

**REQUEST FOR PROPOSALS**  
**FOR**  
**FURNISHING AND DELIVERY**  
**OF**  
**IN-SITU AND IN-OPERANDO TRANSMISSION ELECTRON MICROSCOPE**  
**FOR**  
**THE CURATORS OF THE UNIVERSITY OF MISSOURI**  
**ON BEHALF OF**  
**UNIVERSITY OF MISSOURI - COLUMBIA**  
**RFP # 23077**  
**DUE DATE: December 20, 2022**  
**TIME: 2:00 PM, CT**

THE CURATORS OF THE UNIVERSITY OF MISSOURI

Prepared by:

Amanda Lorentzen

University of Missouri Procurement

2910 LeMone Industrial Blvd

Columbia, MO 65201

Date Issued: December 6, 2022

## NOTICE TO RESPONDENTS

The University of Missouri requests proposals for the Furnishing and Delivery of **IN-SITU AND IN-OPERANDO TRANSMISSION ELECTRON MICROSCOPE, RFP #23077** which will be received by the undersigned at University of Missouri Procurement, until **December 20, 2022 at 2:00 PM, CT**. **The University assumes no responsibility for any supplier's on-time receipt at the designated location for proposal opening.**

In the event a Respondent chooses to use the Word version of the RFP to aid in preparation of its response, the Respondent should only complete the response information. Any modification by the Respondent of the specifications provided will be ignored, and the original wording of the RFP shall be the prevailing document.

If you have any questions regarding the RFP, please send them to:

*Amanda Lorentzen  
University of Missouri Procurement  
2910 LeMone Industrial Blvd  
Columbia, Missouri 65201  
AMWYT7@umsystem.edu*

**All questions regarding the RFP must be received no later than 2:00 PM on December 13, 2022.**

The University reserves the right to waive any informality in Request for Proposals and to reject any or all Request for Proposals.

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**UNIVERSITY OF MISSOURI  
REQUEST FOR PROPOSAL (RFP)  
GENERAL TERMS AND CONDITIONS & INSTRUCTIONS TO RESPONDENTS**

**A. General Terms and Conditions**

1. **Purpose:** The purpose of these specifications is to require the furnishing of the highest quality equipment, supplies, material and/or service in accordance with the specifications. These documents, and any subsequent addenda, constitute the complete set of specification requirements and proposal response forms.
2. **Governing Laws and Regulations:** Any contract issued as a result of this RFP shall be construed according to the laws of the State of Missouri. Additionally, the supplier shall comply with all local, state, and federal laws and regulations related to the performance of the contract to the extent that the same may be applicable.
3. **Taxes:** The supplier shall assume and pay all taxes and contributions including, but not limited to, State, Federal and Municipal which are payable by virtue of the furnishing and delivery of item(s) specified herein. Materials and services furnished the University are not subject to either Federal Excise Taxes or Missouri Sales Tax.
4. **Sovereign Immunity:** The Curators of the University of Missouri, due to its status as a state entity and its entitlement to sovereign immunity, is unable to accept contract provisions, which require The Curators to indemnify another party (537.600, RSMo). Any indemnity language in proposed terms and conditions will be modified to conform to language that The Curators are able to accept.
5. **Preference for Missouri Firms:** In accordance with University policy, preference shall be given to Missouri products, materials, services, and firms when the goods or services to be provided are equally or better suited for the intended purpose. In assessing overall value, consideration will be given to the extent to which proximity or Missouri preference of the supplier provides potential advantages or reduction of risks. Firms are considered "Missouri firms" if they maintain a regular place of business in the State of Missouri.
6. **Appropriation:** The Curators of the University of Missouri is a public corporation and, as such, cannot create indebtedness in any one year (the fiscal year beginning July 1 to June 30) above what they can pay out of the annual income of said year as set forth in 172.250, RSMo. Therefore, if the University determines it has not received adequate appropriations, budget allocations or income to enable it to meet the terms of this contract, the University reserves the right to cancel this contract with 30 days' notice.
7. **Equal Opportunity and Non-Discrimination:** In connection with the furnishing of equipment, supplies, and/or services under the contract, the contractor and all subcontractors shall agree not to discriminate against any recipients of services, or employees or applicants for employment on the basis of race, color, religion, national origin, sex, age, disability, or veteran status. The contractor shall comply with federal laws, rules, and regulations applicable to subcontractors of government contracts including those relating to equal employment of minorities, women, persons with disabilities, and certain veterans. Contract clauses required by the United States Government in such circumstances are incorporated herein by reference.
8. **Supplier Diversity Participation:** The University of Missouri System is committed to and supports supplier diversity as an essential part of the University's mission and core values. To qualify as a Diverse Supplier, the company must be at least 51% owned and controlled by someone in one of the recognized groups (see below). These firms can be a sole proprietorship, partnership, joint venture or corporation. Diverse suppliers should be certified from a recognized certifying agency.

The University of Missouri recognizes the following groups:

- MBE (Minority Owned Business Enterprise)
  - African American
  - Asian American (including Pacific Asian and Subcontinent Asian)

- Hispanic American
  - Native American
- WBE (Women Owned Business Enterprise)
- DVBE (Service-Disabled Veteran Owned Business Enterprise)
- VBE (Veteran Owned Business Enterprise)
- LGBT (Lesbian, Gay, Bisexual, Transgender)
- DBE (Disadvantaged Business Enterprise)

Tier 2 Diverse Supplier Spending and Reporting: The University strongly encourages Supplier Diversity participation in all contracts for goods and services. Tier 2 spend is spend reported by primary (non-diverse) suppliers of the University of Missouri who subcontract work to or make purchases from a diverse supplier. Depending upon the contract, primary (non-diverse) suppliers may be asked to submit Tier 2 information with Women and Diverse Owned Companies. Suppliers have two options in reporting Tier 2 dollars depending on the terms on the contract: Direct and Indirect. Definitions and further explanation of these options is included in the Supplier Diversity Participation Form attached hereto.

Supplier Diversity Participation Form: If a respondent will be utilizing a diverse supplier as part of this contract, they must indicate their Supplier Diversity participation levels on the Supplier Diversity Participation Form included in this RFP (see Attachment A). The Respondent must describe what suppliers and/or how the Respondent will achieve the Supplier Diversity goals. Evaluation of proposals shall include the proposed level of Supplier Diversity participation. Proposals that do not meet the participation requirements for Supplier Diversity will not receive any of the points during proposal review.

Suppliers will be responsible for reporting Tier 2 diverse supplier participation on an agreed upon timing (e.g. quarterly, annually) when business is awarded.

The University may monitor the supplier's compliance in meeting the Supplier Diversity participation levels committed to in the awarded proposal. If the supplier's payments to participating diverse suppliers are less than the amount committed to in the contract, the University reserves the right to cancel the contract, suspend and/or debar the supplier from participating in future contracts.

9. **Applicable Laws and Regulations:** The University serves from time to time as a contractor for the United States government. Accordingly, the provider of goods and/or services shall comply with federal laws, rules and regulations applicable to subcontractors of government contracts including those relating to equal employment opportunity and affirmative action in the employment of minorities (Executive Order 11246), women (Executive Order 11375), persons with disabilities (29 USC 706 and Executive Order 11758), and certain veterans (38 USC 4212 formerly [2012]) contracting with business concerns with small disadvantaged business concerns (Publication L. 95-507). Contract clauses required by the Government in such circumstances are incorporated herein by reference.
10. **Anti-Discrimination Against Israel Act:** If this Contract involves the acquisition or disposal of services, supplies, information technology, or construction and has a total potential value of \$100,000 or more, and if Supplier is a company with ten (10) or more employees, then Supplier certifies that it, and any company affiliated with it, does not boycott Israel and will not boycott Israel during the term of this Contract. In this paragraph, the terms "company" and "boycott Israel" shall have the meanings described in Section 34.600 of the Missouri Revised Statutes.
11. **Applicable Digital Accessibility Laws and Regulations:** The University affords equal opportunity to individuals with disabilities in its employment, services, programs and activities in accordance with federal and state laws, including Section 508 of the Rehabilitation Act, 36 C.F.R., Pt. 1194. This includes effective communication and access to electronic and information communication technology resources, and the University expects that all products will, to the greatest extent possible, provide equivalent ease of use for individuals with disabilities as for non-disabled individuals. The University of Missouri has adopted the Web Content Accessibility Guidelines (WCAG), as specified by the University of Missouri Digital Accessibility Policy.

Supplier shall: (1) deliver all applicable services and products in reasonable compliance with University standards (Web Content Accessibility Guidelines 2.0, Level AA or above); (2) provide the University with an Accessibility Conformance Report detailing the product's current accessibility according to WCAG standards using the latest version of the Voluntary Product Accessibility Template (VPAT); (3) if accessibility issues exist, provide a "roadmap" plan for remedying those deficiencies on a reasonable timeline to be approved by the University; (4) promptly respond to assist the University with resolving any accessibility complaints and requests for accommodation from users with disabilities resulting from supplier's failure to meet WCAG guidelines at no cost to the University; and (5) indemnify and hold the University harmless in the event of any claims arising from inaccessibility.

When installation, configuration, integration, updates, or maintenance are provided, the supplier must ensure these processes are completed in a way that does not reduce the original level of WCAG conformance. If at any point after procurement it is determined that accessibility improvements need to be made in order to comply with the WCAG standards, the supplier agrees to work with the University to remedy the non-compliance by submitting a roadmap detailing a plan for improvement on a reasonable timeline. Resolution of reported accessibility issue(s) that may arise should be addressed as high priority, and failure to make satisfactory progress towards compliance with WCAG, as agreed to in the roadmap, shall constitute a breach of contract and be grounds for termination or non-renewal of the agreement.

12. **Applicable Health Related Laws and Regulations:** If these specifications or any resulting contract involves health care services or products, the Supplier agrees to maintain, and will further assure such compliance by its employees or subcontractors, the confidential nature of all information which may come to Supplier with regard to patients of the University. All services provided pursuant to this contract shall be provided in accordance with all applicable federal and state laws including The Health Insurance Portability and Accountability Act of 1996, Public Law 104-191, sections 261-264 (the Administrative Simplification sections) and the regulations promulgated pursuant thereto and regulations of the Joint Commission on Accreditation of Healthcare Organization and The Centers for Medicare & Medicaid Services (CMS).

Respondents understand and agree that the Curators of the University of Missouri, in the operation of MU Health Care, is regulated under federal or state laws with regard to contracting with suppliers. The Respondent represents that it is not currently excluded or threatened with exclusion from participating in any federal or state funded health care program, including Medicare and Medicaid. Respondent agrees to notify the University of any imposed exclusions or sanctions covered by this representation.

The University will regularly check the "List of Excluded Individuals/Entities" (LEIE), maintained by the Office of Inspector General, United States Department of Health and Human Services ("OIG") to determine if any Respondents have been excluded from participation in federal health care programs, as that term is defined in 42 U.S.C. §1320a-7b(f). The University reserves the sole right to reject any respondents who are excluded by the OIG, who have been debarred by the federal government, or who have otherwise committed any act that could furnish a basis for such exclusion or debarment.

13. **Compliance with CDC Guidelines: (If Applicable)**

Due to the changing nature of the COVID-19 pandemic, successful Supplier will monitor and comply with CDC and other federal, state, and local guidance; modifications to University operating procedures; and directives of University relating to protection of the health and safety of the University community.

**NOTIFICATION TO UNIVERSITY IN EVENT OF POSITIVE COVID-19 CASE:**

In the event any of the successful Contractor's personnel who have or are presently performing services for the University of Missouri (a) tests positive for COVID-19, or (b) has been in close contact with someone that tests positive for COVID-19, the successful Contractor shall immediately notify the University designated contact, and take immediate action to quarantine such person and any other Contractor Personnel who may have come in contact with the person testing positive for COVID-19, and assist University in identifying any other persons on the University campus who may have come in contact with such person. Contractor must clean and disinfect all

areas any infected person may have contacted on University's campus, and any cleaning or sanitation costs resulting from a positive COVID-19 test of Contractor personnel are the sole cost and responsibility of Contractor.

14. **Inventions, Patents, and Copyrights:** The Contractor shall pay for all royalties, license fees, patent or invention rights, or copyrights and defend all suits or claims for infringements of any patent or invention right or copyrights involved in the items furnished hereunder. The Contractor shall defend, protect, and hold harmless the University its officers, agents, servants and employees against all suits of law or in equity resulting from patent and or copyright infringement concerning the contractor's performance or products produced under the terms of the contract.

Copyrights for any item developed for the University shall be the property of the University and inure to its benefit and the Contractor shall execute such documents as the University may require for the perfection thereof.

15. **Contractor Gifts:** The contractor shall refrain in offering any offers of gifts to the University, and all University of Missouri employee's, in accordance with University of Missouri Policy #26301, Suppliers.

## **B. Instructions to Respondents**

1. **Request for Proposal (RFP) Document:** Respondents are expected to examine the complete RFP document and all attachments including drawings, specifications, and instructions. Failure to do so is at Respondents' risk. It is the Respondents' responsibility to ask questions, request changes or clarifications, or otherwise advise the University if any language, specifications or requirements of the RFP appear to be ambiguous, contradictory, and/or arbitrary, or appear to inadvertently restrict or limit the requirements stated in the RFP to a single source.

Any and all communications from Respondents regarding specifications, requirements, competitive Request for Proposal process, etc., should be directed to the University buyer of record referenced in this RFP. It is the responsibility of the person or organization communicating the request to ensure that it is received.

The RFP document and any attachments constitute the complete set of specifications and Request for Proposal response forms. No verbal or written information that is obtained other than through this RFP or its addenda shall be binding on the University. No employee of the University is authorized to interpret any portion of this RFP or give information as to the requirements of the RFP in addition to that contained in or amended to this written RFP document. In case of any doubt or difference of opinion as to the true intent of the RFP, the decision of the University's Chief Procurement Officer shall be final and binding on all parties.

2. **Preparation of Request for Proposals:** All Request for Proposals must be submitted in the format and number of copies as specified in the detailed specifications and must be clearly labeled: Request for Proposal #23077 for In-situ and In-operando transmission electron microscope, **emailed to [amwyt7@umsystem.edu](mailto:amwyt7@umsystem.edu)**.

To receive consideration, Request for Proposals must be received, prior to the Proposal due date and time stated in this RFP. It is the respondent's full responsibility for the actual delivery of Proposals

Unless otherwise specifically stated in the RFP, all specifications and requirements constitute minimum requirements. All Requests for Proposals must meet or exceed the stated specifications or requirements. All equipment and supplies offered must be new, of current production, and available for marketing by the manufacturer unless the RFP clearly specifies that used, reconditioned, or remanufactured equipment and supplies may be offered. Unless specifically stated and allowed in the Detailed Specifications and Special Conditions, all pricing submitted in response to this RFP is firm and fixed.

Whenever the name of a manufacturer, trade name, brand name, or model and catalog numbers followed by the words "or equal" or "approved equal" are used in the specifications, it is for the purpose of item identification and to establish standards of quality, style, and features. Proposals on equivalent items of the same quality are invited. However, to receive consideration, such equivalent proposals must be accompanied by sufficient descriptive literature and/or specifications to clearly identify the item and provide for competitive evaluation. The University

will be the sole judge of equality and suitability. Whenever the name of a manufacturer is mentioned in the specifications and the words "or equal" do not follow, it shall be deemed that the words "or equal" follow unless the context specifies "no substitution." Unless noted on the Request for Proposal form, it will be deemed that the article furnished is that designated by the specifications. The University reserves the right to return, at contractor's expense, all items that are furnished which are not acceptable as equals to items specified and contractor agrees to replace such items with satisfactory items at the original proposal price.

Time will be of the essence for any orders placed as a result of this RFP. The University reserves the right to cancel any orders, or part thereof, without obligation if delivery is not made in accordance with the schedule specified by the respondents Proposal and accepted by the University. Unless otherwise specified in the Detailed Specifications and Special Conditions, all proposals shall include all packing, handling, and shipping charges FOB destination, freight prepaid and allowed.

3. **Submission of Proposals:** Respondent shall furnish information required by the solicitation in the form requested. The University reserves the right to reject proposals with incomplete information or which are presented on a different form. All proposals shall be signed, in the appropriate location, by a duly authorized representative of the Respondent's organization. Signature on the proposal certifies that the Respondent has read and fully understands all RFP specifications, plans, and terms and conditions.

By submitting a proposal, the Respondent agrees to provide the specified equipment, supplies and/or services in the RFP, at the prices quoted, pursuant to all requirements and specifications contained therein. Furthermore, the Respondent certifies that: (1) the proposal is genuine and is not made in the interest of or on behalf of any undisclosed person, firm, or corporation, and is not submitted in conformity with any agreement or rules of any group, association, or corporation; (2) the Respondent has not directly or indirectly induced or solicited any other Respondent to submit a false or sham proposal; (3) the Respondent has not solicited or induced any person, firm, or corporation to refrain from responding; (4) the Respondent has not sought by collusion or otherwise to obtain any advantage over any other Respondent or over the University.

Modifications or erasures made before proposal submission must be initialed in ink by the person signing the proposal. Proposals, once submitted, may be modified in writing prior to the exact date and time set for the RFP closing. Any such modifications shall be prepared on company letterhead, signed by a duly authorized representative, and state the new document supersedes or modifies the prior proposal. The modification must be submitted marked "Proposal Modification" and clearly identifying the RFP title, RFP number and closing date and time. Proposals may not be modified after the RFP closing date and time. Telephone and facsimile modifications are not permitted.

Proposals may be withdrawn in writing, on company letterhead, signed by a duly authorized representative and received at the designated location prior to the date and time set for RFP closing. Proposals may be withdrawn in person before the RFP closing upon presentation of proper identification. Proposals may not be withdrawn for a period of sixty (60) days after the scheduled closing time for the receipt of proposals.

All proposals, information, and materials received by the University in connection with an RFP response shall be deemed open records pursuant to 610.021 RSMo. If a Respondent believes any of the information contained in the Respondent's response is exempt from 610.021 RSMo, the Respondent's response must specifically identify the material which is deemed to be exempt and cite the legal authority for the exemption; otherwise, the University will treat all materials received as open records. The University shall make the final determination as to what materials are or are not exempt

4. **Evaluation and Award:** Any clerical errors, apparent on its face, may be corrected by the Buyer before contract award. Upon discovering an apparent clerical error, the Buyer shall contact the Respondent and request clarification of the intended proposal. The correction shall be incorporated in the notice of award. The University reserves the right to request clarification of any portion of the Respondent's response in order to verify the intent.

The Respondent is cautioned, however, that its response may be subject to acceptance or rejection without further clarification.

The University reserves the right to make an award to the responsive and responsible Respondent whose product or service meets the terms, conditions, and specifications of the RFP and whose proposal is considered to best serve the University's interest. In determining responsiveness and the responsibility of the Respondent, the following shall be considered when applicable: the ability, capacity, and skill of the respondent to perform as required; whether the respondent can perform promptly, or within the time specified without delay or interference; the character, integrity, reputation, judgment, experience and efficiency of the respondent; the quality of past performance by the Respondent; the previous and existing compliance by the Respondent with related laws and regulations; the sufficiency of the Respondent's financial resources; the availability, quality and adaptability of the Respondents equipment, supplies and/or services to the required use; the ability of the respondent to provide future maintenance, service and parts.

The University has established formal protest procedures. For more information about these procedures, contact the Buyer of Record.

In case of any doubt or difference of opinion as to the items and/or services to be furnished hereunder, the decision of the Assistant Vice President Management Services, UM System shall be final and binding upon all parties.

The University reserves the right to accept or reject any or all proposals and to waive any technicality or informality.

5. **Contract Award and Assignment:** The successful Respondent(s) shall enter into a contract prepared by the University. The Contract Documents shall include the Advertisement for Request for Proposals, Specifications and Addenda, Exhibits, Request for Proposal Form, Form of Contract, Statement of Work, Letter of Award, University Purchase Order, and Form of Performance Bond, if required.

The contract to be awarded and any amount to be paid thereunder shall not be transferred, sublet, or assigned without the prior approval of the University.

6. **Contract Termination for Cause:** In the event the Contractor violates any provisions of the contract, the University may serve written notice upon Contractor and Surety setting forth the violations and demanding compliance with the contract. Unless within ten (10) days after serving such notice, such violations shall cease and satisfactory arrangements for correction be made, the University may terminate the contract by serving written notice upon the Contractor; but the liability of Contractor and Surety for such violation; and for any and all damages resulting there from, as well as from such termination, shall not be affected by any such termination.
7. **Contract Termination for Convenience:** The University reserves the right, in its best interest as determined by the University, to cancel the contract by given written notice to the Contractor thirty (30) days prior to the effective date of such cancellation.
8. **Warranty and Acceptance:** The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished or adopted by the University, (2) be fit and sufficient for the purpose expressed in the RFP, (3) be merchantable, (4) be of good materials and workmanship, (5) be free from defect. Such warranty shall survive delivery and shall not be deemed waived either by reason of the University's acceptance of or payment for such equipment, supplies, and/or services.

No equipment, supplies, and/or services received by the University pursuant to a contract shall be deemed accepted until the University has had a reasonable opportunity to inspect said equipment, supplies and/or services. All equipment, supplies, and/or services which do not comply with specifications and/or requirements or which are otherwise unacceptable or defective may be rejected. In addition, all equipment, supplies, and/or services which are discovered to be defective or which do not conform to any warranty of the Contractor upon inspection (or at



any later time if the defects contained were not reasonably ascertainable upon the initial inspection) may be rejected.

9. **Payment:** Preferred settlement method is through the use of Electronic Accounts Payable solutions. Payment terms associated with these forms of payment will be issued as net 30 after the date of invoice. Payment terms associated with settlement by check will be net 30 days. Cash discounts for prompt payment may be offered but they will not be considered in determination of award unless specifically stated in the Detailed Specifications and Special Conditions. The University may withhold payment or make such deductions as may be necessary to protect the University from loss or damage on account of defective work, claims, damages, or to pay for repair or correction of equipment or supplies furnished hereunder. Payment may not be made until satisfactory delivery and acceptance by the University and receipt of correct invoice have occurred.

For consulting services and/or contract labor services performed for MU Health Care, the hourly rate and the number of hours worked must be included in the agreement and/or on the invoice submitted. Payment may not occur unless this information has been provided.

The University encourages suppliers to opt into its Single-Use Account (SUA) credit card program for payment of invoices. The SUA is an electronic, credit card-based payment solution that acts like a check. It provides a single 16-digit virtual account number for each payment. Similar to a check, the credit limit on each SUA is set to the specific payment amount. Payment terms for Suppliers who participate in the SUA program are Net 0 as opposed to the standard Net 30 terms.

10. **Accounting Practices:** The Contractor shall maintain, during the term of the contract, all books of account, reports, and records in accordance with generally accepted accounting practices and standard for records directly related to this contract. The Contractor agrees to make available to the University, during normal business hours, all book of account, reports and records relating to this contract for the duration of the contract and retain them for a minimum period of one (1) year beyond the last day of the contract term.
11. **Debarment and Suspension Certification:** The Contractor certifies to the best of its knowledge and belief that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency in accordance with Executive Order 12549 (2/18/86).
12. **Cooperative Purchasing:** The intended coverage of this RFP, and any Agreement resulting from this solicitation, shall be for the use by all faculty, staff, students, departments, locations, and affiliates of the University of Missouri, including MU Health Care.

The University of Missouri System seeks to make the terms and prices of this contract available to other higher education institutions and public entities in the State of Missouri. Extension of the terms and prices to any or all other Missouri higher education institutions and public entities is at the discretion of respondents and shall not be considered in the award of this contract. The contractor shall further understand and agree that participation by other higher education institutions and public entities is discretionary on the part of these institutions, and the University of Missouri System bears no financial responsibility for any payments due the contractor by such entities, nor will the University be responsible for contract administration for other institutions.

**UNIVERSITY OF MISSOURI**  
**DETAILED SPECIFICATIONS AND SPECIAL CONDITIONS**

**1. OBJECTIVE**

The Curators of the University of Missouri, a public organization, propose to contract on behalf of University of Missouri – Columbia, Electron Microscopy Core (EMC) facility (“University”) with an organization (“Supplier”), to provide In-situ and In-operando transmission Electron Microscope as described herein.

**2. SCOPE**

The University of Missouri – Columbia Electron Microscopy Core (EMC) facility is located in the Roy Blunt NextGen Precision Health Building. The University is seeking proposals from qualified professional firms who can provide a suite of equipment to facilitate dynamic, in-situ and in-operando transmission electron microscope experiments.

Project objectives include:

- **Objective 1: Establish an accessible, world-class in-situ TEM suite for conducting research, training, and learning.** We will create a user-based facility for conducting dynamic in-situ TEM experiments that is unmatched in the lower Midwest region of the United States. The entire suite of instruments will be readily available and advertised through the MU electron microscopy core for academic and industrial users.
- **Objective 2: Enable foundational research programs through image-stabilized in-situ TEM experiments.** Numerous academic programs at MU and other campuses throughout the Midwest will use the MRI instruments to elevate existing research programs and establish new lines of fundamental scientific inquiry.
- **Objective 3: Train the next generation of STEM leaders.** Students will be trained on the newest wave of experimental capabilities to observe fundamental scientific mechanisms. Outreach to K-12 students will motivate a new generation of leaders and encourage broader participation in STEM.

An NSF grant was received to acquire instrumentation to be used to conduct dynamic experiments within a TEM that enable direct observation of material response at or near the atomic scale and in real-time. Such experiments, known as in-situ TEM experiments, represent a powerful paradigm shift away from traditional experiments in which important mechanisms must be inferred based on limited observations made only before and after experiments. In-operando experiments are a subset of in-situ experiments with the distinction that a sample is observed in its native use condition.

The elements needed to create the TEM experimental suite are listed below. These integrated components shall provide the most robust and user accessible in-situ TEM testing experience available.

- A combined software and hardware platform for image stability and data acquisition and integration;
- A liquid cell TEM holder with heating and electrochemistry packages;
- A gas cell system with heating capability to 1000°C and residual gas analyzer;
- A double-tilt TEM holder with electrothermal capabilities; and
- A leak test system with turbo pump.

### 3. BACKGROUND UNIVERSITY INFORMATION

The University of Missouri has provided teaching, research and service to Missouri since 1839. It was the first publicly supported institution of higher education established in the Louisiana Purchase territory. Today, the University of Missouri is one of the nation's largest higher education institutions with more than 73,000 students, 24,000 faculty and staff on four campuses, an extension program with activities in every county of the state, comprehensive distance learning services and an extensive health care network.

### 4. CONTRACT PERIOD

The contract period shall be from the date of award for one (1) year with the option to extended as needed.

Each respondent is required to state their maximum percent increase for items awarded for the successive annual renewal periods, if applicable. The percent increase shall be a percentage change in the unit prices and shall not exceed that percent. The percent increase will be considered when evaluating the financial proposals.

The Curators of the University of Missouri is a public corporation and, as such, cannot create an indebtedness in any one year (the fiscal year beginning July 1 to June 30) above what they can pay out of the annual income of said year as set forth in Section 172.250 RS MO. Therefore, if the University determines it has not received adequate appropriations, budget allocations or income to enable it to meet the terms of this contract, the University reserves the right to cancel this contract with thirty (30) days' notice.

### 5. INSTRUCTIONS FOR PROPOSAL RESPONSE

**Responses should be enumerated in the same order and fashion of the Mandatory and Desirable Specifications outlined within.** Respondents are required to **fully** respond with compliance statements to each of the mandatory specifications. Respondents are required to fully respond with description of ability and how to meet the evaluation questions.

Respondents must be clear and concise in responses in order to be fully credited in the evaluation. Attach and reference any relevant documentation that would ensure the evaluating committee both Mandatory and Desirable specifications are met. If "no response" or insufficient response to substantiate compliance is provided, the University reserves the sole right to reject supplier's proposal from further consideration. **Do not include responses that are superfluous or irrelevant to the specific question asked and do not include large graphics.** These are not valuable in the volume of information the various evaluating teams must review.

Proposals must be submitted in the number and manner as specified below:

**Volume I** – Functional Section **MUST** be submitted electronically via email with the subject line labeled and identified as RFP #23077, Volume I. This section must be in PDF format and contain **in this order**:

- Response to Information for Respondents and General Conditions,
- Mandatory Specifications and supplier responses,
- Desirable Specifications and supplier responses,

- **If there is a supplier related contract that must be signed as part of doing business, it should also be included in this section.**

**Volume II** – Financial Section **MUST** be submitted electronically via a separate email with the subject line labeled and identified as RFP #23077, Volume II. This section must be in PDF format and contain **in this order**:

- Request for Proposal Form with any supplemental pricing schedules, if applicable.
- Authorized Respondent Representation.
- Financial Summary including additional costs, if any, for Desirable Specification Compliance, functional or technical.
- Attachment A - Supplier Diversity Participation Form.
- Attachment B – Supplier Registration Information.

Respondent must complete and return the University Proposal Form with proposal response. Supplier quote sheets are not acceptable forms of bidding and could cause rejection of response. **All proposals must be plainly marked: Request for Proposal #23077 for IN-SITU AND IN-OPERANDO TRANSMISSION ELECTRON MICROSCOPE, emailed to [amwyt7@umsystem.edu](mailto:amwyt7@umsystem.edu). Please allow transmittal time to ensure your response is received no later than the time stated on the RFP cover page.**

Note: Any Respondent's Request for Proposal that makes material modifications to the University's Terms and Conditions may be found non-responsive, as solely determined by the University.

**Confidentiality of Information:**

All records received from a Supplier will be deemed public records and presumed to be open. If the supplier submits with the Request for Proposal any information claimed to be exempt under the Revised Statutes of Missouri, Chapter 610, this information must be placed in a separate envelope and marked with:

"This data shall not be disclosed outside the University or be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate the Request for Proposal; however, if a contract is awarded to this Supplier as a result of or in connection with the submission of such information, the University shall have the right to duplicate, use, or disclose this information to the extent provided in the contract. This restriction does not limit the University's right to use information contained herein if it is obtained from another source."

**6. EVALUATION AND CRITERIA FOR AWARD OF PROPOSAL**

Respondents must meet the mandatory/limiting criteria to be "qualified" for scoring. If requirements are not met, the respondents are disqualified from further evaluation/award. Qualified remaining respondents will be scored on their ability to meet scored desirable criteria, which includes qualitatively, how specifications are met. A team of University individuals will evaluate and assign points to suppliers' responses to the evaluation questions. At the sole option of the University, the functional/technical review team may decide to go on a site visit, at their expense, or request suppliers to perform a presentation/demonstration to confirm specifications are met as provided in responses. The University could elect to not award to a potential respondent if site visits/presentations revealed compliance inconsistency.

The University may request suppliers selected as finalists to come onsite to the University, at the supplier's expense, for presentations as part of the RFP selection.

Proposals will be awarded based upon the functional and financial evaluation.

## 7. INSURANCE REQUIREMENTS

Contractor agrees to maintain, on a primary basis and at its sole expense, at all times during the life of any resulting contract the following insurance coverages, limits, including endorsements described herein. The requirements contained herein, as well as the University's review or acceptance of insurance maintained by Contractor is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by Contractor under any resulting contract. Coverage to be provided as follows by a carrier with A.M. Best minimum rating of A- VIII.

Commercial General Liability Contractor agrees to maintain Commercial General Liability at a limit of not less than \$1,000,000 Each Occurrence, \$2,000,000 Annual Aggregate. Coverage shall not contain any endorsement(s) excluding nor limiting Product/Completed Operations, Contractual Liability or Cross Liability. Contractor may satisfy the minimum liability limits required for Commercial General Liability or Business Auto Liability under an Umbrella or Excess Liability policy. There is no minimum per occurrence limit of liability under the Umbrella or Excess Liability; however, the Annual Aggregate limit shall not be less than the highest "Each Occurrence" limit for either Commercial General Liability or Business Auto Liability. Contractor agrees to endorse The Curators of the University of Missouri, its officers, employees and agents as Additional Insured on the Umbrella or Excess Liability, unless the Certificate of Insurance state the Umbrella or Excess Liability provides coverage on a "Follow-Form" basis.

Note: Anyone who serves alcoholic beverages on a University of Missouri Campus or when contracted for service at a UM event must also provide liquor liability coverage. This should be written on an "occurrence basis" and have limits not less than \$1,000,000 each claim or each common cause and at least a \$1,000,000 aggregate. The insurance carrier, policy number, effective date and limits should be shown on an insurance certificate provided to the University of Missouri. The Curators of the University of Missouri, its officers, employees and agents endorsed as Additional Insured on such policy and a copy of the endorsement should be provided along with the certificate of insurance.

**Business Auto Liability** (If required in service performance) Contractor agrees to maintain Business Automobile Liability at a limit not less than \$1,000,000 Each Occurrence. Coverage shall include liability for Owned, Non-Owned & Hired automobiles. In the event Contractor does not own automobiles, Contractor agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

**Workers' Compensation & Employers Liability** Contractor agrees to maintain Workers' Compensation in accordance with Missouri State Statutes or provide evidence of monopolistic state coverage. Employers Liability with the following limits: \$500,000 each accident, disease each employee and disease policy limit.

**Data Breach** Refer to Risk & Insurance Management for review, but at a minimum for low risk contracts only: If capturing, transmitting or access to PII, PHI or PCI then coverage must also include Data Breach coverage of \$1,000,000 per occurrence.

**Contract Language** The Curators of the University of Missouri, its officers, employees and agents are to be Additional Insured with respect to the project to which these insurance requirements pertain. A certificate of insurance evidencing all coverage required is to be provided at least 10 days prior to the inception date of the contract between the contractor and the University. Contractor/Party is required to maintain coverages as stated and required to provide written notice of cancellation according to the policy provisions. The University reserves the right to request a copy of the policy. The University reserves the right to require higher limits on any contract provided notice of such requirement is stated in the request for proposals for such contract.

**Indemnification** The Contractor agrees to defend, indemnify, and save harmless The Curators of the University of Missouri, their Officers, Agents, Employees and Volunteers, from and against all loss or expense from any cause of action arising from the Contractor's operations. The contractor agrees to investigate, handle, respond to and provide defense for and defend against any such liability, claims, and demands at the sole expense of the Contractor or at the option of the University, agrees to pay to or reimburse the University for the Defense Costs incurred by the University in connection with any such liability claims, or demands. The parties hereto understand and agree that the University is relying on, and does not waive or intend to waive by any provision of this Contract, any monetary limitations or any other rights, immunities, and protections provided by the State of Missouri, as from time to time amended, or otherwise available to the University, or its officers, employees, agents or volunteers. Failure to maintain the required insurance in force may be cause for contract termination. In the event the Agency/Service fails to maintain and keep in force the required insurance or to obtain coverage from its subcontractors, the University shall have the right to cancel and terminate the contract without notice. The insurance required by the provisions of this article is required in the public interest and the University does not assume any liability for acts of the Agency/Service and/or their employees and/or their subcontractors in the performance of this contract.

## DETAILED SPECIFICATIONS

- 1. In-situ Liquid Cell TEM Holder – shall facilitate observation and experimentation of samples immersed in liquid.**
  - EDS-optimized single-tilt holder with minimum 2 inlet ports and 1 outlet port to support mixing of liquids inside the holder tip.
  - Pressure compatible to 1 ATM
  - Syringe pump
  - Heating package
  - Electrochemical package
- 2. In-situ Gas Cell System – shall contain all necessary hardware to conduct in-situ heating and biasing experiments in reactive gaseous environments.**
  - Utilizes software which delivers live 3-dimensional image stabilization and metadata embedment into the images.
  - Integrated residual gas analyzer mass spectrometer 1-200 amu that operations without an additional rough pump
  - 3 gas inputs with flow control
  - EDS-optimized, hermetically sealed environmental holder
  - Pressure compatible to 1 ATM
  - Single tilt holder
- 3. Double-tilt TEM Holder with electrothermal capabilities**
  - Shall include holder with up to six (6) contacts capable of heating from room temperature to 1200°C with simultaneous electrical measurements
  - Double tilt mechanism must have probes that tilt with the MEMS device in the beta direction for temperature accuracy and signal integrity during a tilt series
- 4. Leak Test System**
  - High-vac turbo dry pumping station with full-scale gauge, auto vent valve, and one flange for ThermoFisher Spectra TEM
- 5. Data Collection and Integration Platform**
  - Shall constantly log images and system metadata in a rolling buffer to eliminate the possibility of missing key experimental outcomes.
  - Must have 3-dimensional image stabilization that automatically adjusts the stage and/or electron beam of the TEM during an experiment in order to keep the region of interest centered.
  - The image correction data (x,y,z,t) must be logged to compute the trajectory of image correction.
  - Integrates all TEM, camera and in-situ metadata into every image of an experiment.
  - Reviews an entire TEM session's data live while still at the TEM
- 6. Demonstration**
  - Supplier shall demonstrate XYZ image correction upon installation
    - Automated machine vision drift correction
    - Post-acquisition data analysis with integrated drift correction and dose metadata management program.
- 7. Consumable pricing shall be held firm for a 12-month period with price increases to be submitted with 30-day notice.**

8. Shipping, installation, training and a minimum of two years of gold level service shall be provided. Ability to deliver and install equipment immediately after contract award is highly desirable.

## 8. MANDATORY CRITERIA

Respondents must meet all mandatory requirements in this section in order to continue with a response to this RFP. Any Respondent that does not meet all the following requirements will be removed from further consideration. Respondents must provide a written, affirmative response to each of the criteria stated below and provide substantiating information to support your answer.

- A. Must be compatible with ThermoFisher Spectra 300 TEM.  
Confirm: Yes \_\_\_\_\_ or No \_\_\_\_\_ and provide substantiating information.
- B. Must provide on-site training for each system component.  
Confirm: Yes \_\_\_\_\_ or No \_\_\_\_\_ and provide substantiating information.
- C. Must have application engineers and service personnel located in United States.  
Confirm: Yes \_\_\_\_\_ or No \_\_\_\_\_ and provide substantiating information.

## 9. DESIRABLE CRITERIA

It is the Respondent's responsibility to supply sufficient and complete information for a full evaluation of all items in this section, including detailed explanations.

- A. Describe your company's ability to provide the requested hardware as defined in the Detailed Specifications. Include product literature and description.
- B. Provide detailed information on the software used to integrate the hardware and provide outputs as defined in the Detailed Specifications. Include product literature and description.
- C. Provide your system's capabilities for remote operation protocols to further extend the reach and accessibility of the in-situ TEM test suite to other campus users.
- D. Describe the quantity and type of test substrates that will be included with the award.
- E. Provide detailed information on quantitative dose analysis integration with in-situ data collection.
- F. Describe any value-added programs your company is willing to offer to the University as part of a long-term partnership program.
- G. Provide a list of consumables and associated pricing that may be required to perform test scenarios utilizing the requested equipment.
- H. Provide your delivery time after receipt of order.



**REQUEST FOR PROPOSAL FORM**  
**REQUEST FOR PROPOSALS**  
**FOR**  
**FURNISHING AND DELIVERY**  
**OF**  
**IN-SITU AND IN-OPERANDO TRANSMISSION ELECTRON MICROSCOPE**  
**FOR**  
**THE CURATORS OF THE UNIVERSITY OF MISSOURI**  
**ON BEHALF OF**  
**UNIVERSITY OF MISSOURI - COLUMBIA**  
**RFP # 23077**  
**DUE DATE: DECEMBER 20, 2022**  
**TIME: 2:00 PM, CT**

The undersigned proposes to furnish the following items and/or services in accordance with all requirements and specifications contained within this Request for Proposal issued by the University of Missouri.

PRICING

	Item Description	Manufacturer & Model Number	Price
1	<b>In-situ Liquid Cell TEM Holder</b> , as described in section XX		
2	<b>In-situ Gas Cell System</b> , as described in section XX		
3	<b>Double-tilt TEM Holder</b> , as described in section XX		
4	<b>Leak Test System</b> , as described in section XX		
5	<b>Data Collection and Integration Platform</b> , as described in section XX		
6	Shipping		
7	Installation		
8	Training		
		TOTAL	
9	Consumables, provide list and discounted pricing structure.		

**AUTHORIZED RESPONDENT REPRESENTATION**

Authorized Signature		Date	
Printed Name		Title	
Company Name			
Mailing Address			
City, State, Zip			
Phone No.		Federal Employer ID No.	
Fax No.		E-Mail Address	
Number of calendar days delivery after receipt of order: _____		Payment Terms: _____ Note: Net 30 is default. Early pay discounts encouraged.	
Select Payment Method:                      SUA                      ACH                      Check			
Circle one:      Individual      Partnership      Corporation			
If a corporation, incorporated under the laws of the State of _____			
Licensed to do business in the State of Missouri?    ___yes    ___no			
Maintain a regular place of business in the State of Missouri?    ___yes    ___no			

**This signature sheet must be returned with your proposal.**

**ATTACHMENT A  
SUPPLIER DIVERSITY PARTICIPATION FORM**

The University of Missouri System is committed to and supports supplier diversity as an essential part of the University’s mission and core values. The University’s Supplier Diversity efforts reflect this mission.

Tier 2 Supplier Diversity Information - The University strongly encourages Supplier Diversity participation in all of its contracts for goods and services. Tier 2 Spend is spend reported by primary (non-diverse) suppliers of the University of Missouri who subcontract work to, or make purchases from a diverse supplier. Depending upon the contract, primary (non-diverse) suppliers will be asked to submit Tier 2 information with Women and Diverse Owned companies. Suppliers have two options in reporting Tier 2 dollars depending on the terms of the contract: Direct and Indirect. Awarded suppliers may be asked to utilize CVM Solutions for reporting Tier 2 spend.

- Direct dollars - those dollars directly spent with Women and Diverse Owned suppliers in the fulfillment of the contract.
- Indirect dollars - based on a percentage of revenue the University represents to the supplier. An example is as follows:
  - Supplier's Total Revenues: \$10,000,000
  - Revenues from University \$: \$ 4,000,000
  - University % of Total Revenues: 40% (#2 divided by #1)
  - Total MBE Dollars \$: \$ 150,000
  - Total WBE Dollars \$: \$ 150,000
  - Total University Attributable MBE \$: \$ 60,000 (#3 multiplied by #4)
  - Total University Attributable WBE \$: \$ 60,000 (#3 multiplied by #5)
  - Total University Attributable MWBE \$: \$ 120,000 (Sum of #6 and #7)
  - University % Attributable Revenue: 3% (#8 divided by #2)

1. Does your company have a Supplier Diversity Program? If so, describe efforts your company has made to increase business with Women and Diverse Owned businesses (i.e. does your company have a policy statement, participate in outreach activities, promote diverse firm subcontracting, publicize contract opportunities, provide certification assistance, etc.?) Please provide examples (use additional pages if needed): \_\_\_\_\_
2. If you are a non-diverse owned company, what percentage of your company's total contracting and procurement spend for the prior year was with Women and Diverse Owned businesses? Are you able to provide this information specific to University of Missouri business? \_\_\_\_\_
3. If you are a non-diverse owned company, complete the following table indicating the percentage your company will subcontract with certified Women and Diverse Owned businesses should your company be the successful bidder. Note: If your company does not plan to use Women and Diverse Owned businesses to fulfill your contract obligations, please explain why not.

Supplier Name	% of Contract	Specify Direct or Indirect

If there are questions regarding supplier diversity at the University, contact Teresa Vest, [vestt@umsystem.edu](mailto:vestt@umsystem.edu).

-----THIS FORM MUST BE SUBMITTED WITH THE RESPONSE-----

**ATTACHMENT B  
SUPPLIER REGISTRATION INFORMATION**

Completion of this section is strongly encouraged. Please review and check ALL applicable boxes.

SMALL BUSINESS CONCERN:  Yes  No

The term "small business concern" shall mean a business as defined pursuant to Section 3 of the Small Business Act and relevant regulations issued pursuant thereto. Generally, this means a small business concern organized for profit, which is independently owned and operated, is not dominant in the field of operations in which it is bidding. We would consider any firm with 500 employees or less a "small business concern".

WOMAN OWNED BUSINESS (WBE):  Yes  No

A woman owned business is defined as an organization that is 51% owned, controlled and/or managed, by a woman. The determination of WBE status depends solely on ownership and operation and is not related to employment. The firm should be certified by a recognized agency (e.g., state, local, federal, etc.). Please see Public Law 106-554 for more detail.

MINORITY BUSINESS ENTERPRISE (MBE):  Yes  No

A minority business is defined as an organization that is 51% owned, controlled and/or managed by minority group members. The determination of minority status depends solely on ownership and operation and is not related to employment. The firm should be certified by a recognized agency (e.g., state, local, federal, etc.). Please see Public Law 95-507 for more detail. Place an X by the appropriate space below.

1. Asian-Indian - A U.S. citizen whose origins are from India, Pakistan and Bangladesh  (A)
2. Asian-Pacific - A U.S. citizen whose origins are from Japan, China, Indonesia, Malaysia, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Thailand, Samoa, Guam, the U.S. Trust Territories of the Pacific or the Northern Marianas.  (P)
3. Black - A U.S. citizen having origins in any of the Black racial groups of Africa.  (B)
4. Hispanic - A U.S. citizen of true-born Hispanic heritage, from any of the Spanish-speaking areas Mexico, Central America, South America and the Caribbean Basin only.  (H)
4. Native American - A person who is an American Indian, Eskimo, Aleut or Native Hawaiian, and regarded as such by the community of which the person claims to be a part.  (N)

A Veteran or Service Disabled Veteran business is defined as an organization that is 51% owned, controlled and/or managed by Veterans. The firm should be certified by a recognized agency (e.g., state, local, federal, etc.). Please see Public Law 109-461 for more detail.

VETERAN BUSINESS ENTERPRISE  Yes  No

SERVICE-DISABLED VETERAN BUSINESS ENTERPRISE  Yes  No

MISSOURI FIRM:  Yes  No

A Missouri Firm is defined as an organization which has and maintains within the State of Missouri a regular place of business for the transaction of their business.

**SUPPLIER'S CERTIFICATION:**

The undersigned hereby certifies that the foregoing information is a true and correct statement of the facts and agrees to abide by the laws of the State of Missouri and the rules and regulations of the University of Missouri System now in effect including any subsequent revisions thereof. Supplier acknowledges that it is his/her responsibility to keep the information current by notifying the University of Missouri of any changes.

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Signature of Person Authorized to Sign this Supplier Registration Information Form

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**ATTACHMENT C**  
**SECUREAUTH IdP INTEGRATION QUESTIONNAIRE**

**Requestor Contact Information (the University/department contact)**

Requestor Name:

Requestor Email Address:

Requestor Phone Number:

Requesting Department Name:

Requesting Business Unit:

**External/Third Party Contact Information**

Sales Contact Name:

Technical Contact Name:

Company:

Email address:

**Service Provider (SP) Information**

1. Name of application/service:
2. Application URL:
3. Description of application/service:
4. Service Provider Solution (i.e. Shibboleth, OpenSAML 2 or other product):
5. Is your entire site protected using SSL? If no, will you use SSL to protect the authentication session? If no, explain why:
6. Will you be expecting attributes to be passed for authorization purposes? If so, list and describe attributes:
7. How will attributes be used in the application/service?
8. Will attributes be used for any other purpose? (i.e. given to third parties, used for reports, etc.)
9. Will attributes be stored? If yes, how will attributes be stored and for how long?
10. Do you support SP initiated SSO?
11. Can you consume a metadata file?
12. Does your SP support XML signature/encryption?
13. Does your SP support signed/encrypted assertions?
14. Will your SP metadata be emailed directly to us?
15. Does your SP metadata file contain, at a minimum, the following components?
  - a. <md:EntityDescriptor>
  - b. <md:SPSSODescriptor> (must include the proper protocolSupportEnumeration)
  - c. <md:KeyDescriptor>
  - d. <md:SingleLogoutService> (if any)
  - e. <md:NameIDFormat> (if any)