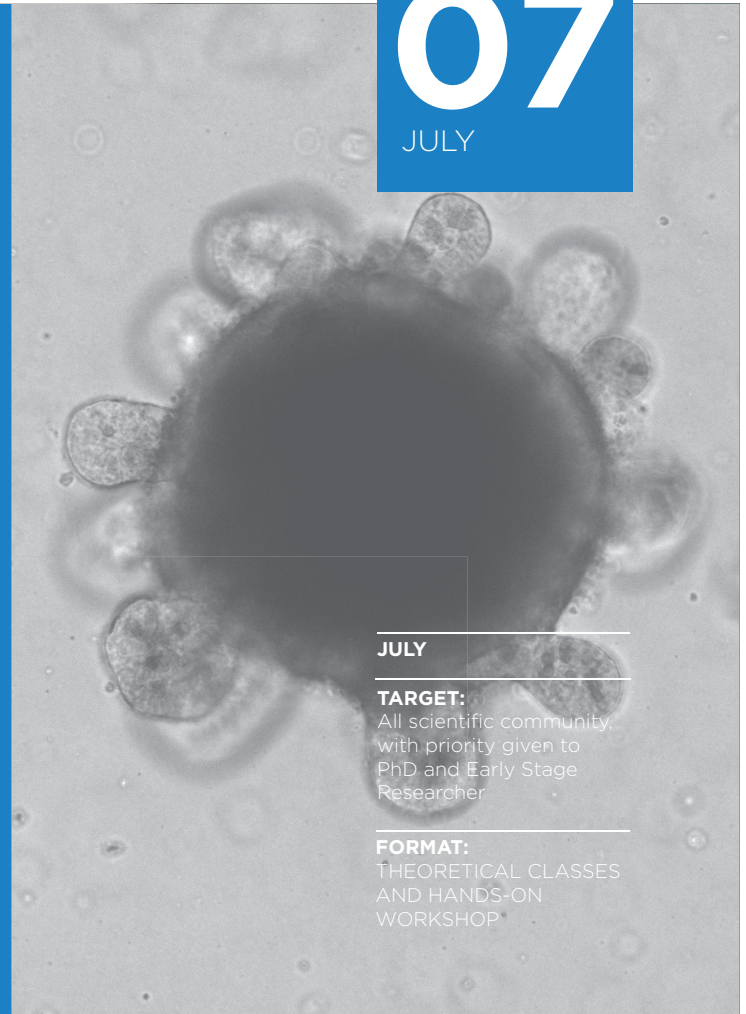
JULY

TARGET:

All scientific community, with priority given to PhD and Early Stage Researcher

FORMAT:

THEORETICAL CLASSES
AND HANDS-ON
WORKSHOP





09

SEPTEMBER

6-17 SEPTEMBER

**FELASA ACCREDITED
COURSE**

TARGET:

Researchers responsible for designing and/ or carrying out animal experiments/ All scientific community

FORMAT:

Classroom course (including lectures, e-learning, practical sessions, group assignments and assessment);

DURATION

Approx. 80-h over two consecutive weeks

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Workshop on Cancer Research 10th Ed.

CANCER RESEARCH

This workshop is focused on Cancer Research addressing the key cellular and molecular mechanisms underlying cancer development and progression. i3S researchers with expertise in the different topics of cancer research will present theoretical and practical sessions. This cancer research workshop will focus the state-of-the-art and address technical and methodological approaches.

This workshop is accredited with 1 ECTS.

09

SEPTEMBER

20-23 SEPTEMBER

TARGET:

All scientific community

FORMAT:

CLASSROOM COURSE

A background image showing a field of cells, likely yeast or bacteria, with orange outlines highlighting individual cells. The cells have blue/purple internal structures, possibly nuclei or organelles.

10

OCTOBER

12-15 OCTOBER

TARGET:

All scientific community

FORMAT:

CLASSROOM COURSE

Introduction to Digital BioImage Analysis

3rd Ed.

BIOIMAGE ANALYSIS

With the advent of digital era, nowadays images are multidimensional numerical data that can be processed and analyzed quantitatively to extract more information.

With this course we intend to give a general introduction to ImageJ/Fiji (imagej.net/), show how to use it to extract quantitative data and how to write simple macros.

EMBO PRACTICAL COURSE

Biomolecular interaction analysis 2021: From molecules to cells | 5th Ed.

MOLECULAR BIOPHYSICS & MICROSCOPY

A comprehensive and integrated characterization of molecular interactions is key to the understanding of life processes at a molecular level. Due to their complexity, the study of binding events requires the gathering of data from multiple methods in order to build a complete picture of their function. This EMBO Practical Course aims at a multidisciplinary approach to the study of molecular interactions from and in biological systems, integrating biochemical/biophysical methodologies with live microscopy techniques.

10

OCTOBER

25-29 OCTOBER

TARGET:

All scientific community

FORMAT:

PRACTICAL COURSE



11

NOVEMBER

24-26 NOVEMBER

TARGET:

Researchers who want to go beyond the basics and progress to more intermediate/advanced analysis with ImageJ/Fiji

FORMAT:

CLASSROOM COURSE

Batch analysis and macro development in ImageJ/Fiji: going beyond the basics | 3rd Ed.

BIOIMAGE ANALYSIS

This course is designed for ImageJ/Fiji users who want to go beyond the basics and progress to more intermediate/advanced analysis with this software. The course will focus on how to automate routine tasks (for conditions where many images need to be processed), as well as how to deal with more complex image analysis situations, to maximize information extraction.

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11
NOVEMBER

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The i3S reserves the right
to cancel courses or change
courses' dates and adjust
calendar to institutional training
demands.

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TRAINING](http://WWW.I3S.UP.PT/ADVANCED-TRAINING)**

