2026 ISAC Council Candidate Statement

Michael Gregory, MS, SCYM (ASCP)^{CM}
Director, Caltech Flow Cytometry and Cell Sorting Facility
Council Focus Area: Shared Resource Laboratories

Hello there! I believe my broad range of experience in flow cytometry, shared resource laboratories, and ISAC volunteer groups make me an ideal candidate for ISAC Council. Like most ISAC members, I have a passion for flow cytometry and love sharing the possibilities it offers with researchers. I have been very active in ISAC over the past 12 years and was part of the first class of the ISAC SRL Emerging Leader Program from 2014-2018. I am grateful for the boost ISAC has given my career and look forward to continuing to give back to ISAC as a Councilor! I currently run the Caltech Flow Cytometry and Cell Sorting Facility and have been operating instruments and working in flow cytometry shared resource laboratories for my entire career.

I have contributed to ISAC and the cytometry community in a number of ways. I was lucky to join the author group putting together the 2016 ISAC SRL Flow Cytometry SRL Best Practices and became heavily involved in the SRL Committee (then called the SRL Services Committee). I later became Chair of that committee (2018-2024) and we began the long process of developing the ISAC SRL Recognition Program in order to recognize and reward those SRLs that were adhering to the SRL best practices. We also expanded resources for SRLs and the rest of the ISAC community with the development of the SRL Newsletter and SRL SOP Repository. During this time, I learned much about collaborative committee work and program development, which shaped my understanding of how diverse perspectives, clear communication, and mutual respect are essential to building effective and sustainable programs.

In 2022 I joined the ISAC Governance Committee and began helping with a major update of the ISAC Policies and Procedures. In 2025 I was invited to join the ISAC Nominations Committee, which oversees selection of nominees for ISAC awards and for candidacy of ISAC Council and Officers. In both of these roles, I learned a great deal about what makes ISAC work behind the scenes (spoiler – it is the people: Officers, Councilors, and amazing staff members, of course, but also all the individual volunteers voicing their concerns and suggestions, working together to push ISAC to be better!). My experiences, both in the lab and as an ISAC volunteer, have left me in a prime position to help ISAC continue to succeed in its mission advancing cytometry and cytometrists.

As an ISAC Councilor, key objectives I would prioritize:

Ensuring ISAC Leadership in Cytometry Best Practices Development

There is a clear and ongoing demand for the development of best practices, and it is essential that we establish a strong framework and pipeline for their continued creation. Ensuring future best practices, which extend beyond SRL topics to address cytometry more broadly, are consensus documents informed by diverse perspectives (including geographical location, institution type, laboratory/group size, etc.) is a challenging but critical goal.

International Community Development

ISAC has made significant strides toward becoming a truly international organization, yet important work remains. Expanding support for the Associated Societies, decisions regarding future meeting locations, and growth of membership in underrepresented regions are key issues likely to come before Council in the coming years, and I fully support ISAC's continued efforts to better serve members worldwide.

Fostering Communication and Connection

For me, a large part of ISAC's value lies in the professional connections I have built through years of volunteering and attending CYTO meetings. Facilitating these connections for other members should be a key priority for ISAC. Mentorship initiatives such as those led by CYTOWomen and other groups should be supported and expanded. At the same time, ISAC can play a stronger role in connecting members for broader discussion and knowledge exchange. An ISAC-based discussion forum would be ideal; however, supporting existing platforms such as the Purdue listserv and the Flow Cytometry Discord server can help ensure that members have access to expert advice and peer support.

Biosketch

Michael Gregory has spent his career in flow cytometry and shared resource laboratories. He has worked in both academic and industry labs, from the immunology-heavy biomedical institutions to his current position at Caltech which sees more synthetic biology, microbiology, and environmental applications of flow cytometry than just immunophenotyping.

As an undergraduate, Michael was introduced to flow cytometry and cell sorting in one of New York City's oldest laboratory buildings, working for the NYU School of Medicine Center for AIDS Research (CFAR) Flow Cytometry Core on a shoestring budget. There he learned the basics of flow and T-Cell immunology, becoming the primary instrument operator upon

graduation. From there he moved to ImClone Systems Incorporated, a well-funded biotech company, providing flow cytometry services and joining several project groups identifying monoclonal antibody targets in cancer. These two distinctly different laboratories were an eye-opening introduction to the broad range of settings where equally important research can place.

In 2009, Michael moved back to NYU Medical Center, helping to consolidate the CFAR core with the NYU Cancer Center Flow Cytometry Core, led by Peter Lopez. He cross-trained with the existing staff and soon was made Laboratory Manager, responsible for day-to-day operation of the facility. Michael and Peter implemented numerous improvements to the core, growing the user base and instrument selection. They also helped to build a BSL-3 sorting facility primarily for work with tuberculosis. During this time, Michael also returned to school, earning a Master of Science in Biology as well as becoming active in the ISAC, being selected as one of the first SRL Emerging Leaders in 2014. He was promoted to Technical Director, taking more of a role in operational and administrative duties, under Peter's mentorship.

Through the ISAC SRL Emerging Leader program, Michael became involved with several ISAC committees and task forces, but finally found a home in the SRL (Services) Committee, helping to publish the 2106 ISAC Flow Cytometry SRL Best Practices. Following the lead of Joanne Lannigan and Monica DeLay, Michael was appointed to Chair the SRL Committee in 2018 and they set to work continuing the development of the ISAC SRL Recognition Program. This project would take almost 6 years and involved dozens of ISAC volunteers. During this time, Michael and the committee also implemented the SRL SOP Repository and the SRL Newsletter (at a time when ISAC did not have a main newsletter). He was also a volunteer reviewer for CYTO abstracts, presented numerous CYTO workshops and tutorials, and reviewed SRL Communications for Cytometry Part A.

As the pandemic hit, Michael was designated an essential worker, helping to prepare the NYU BSL-3 laboratory for COVID research. However, an opportunity at a new viral research center established by Cleveland Clinic in Florida soon presented itself and by 2021 he had signed on to launch a brand-new core facility that would provide BSL-2 and BSL-3 flow cytometry and sorting services. Michael was also put in charge of single-cell RNA sequencing at the facility and developed workflows to move samples from the cell sorters directly to single-cell RNA seq procedures at both BSL-2 and BSL-3. Here, he had total responsibility for the facility and built a robust operation from the ground up. He also began working directly with physicians at Cleveland Clinic Florida to provide sample preparation services.

Through a chance connection at CYTO, Michael was put in touch with Rochelle (Shelley) Diamond at Caltech. After founding the Caltech Flow Cytometry Facility 40 years prior, Shelley was ready to retire from core facility management, and Michael had the background and skills she knew were necessary to keep the facility going. Michael moved to Caltech in late 2023, formally taking over as facility Director in early 2024. Caltech presented a new challenge for Michael, as it lacks the built-in biomedical userbase that many SRLs are used to. He aggressively promoted flow cytometry as more than just an immune-phenotyping platform and increased usage of the facility. He upgraded the scheduling procedures and trained two new staff members, integrated large particle sorting, external use, and self-service sorting models, all of which helped to reinvigorate the facility.

While consistently working in shared resource laboratories, Michael has been exposed to a wide variety of institution and laboratory types and worked with a considerable range of samples and applications. His activities with ISAC and various local groups, like MetroFlow, SEFCIG, and SoCal Flow, show he is dedicated to the flow cytometry community, eager to share his knowledge, and to bring more voices to the discussion. By becoming part of ISAC Council, Michael hopes to carry on this work and help ISAC continue to improve for all members.

Michael's CV is available here.

MICHAEL D. GREGORY

Flow Cytometry Shared Resource Laboratory Director

@ mikeg@caltech.edu 1200 E California Blvd MC 156-29, Pasadena, CA 91104

EXPERIENCE

Flow Cytometry Facility Director

California Institute of Technology (Caltech)

12/2023 - Present Pasadena, CA, USA

- Oversee all facility operations, including instrument maintenance & operation, scheduling, training program, budget, and user outreach
- Consult with all new users to provide input on addressing their research questions, biosafety risk assessments, flow cytometry applications, and provide facility orientation
- Implement operational and technological updates to existing facility operations in order to boost usage, efficiency, and recordkeeping

Flow Cytometry Core Director

Cleveland Clinic Florida Research & Innovation Center (FRIC)

05/2021 – 11/2023 Port Saint Lucie, FL, USA

- Developed a brand-new Flow Cytometry Core from the ground up, including generation of SOPs and policies, training program, BSL-3 sorting services, 10x single cell RNA-seq services, website creation, budget, and rate setting
- Collaborated with Cleveland Clinic's clinicians and championed flow cytometry applications for Cleveland Clinic's research mission in Florida
- Responsible for Institutional Biosafety Committee (IBC) applications and NIH grant submissions relevant to the core

Technical Director

NYU Langone Health

07/2009 - 05/2021 New York, NY, USA

Senior Research Technician 2009-2011 | Laboratory Manager 2012-2016 | Technical Director 2016-2021

- Coordinated use of the CCSL for area researchers including scheduling, operation, billing and SOP development
- Responsible for training program development and implementation
- Assisted in SRL development activities (budget preparation, expansion plans, branding and marketing, and customer feedback assessments)
- Responsible for day-to-day lab management, sorter operation, training, website design, and development of BSL-3 sorting services

Research Associate

ImClone Systems incorporated

10/2006 - 06/2009 New York, NY, USA

- Responsible for both company-wide flow cytometry services and participation in a target discovery research team member on a variety of therapeutic monoclonal antibody projects

Research Technician

NYU School of Medicine, Center for AIDS Research

09/2004 - 10/2006 New York, NY, USA

- Provided flow cytometry services for core users
- Involved in several T-Cell immunology projects examining immune response to HIV and TB infection and maternal-fetal interactions

SUMMARY

Expert flow cytometrist and laboratory director with more than 18 years of experience in both flow cytometry and core shared resource laboratories (SRLs). Familiar with most major cytometry platforms & software. Deeply knowledgeable about cell sorting of biohazardous samples (including at BSL-3), flow cytometry & SRL best practices, and laboratory & staff management. Skilled in immunology, cell biology, and molecular biology techniques.

KEY ACHIEVEMENTS

Caltech Flow Facility

Helped to reshape facility post-COVID, updating onboarding, scheduling, and external use policies. Installed and validated large particle sorter, opening up new applications for Caltech users.

ISAC SRL Recognition Program

Led the team that developed the ISAC SRL Recognition Program, building a robust but flexible system for ISAC to reward and recognize SRLs that adhere to the Flow Cytometry SRL Best Practices.

Cleveland Clinic BSL-3 Sorting

Oversaw setup of a high-containment laboratory for sorting high-risk viral samples at Cleveland Clinic's Florida site.

ISAC SRL Emerging Leader Award

One of the first class (2014-2018) of the ISAC SRL EL Program, which is aims to develop the next generation of leaders in the fields of SRL operations and cytometry.

EDUCATION

Master of Science - Biology

New York University

05/2021 – 11/2023 New York, NY, USA

Bachelor of Arts – Biology (Classics Minor)

New York University

09/2001 – 05/2005 New York, NY, USA

CERTIFICATIONS & AWARDS

Specialist in Cytometry (SCYM)
American Society for Clinical Pathology — 2015 - Present

Shared Resource Laboratory Emerging Leader
International Society for the Advancement of Cytometry (ISAC) — 2014 - 2018

Clinical Laboratory Technologist
New York State Office of the Professions — 2005 - 2007

Eagle Scout Rank
Boy Scouts of America, Troop 351 — 2001

PROFESSIONAL SOCIETY ACTVITIES

International Society for the Advancement of Cytometry (ISAC)

Nominations Committee Member — 2025 - Present

Governance Committee Member — 2022 - Present
- Participating in review of ISAC Policies & Procedures

SRL Committee Member — 2016 - Present

SRL Committee Chair — 2018 - 2024
- Oversaw development of SRL Recognition Program

Workshop and Tutorial organizer/presenter, 9 years

Poster Judge, 8 years

Abstract Reviewer, 11 years

General Member and CYTO Attendee — 2014 - Present

Southern California Flow Cytometry Association (SoCal Flow)

Program Committee Member — 2024 - Present

Southeast Flow Cytometry Interest Group (SEFCIG)

Steering Committee Member — 2021 - 2023

MetroFlow, NY/NJ Flow Cytometry Users Group

Member — 2007 - 2020

PUBLICATIONS

ORCID: 0000-0002-5356-1069

Asosingh K, et al. (2024). Best practices for user consultation in flow cytometry shared resource laboratories. Cytometry Part A; 105(9): 704–712.

Belkina AC, et al. (2024) Guidelines for establishing a cytometry laboratory. Cytometry Part A; 105(2): 88–111.

Graham A, et al. (2022). Considerations for User Consultation in a Flow Cytometry SRL. Cytometry Part A; 101(3) 228-236.

Davies D, Gregory M, Lannigan J (Eds.). (2021). SRLs in A Global Pandemic Environment: Lessons Learned from SARS-CoV-2 [Special issue]. Cytometry Part A; 99(1).

SKILLS

Flow Cytometry Applications

Adept with many spectral and conventional flow cytometry applications, including BSL-2 and BSL-3 cell sorting, cell surface and intracellular immunolabeling techniques, stem cell identification, apoptosis and proliferation assays, multiplexed bead-based analyte quantification, Förster resonance energy transfer (FRET), small particle flow cytometry, and other functional assays.

Flow Cytometry Instrumentation Expertise

Cytek Aurora, BC Cytoflex, Miltenyi MACSQuant, BD LSRII/Fortessa, BioRad ZE5, Sony SP6800.

Cell Sorting Instrumentation Expertise

BD FACSAria/Fusion, Sony SY3200 & SH800, BC MoFlo XDP & Cytoflex SRT, OnChip Cell Sorter, Union Biometrica BioSorter.

Flow Cytometry Software and Data Analysis

Spectroflo, FACSDiva, CytExpert, FlowJo, FCSExpress, Winlist, Modfit. Python and R familiarity.

SRL Management

Training investigators and core staff in use of flow cytometers and analytical software, Scheduling, Billing, Budgeting, Marketing, Web development, Assay development, IBC proposals, SOP development.

Scientific Expertise

T-Cell immunology, developmental immunology, infectious disease immunology, cancer immunology, immunobiology.

Other Techniques

Logistical pipeline development for 10x single-cell partitioning library preparation, library validation, sequencing off-site, data delivery, downstream genomic analyses, cell culture, clonal cell line development, qPCR, ELISA, Western blot, immunoprecipitation assays, monoclonal antibody discovery and characterization.

PUBLICATIONS (continued)

Davies D, Gregory M, Lannigan J. (2021). How Shared Resource Laboratories (SRLs) have risen and adapted to the challenges of a global pandemic. Cytometry Part A; 99(1):8-10.

Czechowska, K et al. (2019). Cyt-Geist: Current and Future Challenges in Cytometry: Reports of the CYTO 2018 Conference Workshops. Cytometry Part A;95(6):598-644.

Barsky L, et al. (2016). International Society for Advancement of Cytometry (ISAC) Flow Cytometry Shared Resource Laboratory (SRL) Best Practices. Cytometry Part A; 89(11):1017-1030.

Harbi S, et al. (2016). Infantile hemangioma originates from a dysregulated but not fully transformed multipotent stem cell. Scientific Reports; 6:35811.

Zhong Z, et al. (2010). Anti-transforming growth factor beta receptor II antibody has therapeutic efficacy against primary tumor growth and metastasis through multieffects on cancer, stroma, and immune cells. Clin Cancer Res.;16(4):1191-205.