

2025 CoBRE Research Project Leader Funding: UNM Center for Metals in Biology and Medicine Research Project Leader

The [UNM Center for Metals in Biology and Medicine \(CMBM\)](#) is currently seeking applications for new CoBRE projects. Our mission is to support junior faculty career development, advance impactful basic and translational research to study adverse health outcomes of metal contaminants as well as to harness the chemical and biochemical properties of metals for therapeutic and nutritional purposes. Within this context, the CMBM supports up to four CoBRE research projects each year with an annual maximum budget per project of \$175K (direct costs).

Research Project Leader (RPL) Eligibility: RPLs must be tenure track or equivalent UNM faculty and qualify either as NIH Early Stage Investigators (ESIs) or as New Investigators (NIs). CoBRE PIs are required to commit 50% effort to the CoBRE project during their appointment.

Project Eligibility: Research projects must align with the theme of metals in biology and medicine. Research projects must also articulate the need/use of the [UNM Integrative Molecular Analysis Core \(IMAC\)](#). Detailed information about IMAC is provided on the following [page](#). Prospective applicants are encouraged to contact Center Director Dr. Matt Campen (mcampen@salud.unm.edu) and Program Manager Jillian Kotulski (jfkotulski@salud.unm.edu) with any questions.

Project Budget and Duration: Project leaders/projects will be supported by the CoBRE for a maximum of three years, with annual renewal of funding dependent on annual progress evaluations. The annual maximum budget request per project is \$175K (direct costs). CoBRE-supported investigators will be expected to acknowledge CoBRE support (NIH P20 P20GM130422) on all publications, presentations and/or disclosures.

CoBRE RPL Application Process:

Phase 1 (pre-application). The pre-application packet should include: i) a research project specific aims page and ii) a current NIH-style biosketch. The title of the project and the RPL name should be clearly articulated in the cover page below. In addition, the aims page should briefly convey the alignment of the project with the CoBRE thematic area and how IMAC facility will enable the project. Application materials should be combined and submitted as a single pdf file to Jillian F Kotulski jfkotulski@salud.unm.edu by 5 PM on March 1, 2025. The [CMBM Executive Committee \(EC\)](#) will review preapplications and select a subset of applicants to advance to Phase 2.

Pre-applications will be reviewed based on the innovation, scientific merit of the proposal, the appropriateness of the project to the overall missions of the CMBM programs, and the likelihood of the research leading to new extramural funding.

Phase 2 (full application). Applicants selected to advance will be invited to submit a full NIH-format 3-YR grant application (additional details will be provided to selected applicants) to be evaluated by the CMBM External Advisory Committee (EAC). Applications selected by the EAC for CoBRE support will be advanced to NIGMS for final review.

Important Dates:

Phase 1 Pre-application deadline: 5 PM, March 1, 2025

Phase 2 Full application deadline: April 20, 2025 (by invitation only)

Contacts: Project Manager, Jillian F Kotulski jfkotulski@salud.unm.edu; CoBRE PI, Matt Campen mcampen@salud.unm.edu

The IMAC at UNM CMBM supports the following research capabilities:

	Instrument	Source of Funding	Output
ICP-Metals	PerkinElmer NexION 300D ICP-MS	UNM HSC Office of Research	Clinical samples for high-sensitivity metals analysis
	Agilent 7900 ICP-MS	UNM HSC Office of Research and NIGMS funding	<ul style="list-style-type: none"> • High accuracy metals analysis • Metal speciation
	Agilent 8900 ICP-QQQ-MS	UNM HSC Office of Research	<ul style="list-style-type: none"> • Single-cell metals analytical capacity • Laser ablation stage for 2D imaging of elements
LC MS/MS	Q-Exactive Orbitrap Classic LC-MS/MS	UNM HSC Office of Research and NIGMS funding	<ul style="list-style-type: none"> • Proteomic analysis • PTM (e.g., phosphorylation) identification and quantitation • Protein characterizations (intact MS, native protein MS in probing metal binding, etc.)
	Sciex 5500+ Triple Quad LC-MS/MS	NIGMS Supplement	Ideal for metabolites, lipids and small molecule quantitation
MSI	TimsTOF MALDI Imaging Mass Spectrometer	S10 OD032175	2D imaging of lipidomics and metabolomics
	Laser Ablation ICP MS	UNM HSC Office of Research	Elemental imaging of tissue section
GC-MS	Agilent 7250 GC/QTOF-MS	NIGMS Supplement	Metabolomics workhorse, environmental contaminant and biomarker discovery analysis
	Agilent 8890 GC-MS w/multi-shot pyrolyzer (Frontier)	New Mexico Technology Enhancement Funding	Microplastics quantitation and identification
	Agilent 6890N GC-MS with pyrolysis front end (Frontier)	Clinical Translational Science Center and UNM Cancer Center	Walkup machine for microplastics quantitation and identification
EPR	Bruker EleXsys E540 X-band EPR spectrometer	NIGMS funding	Radical quantitation/identification
	Bruker ELEXSYS E500 EPR spectrometer	NIGMS funding	<i>In vivo</i> radical measurement and oximetry

* Prospective applicants are encouraged to contact IMAC Director Dr. Jim Feng (cfeng@salud.unm.edu) with any questions. Information about IMAC instrument and service scheduling can be found on the IMAC website:

<https://hsc.unm.edu/pharmacy/research/areas/cmbm/cores.html>

