Joel M. Sederstrom, Candidate Statement for ISAC Treasurer

I'm honored to be considered for the role of Treasurer of ISAC. Over the past 25 years, I've worked in flow cytometry as both a scientist and a shared resource leader. Since 2006, I've served as Director of the Cytometry and Cell Sorting Core at Baylor College of Medicine, where I oversee a large, multi-instrument facility supporting hundreds of investigators. I'm also the founder and long-time officer of FlowTex, an ISAC-associated nonprofit that has grown into a vibrant regional community for cytometry education and collaboration. Across these roles, I've been responsible for strategic planning, budgeting, and long-term sustainability—experience that has shaped my approach to financial stewardship and collaborative leadership.

I bring a strong foundation in fiduciary oversight. As an elected ISAC Councilor, I've contributed to governance decisions that shape the Society's direction and resource allocation. My role on the ISAC Finance Committee has included annual budget reviews, investment planning, and financial policy development. I've also served as Treasurer and President of FlowTex, where I've managed multi-year budgeting, sponsor engagement, and compliance with IRS and nonprofit reporting requirements. These experiences have given me a practical, transparent, and mission-aligned approach to managing organizational finances.

My involvement with ISAC has extended across multiple committees and initiatives. I've served as Program Chair for CYTO 2021 and 2022, chaired the Meetings Committee from 2021 to 2023, and worked closely with the Associated Societies Committee to support regional engagement. In these roles, I've helped expand participation in ISAC programming, particularly among international and emerging members. I've also supported efforts to make ISAC's educational offerings more accessible and relevant to a broader community of cytometrists.

I believe ISAC's strength lies in its ability to bring together a diverse, global community around shared scientific and professional goals. My background aligns with that mission. Whether through building sustainable infrastructure in a core facility, supporting nonprofit education, or contributing to ISAC's governance, I've worked to create inclusive, well-supported environments where cytometry can thrive. As Treasurer, I would continue that work—ensuring that ISAC's financial decisions are thoughtful, transparent, and aligned with the Society's long-term vision.

In many ways, my candidacy reflects the values and direction ISAC has set for itself. Through my work with Council and committees, I've had the opportunity to support broader engagement across regions and disciplines, and to help shape programs that reflect the evolving needs of our field. I see the Treasurer's role not only as a steward of resources, but as a partner in sustaining the Society's momentum—supporting its educational mission, expanding access, and ensuring that ISAC remains a welcoming and forward-looking community for all cytometrists.

Thank you for your consideration.

Joel M. Sederstrom

Joel Martin Sederstrom, MS

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EDUCATION

Master of Science (M.S.), Immunology / Cancer Biology
University of Minnesota, Minneapolis, Minnesota, USA

Bachelor of Science (B.S.), Biology
University of Minnesota, Duluth, Minnesota, USA

PROFESSIONAL APPOINTMENTS AND POSITIONS

Director of Flow Cytometry

Cytometry and Cell Sorting Core (CCSC), Baylor College of Medicine, Houston, Texas
2006 – Present

- Recruited through a nationwide search to establish and lead the Cytometry and Cell Sorting Core Facility at Baylor College of Medicine.
- Conceived, developed, and implemented the core facility from inception, including business and cost-recovery models, technical capabilities, instrumentation portfolio, operational policies, and educational programs.
- Designed and launched all core facility programs, including user access models, service offerings, training pathways, and competency-based education aligned with institutional research priorities.
- Executive, scientific, and administrative leadership of a centralized academic flow cytometry and cell sorting core supporting basic, translational, and clinical research programs.
- Oversight of personnel, advanced instrumentation, operations, compliance, and institutional partnerships.
- Sustained responsibility for strategic planning, budgeting, and long-term sustainability of shared research infrastructure.

Technical Director / Co-Director, High-Parameter Cytometry Shared Resource

Dan L. Duncan Comprehensive Cancer Center (DLDCCC), Baylor College of Medicine
2007 – Present

- Technical and operational leadership of an NCI-designated Cancer Center shared cytometry resource supporting cancer-focused research programs.
- Oversight of instrumentation portfolios, workflows, investigator consultation, training programs, and quality assurance.

Core Director, Immunology Core (Core C)

Center for AIDS Research (CFAR), Baylor College of Medicine
2007 – 2015

- Administrative and scientific leadership of the Immunology Core within the CFAR.
- Oversight of core operations, budgeting, service delivery, and investigator support.

Scientist / Flow Cytometrist

University of Minnesota Cancer Center, Minneapolis, Minnesota
2003 – 2006

INSTITUTIONAL LEADERSHIP AND GOVERNANCE

Member, Advanced Technology Core (ATC) Directors Group
Baylor College of Medicine

- Institutional leadership group responsible for coordination, governance, and financial sustainability across Advanced Technology Core Laboratories.
- Contributions to shared resource policy alignment, compliance, budgeting frameworks, cost-recovery strategy, and long-term infrastructure planning.

CYTOMETRY EDUCATION, TEACHING, AND WORKFORCE DEVELOPMENT

Formal Graduate and Professional Teaching

Teaching activities span graduate, professional, and shared-resource environments, integrating experimental design, advanced cytometry technologies, and responsible use of institutional core facilities.

- **Graduate School – Molecular Methods** (**2010 – 2019**)
  Participating instructor providing hands-on training in flow cytometry-based experimental design, assay development, and data interpretation.
- **Department of Immunology & Microbiology – Keystone II Course**
  (**2020 – Present; first class taught 2020**)
  Annual instructor delivering one dedicated class session per year focused on applied cytometry methods, experimental troubleshooting, and data quality assessment.
- **Master of Science in Biomedical Sciences – Molecular Methods**
  (**2023 – Present**)
  Instructor emphasizing core laboratory techniques, flow cytometry principles, and translational research applications.
- **Advanced Technology Core (ATC) Skills Experience**
  (**2024 – Present**)
  Faculty instructor delivering structured, hands-on education in shared resource technologies and advanced flow cytometry instrumentation.

Cytometry Education and Workforce Development Leadership

- Director and lead instructor for conventional, high-parameter, and spectral flow cytometry and cell sorting.

- Design and delivery of structured education for investigators, trainees, technologists, and clinical laboratory personnel.
- Instruction in experimental design, panel optimization, quality control, data integrity, spectral unmixing, and high-dimensional analysis.
- Leadership of individualized and group-based training models.
- Mentorship of pipeline and external learners through BRITE and CREP workforce-development programs.

FINANCIAL, GOVERNANCE, AND INFRASTRUCTURE EXPERIENCE

Shared Research Infrastructure Financial Management

- Director-level responsibility for budgeting, cost-recovery models, and long-term financial planning of shared cytometry resources.
- Oversight of capital equipment planning, service contracts, recharge rate development, and lifecycle management.
- Alignment of grant-supported instrumentation, institutional subsidies, and user-fee structures for sustainable operations.

Grant-Funded Infrastructure Oversight

- Senior or key personnel roles on federally and state-funded shared instrumentation and core facility awards, including NIH S10 and CPRIT mechanisms.
- Oversight of implementation, compliance, reporting, and sponsor coordination.

PROFESSIONAL SOCIETY SERVICE

International Society for the Advancement of Cytometry (ISAC)

Councilor (Board of Directors / Trustee Equivalent)
2022 – Present

- Elected member with fiduciary and governance responsibilities.

Finance Committee Member
2024 – Present

- Participation in annual budget review, financial policy, and audit-related discussions.

Program Organization Committee Member (ISAC Annual CYTO Conference)
2020 – Present

- **Program Chair**, CYTO 2022 (17th Congress of ISAC), Philadelphia, Pennsylvania
- **Program Chair**, Virtual CYTO 2021
- **Program Committee Member**, 2020 – Present

ISAC-Associated Societies Subcommittee

- Coordination and alignment between ISAC and associated regional cytometry societies.

NONPROFIT AND REGIONAL SCIENTIFIC LEADERSHIP

FlowTex (Flow Cytometry Consortium of Texas)

ISAC-Associated **501(c)(3)** Educational Nonprofit

- Founder and long-term officer; served multiple terms as President, Vice President, and Treasurer.
- Primary financial steward responsible for budgeting, sponsorship, and conference financial planning.
- Leadership in nonprofit governance, bylaws development, and compliance.

South Central Core Collective (SC3)

Regional Chapter of the Association of Biomolecular Resource Facilities (ABRF)

- Founding member of the South Central Core Collective (formerly CoreTex).
- Original committee member of the Shared Core Collaborative (SC3).
- Program Chair, SC3 Annual Meeting (2024, 2025).

Association of Biomolecular Resource Facilities (ABRF)

- Conference contributor and presenter on shared research infrastructure, core facility leadership, and sustainability.

SELECTED PEER-REVIEWED PUBLICATIONS

Knight, J. M., Mandal, P., Morlacchi, P., Mak, G., Li, E., Madison, M., Landers, C., Saxton, B., Felix, E., Gilbert, B., **Sederstrom, J. M.**
Small-molecule targeting of the STAT5/6 Src homology 2 (SH2) domains to inhibit allergic airway disease. *Journal of Biological Chemistry* **293**(26):10026–10040 (2018).

Brown, E. L., Essigmann, H. T., Hoffman, K. L., Palm, N. W., Gunter, S. M., **Sederstrom, J. M.**, Petrosino, J. F., Jun, G., Aguilar, D., Perkison, W. B.
Impact of diabetes on the gut and salivary IgA microbiomes. *Infection and Immunity* **88**(12):e00301-20 (2020).

Bendriss-Vermare, N., Burg, S., Kanzler, H., Chaperot, L., Duhen, T., De Bouteiller, O., D'Agostini, M., Bridon, J.-M., Durand, I., **Sederstrom, J. M.**
Virus overrides the propensity of human CD40L-activated plasmacytoid dendritic cells to produce Th2 mediators through synergistic induction of IFN-γ and Th1 chemokine production. *Journal of Leukocyte Biology* **78**(4):954–966 (2005).

Kim, K.-H., **Sederstrom, J. M.**
Assaying cell cycle status using flow cytometry. *Current Protocols in Molecular Biology* **111**(1):28.6.1–28.6.11 (2015).

Chen, W., Antonenko, S., **Sederstrom, J. M.**, Liang, X., Chan, A. S. H., Kanzler, H., Blom, B., Blazar, B. R., Liu, Y.-J.
Thrombopoietin cooperates with FLT3-ligand in the generation of plasmacytoid dendritic cell precursors from human hematopoietic progenitors. *Blood* **103**(7):2547–2553 (2004).

Chen, W., Antonenko, S., **Sederstrom, J. M.**, Chan, A. S. H., Kanzler, H., Blom, B., Blazar, B. R., Liu, Y.-J.
Human myeloid DC1 and plasmacytoid DC2 precursors can be generated and massively

expanded from $CD34^+$ hematopoietic progenitors. *FASEB Journal* **16**(5):A1243–A1244 (2002). *(Conference abstract)*

Jang, H.-J., Lee, H.-S., Yu, W., Ramineni, M., Truong, C. Y., Ramos, D., Splawn, T., Choi, J.-M., Jung, S.-Y., Lee, J.-S., **Sederstrom, J. M.**
Therapeutic targeting of macrophage plasticity remodels the tumor-immune microenvironment. *Cancer Research* **82**(14):2593–2609 (2022).

Shaiken, T. E., Siam, M., **Sederstrom, J. M.**, Narayanan, P.
Intracellular cytomatrix, immobilized biocatalysis, matrix micromechanics and the Warburg effect: Entanglement of two age-old mysteries of the normal and malignant cell. *bioRxiv* (2023). doi:10.1101/2023.04.07.535779. *(Preprint)*

Shi, Z., Harris, K. A., Newell, A. D., Nguyen, M., Yao, Y., **Sederstrom, J. M.**, Hallmark, C. C., Love, S., Pereira, F. A., Huang, S.
Biotechnology Research Incubator for Teachers (BRITE) pilot program: Advancing technology research education for secondary school teachers. *Journal of Biomolecular Techniques* **36**(2) (2025).