



**Center for Environmental Sciences & Engineering**  
*Institute of the Environment*  
**University of Connecticut**

***Mini-Grants in Support of Environmental Research (MiSER)***

**Background:** The Environmental Chemistry Laboratories at CESE represent significant infrastructural support for the environmental enterprise at UConn. The laboratories (<https://cese.uconn.edu/environmental-chemistry-laboratories/>) are staffed by proficient scientists and technicians, and house state-of-the-art instrumentation to quantify with high precision concentrations of **nutrients, metals, and organics** (including many emerging and persistent compounds such as PFAS, harmful algal toxins, and polychlorinated biphenyls [PCBs]) in a variety of media including water (fresh and saline), soils, and tissues, and can do so at low detection limits.

**Objectives:** In collaboration with Institute of the Environment (IoE), CESE is conducting a Mini-Grant Competition to provide financial support to reduce the cost of analyses conducted in CESE's Environmental Chemistry Laboratories (i.e., analyses of nutrients, metals, and organics) that directly relate to one or more of the following objectives.

- **To support the development of new environmental proposals to state, federal, or private sector funding agencies.**
- **To enhance environmental scholarship and outreach;**
- **To enhance the quality of graduate student research; or**
- **To enhance collaboration by environmental faculty members with CESE's Environmental Chemistry Laboratories.**

Proposals with a 50% match from sources other than CESE or IoE accounts will be most competitive. Generally, total cost of analyses should not exceed \$25,000, without very strong justification.

**Limitations:** PIs must be full time faculty members at UConn. Funds must be expended and laboratory work coordinated for completion at the CESE Analytical Chemistry Laboratories within the current fiscal year (FY-2023). Analytical costs must be based on established CESE rates. Only costs of analyses to be conducted at CESE Laboratories may be included as part of the request or part of the match. Please contact Chris Perkins, Director of CESE Environmental Chemistry Laboratories ([christopher.perkins@uconn.edu](mailto:christopher.perkins@uconn.edu) or 6-4015) to obtain current rates and coordinate timelines for analyses. Rates of some standard analyses are available online "<https://cese.uconn.edu/environmental-chemistry-laboratories/>".

**Target Deadline:** For full consideration, proposals should be submitted via e-mail ([environment@uconn.edu](mailto:environment@uconn.edu)) by **29 October 2022** at **noon**. Please place "**MiSER Competition 2022**" in the subject line of the email message.

**Application Instructions and Review:** We have created a streamlined application that requires approximately 2-3 pages of text (< 2,000 words) plus a budget (double space all text). General questions should be addressed to Michael Willig ([michael.willig@uconn.edu](mailto:michael.willig@uconn.edu)). Proposals will be reviewed by members of a committee that comprises CESE - IoE Core or Affiliated Faculty Members.



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**Faculty Mini-Grants in Support of Environmental Research**

***Proposals must contain the following sections and adhere to word limitations.***

**1. PRINCIPAL INVESTIGATOR**

- Name, rank, and department
- E-mail address
- Office phone

**2. MAJOR COLLABORATORS ON THIS PROPOSAL (List names and departmental affiliations)**

**3. SCIENTIFIC MERIT, MOTIVATION AND CONTEXT (500 words maximum)**

**4. RELATIONSHIP TO MINI-GRANT OBJECTIVES (300 word maximum)**

**5. ADDITIONAL RELEVANT INFORMATION AND ANTICIPATED PRODUCTS, INCLUDING TIMELINE (200 word maximum)**

**6. ITEMIZED BUDGET REQUEST (no word limitation)**

On a separate page, list details of requested analyses, including cost per analysis (consult with Chris Perkins to ensure reporting of accurate rates). Total match to be provided from sources other than CESE or IoE accounts, including KFS numbers, must be reported as well. All requested funds or listed match funds must be restricted to costs resulting from new analyses at CESE in support of the proposal.

**7. SIGNATURES**

Signatures affirm that presentations and scholarly works (e.g., journal articles, book chapters, dissertations, theses) related to this support will acknowledge CESE - IoE, and that copies of grant proposals informed by this support will be transmitted to CESE - IoE at time of submission to funding agency.

**Principal Investigator (Please sign and date application)**

**Department Head of Principal Investigator (Name, Signature, and Date)**



## Center for Environmental Sciences & Engineering Institute of the Environment

### Key Equipment

#### Organics Division

- Sciex X500R ultra high performance liquid chromatograph/time-of-flight high resolution mass spectrometer (UHPLC/QTOF)
- Waters ACQUITY Ultra performance liquid chromatograph/tandem mass spectrometer (UPLC/MS/MS)
- Waters ACQUITY UPLC with evaporative light scattering, fluorescence, and photo diode array detectors
- Waters Quattro Micro Gas chromatograph/tandem mass spectrometer (GC/MS/MS)
- Genevac centrifugal evaporator

#### Nutrients Division

- Shimadzu Total Organic Carbon (TOC) analyzer
- Seal AA500 segmented flow autoanalyzer
- Lachat continuous flow autoanalyzer
- Perkin Elmer Carbon/Hydrogen/Nitrogen (CHN) analyzer
- Thermo ICS-1100 Ion Chromatograph

#### Metals Division

- Perkin Elmer Optima 3300XL inductively coupled plasma/optical emission spectrometer (ICP/OES)
- Perkin Elmer DRC-E inductively coupled plasma/mass spectrometer (ICP/MS)
- Perkin Elmer FIMS cold vapor atomic absorption spectrometer (CVAAS)

#### Miscellaneous

- Biotek Synergy HT Microplate Reader
- BioRad C1000/CFT96 Deep well RT-PCR
- Thermo Scientific Nicolet iN10 Fourier-transform Infrared (FTIR) Microscope