

**Eastern Michigan University
Federal Earmarks Program
FY2009 Guide**

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Introduction

Academic earmarking refers to the process by which the U.S. Congress attaches funding for specific university-directed projects to federal appropriations legislation. It is part of the annual Congressional budgeting process.

Earmarked funding is a function of the political process and does not undergo peer-review or other merit-based competition as typically required by federal granting agencies. It is, however, very much a competitive process and is becoming more so each year. Competition for Congressionally designated projects is keen, and only the most compelling projects will be supported. Earmarks are not intended for individual research projects, or for projects for which competitive funding is available.

Successful earmark projects have the following characteristics:

- 1) **They respond to national or regional needs.** Be as specific as possible regarding the Michigan need and impact. Please identify why the problem in question is significant enough to warrant a federal investment. Identify the specific purpose/ objectives of the funding being requested and how these objectives will help address the identified needs described above. What are the specific goals of the project for which funding is being requested? For example, what measurable improvements in health status, educational achievement, environmental quality, or similar outcomes – locally and nationally – will result from this project? Identify specific applications of the project.
- 2) **They develop infrastructure and capacity at EMU.** Internally, priority will be given to projects where targeted support will build capacity to compete successfully for follow-on funding support. Successful projects should have an “exit strategy,” a plan to continue with other sources of support once the earmarked funding has ended.
- 3) **They are aligned with a strategic priority for EMU.** Since only a few projects can be funded within any given federal

budget cycle, projects that align best with EMU's institutional priorities will be submitted.

- 4) **They are supported by staffers within a federal agency.** A “champion” within an agency must be identified who will support and endorse the project during the Congressional budget development process. For example, all Defense requests must have an identified supporter within the Department of Defense. Such contacts can be developed through discussions with Van Scoyoc Associates (EMU's Washington lobbying firm), but it is vastly preferable to have an established contact on your own. Once funding is designated by Congress, it is then assigned to an appropriate federal agency. Projects should be aligned with and promote the agency's mission. A detailed proposal must ultimately be developed and submitted for evaluation, per agency grant application guidelines. Even though funding has been designated by Congress, the designated federal agency must approve, award, and oversee any given earmarked project.
- 5) **They do not fit the guidelines for competitive grant programs.** The University will not submit proposals for earmarked funding when competitive sources of grant funding are available. Specifically, agencies that support basic research, such as the National Science Foundation and the National Institutes of Health, do not receive Congressional earmarks, and are not suitable targets for project-specific earmarked funding.
- 6) **They have reasonable and realistic budgets, given the programs for which they are targeted.** Budgets for earmarked projects typically range between \$250K-\$1.5 M. Budgets will vary by appropriations bill and by federal agency. Funding is rarely provided for construction projects. Projects should not rely solely on federal support, but demonstrate institutional commitment through the inclusion of matching funds and/or in-kind contributions.
- 7) **They are developed and directed by individuals with a proven track record for successfully executing external grants.** Whenever our Congressional delegation is

successful in securing an earmarked project on behalf of EMU, they have a vested interest in its success. EMU has an obligation to demonstrate that the funding is a wise use of taxpayers' dollars and worthy of the support provided by our Congressional representatives.

8) **They are well written and compelling in content.**

History of Earmarked Funding at EMU

Eastern Michigan University was not a consistent participant in the earmark process until FY2003. A few projects, however, Welch Hall and Pease Auditorium, for example, received federal earmarked funding. In recent years, Eastern Michigan has worked with Van Scoyoc Associates, a Washington, D.C., lobbying firm, to increase earmarked funding for the University. With support from Van Scoyoc, EMU has since experienced success in receiving a number of earmarked awards. Below is a history of earmarked funding at EMU (by federal fiscal year).

FY2003

Advanced Coatings Research for Coatings Control
U.S. Army Research Laboratory \$1,100,000

Advanced Coatings Research
U.S. Army TACOM \$1,000,000

Center for Community Building & Civic Engagement
U.S. Department of Justice \$1,000,000

FY2004

Nanomaterials for High Performance Coatings
Office of Naval Research \$1,000,000

Advanced Coatings Research
U.S. Army Research Laboratory \$2,100,000

FY2005

Nanomaterials for High Performance Coatings
Office of Naval Research \$1,000,000

Strengthening Organizations, Building Capacities
U.S. Department of Justice \$200,000

Nanomaterials for Biological Defense
U.S. Army Research Laboratory \$500,000

FY2006

Advanced Coatings Research
U.S. Air Force \$1,000,000

FY2007

Application of Nanomaterial Technology to Develop
Biological Agent Protective Fabric \$1,000,000

Proposal Development Guidelines

General Points

Proposals should give enough information for a non-scientist to make a solid, positive decision, without including the kind of exhaustive, overly technical detail that will lose the reader's attention. Proposals must educate and advocate at the same time, and do so in a direct, to-the-point fashion. Economy of words is important.

The target audience is Congressional staff. Personal staff will probably be less familiar with the issues, but committee staff may be very familiar with many issues, although they lack a technical/scientific background. Proposals must have enough depth to induce the reader to agree that, in spite of current fiscal limitations, this is a sound, defensible, and compelling use of federal funds. The proposal's value should be emphasized throughout.

Proposals should be 2-4 pages in length with inch margins and not less than 12-point type. They should have appropriate titles and section headings. See appendix for sample proposal.

Proposal Format

Title

Summary

Summarizes the request in one short paragraph, including dollar amounts, by whom, and from what federal agency.

For example: "Because of the adverse effects of water pollution on the Huron River watershed, Eastern Michigan University, in partnership with the Huron River Watershed Council, requests an appropriation of \$500,000 from the Department of the Interior's Fish and Wildlife Service to inventory, map, and monitor populations of aquatic invertebrates in Fiscal Year 2008."

Need

In 2-3 paragraphs, define the problem to be solved (e.g., understanding the effect of water pollution on a declining aquatic invertebrate population), why this problem exists, and why no one has solved it to date (e.g., in a research area, why haven't the answers been found?) Statistics help ensure the maximum impact. Following the example given above, statistics show the rate by which the aquatic invertebrate population has declined, how much the problem costs to solve (removing the sources of water pollution), and how the ecological health of the watershed will be improved by solving the problem. Cite the sources for the statistics.

This section makes the compelling case that the problem is significant and warrants a federal investment. In some instances, the weaknesses of current efforts might be critiqued, and the gaps in work now being done be described. The reader should be left thinking that the situation is either in a crisis, or if not addressed, could readily become a crisis.

Institutional Uniqueness

Include a few paragraphs describing what makes the University uniquely qualified to undertake the project. Describe the leadership team's credentials or strengths to support the request.

If possible, outline credentials in three different categories: people, research, and facilities. First, discuss the proposal from a people/faculty standpoint (without using names). What makes the University unique and where is that expertise located? This might include a particular center(s) or department(s). Second, what work has the faculty done in this field that makes it specially qualified, gives it world-class expertise in this subject? Third, what particular facilities make the University the logical location for this work? This final section may not apply in all instances.

Requested Action

This section should be about two paragraphs long. Begin with something like “Because of the compelling need to address problem X, EMU requests X dollars to do Y.”

If the project undertakes a particular kind of research, describe it so that a non-expert reader can understand. Describe what activities will be undertaken, what questions will be addressed, how this effort meets the need outlined in the previous section, and why this approach is the solution to the scientific and structural limitations currently employed by the Agency in question.

Additionally, if funds are being requested for a narrow class of competitive research, this section lays out precisely how and why the narrow class of competitive research is to be undertaken. Referring back to the Huron River watershed example, if funds are specifically for research in aquatic invertebrate populations, it must be argued that some of the funds targeted for extramural research here would be used strictly for research into a problem that is specific to the Huron River watershed. That point should be specified here, and the case made for this approach.

As part of the requested action section, describe or qualify outcomes (e.g., the population of aquatic invertebrates will increase 50 percent, thus restoring the biodiversity of the watershed). Include the expected return on the investment. Quantifiable outcomes, however, do not have to be absolutely precise. A range of improvement or some similar measure will suffice, even if it is just for a particular class of people or institutions.

Identify any cost sharing that will come from sources other than the one from which funds are being requested (e.g., another agency, the University, private foundations).

Conclusion

In one paragraph synopsise the request, its importance to the community, region, or nation, and the University's capability for getting the job done and getting it done well.

Budget

Attach a budget with the following budget categories: Personnel Services (including benefits), Student Help, Operating Expenses (SS&M and travel), and Equipment. Consult ORD regarding an appropriate indirect cost rate. The budget will be submitted for ORD review, but not included in the final proposal. The total dollar request must be included in the executive summary.

Letters of Support

Letters of support as appropriate from funding agencies, partners, beneficiaries, national/state/local officials are required. Letters should be addressed to EMU's congressional representatives, and submitted to ORD with the proposal.

APPENDIX

Sample Proposal

Capacity Building for the Coatings Research Institute

Summary

The Coatings Research Institute (CRI) at Eastern Michigan University (EMU) is requesting \$1.7 million in the FY2007 Energy and Water Appropriations bill and report, Department of Energy, Office of Science, Biological and Environmental Research Account for additional synthesis lab space, for acquiring specialized coatings processing and application equipment, and for advanced instrumentation. The Polymer and Coatings Technology research program in the Coatings Research Institute (CRI) in the College of Technology (COT) has experienced considerable growth in research funding through grants and contracts during the last three years. This support has in turn helped build research capability in the CRI and facilitated the growth of the undergraduate and graduate programs. This growth helps EMU and the CRI satisfy some of the unfulfilled needs of industry and government with respect to the supply of trained professionals at the B.S., M.S., and Ph.D. levels for the technical labor force, as well as become a viable and creative research partner through grants and contracts, thereby contributing to the economic well-being of the region and the nation. This growth, however, has created great pressures on the CRI infrastructure with respect to lab facilities, instrumentation, and equipment. The investment of \$1.7 million will provide the CRI the increased capacity and enhanced technical capability to meet current and anticipated research project needs and the continued expected growth in the graduate program.

Need

The Polymer and Coatings research program in the CRI at EMU has experienced considerable growth in research funding through grants and contracts of about \$10 million during the last four years. The major research areas in the CRI include corrosion control and prevention research to reduce maintenance/repair costs and increase readiness for the Army; fouling release coatings for marine applications to reduce maintenance costs, to decrease antifouling emissions into the aquatic environment, and to reduce fuel costs for the Navy; antimicrobial coatings for Army applications; nanoparticle material technology; polymer and coatings characterization methodology; and smart coatings.

This growth has helped build capability in the CRI and also facilitated the growth of academic programs by attracting high-quality students through graduate assistantships. During the last two years, the undergraduate program has grown by 50% and the graduate program has doubled in size and includes

two Ph.D. students from the COT Ph.D. program, which commenced in 2004. It should be pointed out that the undergraduate and graduate programs are producing on the order of 40% of students trained specifically in polymer and coatings technology each year in the United States. At the present time, the demand for trained coatings professionals considerably exceeds the CRI's ability to supply them. EMU polymer and coatings technology graduates indeed have excellent placement opportunities in industry and government.

This growth, however, has created great pressures on the CRI infrastructure with respect to lab facilities, instrumentation, and equipment. The CRI needs additional synthesis laboratory space, some specialized coatings processing and application equipment (e.g., powder coating processing), as well as advanced instrumentation for the characterization, analysis, and testing of polymers and coatings. This investment will provide the CRI with the increased capacity and enhanced capability to meet current and anticipated research project needs and to meet the expected continued growth needs in our graduate program, particularly at the Ph.D. level.

EMU is in the early planning stages for constructing a science complex. The CRI is under consideration as one of the occupants of this facility. The completed science complex, however, is at least 4-5 years from becoming a physical reality. In the intervening time, the CRI still needs additional synthesis laboratory space to meet current and near-term research project needs as well as the growth in the graduate program.

Institutional Uniqueness

EMU is one of three academic institutions in the United States with a vigorous educational and research program in polymer and coatings science and technology and the only institution to focus heavily on practical knowledge and application. The CRI has been leading the way in Smart Coatings, one of the hottest coatings technology areas, by organizing the Smart Coatings 2005 and Smart Coatings 2006 symposia. The CRI was founded at EMU in 1985. Its current mission is to be the leading academic organization that develops relevant knowledge for understanding and expanding the science and technology of paints, coatings, inks, adhesives, and nanobased materials in order to serve the research needs of government and industry, as well as provide a pool of scientists and technologists at the B.S., M.S., and Ph.D. levels proficient in polymer and coatings science and technology. The CRI strongly interacts on an interdisciplinary basis through joint research projects with several departments and programs within EMU: Polymers and Coatings Technology, Chemistry, Physics, and Biology. Within the CRI is the National Science Foundation Industry/University Cooperative Research Center (NSF I/UCRC) in Coatings, the Surface Science Center, physically located in the Physics Department, and a Polymer Physics Center. EMU's COT technology doctoral program is one of a few programs in the nation to focus on interdisciplinary technology with concentrations in polymers and coatings technology.

The NSF I/UCRC in Coatings is a joint research center with the University of Southern Mississippi and the only NSF center engaged in scientific research in coatings. The NSF I/UCRC in Coatings has been active since 1990 and was initiated by EMU by attracting sufficient industry members willing to pay annual dues to support relevant research on the science and technology of coatings according to NSF guidelines. Center members include Visteon, TACOM, Exatec, Alcan International, Mississippi Polymer Institute, Bayer Corp., Eastman Chemical Corp., and Merrit Ink and Coatings. The Polymer and Coatings faculty in the CRI are world-class scientists well known for their skills in synthesizing and designing new polymers and emulsions; for improving and advancing polymer characterization, analysis and test methods; and for expanding the knowledge of coatings technology through research on chemical and physical phenomena involved in paints and coatings and developing pollution-free liquid coatings technology. The CRI has strong links to the coatings industry both regionally and nationally, including suppliers, manufacturers, and end-users, through research project activities and by producing well-trained professionals for the industry. For example, research interactions with the automotive segment of the industry include such companies as Ford Motor Co., Visteon Corp., Toyota, PPG Industries, BASF, Akzo-Nobel, DuPont, and Behr Systems. The CRI also has a close international relationship with the coatings chemical engineering program at the University of Applied Sciences, Esslingen (Germany), which resides at the center of the German automotive industry, and with ITECH (Institut Textile et Chimique de Lyon), which is a private French “Grand Ecole” in applied polymer science.

Requested Action

Due to the growth in the CRI’s research funding and the concomitant growth in the academic programs as well as the demand-supply situation with respect to providing trained polymer and coatings technology professionals to industry and government, it is imperative that an investment be made in the CRI infrastructure to renovate some existing classroom space into additional synthesis laboratory space and provide some specialized coatings processing and application equipment as well as advanced instrumentation for the characterization, analysis, and testing of polymers and coatings.

The CRI is requesting \$1.7 million for this purpose. The creation of 776 square feet of additional synthesis lab space will cost about \$300,000. The balance of the funds, \$1.4 million, will be applied to acquiring specialized coatings processing and application equipment as well as advanced instrumentation.

Conclusion

The Coatings Research Institute (CRI) provides about 40% of the trained polymer and coatings professionals for industry and government yearly within the United States. The continued growth in the research and academic programs is required to satisfy unfulfilled needs with respect to the supply of such trained

professionals for the technical labor force. The investment of \$1.7 million will provide the CRI the increased capacity and the enhanced technical capability to meet current and anticipated research project needs as well as to meet the continued expected growth in the graduate program and, thereby, contribute to the economic well-being of the region and the nation.