PRACTICAL COURSE: 26-05 to 30-05-2025 (FMUC)									
	Monday – 26 th May		Tuesday – 27 th May		Wednesday - 28 th May	Th	ursday– 29 th May	Friday – 30 th May	
9:30	Registration & Opening Session	9:30	Lesson IV How to study MDR: cellular and molecular studies – Part II	9:30	Lesson VII Big data analysis in oncology research and	9:30	Social and scientific event		
9h45	Lesson I Overview of drug resistance mechanisms (ABSR)		. Molecular Biology Approaches (RA; MP) . In silico studies (JS)		clinical applications (BO; FC)				
10h30	Coffee break	11:00	Coffee break	10:45	Coffee break				
10h45 11:30	Lesson II Metabolism and drug resistance (PO) Lesson III How to study MDR: cellular and molecular studies – Part I . Microscopy and flow cytometry (HG; ACG)	11:15	Lesson V Liquid biopsies in oncology – A review (HV) Lesson VI Clinical applications of liquid biopsies – Role in monitoring measurable residual disease (CG)	11:00	Lesson VIII Artificial intelligence (AI) in multidrug resistance phenotype in cancer (JA; PD)			11:00	Lesson IX Case discussion and evaluation (ABSR; SS; SD; EG: All participants)
12h30	Lunch Break	12h30	Lunch Break	12h30	Lunch Break	13:00	Lunch Break	13:00	Lunch Break Concluding remarks (ABSR; SS; SD; EG)
14h00	Lab Training – Lab Groups (LG) LG I – Viability and Proliferation Assays (RA) LG II – Flow cytometry Studies (ACG)	14h00	Lab Training – lab groups (LG) LG III – Tumor educated platelets (TEPs) and Cell-free DNA (cfDNA) (JJ) LG IV – Extracellular vesicles (EVs) (HG; TR; CX)	14h00	Lab Training – Lab groups LG V – In silico studies (JS + ?) LG VI – Big data analysis and AI (BO; FC)	14:30	Social and scientific event		

ABSR- Ana Bela Sarmento Ribeiro, MD, PhD (FMUC); PO- Paulo Oliveira, PhD (to be confirmed); ACG — Ana Cristina Gonçalves, PhD (FMUC); Henrique Girão, PhD (FMUC); RA — Raquel Alves, PhD (FMUC); MP — Miguel Pires, Msi (FMUC); JS- Jorge Salvador, PhD (FFUC); HV — Helena Vasconcelos, PhD (FFUP); Catarina Geraldes, MD, PhD (FMUC); JJ — Joana Jorge, MSci (FMUC); TG — Teresa Rodrigues, PhD (FMUC); CX- Cristina Xavier, PhD (i3S); BO — Bárbara Oliveiros, PhD (FMUC); FC — Francisco Caramelo, PhD (FMUC); JA — Joel Arrais, PhD (FCTUC); PD- Paulo Donato, MD, PhD (FMUC); SS- Simona Sapona, PhD (SU); SD — Soner Dogan, PhD (YU); EG — Elisa Gionavani, MD, PhD (AUMC)











