Dr. Amy Tsai is an Assistant Professor in the Department of Mechanical Engineering and Canada Research Chair (Tier 2) in Fluids and Interfaces.

**R&D CAPABILITIES**
Our team’s expertise is on experimental and computational fluid mechanics. Using advanced instruments, we carry out direct visualizations and measurements of the dynamics of flows, particles, drops, bubbles, and minute multiphase objectives to optimize a variety of industrial applications. Our current R&D focuses are nanofluidics, complex fluids, and microfluidics for biomedical, pharmaceutical, energy, and environmental applications.

**TECHNIQUES & INSTRUMENTATION SERVICES**
- High-Speed Imaging (at 75,000 fps, 256 px^2)
- 3D Printing of microfluidic (pharmaceutical) devices; Prototyping
- Rheological measurements of viscoelastic property of complex fluids
- High-resolution measurements of flow velocities
- Microfluidic Fabrications
- SEM Imaging analysis
- Surface property measurements (of contact angle & wettability)

**INDUSTRY COLLABORATIONS**
1) Computer Modelling Group Ltd.
2) Computer Modelling Group Foundation
3) Geothermal developer: Borealis Geopower