

ISAC Instruments for Science (I4S)

Mission Statement:

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 and providing long-term support for these efforts. I4S members manage many specific grant-driven technology support programs, providing instrumentation, training and collaborations to labs abroad.

Some examples of this projects are listed below.



Project phases:



Flow cytometry for wildlife health: a pilot study in Kruger National Park, South Africa

- **Location:** Kruger National Park, South Africa.
- **Project details:** Helminth and tuberculosis (co-)infections are common in humans, livestock and wildlife in large parts of the world. We propose to develop new flow cytometry-based tools to understand the immunopathogenesis of helminth-tuberculosis co-infection and to diagnose tuberculosis in wild African buffalo.
- **Estimated cost:** USD 20,000. Travel support for installation and training, reagents and consumables for the project.
- **Current status:** Phase 1.



Donation of BD FACSCalibur flow cytometer. Asunción, Paraguay



- **Location:** Instituto de Investigaciones en Ciencias de la Salud (IICS), National University Asunción.
- **Project details:** Instrument will impact the Immunology Department which focuses on primary immunodeficiency diseases and also will expand to include profiles of several diseases affecting Paraguay.
- **Estimated cost:** USD 10,000. Traveling support for installation and hand on training for technician and students.
- **Current status:** Phase 2.



Donation of 2x Beckman Coulter FC500 to Khartoum, Sudan

- **Location:** Flow Cytometry Laboratory for Leukemia and Lymphoma Diagnosis.
- **Project details:** Clinical diagnostic lab with teaching capabilities for Sudan and surrounding countries.
- **Estimated cost:** Training of 2 responsible at ESCCA Summer Schools (sponsored by ESCCA), stay in different labs in Europe for further training, 2x Beckman Coulter FC500, 2x PCR and spare parts. They were able to self-funding.
- **Current status/Outcome:** Phase 4/ installation needs to be relocated. Beckman Coulter will provide some of the reagents needed to help them to re-start again. Thousands of cases properly diagnosed and hundreds of professionals educated in cytometry.



Donation of BD FACSCalibur flow cytometer. Kathmandu, Nepal



- **Location:** Central Department of Biotechnology, Tribhuvan University
- **Project details:** Instrument is a critical component in a research collaboration between ISAC and other institutions aimed at immune monitoring during local endemic disease outbreaks (Dengue fever, COVID-19).
- **Estimated cost:** USD 20,000 per year. Cytometry education programs for students.
- **Current status:** Phase 4.



Thanks to everyone who is helping us to change lives!