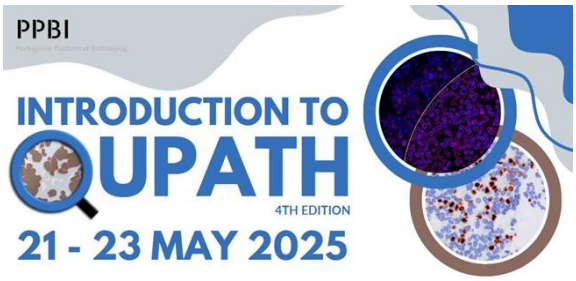


Preliminary Programme

21st May

Session I - Introduction to image analysis

2:00 — 2:15 PM	*Presentation of PPBI*
2:15 — 2:55 PM	*What is an Image?*
2:55 — 3:35 PM	*Types of images, colormaps and stain vectors*
3:35 — 3:50 PM	Break
3:50 — 4:30 PM	*Concepts of thresholding, ML and DL*
4:30 — 5:00 PM	*QuPath in the world of pathology*

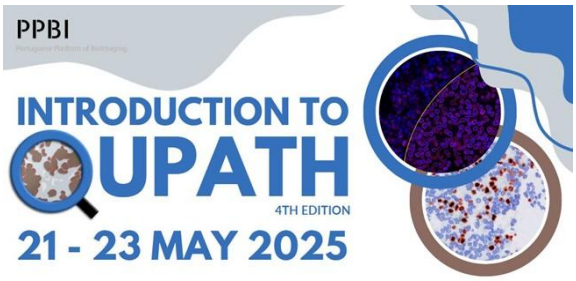
22nd May

Session II - Introduction to QuPath

9:30 — 10:15 AM	*How to handle images on QuPath?* ● Image properties ● Create a project
10:15 — 11:15 AM	*Tools - Annotations* ● Types of ROIs available and how to use them ● Hierarchy ● Properties and Classes ● Calculating features ● Exercises
11:15 — 11:30 AM	Break
11:30 — 12:30 AM	*Tools - Detections* ● Cell detection ● Properties, Measurements and tips ● Positive Cell Detection ● Exercises
12:30 — 2:00 PM	Lunch Break

Session III - Brightfield Images

2:00 — 2:45 PM	*Stain Vectors* ● Setting a stain vector ● Estimating a stain vector
2:45 — 3:45 PM	*Pixel Classification* ● Tissue detection ● Create and measure objects ● Exercises



3:45 — 4:00 PM	Break
4:00 — 4:30 PM	*Object Classification* • Training an object classifier (machine learning)
4:30 — 5:30 PM	*Density Maps* • Creating a density map • Finding hotspots • Creating annotations based on density

23th May

Session IV - Fluorescence Images

9:30 — 10:30 AM	*Multiplexed analysis* • Visualization of multiple channels • Cell Detection • Creating a cell classifier • Exercises
10:30 — 11:30 AM	*Object Classification* • Training an object classifier (machine learning) • Training images • Composite classifiers • Improving training • Heatmaps
11:30 — 11:45 AM	Break

Session V - Automated workflows

11:30 — 12:30 AM	*Pixel Classification* • Training a pixel classifier (machine learning) • Creating objects based on classifier
12:15 — 1:00 PM	*Introduction to groovy scripting* • Automated scripts • Extensions - Stardist and Cellpose (deep learning)
1:00 — 2:00 PM	Lunch Break

Session VI - Call4Help (Optional)

2:00 — 4:00 PM	*Working on your images* • wrap-up • call4help