

## Request for Proposals: Collaborative Engine Pilot Projects

We are accepting proposals from scientists who are interested in collaborating with the UCI High-end Mass Spectrometry Facility (HMSF) to address important biological research questions in cancer that can only be answered using the advanced technology available at the HMSF.

Submit a proposal by **Monday, September 16, 2024**

---

**Program** The **Collaborative Engine Pilot Project Program** uses high-end instrumentation to drive interdisciplinary team science that advances development of new technologies and methods, and their application to tackle important biological questions in cancer.

Proposals should address important questions in cancer that can only be answered by using the HMSF's technology and collaboration with facility scientists. The work should advance *both* the scientific area of study and the field of high-end mass spectrometry through new experimental methods, analysis strategies, or other innovations. Proposals must demonstrate how collaboration with HMSF will be mutually beneficial.

Selected proposals will have their basic experimental costs covered and access to HMSF equipment and specialty services will be provided at no cost through collaboration.

---

**Eligibility** Limited to UC Irvine faculty. Must be a UCI Chao Family Comprehensive Cancer Center (CFCCC) member at the time of award.

---

**Contact** **Apply:** <https://redcap.link/CollaborativeEngine>  
**Email:** cfcccpilots@hs.uci.edu  
**HSMF Technical Consultation:** [clintonyu@uci.edu](mailto:clintonyu@uci.edu)

---

**Instructions** Prior to proposal submission, applicants are encouraged to contact the HMSF ([clintonyu@uci.edu](mailto:clintonyu@uci.edu)) for technical consultation.

**Scientific Narrative** (limited to 3 pages)

- **Abstract:** Summarize the main project goals and significance, the instrument(s) to be used, the research question to be addressed and its importance in cancer.
- **Specific Aims:** Define the major hypotheses and briefly outline the approach.
- **Preliminary Data:** Show previous data that (1) demonstrates the feasibility of the proposed project, and (2) illustrates the limitations of current technology.
- **Justification for Using HMSF Instrument(s):** Explain why existing technology is insufficient to address your specific aims and why access to HMSF instruments and collaboration with facility scientists is needed.
- **Experimental Design:** Provide a plan for addressing the proposed specific aims.
- **Data Quantification Strategy:** Outline how the data will be analyzed and/or quantified to yield biologically relevant information.
- **Measurable Outcome(s):** Describe the immediate impact of your proposed work. Potential impacts could include generation of a novel hypothesis, preliminary data for a grant application, critical data to complete a manuscript in preparation, or other.
- **List of Cited References** (does not count toward page limit)

**Biosketches** of key personnel

---

**Proposal Review**

All applications will be evaluated by CFCCC and the HMSF for the following.

**Technical appropriateness and feasibility** to determine if: (1) the experimental design suits the capabilities of the HMSF's instruments; and (2) the need for the HMSF instruments is technically justified

**Scientific merit** using established review criteria.

---

**Review Criteria**

- Does the proposed project have the potential to yield novel and significant information?
  - Does answering the experimental question require the use of HMSF instruments?
  - Is the proposal well-designed and sufficiently focused to be completed efficiently within the award period (1 year)?
  - Are the investigator and research team's background, expertise, and productivity appropriate to accomplish the proposed work in collaboration with the HMSF?
- 

**Budget**

- Award period: 1 year | Earliest funding start: November 1, 2024
  - \$5,000 toward supplies to prepare samples for collaborative experiments
  - Allowable: limited to laboratory supplies and reagents
  - Unallowable: non-supply costs (e.g., salaries, equipment, travel, indirect costs)
  - HMSF technical consultation, project-based design, instrument use and operation, and analysis will be provided at no cost
- 

**Instruments****Thermo Scientific Orbitrap Fusion Lumos Tribrid™ Mass Spectrometer**

High-resolution quantification, identification, and structural analysis of complex biomolecules and compounds through its unique combination of quadrupole, Orbitrap, and ion trap technologies

**Thermo Scientific UltiMate™ 3000 UHPLC**

Ultra-high-performance liquid chromatography, offering precise and rapid separation of complex samples with high resolution and sensitivity

**Thermo Scientific EASY-nLC 1000**

Versatile liquid chromatography system that offers precise and efficient separation of complex samples, enhancing the performance of mass spectrometry analysis in proteomics and metabolomics research