

Flow Cytometry from Fundamentals to Advanced Applications

Instructor: Christian Aguilera-Sandoval, PhD

Format: Live Virtual | 12 Modules

Whether you're working in clinical diagnostics, therapeutic development, or research applications, this training provides the technical depth and regulatory awareness essential for success in today's competitive biotech environment.

Build Expertise from the Ground Up

- **Core concepts:** hydrodynamic focusing, fluorescence detection, safety
- **Technical skills:** fluorochrome selection, compensation, instrumentation
- **Software training:** FlowJo for gating, panel design, and data analysis
- Common pitfalls and how to avoid them

Real-World Applications

- **Specialized content for cell and gene therapy:**
 - CAR-T monitoring
 - Minimal residual disease (MRD) analysis
 - FDA & ICH Q2-aligned validation strategies
- **Advanced techniques:**
 - FACS sorting for single-cell workflows
 - Companion diagnostics development
 - ML tools (tSNE, UMAP) for automated classification

Transform Your Career

- From immunophenotyping to multi-parameter assays
- Master assay validation, documentation, and audit readiness
- Prepare for IND/BLA submissions and lead high-impact flow cytometry programs

Christian Aguilera-Sandoval, PhD

Professional Background

Dr. Christian Aguilera-Sandoval is the Founder and Principal Consultant at CRBECH Consulting and a seasoned Executive Scientific and Medical Affairs leader with deep expertise in flow cytometry, cell and gene therapy, and analytical development. He has held key roles at industry-leading companies including FlowJo and Becton Dickinson before advancing to his current consulting practice. Dr. Aguilera-Sandoval earned his Ph.D. in Immunology from UCLA and conducted postdoctoral research at the University of North Carolina at Chapel Hill.



Recognitions and Publications

Throughout his career, he has been celebrated for both scholarly achievements and educational contributions. Dr. Aguilera-Sandoval received a Certificate of Recognition from the California State Assembly, a Scholastic Achievement Award from the California State Senate, and the USA President's Education Award signed by President George W. Bush. His pioneering flow cytometry research has been published in top-tier journals such as Nature and Nature Biotechnology, and he has been invited to speak at various national and international flow cytometry and CGT conferences..

Flow Cytometry Expertise

Dr. Aguilera-Sandoval's teaching approach emphasizes practical, hands-on proficiency. In the upcoming flow cytometry course, he will focus on:

- Panel design to optimize multicolor assays
- Instrument setup and quality control for reliable data
- Data acquisition techniques for high-content studies
- Advanced analysis methods for accurate multiparameter cytometry interpretation

With a blend of industry leadership, academic accomplishment, and proven instructional skill, Dr. Aguilera-Sandoval delivers an engaging and informative experience. His track record of practical expertise ensures that course participants will gain valuable, immediately applicable skills in flow cytometry that can be leveraged for industry and academic workflows as well preparation for the SCYM(ASP) certification from the ASCP Board of Certification.

**Empowering the Cell Therapy Workforce -
Built for Industry, Ready for Impact**