

Materials World Network: Cooperative Activity in Materials Research between US Investigators and their Counterparts Abroad (MWN)

Program Solicitation

NSF 04-599

Replaces Document NSF 02-135, NSF 02-141, NSF 03-565



National Science Foundation

Directorate for Mathematical and Physical Sciences

Division of Materials Research

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

October 14, 2004

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Materials World Network: Cooperative Activity in Materials Research between US Investigators and their Counterparts Abroad (MWN)

Synopsis of Program:

Continued progress in materials research is increasingly dependent upon collaborative efforts among several different disciplines, as well as closer coordination among funding agencies and effective partnerships involving universities, industry, and national laboratories. In addition, because of the growing interdependence of the world's economies, partnerships are important not only at the national level but from an international point of view as well.

The National Science Foundation is working together with counterpart national and multinational funding organizations worldwide to enhance opportunities for collaborative activities in materials research between US investigators and their colleagues abroad. This solicitation describes an activity to foster opportunities for collaboration in materials research between investigators in the US and their counterparts abroad. It includes joint activities between NSF and funding organizations in (a) the Americas, through the Inter-American Materials Collaboration (CIAM); (b) Europe, including national European funding organizations, the European Science Foundation, and the European Commission; and (c) other countries or regions.

Proposals submitted to NSF in response to this solicitation must have clear relevance to fundamental materials phenomena, synthesis, characterization, properties and/or processing. NSF will accept proposals from eligible US institutions addressing collaborations between researchers from the US and participating countries/regions. Concurrently, investigators at institutions abroad should submit to the counterpart funding organization in their country/region a request for support of their side of the collaboration. NSF will consider support for the US side of such collaborations, with the expectation that funding or research organizations from the appropriate countries/regions will consider supporting the costs of the non-US participants.

Projects proposed to NSF are expected to offer students and junior researchers the opportunity to participate in an international research and education experience and, more generally, for integrating research and training in an international environment, and to clearly demonstrate the value added by the international collaboration.

Cognizant Program Officer(s):

- Dr. Carmen Huber, Program Director, Office of Special Programs, Division of Materials Research, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, telephone: 703-292-4939, fax: 703-292-9036, email: chuber@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.049 --- Mathematical and Physical Sciences

Eligibility Information

- **Organization Limit:**

Proposals may be submitted by US universities and colleges.

- **PI Eligibility Limit:** None Specified.
- **Limit on Number of Proposals:** None Specified.

Award Information

- **Anticipated Type of Award:** Standard or Continuing Grant
- **Estimated Number of Awards:** 30 to 40 - depending on quality of proposals and availability of funds
- **Anticipated Funding Amount:** \$5,000,000 total in FY 2005, depending on availability of funds

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Full Proposal Preparation Instructions:** This solicitation contains information that supplements the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required.
- **Indirect Cost (F&A) Limitations:** Not Applicable.
- **Other Budgetary Limitations:** Not Applicable.

C. Due Dates

- **Full Proposal Deadline Date(s)** (due by 5 p.m. proposer's local time):

October 14, 2004

Proposal Review Information

- **Merit Review Criteria:** National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

Award Administration Information

- **Award Conditions:** Standard NSF award conditions apply.
- **Reporting Requirements:** Standard NSF reporting requirements apply.

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I. INTRODUCTION

The basic properties of materials frequently define the capabilities, potential, reliability and limitations of technology. Improved materials and processes will play an increasing role in efforts to increase energy efficiency, promote environmental protection, develop information and communications systems, and provide modern and reliable transportation and civil infrastructure. Advances in materials research enable progress to be made across a broad range of scientific and engineering disciplines and technological areas with dramatic impacts on society.

Continued progress in materials research is increasingly dependent upon collaborative efforts among several different disciplines, as well as closer coordination among funding agencies and effective partnerships involving universities, industry, and national laboratories. In addition, because of the growing interdependence of the world's economies, partnerships are

important not only at the national level but from an international point of view as well.

The National Science Foundation has co-sponsored a series of international workshops designed to help stimulate enhanced collaboration among materials researchers and create networks linking individuals and centers in participating regions. The first workshop, held in Saltillo, Mexico, in May 1995, involved scientists and engineers from the US, Canada, and Mexico. Similar workshops followed to identify opportunities for collaboration among researchers from the US and the European Union (Belgium, 1996), the Americas (Brazil, 1998), the Asia-Pacific region (Hawaii, 1998), and Africa (South Africa, 2000). These workshops have identified possible areas for mutually beneficial collaborations, and recommended that extensive use be made of electronic communication, information exchanges, and databases to promote and facilitate research collaborations and education activities at the international level. Reports of the workshops can be found on the web page of the International Union of Materials Research Societies at <http://www.iumrs.org>.

The National Science Foundation is working together with counterpart national and multinational funding organizations worldwide to enhance opportunities for collaborative activities in materials research between US investigators and their colleagues abroad. In recent years, NSF issued calls for proposals from US investigators for collaborative research with their counterparts in Europe and the Americas. A list of awards resulting from these competitions can be found at <http://www.nsf.gov/mps/divisions/dmr/research/>.

II. PROGRAM DESCRIPTION

This solicitation describes an activity to foster opportunities for collaboration in materials research between investigators in the US and their counterparts abroad. It includes joint activities between NSF and funding organizations in (a) the Americas, through the Inter-American Materials Collaboration (CIAM); (b) Europe, including European national funding organizations, the European Science Foundation and the European Commission (EC); and (c) other countries or regions.

Proposals submitted to NSF in response to this solicitation must have clear relevance to fundamental materials phenomena, synthesis, characterization, properties and/or processing. Projects not having this focus will not be considered for funding. For areas supported by the NSF Division of Materials Research see http://www.nsf.gov/mps/vgn_bah/output/programs/dmr. It is strongly recommended that you contact NSF program staff listed below to ascertain that the scientific or technical focus of the proposed research is appropriate for this solicitation.

NSF will accept proposals from eligible US institutions addressing collaborations between researchers from the US and participating countries/regions. Concurrently, investigators at institutions abroad should submit to the counterpart funding organization in their country/region a request for support of their side of the collaboration. NSF will consider support for the US side of such collaborations, with the expectation that funding or research organizations from the appropriate countries/regions will consider supporting the costs of the non-US participants. **NSF will not accept proposals from investigators at non-US institutions.** Contact information for the NSF and funding organizations abroad is listed below.

Projects proposed to NSF are expected to offer students and junior researchers the opportunity to participate in an international research and education experience and, more generally, for integrating research and training in an international environment. The exchange of students and post-doctoral research associates between the US and abroad is strongly encouraged.

Specific program characteristics are as follows:

- 1. Joint activities between NSF and funding organizations in the Americas, Europe (excluding the EC), and other countries/regions**

Proposals addressing materials research areas as described above are covered in these activities. Proposals to NSF from individual investigators, groups, centers or user facilities (in accordance with NSF guidelines) are welcome. Proposals should be balanced in terms of intellectual effort and participation in the US and abroad. In addition to research proposals, proposals in support of networking activities between US

investigators and their counterparts abroad will also be considered.

2. Joint activity between NSF and the European Commission

Within the materials area, the joint activity between NSF and the European Commission (EC) focuses on collaborative projects on computational materials sciences. Such opportunities were explored in a joint NSF-EC workshop held in San Francisco in April 2004 (<http://www.itamit.dtc.umn.edu/workshop.html>), where new computational methods for understanding and predicting materials properties and phenomena were examined. Efforts not addressing computational materials research problems will not be considered under this joint NSF-EC activity.

Of particular interest to NSF under this solicitation is the development and application of computational tools with predictive capabilities to the study of properties and phenomena that span multiple time and length scales and require multiscale modeling to compute the essential science. The research proposed may include related model verification activities. Representative areas of computational materials science covered in this solicitation include, but are not limited to, crystal growth, surface adsorption, structural defects such as lattice mismatch and grain boundaries, microstructural evolution, crack formation and propagation, melting and diffusion, spintronics, molecular and nano-electronics, quantum dots, soft materials and biomaterials.

NSF will only accept proposals from small-to-medium groups (typically 3-4 senior investigators) as part of this NSF-EC activity. Multi-institutional proposals are especially encouraged. Proposals should be balanced in terms of intellectual effort and participation in the US and the European Union.

III. ELIGIBILITY INFORMATION

Proposals may be submitted by US universities and colleges.

IV. AWARD INFORMATION

The estimated number of awards is 30 to 40, depending on quality of proposals and availability of funds. The total anticipated funding amount is \$5,000,000 in FY 2005. Estimated total funding, number of awards and average award size/duration are subject to the availability of funds.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Instructions:

Proposals submitted in response to this program announcement/solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF *Grant Proposal Guide* (GPG). The complete text of the GPG is available electronically on the NSF Website at: <http://www.nsf.gov/cgi-bin/getpub?gpg>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

Requests for additional funding (supplement) by a US Principal Investigator to an existing NSF award may **not** be submitted

to this competition; such requests should be made directly through the program where the existing award is administered.

Proposals from foreign investigators should be submitted to the appropriate counterpart funding organization in accordance with the guidelines of that organization. Because application guidelines differ among the participating organizations, it is not necessary to submit identical proposals to NSF and the counterpart(s) organizations.

The following guidelines, in addition to those in the NSF GPG, should be followed in preparing the proposal to NSF:

- The title of the proposal to NSF should reflect the region involved in the collaboration and should begin as either:
 - (a) "Inter-American Materials Collaboration (CIAM):"
 - (b) "NSF-Europe Materials Collaboration:"
 - (c) "NSF-EC Cooperative Activity in Computational Materials Research: "
 - (d) "NSF-(country/region) Materials Collaboration:"
- The Project Summary must address in separate statements (1) the intellectual merit and (2) the broader impacts of the proposed activity and, within the context of these two statements, the value added by the proposed international collaboration.
- The duration of the project proposed to NSF should match the duration of the counterpart project proposed to the other funding organization(s).
- The proposal to NSF **must be accompanied by two additional items** entered into the "**Supplementary Docs**" FastLane form. **Proposals that do not include these two items or do not observe the indicated page limitations will be returned without review.**
 1. Information clearly identifying the nature and scope of the corresponding counterpart proposal must be provided. *For each counterpart proposal* include:
 - a. Summary Information: name of the counterpart agency or agencies, names and affiliations of principal participants, the counterpart project title and identification code (if any), and date of proposal submission. Also state the requested funds, requested start and termination dates, and provide a technical abstract. (Limit: 2 pages).
 - b. Project Description of the counterpart proposal including, for example, state of knowledge of the field, results from previous work, objectives, plan of work, expected outcomes and their significance. (Limit: 15 pages).
 - c. Biographical sketches or curriculum vitae of the senior project personnel, including significant publications related to the proposed project. (Limit: 2 pages per individual).
 2. A specific summary of the proposed interaction, including visits between the U.S. and their partners abroad, stating the anticipated scientific benefits of the interaction, must be provided. (Limit: 2 pages).

- No additional letters of support or recommendation may be included.

Proposers are reminded to identify the program announcement/solicitation number (04-599) in the program announcement/solicitation block on the proposal Cover Sheet. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

B. Budgetary Information

Cost Sharing:

Cost sharing is not required in proposals submitted under this Program Solicitation.

C. Due Dates

Proposals must be submitted by the following date(s):

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

October 14, 2004

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this announcement/solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: <https://www.fastlane.nsf.gov/a1/newstan.htm>. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program announcement/solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this announcement/solicitation.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the [Grant Proposal Guide](#) for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Proposers are no longer required to provide a paper copy of the signed Proposal Cover Sheet to NSF. Further instructions regarding this process are available on the FastLane Website at: <http://www.fastlane.nsf.gov>

VI. PROPOSAL REVIEW INFORMATION

A. NSF Proposal Review Process

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority-serving institutions, or adjacent disciplines to that principally addressed in the proposal.

The National Science Board approved revised criteria for evaluating proposals at its meeting on March 28, 1997 ([NSB 97-72](#)). All NSF proposals are evaluated through use of the two merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

On July 8, 2002, the NSF Director issued [Important Notice 127](#), Implementation of new Grant Proposal Guide Requirements Related to the Broader Impacts Criterion. This Important Notice reinforces the importance of addressing both criteria in the preparation and review of all proposals submitted to NSF. NSF continues to strengthen its internal processes to ensure that both of the merit review criteria are addressed when making funding decisions.

In an effort to increase compliance with these requirements, the January 2002 issuance of the GPG incorporated revised proposal preparation guidelines relating to the development of the Project Summary and Project Description. Chapter II of the GPG specifies that Principal Investigators (PIs) must address both merit review criteria in separate statements within the one-page Project Summary. This chapter also reiterates that broader impacts resulting from the proposed project must be addressed in the Project Description and described as an integral part of the narrative.

Effective October 1, 2002, NSF will return without review proposals that do not separately address both merit review criteria within the Project Summary. It is believed that these changes to NSF proposal preparation and processing guidelines will more clearly articulate the importance of broader impacts to NSF-funded projects.

The two National Science Board approved merit review criteria are listed below (see the [Grant Proposal Guide](#) Chapter III.A for further information). The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which he/she is qualified to make judgments.

What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

NSF staff will give careful consideration to the following in making funding decisions:

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

Additional Review Criteria:

Reviewers will also take into consideration the value added by the proposed international collaboration in materials research, and the extent to which the collaboration integrates research and education and promotes diversity. *Preference will be given to proposals where the efforts on the US and abroad are balanced and where students and*

junior researchers participate in the international collaboration.

Representatives from NSF's Division of Materials Research will manage the review of proposals on the US side. NSF anticipates that after a corresponding evaluation of the counterpart proposal(s) by the appropriate counterpart organization(s), coordinated support will be arranged for successful proposals by the participating organizations. Information about counterpart proposals will be shared between the participating organizations as appropriate. While each side reserves the option to fund proposals independently, strong preference will be given to proposals with support from both NSF and the counterpart organization. After consideration with the appropriate organization(s) of the proposals, NSF will, whenever possible, tell applicants at US institutions whether their proposals have been declined or recommended for funding within six months of the submission date.

B. Review Protocol and Associated Customer Service Standard

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Proposals submitted in response to this announcement/solicitation will be reviewed by Ad Hoc and/or panel review.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Director. In addition, the proposer will receive an explanation of the decision to award or decline funding.

NSF is striving to be able to tell proposers whether their proposals have been declined or recommended for funding within six months. The time interval begins on the closing date of an announcement/solicitation, or the date of proposal receipt, whichever is later. The interval ends when the Division Director accepts the Program Officer's recommendation.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program Division administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See section VI.A. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (NSF-GC-1); * or Federal Demonstration Partnership (FDP) Terms and Conditions * and (5) any announcement or other NSF issuance that

may be incorporated by reference in the award letter. Cooperative agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). Electronic mail notification is the preferred way to transmit NSF awards to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/home/grants/grants_gac.htm. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at <http://www.nsf.gov/cgi-bin/getpub?gpm>. The GPM is also for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. The telephone number at GPO for subscription information is (202) 512-1800. The GPM may be ordered through the GPO Website at <http://www.gpo.gov>.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Within 90 days after the expiration of an award, the PI also is required to submit a final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for the PI and all Co-PIs. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project reporting system, available through FastLane, for preparation and submission of annual and final project reports. This system permits electronic submission and updating of project reports, including information on project participants (individual and organizational), activities and findings, publications, and other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system.

VIII. CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding this program should be made to:

- Dr. Carmen Huber, Program Director, Office of Special Programs, Division of Materials Research, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, telephone: 703-292-4939, fax: 703-292-9036, email: chuber@nsf.gov

If an organization/country/region is not listed in this solicitation, US investigators should contact appropriate NSF staff in the Office of International Science and Engineering for further guidance:

- Dr. Elizabeth E. Lyons, Regional Coordinator (Acting) Africa, Near East and South Asia Program Tel. 703-292-8707; Fax 703-292-9067; elyons@nsf.gov
- Dr. Harold J. Stolberg, Regional Coordinator Americas Program Tel. 703-292-8706; Fax 703-292-9067; hstolber@nsf.gov
- Ms. Alexandra Stepanian, Regional Coordinator Central and Eastern Europe Program Tel. 703-292-8703; Fax 703-292-9067; astepani@nsf.gov
- Mr. Alexander DeAngelis, Regional Coordinator East Asia and Pacific Program Tel. 703-292-8704; Fax 703-292-

- Ms. Jeanne E. Hudson, Regional Coordinator Western Europe Program; Tel. 703-292-8702; Fax 703-292-9067; jhudson@nsf.gov

Contacts at other organizations:

Contact information in other countries/regions is provided for the convenience of researchers in those countries/regions. Questions from US investigators should be directed to NSF.

Inter-American Materials Collaboration (CIAM) Contacts:

- ARGENTINA** **Consejo de Investigaciones Científicas y Técnicas (CONICET)**
<http://www.conicet.gov.ar/>
Rivadavia 1917, 1033 Buenos Aires
Dr. Jorge Tezón, Sub Gerente de Fomento Científico y Tecnológico
Tel.: 54-11-4951-4673, Fax: 54-11-4953-7483, jtezon@conicet.gov.ar
- BRAZIL** **Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)**

<http://www.cnpq.br/>
SEPN 509 – Quadra 507 – Bloco B – Ed. Sede
70.740-001 – Brasília - DF
Dr. Maria Cláudia Miranda Diogo, International Cooperation Office
Tel : 55-61-348-9441, Fax : 55-61-348-9442, mdiogo@cnpq.br
- CANADA** **Natural Sciences and Engineering Research Council (NSERC)**
<http://www.nserc.ca/>
350 Albert Street, Ottawa, Canada K1A 1H5
Dr. Denis Leclerc, Manager, Policy and International Relations
Tel : 613-992-3445, Fax : 613- 947-5645, denis.leclerc@nserc.ca
- CHILE** **Comisión Nacional de Investigación Científica y Tecnológica (CONICYT)**
<http://www.conicyt.cl/>
Canada 308, Providencia, Santiago de Chile
Ms. Ximena Gómez de la Torre Vargas, Directora, Dirección de Relaciones Internacionales
Tel: 56-2-365-4421, Fax: 56-2-274-1897, xgomez@conicyt.cl
- COLOMBIA** **Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología (COLCIENCIAS)**
<http://www.colciencias.gov.co/>
Tranversal 9A Bis No. 132-28, Bogota DC
Dr. Rafael Hurtado, National Program of Basic Science
Tel: 57-1-625-8480, Fax: 57-1-625-1788, rhurtado@colciencias.gov.co
- JAMAICA** **National Commission on Science and Technology**
<http://www.ncst.gov.jm/>
Office of the Prime Minister, 2A Devon Road, Kingston 10
Dr. Arnold Ventura
Tel: (876) 978-2768, Fax: (876) 960-8407, aventura@uwimona.edu.jm
- MEXICO** **Consejo Nacional de Ciencia y Tecnología (CONACYT)**
<http://www.conacyt.mx/>
Insurgentes Sur 1582, Col. Crédito Constructor, Del. Benito Juarez
Mexico DF 03940
Lic. José Lever Huffmaster, Director de Desarrollo y Cooperación

Tel: 52-55-53227700, ext. 7240; Fax: 52 -55- 53227700, ext. 7132
jlever@conacyt.mx

TRINIDAD & TOBAGO **National Institute of Higher Education (NIHERST)**
<http://www.niherst.gov.tt/>
The University of the West Indies, St. Augustine
Trinidad & Tobago, West Indies
Prof. Ramsey Saunders, Dept. of Physics
Tel: (868) 662-2002, ext. 2050; Fax: (868) 645-7132
saunders@carib-limk.net; rsaunders@fans.uwi.tt

Contacts in Europe (other than the European Commission):

AUSTRIA **Austrian Science Fund (FWF)**
<http://www.fwf.ac.at/en/index.asp>
Weyringergasse 35, A - 1040 Vienna
Dr. Laurenz Niel, Scientific Administrator
Tel.: +43 1 50 56 740 Ext. 86, niel@fwf.ac.at

BELGIUM **National Fund for Scientific Research (F.N.R.S) / French Community**
<http://www.fnrs.be>
Rue d'Egmont 5- BE- 1000 Brussels
Mme. M.-J. Simoen, Secrétaire générale
Tel : 02.504.92.11 ; Fax : 02.504.92.92 ; mjsimoen@fnrs.be

CZECH REPUBLIC **Grant Agency of the Czech Republic (GACR)**
<http://www.gacr.cz/gacr/menueng.htm>
Narodni 3
110 00 Praha 1, Czech Republic
Dr. Pavel Chraska
Tel.: +420 2 86 89 04 50, chraska@ipp.cas.cz

FINLAND **Tekes, the National Technology Agency**
<http://www.tekes.fi>
P.O.Box 69, FIN - 00101 Helsinki, Finland
Mrs. Sisko Sipila, Chief Technology Adviser
Product and Production Technology
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Academy of Finland: Research Council for Natural Sciences & Engineering
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P.O. Box 99, FIN - 00501 Helsinki
Dr. Petri Ahonen, Programme Manager
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FRANCE **Centre National de la Recherche Scientifique (CNRS)**
<http://www.cnrs.fr>
3, rue Michel Ange
75794 Paris Cedex 16, France
Claire Giraud
Program Manager for the Americas, Division of International Programs
Tel. 01 44 96 47 05, claire.giraud@cnrs-dir.fr
Dr. Michel Lannoo
Scientific Director, Mathematical and Physical Sciences
Tel. 01 44 96 42 52 michel.lannoo@cnrs-dir.fr
Dr.Marc J. Ledoux, Scientific Director, Chemistry

Tel. 01 44 96 40 98, sc-Directeur@cnrs-dir.fr
Dr. Victor Sanchez, Scientific Director, Engineering
Tel : 01 44 96 42 21, victor.sanchez@cnrs-dir.fr

GERMANY

Deutsche Forschungsgemeinschaft

<http://www.dfg.de/en/index.html>

Kennedyallee 40, D-53175 Bonn, Germany
Dr. Burkhard Jahnen, Program Director for Materials Science and Engineering
Tel +49 2 28/8 85-2487, burkhard.jahnen@dfg.de

Other German Organizations

Will be coordinated through Dr. Burkhard Jahnen,
See above for contact information.

GREECE

Ministry of Development

General Secretariat for Research and Technology (GSRT)
International Science and Technology Cooperation Directorate
14-18 Messogion Avenue
115 10 Athens
Dr. Vassiliki Mesthaneos
Head of the Bilateral Relations Division
Tel: +30-210-7714495, vmes@gsrt.gr

HUNGARY

Hungarian Academy of Sciences

<http://www.kfki.hu/>

Research Institute for Technical Physics and Materials Science
P.O. Box 49, H-1525 Budapest, Hungary
Dr. Joseph Gyulai, Director
Tel. +36-1-392-2224, Gyulai@mfa.kfki.hu

National Office for Research and Technology

<http://www.nkth.gov.hu>

Republic of Hungary
1052 Budapest, Szervita tér 8
Peter Judák,, Senior Counselor
Research and Development Division
Tel. 00-36-1-484 2573, peter.judak@nkth.gov.hu

IRELAND

Enterprise Ireland

<http://www.enterprise-ireland.com>

Glasnevin, Dublin 9, Ireland
Dr. Joe Healy, Technical Operations Manager
AMT Ireland and Materials Ireland
Tel. +353 (0)1 808 2381, healyj@mat-irl.ie

Science Foundation Ireland

<http://www.sfi.ie/>

Wilton Park House, Wilton Place
Dublin 2, Ireland
Dr. Eoin O'Sullivan,
Tel: + 353 (0)1 607 3200, eoin.osullivan@sfi.ie

ITALY

Consiglio Nazionale delle Ricerche (CNR)

<http://www.cnr.it/sitocnr/home.html>

ISMN-BO, Via P. Gobetti, 101,
40129 Bologna, Italy
Prof. Carlo Taliani,
Tel. +051 6398520, taliani@area.bo.cnr.it

Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali (INSTM)

<http://www.instm.it>

Via B. Varchi, 59 - 50132 Florence, Italy
Prof. Ignazio Fragalà, President
Tel. +39-055 2343125, direzione@instm.it

National Institute for the Physics of Matter (INFM)

<http://www.infm.it/>

Corso F. Perrone 24, I-16152 Genova, Italy
Prof. Elisa Molinari, NSF-INFM programme coordinator
Tel. +39 059 2055284, Fax +39 059 374752, molinari@infm.it

Other Italian organizations

Contact may be made with Prof. Elisa Molinari,
See above for contact information.

LUXEMBOURG

Fonds National de la Recherche

<http://www.fnr.lu>

6, rue Antoine de Saint-Exupéry, P.O. Box 1777
L-1017 Luxembourg-Kirchberg
Mrs. Christiane Kaell, Programme Manager
Tel: 00352-261925-34, christiane.kaell@fnr.lu

THE NETHERLANDS

Foundation for Fundamental Research on Matter (FOM)

<http://www.fom.nl>

P.O. Box 3021, NL-3502 GA Utrecht, The Netherlands
Dr. Mijke Zachariasse
(materials science, condensed matter physics)
Tel. +31-30-6001217, mijke.zachariasse@fom.nl

NORWAY

The Research Council of Norway, Science and Technology Division

<http://www.forskningsradet.no/english/>

P.b. 2700
St. Hanshaugen
0131 Oslo, Norway
Dag Høvik, Ph.D., Adviser,
Tel. +47 22037369, dah@forskningsradet.no

POLAND

KBN (State Committee for Scientific Research)

<http://www.kbn.gov.pl>

1/3 Wspólna Str, 00-529 Warsaw, Poland
Prof. Krzysztof J. Kurzydłowski, Deputy Chairman of the State Committee
Tel. (48 22) 849 99 29, Kjk@inmat.pw.edu.pl

PORTUGAL

Science and Technology Foundation (FCT)

<http://www.fct.mct.pt/>

Av. D. Carlos I, 126
1249-074 LISBOA
Manuela Loureiro, Advisory for International Cooperation
Tel. 213 924 300, manuela.loureiro@fct.mces.pt

SPAIN

Ministry of Science and Technology

<http://www.mcyt.es/>

Paseo de la Castellana 160
28070 Madrid - SPAIN
José Manuel Fernández de Labastida, Vice Director General of Projects
Tel. +34-91-349-4372, jose.labastida@mcyt.es

SWEDEN

Swedish Foundation for Strategic Research (SSF)

<http://www.stratresearch.se/eindex.html>

Box 70483, SE-107 26 Stockholm

Anders Sjölund

Tel. +46 8 505 81 678, anders.sjolund@stratresearch.se

SWITZERLAND

Swiss National Science Foundation

http://www.snf.ch/default_en.asp

Wildhainweg 20

P.O. Box 8232

3001 Bern, Switzerland

Dr. Paul Burkhard, Division II - Mathematics, Natural & Engineering Sciences

Tel. 41-31-308 22 22, pburkhard@snf.ch

UK

Engineering & Physical Sciences Research Council (EPSRC)

<http://www.epsrc.ac.uk>

Polaris House

North Star Avenue, Swindon SN2 1ET, U.K.

Mr. Andrew Rendell, Associate Programme Manager, Materials

Tel. 44-(0)-1793 444260, andy.rendell@epsrc.ac.uk

EUROPEAN NETWORKING **European Science Foundation**

<http://www.esf.org/pesc>

Physical and Engineering Sciences

1 quai Lezay-Marnesia, 67080 Strasbourg cedex, France

Mr. Neil Williams,

Physical and Engineering Sciences Committee

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- Ms. Dietlind Jering (RTD) European Commission Directorate G - Industrial Technologies Rue Montoyer 75 B 1040 Brussels, Belgium Tel: 00 32 2 296 92 22 dietlind.jering@cec.eu.int
- Dr. José- Lorenzo Vallés, Head Materials Unit Directorate G - Industrial Technologies Rue Montoyer 75 B 1040 Brussels, Belgium Tel: 00 32 2 29 91 757 jose-lorenzo.valles@cec.eu.int

Contacts in other countries or regions:

AUSTRALIA

Australian Research Council (ARC)

http://www.arc.gov.au/arc_home/default.htm

GPO Box 2702

Canberra ACT 2601, Australia

Prof. Erich Weigoold, Executive Director

Physics, Chemistry and Geoscience

Tel. 61-2-6284-6634; Fax 61-2-6123-7208; erich.weigold@arc.gov.au

INDIA

Department of Science and Technology

<http://dst.gov.in/>

International Division, Technology Bhawan
New Mehrauli Road, New Delhi – 110016, India
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ISRAEL

Ministry of Science and Technology

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Dr. Avraham Cohen, Director

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For questions related to the use of FastLane, contact:

- Maxine E. Jefferson-Brown, Computer Specialist, Directorate for Mathematical & Physical Sciences, Division of Materials Research, 1065 N, telephone: (703) 292-4918, fax: (703) 292-9035, email: mjeffers@nsf.gov

IX. OTHER PROGRAMS OF INTEREST

The NSF *Guide to Programs* is a compilation of funding for research and education in science, mathematics, and engineering. The NSF *Guide to Programs* is available electronically at <http://www.nsf.gov/cgi-bin/getpub?gp>. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter.

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