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## Analytical Ultracentrifugation (AUC) Data Bootcamp: Turning Data into Answers

Nov 18-19, 2019 at the [Holiday Inn Express Boston](#), 69 Boston Street, Boston, MA 02125

**Register Online:** <https://events.eply.com/AUCdatabootcamp>

For questions, contact Wasfi Alazzam at +1-919-637-7105 or [wasfi.alazzam@technopharmasphere.com](mailto:wasfi.alazzam@technopharmasphere.com)



**Instructor: AUC Expert**  
**David Hayes, PhD**

**Registration Fees: 2-day workshop (Seats are limited)**

**Industry: \$2500**

**Academic/Regulatory: \$1500**

**Students: \$1000**

**Student grant is available, please contact TechnoPharmaSphere LLC**

**Interested Sponsors: Please contact TechnoPharmaSphere LLC**

### Analytical Ultracentrifuge Workshop Values

- AUC elucidates biologic's quality attributes of mass, stoichiometry, assembly, conformation, shape, and association behavior which are important for development. Understanding structure, function, and behavior of biological systems are critical to develop molecules into medicines.
- Regulatory agencies around the world frequently require proving analytical methods fit for purpose through using orthogonal methods, AUC represent great choice as direct method and as orthogonal method to support all biologic modalities from protein, nucleic acids, cells, and viral particles.
- AUC measures biologics aggregation, target molecules, protein-protein interactions, quantitate nucleotide content of viral capsids, loaded vs empty virus, and viral fragments. AUC is important to establish the in-solution oligomeric state and potential reversibility of protein reagents prior to binding by SPR and biolayer interferometry data analysis.
- AUC data gives confidence for successful molecule characterization, comparability, analytical methods development, product formulation, and product's stability.
- The information provided by AUC experiments depends on the quality of the sample, the quality of the data collection, the quality of the raw data, the quality of molecular parameters (such as extinction coefficient) provided by other instruments, and most of all by the scientific judgment of the analyst.

### Workshop Topics

- AUC fundamentals and experimental procedures.
- Protein self-assembly and aggregation.
- AUC application and optimization of experiments of viral particles & exosomes.
- Robust aggregate quantification using distributions.
- Deep insight of interpreting distribution functions.
- Sample type of high and low concentrations, different buffers, and biological matrices of plasma or serum.
- How interacting systems and non-interacting mixtures are different.
- Determining the equilibrium constants for interacting systems.
- AUC data analysis using SEDANAL, Ultrascan, Sednterp, and SEDFIT.
- Comparison of AUC and other methods such as SEC-MALS, DLS, and SDS-PAGE.
- Use and misuse of AUC data and strategies to avoid data fitting artifacts.
- Information about signal to noise, instrument integrity, and applicability of the fitting model.
- Bring your own data for analysis and discussion.
- And much more.