

The Instruments for Science (I4S) Task Force

Expanding the global reach of flow cytometry

The ISAC Instruments for Science (I4S) Task Force mission is to promote global access to cytometry technology through scientific collaboration, instrument placement and donation to laboratories in resource limited settings, providing both initial and long-term support for these efforts. Many ISAC investigators already work on such collaborations but may not be aware of similar projects in the society. Instruments for Science aims to build a community of these investigators, facilitating their individual projects while encouraging the creation of new ones.

I4S members manage many new and refurbished instrument donations, grant-driven technology transfer projects and cytometry training programs, providing instrumentation, training and collaborations to labs globally. But donating and placing equipment is only the first step. Sustained technical support, training, education, scientific interactions and mentorship are all essential if this equipment is to be truly useful in the long term. ***I4S aims to promote and support these efforts by ISAC members.***

Over **40 instrument donation and training programs** in over **30 countries** on all six inhabited continents are being organized and driven by the efforts of ISAC and I4S members...

Phase 1 Identifying instruments for donation and potential recipients...

Phase 2 Prepare / restore instrumentation and transfer to the recipient...

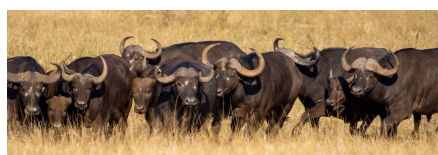
Country: South Africa

Institution: Wild Spirit Fund (in collaboration with the University of Cape Town and Yale University)

Contacts: Fabiola Quesada, DVM, MD (ZA), Elisa Nemes (ZA), Alfonso Blanco (IRELAND)

Instrument: BD Accuri C6 Plus

Summary: The project aims to develop new flow cytometry-based tools to understand the immunopathogenesis of helminth-tuberculosis co-infection and to diagnose tuberculosis in wild African buffalo in Kruger National Park.



Country: Bangladesh

Institution: School of Veterinary, Animal and Biomedical Sciences, Sylhet Agricultural University (SAU), Sylhet

Contact: Ferdhaus Mohd Hossain, DVM, PhD (BANGLADESH), Bill Telford (USA)

Instrument: BD FACSCalibur

Summary: Dr. Hossain at Sylhet Agricultural University is receiving a BD FACSCalibur flow cytometer to support research in bovine immunology. This instrument has been refurbished and is in transit to the university for setup and training in 2023 and 2024.



Country: Morocco

Institution: Laboratory of Cytomics, Mohammed VI Centre for Research and Innovation, Rabat

Contacts: Fouad Seghrouchni, PhD (MOROCCO), Diana Ordoñez-Rueda, PhD (EMBL, GERMANY)

Instrument: BD LSR Fortessa

Summary: Setting up a centre of excellence in flow cytometry practice, partnership and training in Morocco, to promote national and African scientific and transfer programs in medical, cell biology, drug developments and food/environment hygiene and security.



Country: Paraguay

Institution: Instituto de Investigaciones en Ciencias de la Salud (IICS) (Health Sciences Research Institute), Universidad Nacional de Asuncion (UNA)

Contacts: Vivian Giménez Bareiro MD (PARAGUAY), Mariela Bollati (URUGUAY), Bill Telford (USA).

Instrument: BD FACSCalibur

Summary: IICS is receiving a BD FACSCalibur flow cytometer to support research on immune effects of viral and parasitic diseases endemic to Paraguay. This will be the only research-dedicated flow cytometer at this institution.



Raif Yuecel¹, Alfonso Blanco², Mariela Bollati³, Julio Castañeda-Delgado⁴, Nabanita Chatterjee⁵, Balinda Cockrell⁶, Karen Hogg⁷, Claude Lambert⁸, Raymond Lannigan⁹, Anis Larbi¹⁰, Helen McGuire¹¹, Julie Nelson¹², Elisa Nemes¹³, John Tigges¹⁴, Hemant Agrawal¹⁵, Rekha Gour¹⁵, Diana Ordoñez-Rueda¹⁶ and William Telford¹⁷

¹University of Exeter [UK](#), ²University College Dublin [IRELAND](#),

³Institut Pasteur Montevideo [URUGUAY](#), ⁴Unidad de

Investigación Biomédica de Zacatecas, Instituto Mexicano del

Seguro Social (IMSS), [MEXICO](#), ⁵CSIR-Indian Institute of

Chemical Biology [INDIA](#), ⁶ISAC, [USA](#), ⁷University of York [UK](#),

⁸University Hospital Saint-Etienne, [FRANCE](#), ⁹Flow Cytometry

Support Services LLC, [USA](#) ¹⁰Beckman Coulter Life Sciences,

¹¹University of Sydney, [AUSTRALIA](#), ¹²University of Georgia

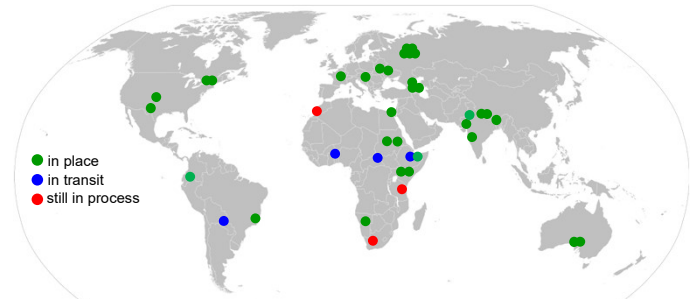
[USA](#), ¹³University of Cape Town [SOUTH AFRICA](#), ¹⁴Beth Israel

Deaconess Medical Center [USA](#), ¹⁵Trust for Education and

Training in Cytometry (TETC) [INDIA](#), ¹⁶EMBL Flow Core,

[GERMANY](#), ¹⁷National Cancer Institute NIH [USA](#)

This is only a sampling of over 40 projects aimed at placing and supporting flow cytometers in laboratories worldwide.



Interested in:

Receiving an instrument?
Donating an instrument?
Being part of the process?
Providing financial support?

Scan to donate.



Contact us!

Raif Yuecel, Chair
R.Yuecel@exeter.ac.uk

Phase 3 Install the instrumentation and provide initial training...

Phase 4 Advanced training and developing sustained collaboration...

Country: [Sudan](#)

Institution: Flow Cytometry Laboratory for Leukemia and Lymphoma Diagnosis, Khartoum

Contacts: Eman Abbass, MD (SUDAN), Alfonso Blanco, PhD (IRELAND)

Instrument: Beckman-Coulter FC500 (2)

Summary: These instruments are part of an inter-institutional clinical cytometry training program in leukemia and lymphoma diagnosis.



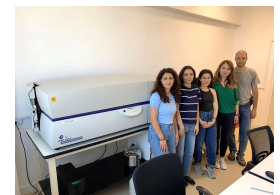
Country: [Armenia](#)

Institution: Institute of Molecular Biology, Armenian Academy of Sciences, Yerevan

Contacts: Gayane Manukyan, MD, PhD (Armenia), Bill Telford (USA)

Instrument: BD FACSCalibur, BD LSR II

Summary: This group uses high-dimensional flow cytometry to study infectious and autoimmune diseases common in Armenia.. A strong and self-sustaining collaboration with NIH and ISAC investigators.



Country: [Ukraine](#)

Institution: Department of Infectious Diseases, Ternopil National Medical University (TNMU)

Contacts: Mariia Shkilna, MD, PhD (UKRAINE), Bill Telford (USA)

Instrument: BD Accuri C6

Summary: This group studies immune effects of tick-borne spirochete infections in Ukraine. Instrument is received and training is progressing (on-line only due to pandemic and the current conflict).



Countries: [Sudan](#), [Kenya](#), [Ethiopia](#), [Uganda](#)

Institution: U Khartoum, U Gondar, U York, Makerere University, Kenya Medical Research Institute

Contacts: Paul Kaye, PhD (UK), Karen Hogg (UK)

Instruments: Beckman Coulter CytoFLEX LX (5)

Summary: A multi-country Leishmaniasis project using multicolor flow cytometry on patients recruited from the countries of the Leishmaniasis East Africa Platform. Project is part of the EDCTP2 Programme supported by the European Union (RIA2016V-1640)

