

DynaPro ZetaStar

Dr. David Golonka



Samples are becoming more complex

“...having the ability to measure in formulation buffer is critical to understanding our sample”



Specialists are a luxury

“The ability for walk-up analysis is really important”

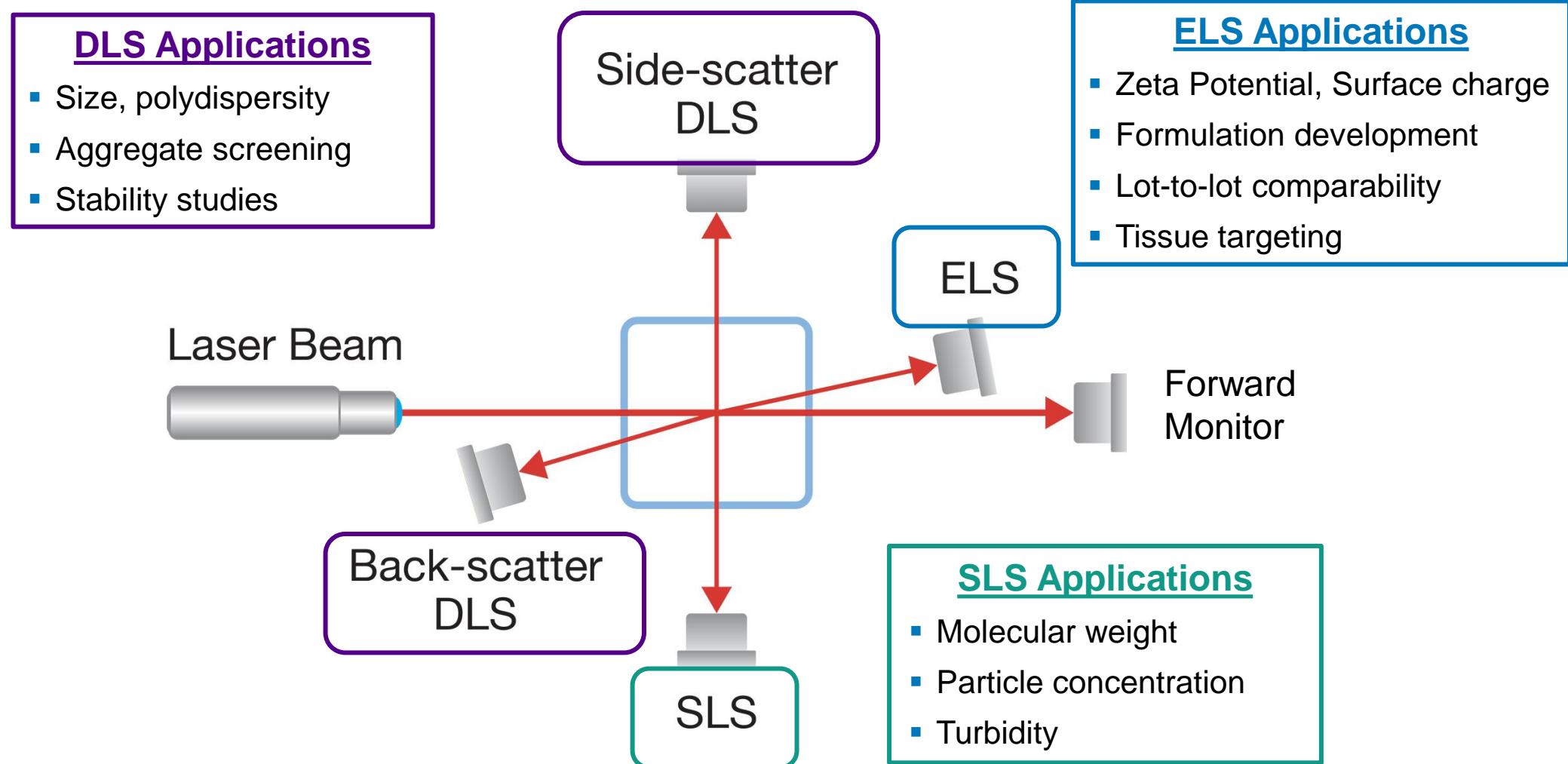


Boosting efficiency is a requirement

“Having the capability of collecting so many parameters is the highest value added for us”

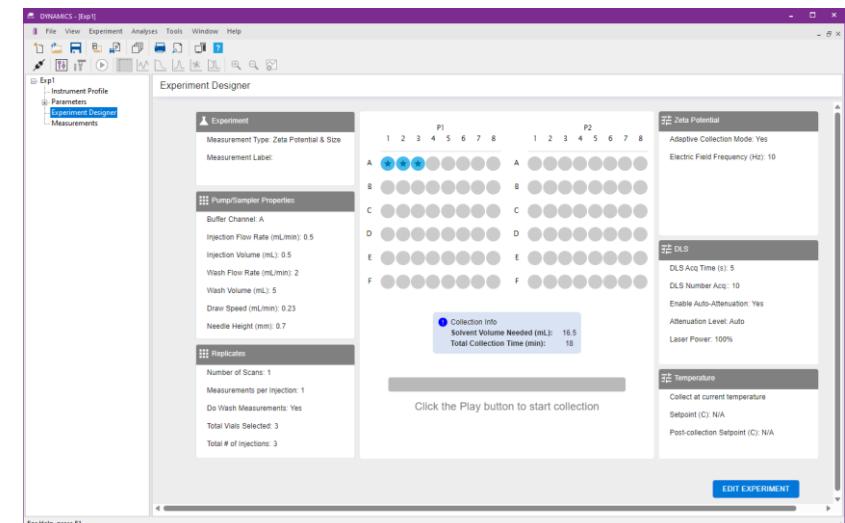
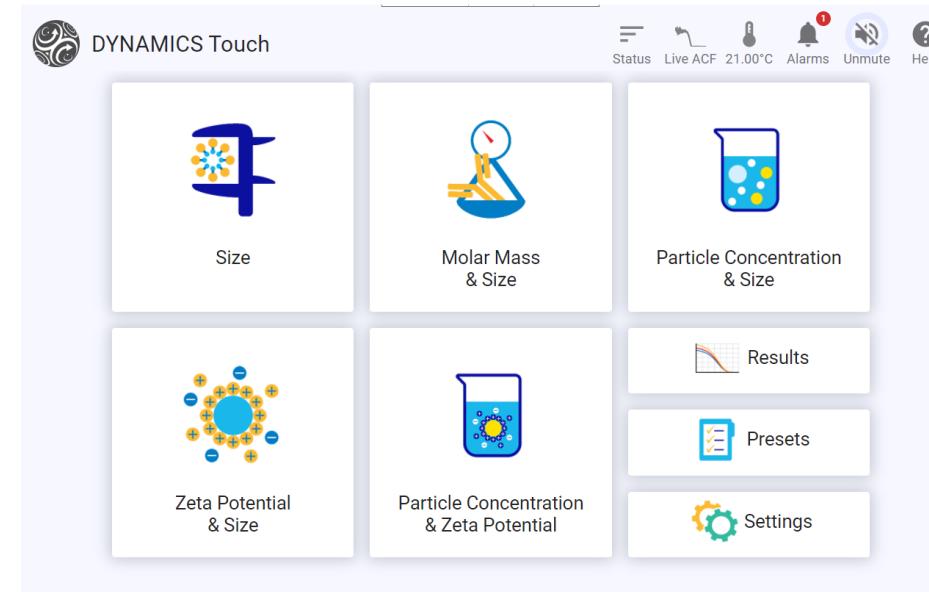
Multiple labs reiterated the points above, they require running their samples in high salt, with shorter runs times and they are under increasing pressure to get a product to market all while facing staffing challenges

First ever Wyatt instrument with three different types of light scattering techniques



ZetaStar – Intelligent Software

- Flexible walk-up measurements with stand-alone touch interface
- Adaptive ELS collection mode
 - Less user input and knowledge required
 - No need to change measurement parameters for various sample types
 - Mitigates the chance of sample degradation
- Experiment designer for automated measurements
 - Combined with adaptive mode, samples with very different buffer composition can be combined into a single sequence



ZetaStar: Six parameters in a simple workflow



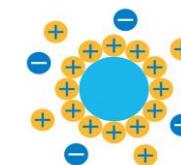
- Identifying developable candidates earlier
 - Optimal manufacturability, stability, and delivery attributes
- Predicting poor formulation behaviors quicker
 - Linked to high viscosity and opalescence
- Using molecular properties as descriptors for rapid screening
 - Colloidal, conformational, charge-based, hydrodynamic and hydrophobic



Size &
Polydispersity index



Molar Mass



Charge



Turbidity



Particle Conc.

What are scientists saying?

Ability to run with high salt



"We'd typically have to dilute our sample in water and make assumptions about how our sample would behave" -

10x faster measurements



"I'm still shocked at how fast these measurements are! This same sample took almost 30 minutes on [an alternative] instrument"

Automation for reduced hands-on time



"I'm excited for the capability to automate my measurements. Standing in front of the instrument and running each measurement with the cells is so time consuming!"

SLS: static light scattering; DLS: dynamic light scattering, ELS: electrophoretic light scattering. 10x faster than ZetaSizer measurement

Waters™

