

TISSUE ANALYSIS COURSE, HBS-DP, 2025

<https://www.oulu.fi/en/education-search/tissue-analysis-course>

Time: 14.3. – 20.3.2025

Organizers: Health and Biosciences Doctoral Programme, Biocenter Oulu, Biobank Borealis of Northern Finland, Faculty of Medicine Laboratory Unit together with Research Units of Translational Medicine and Clinical Medicine

Target group: Doctoral students in the fields of Health and Biosciences, **lectures open for all**

Credits: 1 ECTS (participation to all lectures, providing feedback)

Course enrolment: Registration via Peppi 28.1.-21.2. 2025, course code: *DP00AL85-3004*

Evaluation criteria: Passed/failed according to participation in lectures and providing feedback

Contact information: anne.heikkinen(at)oulu.fi, Biocenter Oulu Transgenic and Tissue Phenotyping Core Facility (BCO TTP Core), tel: +358-(0)294 486 133

Venue: All lectures take place in the **computer class 286A/286B**, Kieppi building, 2nd floor

LECTURE PROGRAMME

Friday 14th March, 2025, Theme - Mouse sample collection

8:30-9:00	Introduction to the course Anne Heikkinen, BCO TTP Core
9:00-10:00	Mouse as a model for human diseases Anniina Hiltunen, BCO TTP Core
10:00-10:15	<i>Coffee break</i>
10:15-11:15	From tissue to biomedical sample Anne Heikkinen, BCO TTP Core
11:15-11:45	Introduction to mouse necropsy Miia Salo, BCO TTP Core

Monday 17th March, 2025, Theme - Biological sample preparation

10:00-11:30	Ultrastructural phenotyping by electron microscopy Ilkka Miinalainen, BCO EM Core
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Tuesday 18th March, 2025, Theme - Sample Visualization

9:15-10:15	Common histological staining methods and artefacts Markus Mäkinen, RU of Translational Medicine
10:15-10:30	<i>Coffee break</i>
10:30-11:30	Histological structures and pathological findings Markus Mäkinen, RU of Translational Medicine
11:30-12:30	<i>Lunch break</i>
12:30-13:30	Principles of IHC and <i>In situ</i> hybridization methods Katja Porvari, Faculty of Medicine Laboratory Unit
13:30-14:00	Possibilities in utilizing Biobank samples in research Raisa Serpi, Biobank Borealis of Northern Finland

Wednesday 19th March, 2025, Theme - Preparing for image analysis

12:15-13:15	Basics in image analysis Veli-Pekka Ronkainen, BCO LM Core
13:15-14:15	Prospects of the open-access QuPath image analysis tool Juha Väyrynen, RU of Translational Medicine

Thursday 20th March, 2025, Theme - Image analysis

12:00-13:00	The Visiopharm image analysis software features Anne Heikkinen, BCO TTP Core
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