

Methods in Cancer Biomarker Research

PhD course CC BIO905, September 27th-29th 2022

Centre for Cancer Biomarkers CC BIO
Norwegian Centre of Excellence – University of Bergen (Norway)

The course will run as a digital event in Zoom. Access codes will be available to registered participants in due time.

Day 1: Tuesday, September 27th, 2022

Session 1: Chair: Ingeborg Winge

09:00-09:30 Introduction to cancer biomarker research (Lars A. Akslen)

09:30-10:15 Basic techniques – Nucleotides (Elisabet Ognedal)

10:15-11:00 Basic techniques – Proteins (Manuel Carrasco)

11:00-11:15 **BREAK**

Session 2: Chair: Vandana Ardawatia

11:15-12:00 Epigenetics and miRNA (Erling Høivik)

12:00-12:45 Immunohistochemistry (Ingeborg Winge)

12:45-13:30 **LUNCH**

Session 3: Chair: Ingeborg Winge

13:30-14:00 *In situ* hybridization/RNAScope (Agnete Engelsen)

14:00-14:30 Proximity Ligation Assay (PLA) (Gro Vatne Røslund)

14:30-15:15 Artificial Intelligence (Marit Valla)

15:15-15:30 Wrap up and information about assignments (Agnete Engelsen)

Day 2: Wednesday, September 28th, 2022

Session 4: Chair: Vandana Ardawatia

09:00-09:45 Tissue microdissection and proteomics (Kenneth Finne)

09:45-10:15 Flow cytometry and Mass cytometry (Jørn Skavland)

10:15-10:30 **BREAK**

Session 5: Chair: Vandana Ardawatia

10:30-11:15 Liquid biopsy (Oddmund Nordgård)

11:15-11:45 Next Generation Sequencing (Olav Vintermyr)

11:45-12:30 **LUNCH**

Session 6: Chair: Ingeborg Winge

12:30-13:15 Strategies for analysis of biomarker data (Elisabeth Wik)

13:15-14:00 Mass Cytometry Imaging I (Vladan Milosevic)

14:00-14:15 **BREAK**

Session 7: Chair: Ingeborg Winge

14:15-14:45 Mass Cytometry Imaging II (Ingeborg Winge & Kenneth Finne)

14:45-15:30 Mass Cytometry Imaging III (Dimitrios Kleftogiannis)

15:30-16:00 Spatial omics analysis (Carina Strell)

Day 3: Thursday, September 29th, 2022

Session 8: Chair: Vandana Ardawatia

09:00-09:30 Animal and cell models (Carina Strell)

09:30-10:15 Tissue organoids (Heidrun Vethe)

10:15-10:30 **BREAK**
Session 9: Chair: Vandana Ardawatia
10:30-11:15 Nanostring analysis (Karen Toska)
11:15-12:00 Biobanking (Ann Cathrine Krogsveen)
12:00-13:00 **LUNCH**
Session 10: Chair: Ingeborg Winge
13:00-13.45 Clinical applications of cancer biomarkers (Oddbjørn Straume)
13:45-14:00 **BREAK**
Chair: Agnete Engelsen
14:00-16:00 *Group assignments: presentations and discussion* with peers and an expert panel (Liv Cecilie Vestrheim Thomsen, Harsh Dongre, Cornelia Schuster)

This course is open to PhD candidates affiliated with the Centre for Cancer Biomarkers CCBio, UiB other PhD candidates, and students at the Medical Student Research Program (5 ECTS credit course).

Academic responsibility:

Lars A. Akslen and Agnete Engelsen (CCBio)

Contact:

Course coordinator: Ingeborg Winge – ingeborg.winge@uib.no

Administration: Kjetil Harkestad – kjetil.harkestad@uib.no

Please note that there are two options for registration:

With ECTS: For those who attend the complete course, incl. group assignments, and be eligible for the 5 ECTS or a course diploma. The required registration for internal and external students is described on [the student pages for this course](#).

No ECTS: For those who are only interested in the lectures and want to hop in and out as they please (will not get ECTS credits or diploma) please register through [this link](#).

Please note that registration will be closed at no notice when the maximum is reached.