



Digital PCR Hands-on workshop

Date: 12th September 2024

Location: Centro de Pesquisa em Oncologia Molecular (CPOM) – Barretos Cancer Hospital

Application deadline: 1st September

Organisers: Rui Manuel Reis, Márcia Marques Silveira, Mariana Bizarro dos Reis, Rhafaela Causin, Ana Julia Freitas, Ana Carolina Laus.

Course Overview

Liquid biopsy is considered minimally/non-invasive procedure and can be used to access tumor cells and tumor DNA circulating in the body fluids.

This course will provide an overview of the concept of liquid biopsy and experimental analysis using droplet digital PCR (ddPCR).

Audience: The course is intended for researchers and postgraduate students entering the field of liquid biopsy who want to be introduced to Droplet Digital PCR analysis. Maximum of 20 participants.

International Speaker:

Valerie Taly (Université Paris Descartes, Paris, France)

Course Overview

08:00 - 08:15: Welcome and course overview

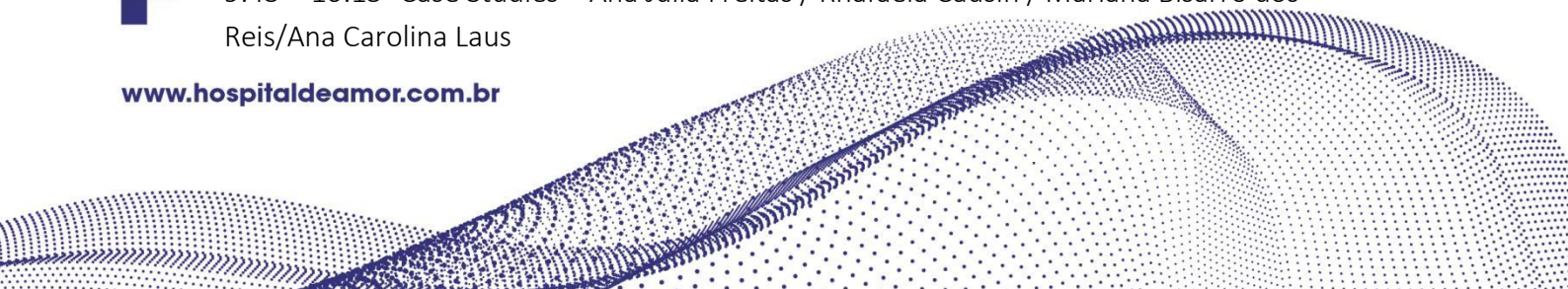
- Overview of workshop objectives – Rui Manuel Reis

08:15 - 10:15: Theory Session 1: Introduction to Liquid Biopsy and Digital PCR

8:15 – 9:00- Liquid biopsy and overview of application in personalized medicine– Valerie Taly

9:00 – 9:45- Principles of digital PCR – Mariana Bizarro dos Reis

9:45 – 10:15- Case Studies – Ana Julia Freitas / Rhafaela Causin / Mariana Bizarro dos Reis/Ana Carolina Laus





10:15 - 10:45: Coffee break

10:45 am - 12:00 pm: Practical session 1: ddPCR configuration and operation (MBR, AJF, RC, ACL)

- Practical demonstration of equipment configuration
- Preparation of PCR reactions
- Introduction to data analysis software

12:00- 12:30 – Technical talk

12:30 - 13:45: Lunch break

13:45 pm – 14:45 pm: Theory Session 3: Basics of data analysis (MBR, AJF, RC, ACL)

- Overview of data analysis principles
- Interpretation of ddPCR results

14:45 pm - 16:45 pm: Practical Session 2: Data Analysis Workshop (MBR, AJF, RC, ACL, VT, MMS)

- Hands-on practice with data analysis software
- Interpretation of experimental results
- Troubleshooting common problems
- Wrap-up and conclusion of the workshop



16:45 pm - 17:15 pm: Coffee break

