

Continuous Flow Interchange of Communication and Knowledge in Biomedical University Research – FLOW

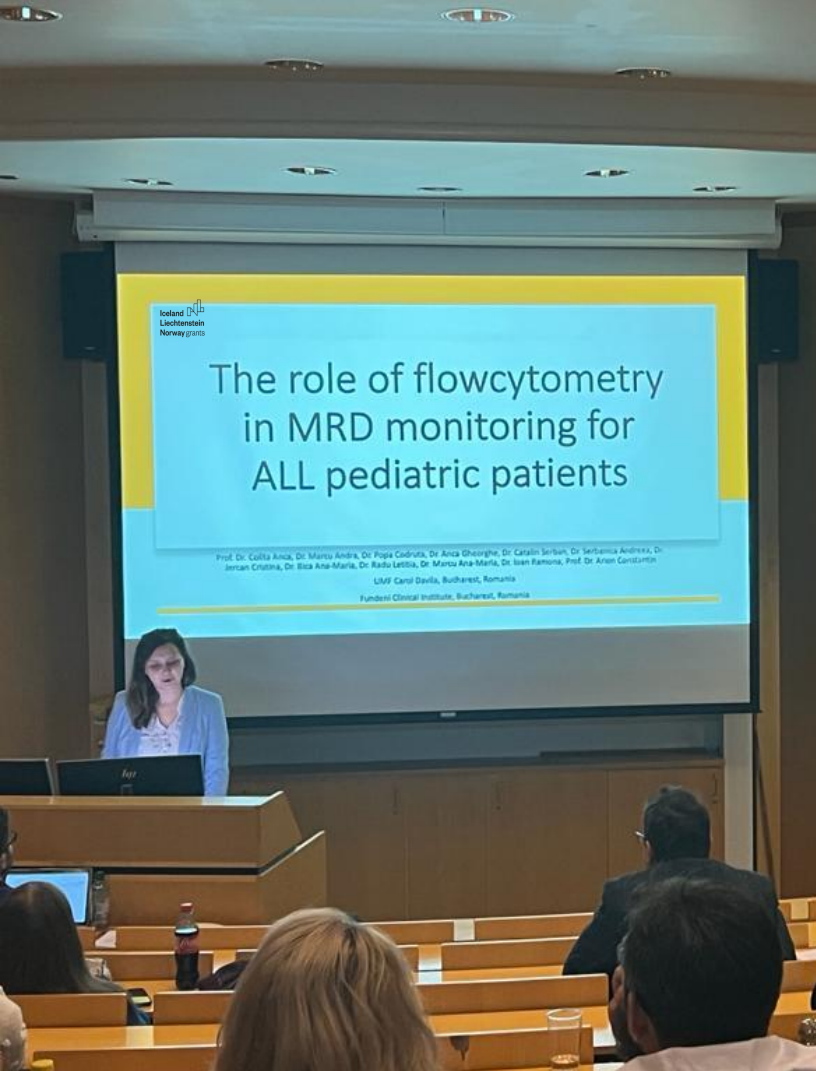
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- Rasmus Iversen, PhD
- *Fishing out disease-relevant B cells from blood*
- Researcher at the Department of Immunology, UIO



Christopher Forcados
Oslo University hospital

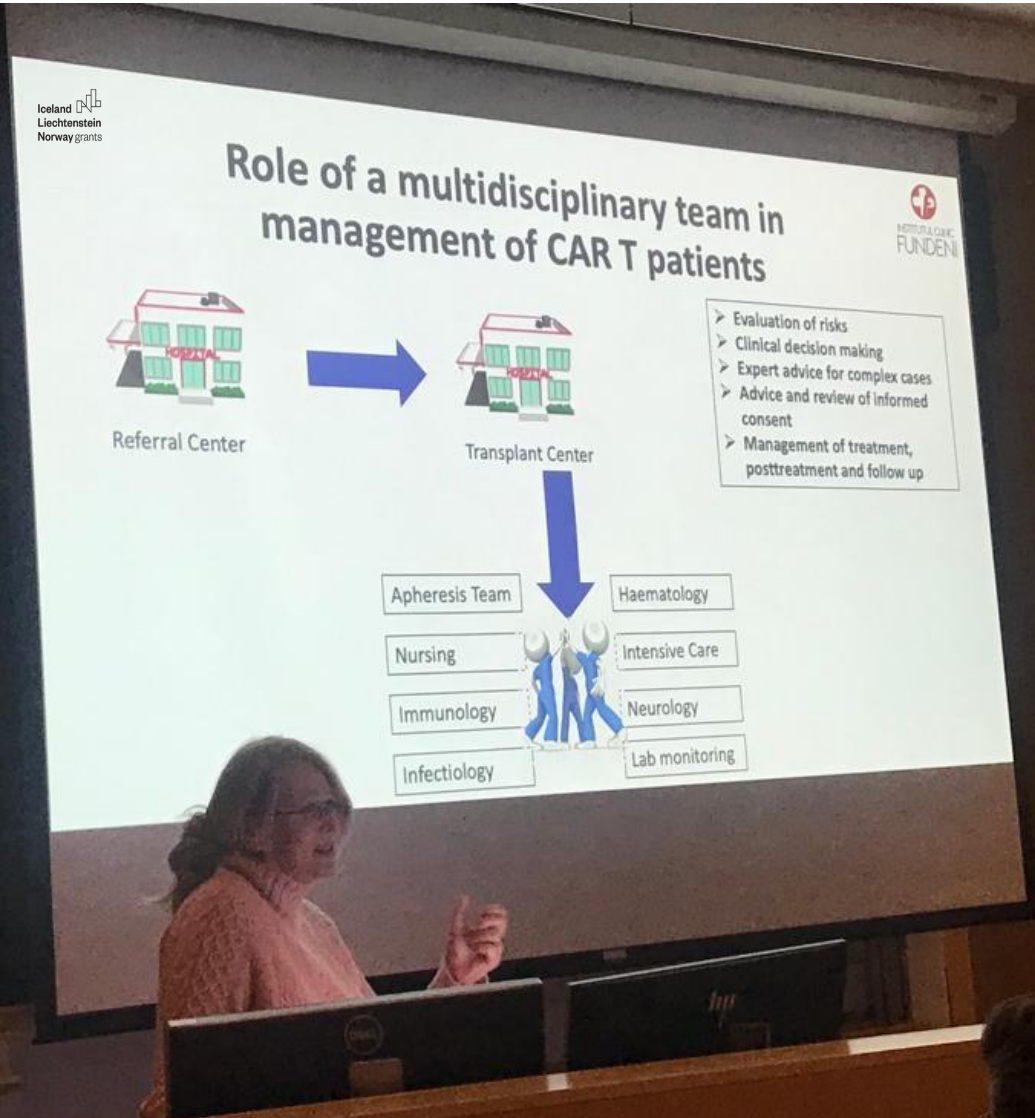




Asistent Dr. Andra Marcu
Institutul Clinic Fundeni



Prof. Dr. Alina Tănase
Institutul Clinic Fundeni



Causes of Failure of CART19 Immunotherapy

Pre-infusion barriers

- Low lymphocyte counts
- Manufacturing failure
- Progression during manufacturing
- High Costs

CART dysfunction

- Exhausted T cells
- Terminally differentiated T cells
- Short lived activity
- Low cytotoxicity

Immunosuppressive tumor microenvironment/ Host Factors

- Physical barrier
- TGF- β
- IL-10
- Treg
- TAM
- MDSC

Tumor-intrinsic mechanisms

- Antigen loss
- PD-L1 over-expression
- Apoptosis

Legend

- Antigen
- CAR
- CTLA-4
- LAG-3
- New Antigen
- PD-1
- PD-L1
- TIM-3

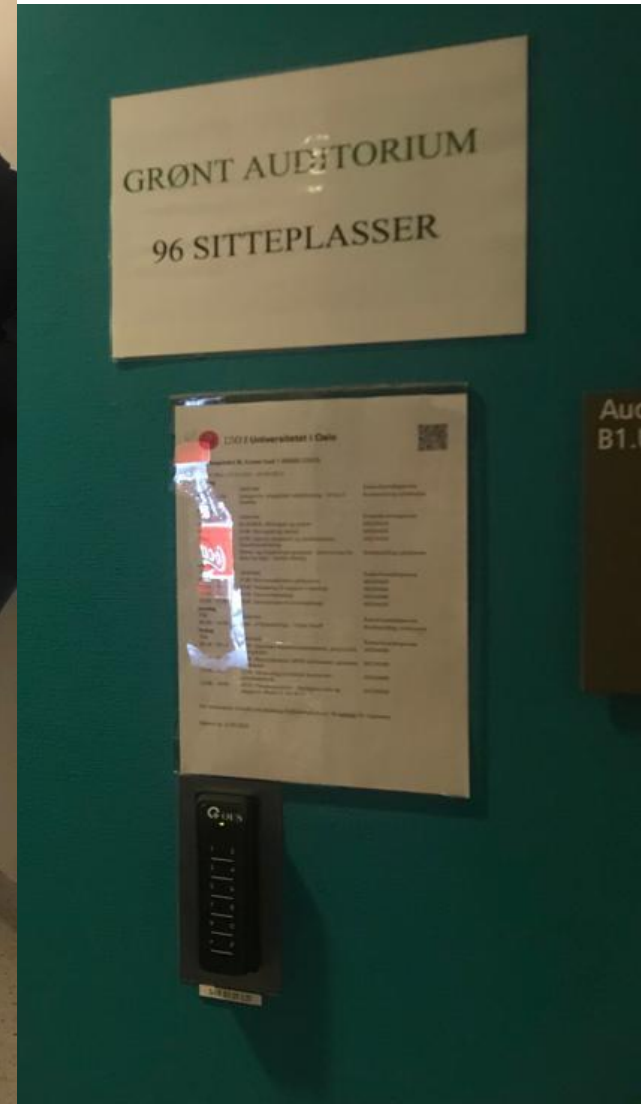
Ghildardi G, BJH, 2021



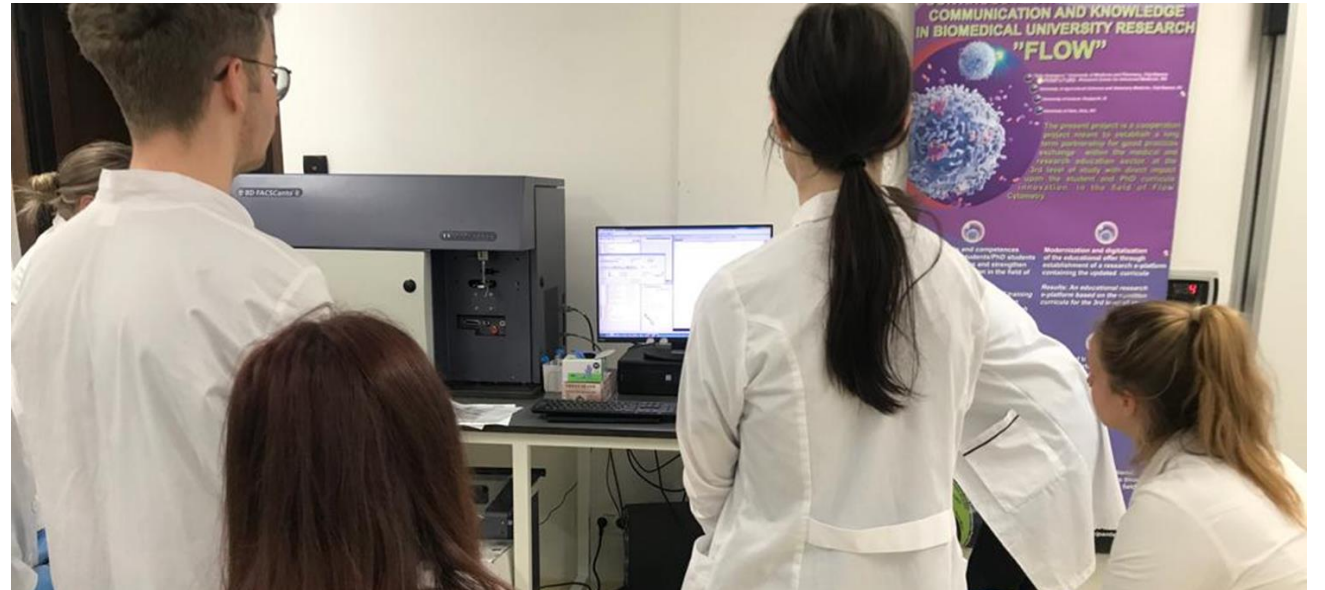




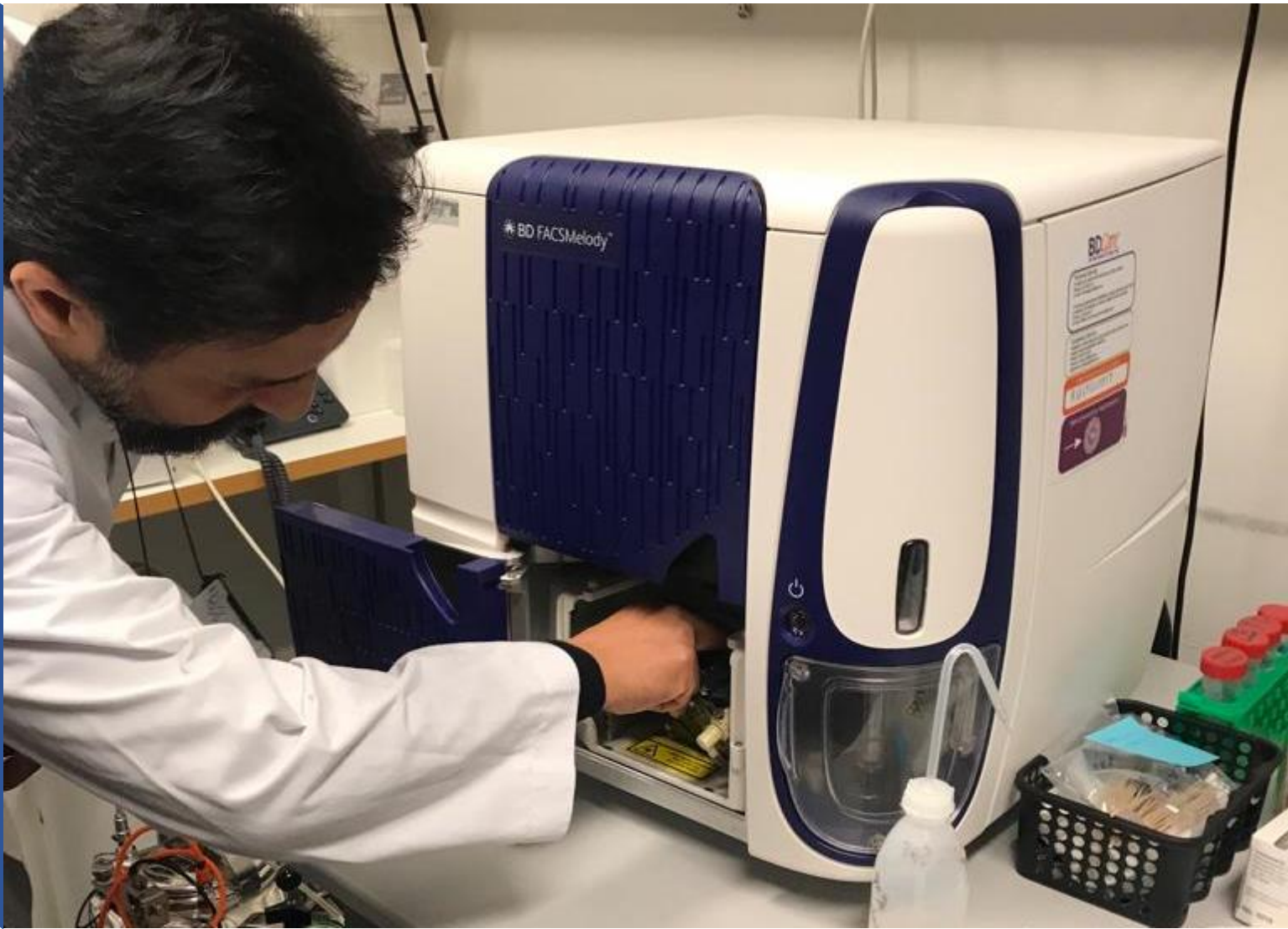
Coffee break and Discussions

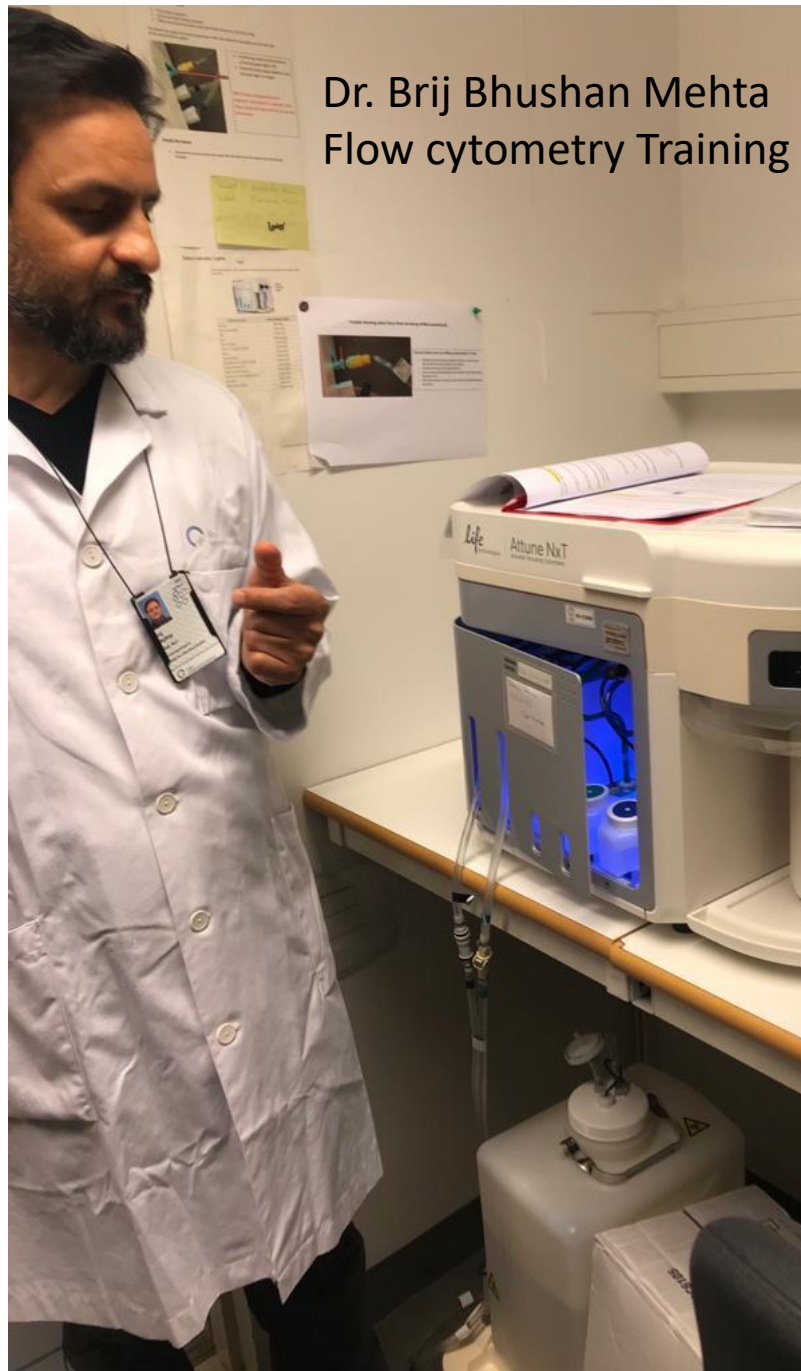


The FC used in cell sorting



The FC Lasers and Fluidics

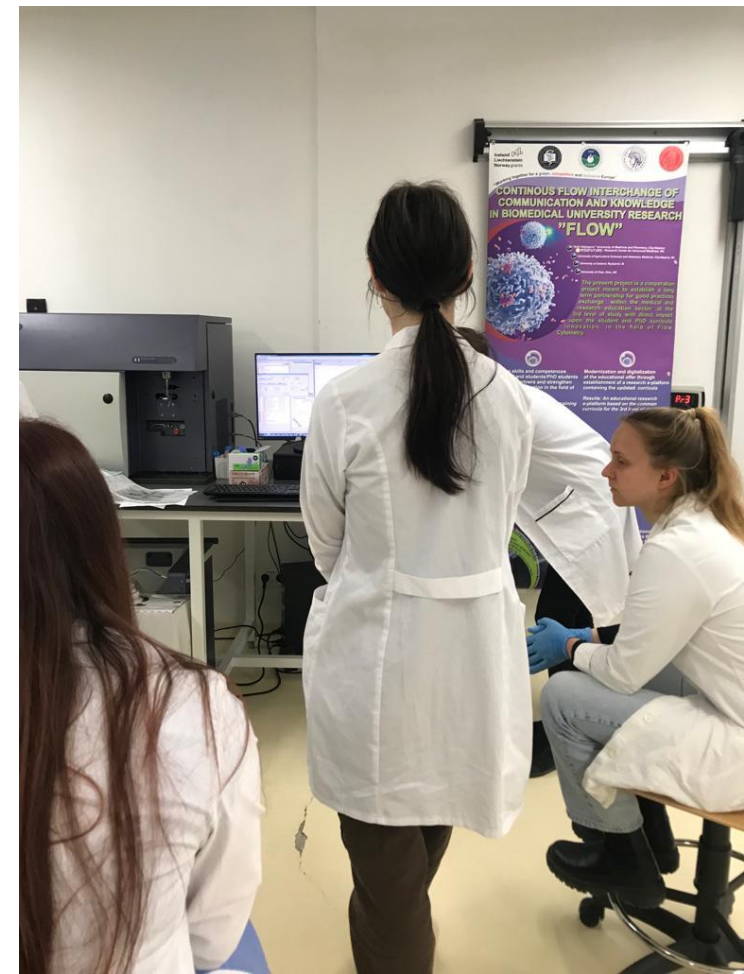
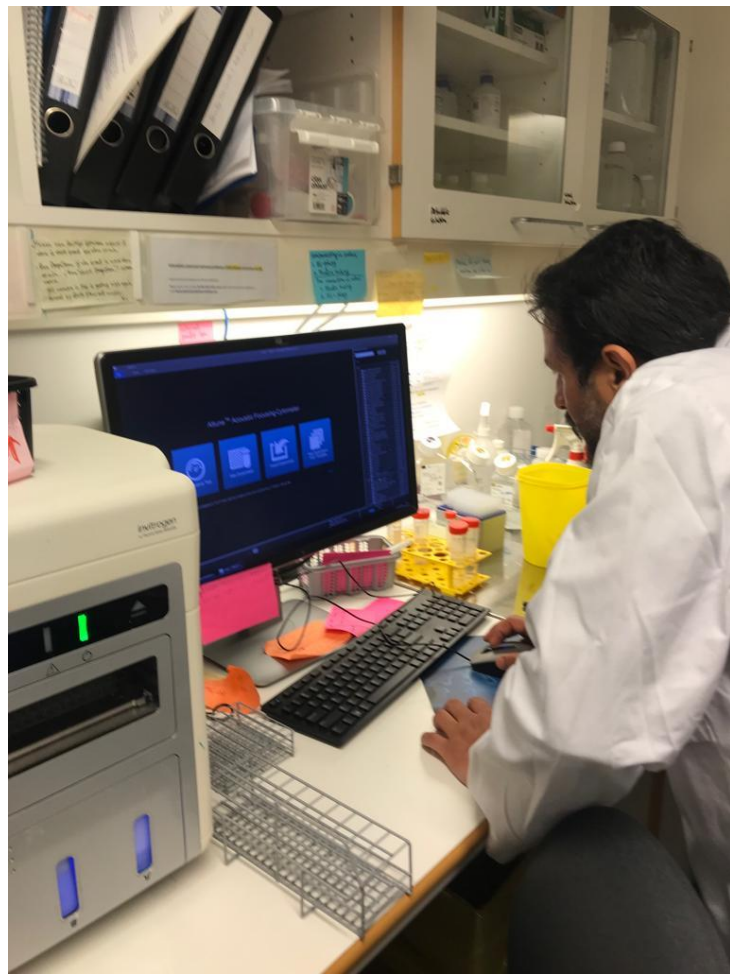
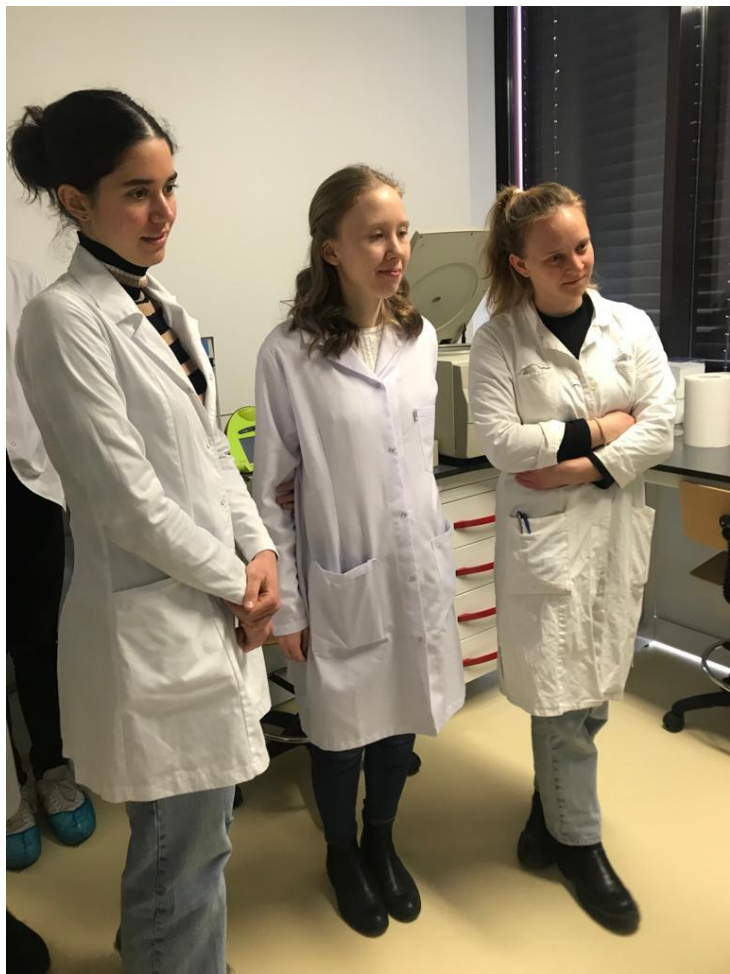




Dr. Brij Bhushan Mehta
Flow cytometry Training



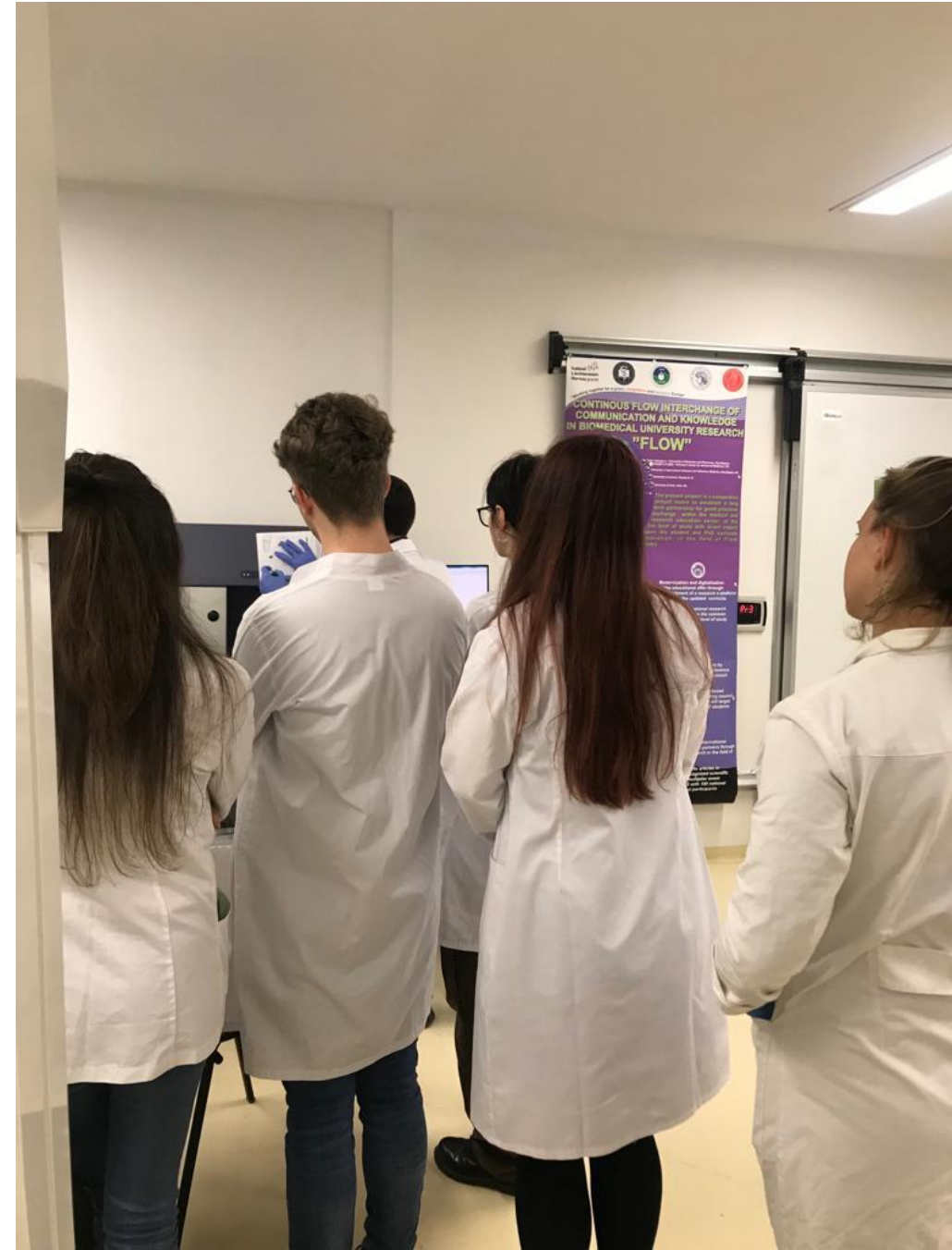
Diva software for analysing Flow Cytometry data



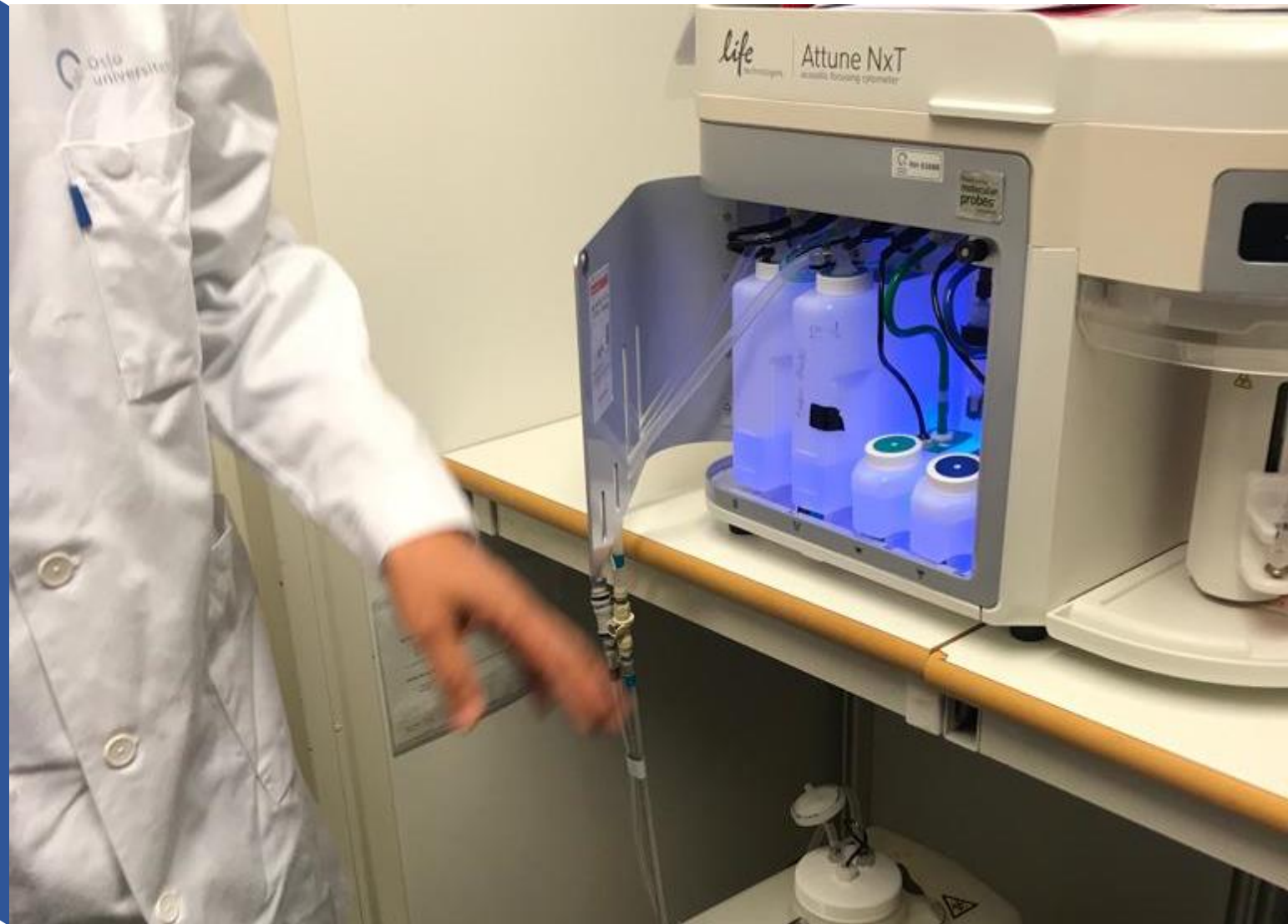
Diva software for analysing Flow Cytometry data



Preparation of blood samples for FC



Fluidics System of a Flow Cytometer



Human Hematopoietic Stem and Progenitor Cell Phenotypes



Immunostaining with specific antibodies



Students following the working protocols for FC immunostaining



The SOPs were printed and handed to each one of the students during training





Workshop: Flow Cytometry Applications In Research

**Agenda of the short-term mobility of UMPH and UASVM students/PhD students for transnational learning at University of Oslo
March 29th – April 2nd, 2023**

Date	Time	Agenda Activity	Location
Wednesday, March 29th, 2023	-	Travel and arrival of the participants	-
Thursday, March 30th, 2023	13.00-17.00	Workshop: Applications of flow cytometry in biomedical research	Grønt Auditorium, Oslo University Hospital Rikshospitalet
Friday, March 31st, 2023	9.00-13.00	Practical training session: cytometer start-up and shutdown, calibration, choice of appropriate study design and fluorochromes, compensation of fluorochromes.	Laboratory for Computational and Systems Immunology, University of Oslo, Flow cytometry unit
	13.00-14.00	Lunch break	-
	14.00-18.00	Practical training session: applications of flow cytometry in biomedical research: analysis of blood and bone marrow samples	Laboratory for Computational and Systems Immunology, University of Oslo, Flow cytometry unit
Saturday, April 1st, 2023	9.00-13.00	Practical training session: applications of flow cytometry in biomedical research: analysis of cell culture samples	Laboratory for Computational and Systems Immunology, University of Oslo, Flow cytometry unit
	13.00-14.00	Lunch break	-
	14.00-18.00	Practical training session: applications of flow cytometry in biomedical research: processing and analysis of compact tissue samples	Laboratory for Computational and Systems Immunology, University of Oslo, Flow cytometry unit
Sunday, April 2nd, 2023	-	Free time/Departure of the participants and travel	-