- **Biosafety**: Safe practices in biomedical/biological labs, breakthroughs in safety training/education, cell sorting safety, hardware safety, guidelines/regulations, microscopy/imaging safety, Shared resource laboratory safety, misc. topics in safe practices in research, clinical trials, human subjects, and animal models
- <u>Biomarkers and Diagnostics</u>: novel fluorescence markers, new probes, cell surface markers, drug delivery, theranostics, small animal optical imaging
- <u>Cell biology:</u> stem cells, virology, metabolism, basic cancer research, diagnostics, antigen-specific immune responses, biopharmaceutical applications, DNA damage and repair, hematological disorders, protein engineering, signal transduction
- <u>Clinical/translational research:</u> diseases and disorders, therapies, clinical studies, bench-to-bedside
- <u>COVID-19 research</u>: SARS-Cov2 applications, state-of-the art, clinical data, experimentation, related virology
- <u>Cytometric Hardware</u>: cytometry instruments & advances, instrumentation addons, imaging, cytometers, sorters & selection, microfluidic systems, laser science, photonics & biophotonics, spectroscopy, data acquisition, lab-on-a-chip systems, microelectro-mechanical systems (MEMS)
- <u>Cytometric Software</u>: analysis approaches for all types of .fcs data, imaging software, open-source topics, programmable hardware, computational approaches, modeling, in-silico experiments, cytometry simulations, informatics
- <u>Cytometric</u> <u>Reagents</u>: reagents for assays, experiments,& applications in cytometry
- <u>Cytometry Assays</u>: functional assays in cytometry, intracellular assays, metablomics/lipidomics/proteomics, cell proliferation and death, assay standardization
- <u>Cytometry Education</u>: educational research, diversity & inclusion, teaching & training, outreach & STEM (k-12 grade level, youth, education), fundamental cytometry topics, mentorship, publishing, intervention studies
- <u>Data Analysis</u>: high parameter, computational and automation tools, genomic cytometry data analysis, image data analysis, machine learning and AI, manual gating approaches
- **Environmental Cytometry**: microbial cytometry, marine cytometry, plant cytometry, sizing standard for microbial analyses, aquatic sciences

- Extracellular Vesicles: exosomes, EVs applications and science thereof
- <u>High Dimensional Cytometry</u>: dimensionality reduction, automation, experimentation, simulations, AI, learning algorithms
- <u>Image Cytometry</u>: spatial biology, pathology/tissues, image data analysis, high parameter imaging, microscopy (confocal, light sheet, multi-photon, superresolution, fluorescence lifetime, etc), imaging flow cytometry, high speed imaging, image processing and machine learning
- <u>Immunology</u>: panel design, clinical applications, data analysis in clinical immunology, genomic cytometry, rare cell analysis in clinical cytometry, immune disorders and treatments
- <u>Mass Cytometry</u>: mass cytometry applications, imaging mass cytometry, novel analyses, other sciences involving mass cytometry
- Optimized Multicolor Immunofluorescence Panel (OMIP): panel design practices, teaching & training, optimization practices, experimental analyses
- Novel cytometry applications: novel advances in the use of cytometry
- Quality Assurance/Standardization: novel approaches for standardization, cytometry standardization, imaging standardization,
- Rare cell detection: rare event detection, small molecule discovery, high throughput screening applications and instruments
- Shared Resource Laboratory Operation: operations and finance, management, biosafety, education & training, career development, mentorship
- <u>Single cell "-omics"</u>: proteomics, genomics, lipidomics, metablomics, instrumentation & analysis tools for –omics, and assays, single cell sequencing technologies, analyses and experiments, integration of –omics in cytometry, interoperable data, cross over technologies, data handling
- **Spectral Cytometry**: immunophenotyping, instruments & hardware, data analysis, unmixing algorithms, other applications of spectral
- Nanoparticle Cytometry: small particle cytometry, sizing standards, instrument calibration, data analysis for small particles, hardware for small particle analysis, microfluidics, novel separation technologies
- **Therapeutics and Drug Discovery**: novel fluorescence markers, theranostics, drug delivery, pharmacokinetics, nanoparticles/micelles/lipids/etc for in vivo

disease tracking, high throughput screening for discovery, cancer research drug resistance, and disease therapies

 Other: cytometry in resource-poor regions, cytometry advances in regions of the world (Latin America, Asia, etc), as well as any category not identified in the list