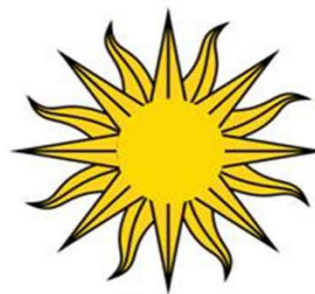




International Summer School on Cytometry



SIXTH INTERNATIONAL SUMMER SCHOOL ON CYTOMETRY

Valencia, Spain 8-12 JULY 2019

<https://www.escca.eu/education/international-course>

<http://www.cipf.es/web/portada/summer-school>

Organized by the European Society for Clinical Cell Analysis (ESCCA) with the support of University of Valencia, Principe Felipe Research Center, Incliva Foundation and Iberian Cytometry Society (SIC).

The Sixth edition of the International Summer School on Cytometry will be held on 8-12 July 2019, and will consist of two parallel 5-day courses starting from Monday morning to Friday afternoon and limited to 20 students per course.

The courses FLOW CYTOMETRY IN HEMATOLOGY: A TECHNICAL APPROACH and CYTOMETRY AND STEM CELLS: TRANSLATIONAL RESEARCH AND THERAPY will present methods and applications of Cytometry and Cytomics in basic, clinical and translational fields, and will approach practical aspects of assay design and performance, data analysis and interpretation, using commercially available cytometers, reagents and software. Theoretical lectures and technical seminars delivered by international experts will alternate with extensive practical exercises in wet labs and computer rooms.

Members of ESCCA and other ESCCA-affiliated societies, as well as members of the organizing institutions will have reduced registration fee. Also, the Summer School offers a limited number of Fellowships covering registration to participants from developing countries or from countries not having a local cytometry society. To this purpose, a motivation letter should be addressed to José-Enrique O'Connor (jose.e.oconnor@uv.es).

OVERVIEW OF COURSE CONTENTS

FLOW CYTOMETRY IN HEMATOLOGY: A TECHNICAL APPROACH

Lectures and Seminars: Overview of applications of cytometry in Hematology. Sample collection and preparation procedures: Blood, bone marrow, lymph nodes and special samples. Multiparametric immunophenotype: Settings, compensations and gating strategies. Data management: Acquisition, analysis, display and interpretation. Assay standardization and validation. Quality control.

Case-oriented immunophenotypic studies in wet lab and computer room: Normal Hematopoiesis; Erythrocytes and erythroid cells; Acute and chronic leukemias; Lymphomas; Myelodysplastic syndromes; Analysis of rare cells and clones; Detection of minimal residual disease. Case-oriented functional studies in wet lab and computer room: Paroxysmal Nocturnal Haemoglobinuria; Drug resistance; Stem cells; Platelets and microvesicles.

CYTOMETRY AND STEM CELLS: TRANSLATIONAL RESEARCH AND THERAPY

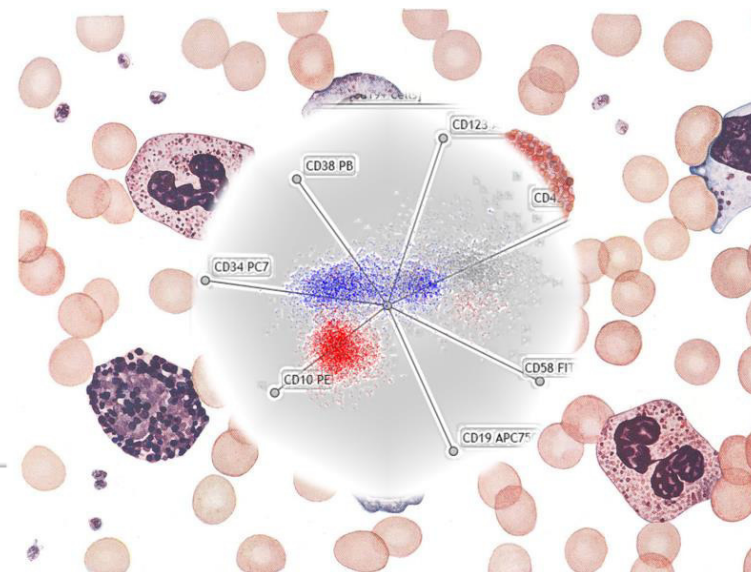
Lectures and Seminars: Overview of the basic biology of Stem cells. Overview of the clinical relevance of Stem cells. Overview of Cytometry applications in Stem Cell Research and therapy. Cytometric methods for Stem Cell study: Identification and phenotypic characterization; Functional characterization; Purification of Stem Cell subpopulations. Cytometry in basic and translational studies of Stem Cells: Embryonic and induced pluripotent stem cells; Hematopoietic stem cells; Mesenchymal stem cells; Cancer stem cells. Cytometry in clinical studies of Stem Cells: Enumeration and isolation of circulating Stem Cells; Assessment of cell therapeutic products; Monitoring of Stem Cell therapy and Tissue Regeneration.

Practicals in wet lab and computer room: Basics of cytometer operation, sample preparation and data acquisition; Identification and functional characterization of human and murine Stem Cells; Isolation of Stem Cells by FACS and MACS; Absolute count and isolation of hematopoietic and endothelial precursors; Assessment of cell therapeutic products.

REGISTRATION FEES		
	Members of ESCCA, ESCCA-Affiliated Societies and Sponsoring Institutions	OTHER ATTENDANTS†
FULL COURSE°		
EARLY REGISTRATION (Before 30 June 2019)	400 €	500 €
LATE REGISTRATION (Until July 8, 2019)	500 €	600 €
†) Includes Course materials, lunches and coffees, Welcome Party and Course Dinner plus one-year full membership in ESCCA. Attendees of previous ESCCA Schools in Valencia will have 20% reduction in course fees.		
Students from emerging countries and from countries with no national Cytometry society may apply for an ESCCA Travel Fellowship covering the cost of registration.		
Course Information and Registration: https://escca.eu/education/international-course http://www.cipf.es/web/portada/summer-school Confirmation and Additional Information: jose.e.oconnor@uv.es		

REGISTRATION FEES		
	MEMBERS OF ESCCA OR AFFILIATED SOCIETIES MEMBERS OF SPONSORING INSTITUTIONS	OTHER ATTENDANTS†
FULL COURSE ^o		
EARLY REGISTRATION (Before 30 June 2019)	400 €	500 €
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ESCCA INTERNATIONAL SCHOOL ON CYTOMETRY



FLOW CYTOMETRY IN HEMATOLOGY: A TECHNICAL APPROACH (6th EDITION)

8-12 July 2019

Cytometry Laboratories

**Valencia University and Principe Felipe Research Center
VALENCIA (SPAIN)**



Fondo Europeo de
Desarrollo Regional



PRINCIPE FELIPE
CENTRO DE INVESTIGACION

**VNIVERSITAT
DE VALÈNCIA**

INCLIVA | VLC
Instituto de Investigación Sanitaria

BACKGROUND

- Flow Cytometry has become a complex and powerful tool for cell analysis, essential in many clinical applications for diagnosis, prognosis and therapy monitoring. Knowledge of the basic principles of Flow Cytometry and the critical points of its practical implementation is essential for optimal use of cytometry in the clinical context.

ESCCA INTERNATIONAL SCHOOL ON CYTOMETRY (EISC)

- EISC is a program of integrated educational and training initiatives oriented to provide new skills and tools to design and optimize and manage cytometric experiments and interpret the results obtained. EISC consists of a series of parallel 5-day courses **limited to 20 students per course**. Previous editions of EISC brought together each year more than 50 students from 25 countries, and more than 30 teachers from 16 countries.

FLOW CYTOMETRY IN HEMATOLOGY: A TECHNICAL APPROACH

- This is a **Basic Course** that will address the most relevant applications of Flow Cytometry in Hematology. Emphasis is placed on the technical principles of flow cytometry and management tools, the fundamentals of the main applications, the essential aspects of data analysis and interpretation of the results and the procedures of quality control.
- Theoretical and technical lectures will be delivered by international teachers in the field. The course will include hands-on practicals on assay design and performance in wet-lab experiments. Case-oriented, interactive exercises on analysis and interpretation of real data files will be led by the experts. Flow cytometers, reagents and third-part software will be available for **wet-lab practicals and computer-based exercises**.

THE ESCCA CYTOMETRY SCHOOLS AND ACREDITATION

- This course is part of the **ESCCA Program for Continuous Education (CE)** in Cytometry. At the end of this Course, students may take the examination for the ESCCA **European Certification in Cytometry**. For more details, please visit www.escca.eu

COURSE CONTENTS

LECTURES AND SEMINARS:

- Overview of applications of cytometry in Hematology
- Sample collection and preparation procedures: Blood, bone marrow, lymph nodes and special samples
- Polychromatic immunophenotype: Compensation and gating strategies
- Data management: Acquisition, analysis, display and interpretation
- Assay standardization and validation
- Quality control

CASE-ORIENTED STUDIES IN WET LAB AND COMPUTER ROOM:

- Normal Hematopoiesis
- Erythrocytes and erythroid cells
- Acute and chronic leukemias
- Lymphomas
- Myelodysplastic syndromes
- Minimal residual disease
- Paroxysmal Nocturnal Haemoglobinuria
- Platelets and microvesicles
- Preparation and analysis of usual and special samples
- Use of specific flow cytometry software

ALREADY CONFIRMED TEACHERS

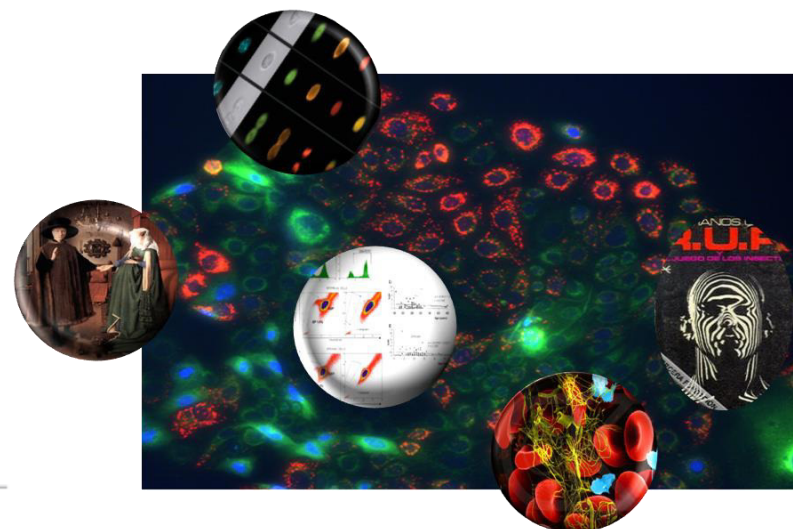
Bruno Brando (Legnano, IT), **Paula Fernández** (Aarau, CH), **Iuri Marinov** (Prague, CZ), **Sergio Matarraz** (Salamanca, ES) **José-Enrique O'Connor** (Valencia, ES), **Claudio Ortolani** (Venice, IT), **Martín Pérez-Andrés** (Salamanca, ES), **Jordi Petriz** (Barcelona, ES), **Graham Pockley** (Sheffield, UK), **Frank Preijers** (Nijmegen, NL), **Andrew Rawstron** (Leeds, UK)

REGISTRATION FEES

	Members of ESCCA, ESCCA-Affiliated Societies and Sponsoring Institutions	OTHER ATTENDANTS†
FULL COURSE°		
EARLY REGISTRATION (Before 30 June, 2019)	400 €	500 €
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Students from emerging countries and from countries with no national Cytometry Society may apply for an ESCCA Travel Fellowship covering the registration fees. Contact: jose.e.oconnor@uv.es		
Course Information and Registration: https://escca.eu/education/international-course http://www.cipf.es/web/portada/summer-school Confirmation and Additional Information: jose.e.oconnor@uv.es		



ESCAINTERNATIONAL SCHOOL ON CYTOMETRY



CYTOMETRY OF STEM CELLS: A PRACTICAL APPROACH (6th EDITION)

8-12 July 2019

Cytometry Laboratories

**Valencia University and Principe Felipe Research Center
VALENCIA (SPAIN)**

BACKGROUND

- Flow cytometry and related Cytomic technologies have become a complex and powerful tool for cell analysis, essential in many aspects of interest for basic and applied research in Cellular and Molecular Biology, Biotechnology, Drug Discovery and Toxicology, among other.
- For many years now, flow cytometry has been successfully used in the study of Hematopoietic Stem Cells and their pathologies. Nowadays, the new challenges of Regenerative Medicine and Cell Therapy have extended the applications of flow cytometry and cytomics to many other Stem Cell types and lineages.
- Knowledge of the principles of Flow Cytometry and Cytomics and the critical points of their practical use are essential for laboratories performing basic or clinical studies related to stem cell biology and application.

ESCCA INTERNATIONAL SCHOOL ON CYTOMETRY (EISC)

- EISC is a program of integrated educational and training initiatives oriented to confer to new skills and tools to design and optimize and manage cytometric experiments and interpret the results obtained. EISC consists of a series of parallel 5-day courses **limited to 20 students per course**. Previous editions of EISC have brought together each year more than 50 students from 25 world countries, and more than 30 teachers from 16 countries.

CYTOMETRY OF STEM CELLS: A PRACTICAL APPROACH

- The course will approach methods and applications of Cytometry and Cytomics in basic, translational and clinical fields of Stem Cell research, and will include practical aspects of assay design and performance, data analysis and interpretation. Theoretical and technical lectures delivered by international experts will alternate with practical exercises in wet labs and computer rooms.
- Emphasis will be placed on the technical principles of flow cytometry and management tools, the fundamentals of the applications, the essential aspects of data analysis and interpretation of the results and the procedures of quality control. Different brands of cytometers, reagents and third-part software will be available for **wet-lab practicals and computer-based exercises**.

THE ESCCA CYTOMETRY SCHOOLS AND ACREDITATION

- This course is part of the **ESCCA Program for Continuous Education (CE)** in Cytometry. At the end of this Course, students may take the examination for the ESCCA **European Certification in Cytometry**. For more details, please visit www.escca.eu

COURSE CONTENTS

LECTURES AND TECHNICAL SEMINARS ON:

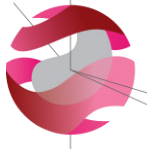
- Overview of the basic aspects of Stem Cells.
- Overview of the clinical relevance of Stem Cells.
- Working with Stem Cells in Basic and Clinical Settings.
- Technical aspects of Cytometry and Cytomics.
- Data analysis and interpretation.
- Basic applications of Cytometry in Stem Cell Research
- Clinical applications of Cytometry in Cell Therapy.

WET LAB AND COMPUTER PRACTICALS ON:

- Basics of cytometer operation, sample preparation and data acquisition.
- Identification and functional characterization of human and murine Stem Cells.
- Isolation of Stem Cells by FACS and MACS.
- Absolute count and isolation of hematopoietic and endothelial precursors.
- Assessment of cell therapeutic products.

ALREADY CONFIRMED TEACHERS

Deborah J. Burks (Valencia, ES), **Paolo Cappella** (Milano, IT), **Irene Cervelló** (Valencia, ES), **Silvia Della Bella** (Milano, ES), **Akaitz Dorronsoro** (Valencia, ES), **Guadalupe Herrera** (Valencia, ES), **Alicia Martínez-Romero** (Valencia, ES), **José-Luis Mateos** (Madrid, ES), **Inmaculada Moreno** (Valencia, ES), **Luke Noon** (Valencia, ES), **José-Enrique O'Connor** (Valencia, ES), **Jordi Pétriz** (Barcelona, ES), **Frank Preijers** (Nijmegen, NL), **Francisco Sala** (Lausanne, CH), **José-Carlos Segovia** (Madrid, ES)

 <div>ESCCA European Society for Clinical Cell Analysis</div>	6TH International Summer School on Cytometry 8-12 July and 2019 Valencia, Spain	
REGISTRATION FEES		
	REDUCED *	STANDARD †
FULL COURSE°		
EARLY REGISTRATION(Before 30 June, 2019)	400 €	500 €
LATE REGISTRATION(Until 8 July, 2019)	500 €	600 €
<p>*) For members of ESCCA, ESCCA-affiliated societies, as well as members of the organizing institutions. Includes Course materials, lunches and coffees, Welcome Party and Course Dinner and membership in ESCCA.</p> <p>†) Includes Course materials, lunches and coffees, Welcome Party and Course Dinner and membership in ESCCA. Attendees of previous ESCCA Schools in Valencia will have 20% reduction in course fees.</p> <p>Students from emerging countries and from countries with no national Cytometry society may apply for an ESCCA Travel Fellowship covering the cost of registration.</p> <p>To apply, please send a short CV and a motivation letter to: jose.e.oconnor@uv.es</p>		
<p>Course Information and Registration Forms:</p> <p>https://escca.eu/education/international-course</p> <p>http://www.cipf.es/web/portada/summer-school</p> <p>Registration:jose.e.oconnor@uv.es</p> <p>Additional Information and requests for official Invitation Letters (for Visa purposes): jose.e.oconnor@uv.es</p>		

REGISTRATION FORM

Name and Surname:	
Address:	
e-mail:	
Phone:	

COURSE CHOICE

(Tick one course)

Course 1	FLOW CYTOMETRY IN HEMATOLOGY: A TECHNICAL APPROACH	
Course 2	CYTOMETRY OF STEM CELLS: A PRACTICAL APPROACH	

EARLY REGISTRATION FEES

REDUCED REGISTRATION		STANDARD REGISTRATION	
Single Course	400 €	Single Course	500 €

LATE REGISTRATION FEES

REDUCED REGISTRATION		STANDARD REGISTRATION	
Single Course	500 €	Single Course	600 €

TOTAL REGISTRATION (€)	
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Please transfer the funds to:

Bank: BANKIA

IBAN: ES14 2038 9938 4160 0020 4038

SWIFT CODE: CAHMESMMXXX

Account Holder: FCV CENTRO INVESTIGACIÓN PRÍNCIPE FELIPE

VERY IMPORTANT: Please indicate your name and "ESCCA Summer School 2019" as the Concept of the Bank Transfer

For confirmation, please send a copy of this Registration Form to: jose.e.oconnor@uv.es