



NOVA SOUTHEASTERN UNIVERSITY'S CENTER FOR COLLABORATIVE RESEARCH

NSU's Center for Drug Discovery and Development (CD³) is housed in the university's Center for Collaborative Research (CCR), one of the largest (215,000 square feet) and most advanced research facilities in Florida.

Located on NSU's Fort Lauderdale/Davie Campus, the CCR has state-of-the-art laboratories and is equipped with wet and dry labs; leading research equipment, including access to a high-performance computing environment; and other resources, such as Florida LambdaRail, a high-speed broadband service delivery network.



NSU's Center for Collaborative Research



(954) 262-5331 • nova.edu/tred

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CD³

NSU'S CENTER FOR DRUG
DISCOVERY AND DEVELOPMENT



The objectives of **NSU's Center for Drug Discovery and Development (CD³)** are to provide research services to neighboring pharmaceutical companies and nutraceutical and food supplement manufacturers, create training opportunities for NSU students, support NSU researchers and entrepreneurs by developing their innovative ideas and research into a marketable product, and enhance the drug discovery and development momentum in south Florida by creating collaborative initiatives.



Mutasem Rawas-Qalaji, B.Pharm., Ph.D.
Director

SERVICES OFFERED

Consultation

- Product development consultation (early stage)—evaluate and test molecule properties, assess and propose multiple dosage forms and feasible delivery routes, design proof-of-concept studies, and provide a written report of feasible product development approaches.
- Product development progress evaluation—review and evaluate the progress of product in development, the analytical results of studies performed, the proposed future studies for product development, and provide a written report.
- Collaborate with existing product development group to provide continual expert advice.

Molecule Preformulation and Formulation

- **API physiochemical characterization:** solid state characterization, particles size distribution, taste characterization, melting point, viscosity, and additional items
- **Preformulation studies:** API solubility, pH-solubility profile, ionization, API stability, pH-stability profile, solid-state stability, partition coefficient, BCS classification, and additional items
- **Stability studies:** long-term, accelerated ICH, and stress studies for API; in-development product; and finished product
- **Formulation development:** development of various formulations for proof-of-concept animal studies, nutraceutical and food supplement use, and GMP manufacturing and scale up
- **Quality control testing:** USP testing like powder flowability, particles size distribution, moisture content, tablet hardness, tensile strength, tablet disintegration, tablet friability, content uniformity and dissolution

Nanoparticles and Nanocrystals Formulation Services

- Microfluidization technique
- Solvent/anti-solvent precipitation technique
- Single and double emulsion-solvent evaporation techniques
- Ionic gelation technique
- Nanoparticles characterization: particles size distribution, charge measurements, morphology, entrapment efficiency, production yield, and additional items

OTHER POTENTIAL SERVICES

- Biological services—preclinical
- Flow cytometry services—preclinical
- Diffusion and permeability services—preclinical
- Absorption and bioavailability services—preclinical
- Toxicology and safety services—preclinical
- Clinical studies (Phase I and II)

Please contact us about any other services.

