

# User Profile

## Donna Luisi Pfizer

It was early in her career when Dr. Donna Luisi started using instrumentation from Wyatt Technology for the first time. Donna had just finished up postdoctoral studies with Professor Lynn Reagan at Yale where she worked extensively with various biophysical techniques for protein characterization. However, it was not until taking a position in pharmaceutical research and development with Genetics Institute in 2001 that light scattering began to prove its importance. Her group had “adopted” an abandoned miniDAWN instrument, and they were interested in using it to expand their repertoire of characterization techniques.

At the time, rudimentary techniques such as HPLC and SDS-PAGE gels were the mainstay employed across much of the pharmaceutical landscape. Donna’s group used her “new” light scattering instrument along with calorimetry, fluorescence spectroscopy, circular dichroism and analytical ultracentrifugation to greatly enhance their characterization capabilities. The group began to employ a newly found DynaPro DLS instrument as well. Their work now included optimization and development of formulations and dosage forms for peptides, antibodies, drug conjugates and vaccines from Phase 1 through commercial development.

While Donna never received any formal training from Wyatt on the use of these light scattering instruments, she worked closely with Wyatt’s Northeast US applications lab and quickly mastered the hardware, software and applications of MALS and DLS. Her lab eventually traded in their initial instruments and expanded their capabilities to include a [DAWN HELEOS](#) detector and an [Eclipse FFF](#) instrument.

Over the years, Genetics Institute changed its name to Wyeth and also changed its focus to include several new protein biotherapeutics. Donna’s team grew and they began to focus on the increasingly complex characterization of biotherapeutic proteins with indications such as breast cancer, Alzheimer’s, solid tumor therapies, Crohn’s disease and diabetes. With these new demands on her group, Donna decided to expand the group’s



characterization capabilities and again looked to Wyatt. Her team now employ a suite of light scattering techniques, including [FFF-MALS](#), [CG-MALS](#), [SEC-MALS](#) and high-throughput [DLS](#).

It is a testament to Donna’s knowledge and perseverance that when Pfizer bought Wyeth in 2009, she was tasked with leading the company’s newly formed Biophysical Center of Emphasis. This group employs Pfizer employees from the Andover site as well as the Pfizer site in St. Louis, MO. With this new group, Donna has again looked to her light scattering instruments to lead the charge against the various anomalies that are

encountered in Pfizer's protein therapeutic development. As a result of more than a decade of biophysical characterization expertise, Donna is in high demand as a plenary speaker and is routinely invited to speak at many of the top scientific meetings around the country. We are grateful that she serves as a champion for Wyatt instruments both within Pfizer and in public forums.

In addition to being a dedicated and talented scientist, Donna also is a busy mother of three very active boys: Ethan (6), Henry (4) and William (2). She currently resides in Boxford, MA with her husband Dr. John Champagne, Wyatt's Northeast Regional Manager, whom she met on one of her many scientific collaborations.

