

This solicitation has been archived and replaced by NSF 02-007.

SUMMER PROGRAMS IN JAPAN, KOREA AND TAIWAN For U.S. Graduate Students in Science and Engineering

Summer Institute in Japan

Monbusho Summer Program in Japan

Summer Institute in Korea

Summer Institute in Taiwan

NSF 99-152 (Replaces NSF 96-151)



DIVISION OF INTERNATIONAL PROGRAMS
DIRECTORATE FOR SOCIAL, BEHAVIORAL AND
ECONOMIC SCIENCES
NATIONAL SCIENCE FOUNDATION



JOHN E. FOGARTY INTERNATIONAL CENTER
NATIONAL INSTITUTES OF HEALTH



AGRICULTURAL RESEARCH SERVICE
U.S. DEPARTMENT OF AGRICULTURE

DEADLINE DATE: DECEMBER 1, ANNUALLY



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22230

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SUMMARY OF PROGRAM REQUIREMENTS

GENERAL INFORMATION

Program Name: Summer Programs in Japan, Korea and Taiwan for U.S. Graduate Students in Science and Engineering

Short Description/Synopsis of Program:

The Summer Programs in Japan, Korea and Taiwan provide U.S. graduate students in science and engineering first-hand experience in Japanese, Korean and Taiwan research environments, an introduction to the science and science policy infrastructure of the respective countries, and language training. The primary goals of the programs are to introduce students to Japanese, Korean and Taiwan science and engineering in the context of a research laboratory and to initiate personal relationships that will better enable them to collaborate with foreign counterparts in the future. The programs will last approximately eight weeks from June/July to August, and are administered in the United States by the National Science Foundation (NSF), the National Institutes of Health (NIH), and the Agricultural Research Service (ARS) of the U.S. Department of Agriculture. Contact the NSF East Asia and Pacific Program or access the NSF Web site (<http://www.nsf.gov/sbe/int/>) or the NSF Tokyo Office Web site (<http://www.twics.com/~nsftokyo/spmenu.html>) for current information.

Cognizant Program Officer(s): NSF INT Summer Programs Contact, telephone 703-292-8704, e-mail: inteap@nsf.gov.

Applicable Catalog of Federal Domestic Assistance (CFDA) No.: 47.075 — Social, Behavioral and Economic Sciences

ELIGIBILITY

As of December 1 of the application year, applicants must be:

- ◆ U.S. citizens or permanent residents;
- ◆ Enrolled at a U.S. institution in a science or engineering Ph.D. program, enrolled in a M.D. program and have an interest in biomedical research, or enrolled in a master's degree program in science or engineering with at least one full academic year of study (two semesters or three quarters) to be completed at the close of the calendar year of program application; and
- ◆ Pursuing studies in fields of science or engineering which are supported by the National Science Foundation, the National Institutes of Health, or the Agricultural Research Service, and also which are represented among the potential host institutions (see Appendices I-V).

AWARD INFORMATION

- ◆ Type of award anticipated: **Stipend of \$2,500 plus travel expenses**
- ◆ Number of participants anticipated: **Up to 140 graduate student participants**
- ◆ Amount of funds available: **Approximately \$500,000 annually**
- ◆ Anticipated date of award: **May, annually**

APPLICATION PREPARATION & SUBMISSION INSTRUCTIONS

◆ Requirements for Complete Application

- Summer Programs application form
- List of potential host institutions
- Statement of purpose
- Description of current research
- Biographical sketch
- Undergraduate and graduate academic transcripts
- Ten (10) copies required
- NSF Form 1225 (Information About Principal Investigators/Project Directors)
- Two (2) completed recommendation forms

◆ FastLane Requirements

- FastLane proposal preparation requirements: **FastLane cannot be used for submission of applications to the Summer Programs in Japan, Korea and Taiwan.**

◆ Deadline/Target Dates

- Full Application Deadline: **December 1 (postmark), annually**

APPLICATION EVALUATION INFORMATION

Applications for the Summer Programs in Japan, Korea and Taiwan will be evaluated by a panel of experts for scientific promise and the potential for contribution to future international collaborative activities. The evaluation criteria include:

- ◆ Competence in science or engineering and potential for continued professional growth as a research scientist or engineer, as illustrated by research or other professional achievements, educational background, and letters of recommendation.
- ◆ Relevance of professional interests to research done in Japan, Korea or Taiwan, the current stature of Japanese, Korean or Taiwan research within the field, and the probable effect of participation on an applicant's career. Preference will be given to those who have not previously participated in a Japan, Korea or Taiwan science exchange program.
- ◆ Willingness and preparation to live in and adapt to foreign cultures and the ability to form good working relations with foreign researchers. Relevant factors include language aptitude or achievement, previous study abroad, membership in intercultural organizations, and research collaboration with foreign scientists.

AWARD ADMINISTRATION INFORMATION

- ◆ Successful applicants will be notified by March of their nomination, and by May of their formal placement at a foreign host institute.
- ◆ Participants should confirm that they will have adequate time before departure for Japan, Korea or Taiwan to apply for and receive a U.S. passport. Permanent U.S. residents should verify their ability to travel without difficulty outside of the United States and to Japan, Korea or Taiwan. Holders of valid U.S. passports do not require a visa for stays in Japan of less than 90 days. Participants in the Summer Institutes in Korea and Taiwan will be required to obtain the appropriate visas.

- ◆ Participants will be requested to provide information about their experience prior to departure from Japan, Korea or Taiwan and to complete an NSF Final Report (NSF FL-239) upon their return to the United States.

INTRODUCTION

This program announcement describes four summer programs that provide U.S. graduate students in science and engineering first-hand experience in Japanese, Korean and Taiwan research environments, an introduction to the science and science policy infrastructure of the respective countries, and language training. The primary goals of the programs are to introduce students to Japanese, Korean and Taiwan science and engineering in the context of a research laboratory and to initiate personal relationships that will better enable them to collaborate with foreign counterparts in the future. The programs will last approximately eight weeks from June/July to August, and are administered in the United States by the National Science Foundation (NSF), the National Institutes of Health (NIH), and the Agricultural Research Service (ARS) of the U.S. Department of Agriculture. Contact the NSF East Asia and Pacific Program or access the NSF Web site (<http://www.nsf.gov/sbe/int/>) or the NSF Tokyo Office Web site (<http://www.twics.com/~nsftokyo/spmenu.html>) for current information.

PROGRAM DESCRIPTION

The Summer Institute in Japan

Background

Established in 1990, the Summer Institute is sponsored in Japan by concerned government agencies and organizations and implemented by the Science and Technology Agency of Japan (STA) and the Japan Science and Technology Corporation (JST). The Summer Institute supports up to sixty students each year. Host institutions for the program include government, university, and corporate laboratories in Tokyo and Tsukuba Science City (located approximately 60 km northeast of Tokyo); host laboratories in other areas may be considered on a case-by-case basis.

Key Elements

- Program dates: late June to late August (As a result of the complex institutional arrangements required in Japan for the Summer Institute, the program **must be attended in its entirety.**)
- Intensive language training and practice with Japanese instructors
- Lectures and discussions on Japanese society and culture
- An internship at a Japanese government, corporate, or university laboratory in Tokyo or Tsukuba (see Appendices I and II; other laboratories, exclusive of universities, will be considered on a case-by-case basis). Note that participants placed on an individual basis outside of Tokyo and Tsukuba may not be able to participate in some of the group lectures, cultural activities and optional language instruction.
- Participants are encouraged to make their own arrangements to visit laboratories outside of their host institute in Tsukuba, Tokyo, or elsewhere in Japan. Such visits should be scheduled in consultation with your host scientist, or be planned to occur following the Summer Institute program.

Support

NSF will provide airline tickets to and from Japan and an allowance of \$2,500 to each participant. This allowance is meant to compensate in part for loss of summer employment. The Japanese government will provide accommodations as well as allowances for food and professional travel within Japan. In Japan, the Japan International Science and Technology Exchange Center (JISTEC) will provide logistical support for the Summer Institute. Participants are responsible for providing their own insurance and for any additional expenditures. Due to the intensive nature of the program, dependents are not permitted to accompany participants during the eight-week program.

The Monbusho Summer Program in Japan

Background

Established in 1995 by the Japanese Ministry of Education, Science, Sports, and Culture (Monbusho) as the “Research Experience Fellowships for Young Foreign Researchers,” the Monbusho Summer Program accepts up to 50 American graduate students plus participants from France, Germany and the United Kingdom. The Monbusho Summer Program shares the same primary objectives as the Summer Institute, but does not offer language training except during the first week of orientation. The Monbusho Program also places participants in different research settings. Under the Monbusho Summer Program, participants can work in national universities or inter-university research institutes throughout Japan, whereas in the Summer Institute participants are placed primarily in government or corporate laboratories in the Tokyo and Tsukuba areas.

Key Elements

- Program dates: Late June to late August (As a result of the complex institutional arrangements required in Japan for the Monbusho Summer Program, the program **must be attended in its entirety**.)
- An introduction to the Japanese language and lectures and discussions on Japanese culture and research policy (one week duration upon arrival in Japan)
- An internship or cooperative research activities at a national university or inter-university research institute (see Appendix III)
- Participants are encouraged to make their own arrangements to visit other research laboratories throughout Japan. Such visits should be scheduled in consultation with the host scientists, or be planned to occur following the conclusion of the Monbusho program.

Support

NSF will provide an allowance of \$2,500 to each participant. This allowance is meant to compensate in part for loss of summer employment. The Japanese government will provide airline tickets and allowances for accommodations, food and professional travel within Japan. In Japan, the Graduate University of Advanced Studies (Soken-dai) will provide logistical support for the Monbusho Summer Program. Participants are responsible for providing their own insurance and for any additional expenditures. Due to the intensive nature of the program, dependents are not permitted to accompany participants during the eight-week program.

The Summer Institute in Korea

Background

Started in 1995, the Summer Institute in Korea is sponsored in Korea by the Korea Science and Engineering Foundation (KOSEF). Support for up to 20 U.S. graduate students is provided. KOSEF has identified more than 50 potential host institutions, including KOSEF-supported Science Research Centers and Engineering Research Centers, government research institutes, private research institutes, and other institutions whose scientists and engineers are eligible to participate in cooperative activities supported by KOSEF. Participants in the Summer Institute will be assigned to host laboratories mainly in Seoul, Daeduk Science Town (a suburb of Taejeon), or Pohang; host laboratories in other areas may be considered on a case-by-case basis.

Key Elements

- Program dates: mid-June to early August (As a result of the complex institutional arrangements required in Korea for the Summer Institute, the program **must be attended in its entirety**.)
- An introduction to the Korean language and lectures and discussions on Korean culture and research policy (one week duration upon arrival in Korea)
- One week of visits to Korean centers of scientific and cultural interest
- An internship at a participating Korean research laboratory (see Appendix IV)

- Participants are encouraged to make their own arrangements to visit other research laboratories throughout Korea. Such visits should be scheduled in consultation with the host scientists, or be planned to occur following the conclusion of the Summer Institute program.

Support

NSF will provide airline tickets to and from Korea and an allowance of \$2,500 for each participant. This allowance is meant to compensate in part for loss of summer employment. KOSEF will provide allowances for accommodations, food and professional travel within Korea. In Korea, KOSEF also will provide logistical support. Participants are responsible for providing their own insurance and for covering any additional costs. Due to the intensive nature of the program, dependents are not permitted to accompany participants during the eight-week program.

The Summer Institute in Taiwan

Background

Beginning in 2000, the Summer Institute in Taiwan operates in line with the U.S.-Taiwan Relation Act (PL 96-8) and through cooperation between NSF and the Taiwan National Science Council, which provides logistical support in Taiwan. The Summer Institute in Taiwan shares the same primary objectives as the other Summer Programs components, namely an introduction to Taiwan science and engineering in the context of a research laboratory and the initiation of personal relationships which will lead to future collaborations. The program will support up to 10 U.S. graduate students. Host institutions include a selection of national laboratories, central S&T units and research institutes, universities and private sector research centers in Taipei and Hsinchu Science-Based Industrial Park (approximately 100 km south of Taipei); host laboratories in other areas may be considered on a case-by-case basis.

Key Elements

- Program dates: late June to late August (As a result of the complex institutional arrangements required in Taiwan for the Summer Institute, the program **must be attended in its entirety**.)
- An introduction to the Chinese language and lectures and discussions on Chinese culture and research policy (one week duration upon arrival in Taiwan)
- An internship or cooperative research activities at a national laboratory, central S & T unit, university, research institute or private sector research center (see Appendix V)
- Participants are encouraged to make their own arrangements to visit other research laboratories throughout Taiwan. Such visits should be scheduled in consultation with the host scientists, or be planned to occur following the conclusion of the Summer Institute program.

Support

NSF will provide airline tickets to and from Taiwan and an allowance of \$2,500 for each participant. This allowance is meant to compensate in part for loss of summer employment. The Taiwan National Science Council will provide accommodations and allowances for food and professional travel within Taiwan. The Tsing Hua University in Taiwan will provide culture and language orientation during the first week; for the remaining seven weeks, the individual research and other activities of participants will be managed by their respective host institutes. Participants are responsible for providing their own insurance and for any additional expenditures. Due to the intensive nature of the program, dependents are not permitted to accompany participants during the eight-week program.

ELIGIBILITY

To be eligible for these programs, as of December 1 of the application year, applicants must be:

- ◆ U.S. citizens or permanent residents;
- ◆ Enrolled at a U.S. institution in a science or engineering Ph.D. program, enrolled in a M.D. program and have an interest in biomedical research, or enrolled in a master's degree program in science or engineering with at least one full academic year of study (two semesters or three quarters) to be completed at the close of the calendar year of program application; and

- ◆ Pursuing studies in fields of science or engineering which are supported by the National Science Foundation, the National Institutes of Health, or the Agricultural Research Service, and also which are represented among the potential host institutions (see Appendices I-V).

APPLICATION PREPARATION & SUBMISSION INSTRUCTIONS

Application materials should be submitted directly to the NSF East Asia and Pacific Program by the applicant; endorsement by an institution is not required. Proposals are accepted once a year, beginning in November, and must be postmarked by December 1. Applicants are responsible for verifying with the NSF East Asia and Pacific Program that their application file is complete.

A complete summer program application consists of the following documents, assembled in sequence:

1. Application Form (Part 1, pages 1-3) - The same forms are used for the Summer Institute in Japan, the Monbusho Summer Program, the Summer Institute in Korea, and the Summer Institute in Taiwan. Given that there are three countries involved and the significant differences among the Summer Institutes and the Monbusho Summer Program (the language component in particular), it is extremely important that prospective applicants carefully consider the program to which they apply. Please indicate by a check the appropriate program on page 1 of the application form. Applicants wishing to be considered for more than one program should indicate their preferences numerically on the application form. Program materials will be distributed by regular mail and electronic mail to the addresses you indicate; please enter this information carefully and correctly. Your current home mailing address cannot be your institutional address.

2. List of Potential Host Institutions (Part 2) - Summer Institute in Japan applicants should use Appendices I and II as a guide and should list **at least one** of the non-university institutions listed in Appendix I. (Other institutions not listed in Appendices I and II, exclusive of universities, may be considered for the Summer Institute in Japan on a case-by-case basis.) Monbusho Summer Program applicants should use Appendix III. (No other institutions can be considered for the Monbusho Summer Program.) Summer Institute in Korea applicants should use Appendix IV. Summer Institute in Taiwan applicants should use Appendix V. (Other institutions may be considered for the Summer Institute in Korea and the Summer Institute in Taiwan on a case-by-case basis).

Applicants should list potential host institutions **in priority order** and identify the specific research divisions of the programs that are of particular interest. If known, give the names and complete contact information of the researchers that you would like to be considered as your potential host. Indicate whether you have already established contact with each researcher and/or institution, and provide copies of any communication from the scientist offering to host you for the program. Significant updates regarding host contacts should be provided immediately to the NSF East Asia and Pacific Program. Although the information you provide on potential host institutions and researchers will definitely strengthen your application and will assist in matching you with an appropriate host, assignment to a specific laboratory **cannot** be guaranteed. Matching of all students is done with consideration given to: 1) an individual's stated preferences regarding host institution; 2) the mix of host laboratories from corporate, government, and university sectors, and; 3) the number of students located in different geographical regions. Formal requests for laboratories to serve as hosts are made through the appropriate ministries and agencies. Requests may be declined for a number of reasons, and when this happens, we seek to arrange placement at a different laboratory. For this reason, you are advised to list at least three potential host institutions. On the other hand, you are cautioned that, should placement occur at any of the institutions you list, you will be expected to accept placement unless there are truly exceptional circumstances.

3. Statement of Purpose (Part 3) - Explain your unique qualifications for participation in the Summer Programs and list the benefits the program will provide to your professional development. May not exceed one page.

4. Description of Current Research (Part 4) - Provide a summary of your current research projects and interests. Please note that this information will be the basis for assignment to an appropriate host laboratory and will be read by potential host scientists in order to determine if there are common research interests. It is important to write the summary for a technical audience and to identify in the process both a general field of study and any specific research interests, especially those relevant to the Japanese, Korean or Taiwan research environment. May not exceed one page.

5. Biographical Sketch - Provide professional and academic essentials, including a list of publications, including those accepted for publication. May not exceed two pages.

6. Undergraduate and Graduate Transcripts - Unofficial copies are acceptable. If enrollment in a master's or Ph.D. program is not explicitly indicated on the latest transcript, attach a signed statement from the registrar's office attesting to current status. Remember that for master's degree students at least one full academic year of study (two semesters or three quarters) must have been completed at the close of the calendar year of program application.

Ten (10) copies of the complete application are required. In addition, the following must also be provided:

- 1) A single copy of **Information About Principal Investigators/Project Directors, NSF Form 1225** (Appendix VI, and on the World Wide Web at: <http://www.nsf.gov/cgi-bin/getpub?form1225>). The information requested refers only to you, the student applicant.
- 2) **Recommendation Forms** (Part 5): One from applicant's research supervisor and one from a faculty member or other individual qualified to comment on the applicant's abilities and potential as a scientific researcher. Make copies of the recommendation form to give to each referee. The research supervisor's recommendation form should include the initialed endorsement of the applicant's participation in the Summer Programs. The letters must be mailed by the referees directly to the East Asia and Pacific Program at the address below.

All materials must be sent to the East Asia and Pacific Program at the address below and must be postmarked by December 1.

**East Asia and Pacific Program, Room 935
Division of International Programs
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230**

APPLICATION EVALUATION INFORMATION

Applications for the Summer Programs in Japan, Korea and Taiwan will be evaluated by a panel of experts for scientific promise and the potential for contribution to future international collaborative activities. The evaluation criteria include:

- ◆ Competence in science or engineering and potential for continued professional growth as a research scientist or engineer, as illustrated by research or other professional achievements, educational background, and letters of recommendation.
- ◆ Relevance of professional interests to research done in Japan, Korea or Taiwan, the current stature of Japanese, Korean or Taiwan research within the field, and the probable effect of participation on an applicant's career. Preference will be given to those who have not previously participated in a Japan, Korea or Taiwan science exchange program.
- ◆ Willingness and preparation to live in and adapt to foreign cultures and the ability to form good working relations with foreign researchers. Relevant factors include language aptitude or achievement, previous study abroad, membership in intercultural organizations, and research collaboration with foreign scientists.

ADMINISTRATION INFORMATION

A. Notification of the Award.

Successful applicants will be notified by March of their nomination, and by May of their formal placement at a foreign host institute. Participants should confirm that they will have adequate time before departure for Japan, Korea or Taiwan to apply for and receive a U.S. passport. Permanent U.S. residents should verify their ability to travel without difficulty outside of the United States and to Japan, Korea or Taiwan. Holders of valid U.S. passports do not require a visa for stays in Japan of less than 90 days. Participants in the Summer Institutes in Korea and Taiwan will be required to obtain the appropriate visas.

B. Award Conditions.

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the grant 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 application referenced in the award letter; (4) the applicable grant conditions, such as Grant General Conditions (NSF GC-1)* or Federal Demonstration Partnership Phase III (FDP) Terms and Conditions* and (5) any NSF brochure, program guide, announcement or other NSF issuance that may be incorporated by reference in the award letter.

* These documents may be accessed electronically on NSF's Web site at: <http://www.nsf.gov>. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone 301.947.2722 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, (NSF 95-26) available electronically on the NSF Web site. The GPM also is available in paper copy by subscription from the Superintendent of Documents, Government Printing Office, Washington, DC 20402. The GPM may be ordered through the GPO Web site at: <http://www.gpo.gov>.

C. Reporting Requirements.

Participants will be requested to provide information about their experience prior to departure from Japan, Korea or Taiwan and to complete an NSF Final Report (NSF FL-239) upon their return to the United States.

CONTACTS FOR ADDITIONAL INFORMATION

If after reviewing the information in this publication you have specific questions, please contact NSF's East Asia and Pacific Program staff at the following address:

East Asia and Pacific Program, Room 935
Division of International Programs
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230

Tel: (703) 292-8704
Fax: (703) 292-9175
E-mail: EAPinfo@nsf.gov
URL: <http://www.nsf.gov/sbe/int/>

Additional information on NSF and NSF publications is available at <http://www.nsf.gov> on the World Wide Web.

OTHER PROGRAMS OF INTEREST

The NSF Guide to Programs is a compilation of funding opportunities for research and education in science, mathematics, and engineering. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter. Beginning in fiscal year 1999, the NSF Guide to Programs will only be available electronically, at <http://www.nsf.gov/cgi-bin/getpub?gp>. Many NSF programs offer announcements concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices listed in the Guide to Programs.

Any changes in NSF's fiscal year programs will be announced in the NSF E-Bulletin, available electronically on the NSF Web site at: <http://www.nsf.gov/home/ebulletin/>. The direct URL for recent issues of the Bulletin is <http://www.nsf.gov/home/ebulletin/past.htm>. Subscribers can also sign up for NSF's Custom News Service to find out what funding opportunities are available.

In addition to the Summer Programs, the National Science Foundation provides support for U.S. graduate students in science and engineering to conduct research abroad as part of cooperative research projects directed by senior investigators, or to engage in dissertation research. The latter is specifically designed to support stays abroad for doctoral students to conduct research as part of their dissertation. For more information, please see program announcement NSF 00-138 entitled "International Opportunities for Scientists and Engineers" (<http://www.nsf.gov/cgi-bin/getpub?nsf00138>) or contact the East Asia and Pacific Program staff at the address and phone number above.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Grantees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities, and persons with disabilities to compete fully in its programs. In accordance with federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF (unless otherwise specified in the eligibility requirements for a particular program).

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the program announcement or contact the program coordinator at (703) 292-8704.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation regarding NSF programs, employment, or general information. TDD may be accessed at (703) 292-5090 or through FIRS on 1-800-877-8339.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the review process; to applicant institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne H. Plimpton, Reports Clearance Officer; Division of Administrative Services; National Science Foundation; 4201 Wilson Boulevard; Arlington, VA 22230.

YEAR 2000 REMINDER

In accordance with Important Notice No. 120 dated June 27, 1997, Subject: Year 2000 Computer Problem, NSF awardees are reminded of their responsibility to take appropriate actions to ensure that the NSF activity being supported is not adversely affected by the Year 2000 problem. Potentially affected items include: computer systems, databases, and equipment. The National Science Foundation should be notified if an awardee concludes that the Year 2000 will have a significant impact on its ability to carry out an NSF funded activity. Information concerning Year 2000 activities can be found on the NSF web site at <http://www.nsf.gov/oirm/y2k/start.htm>.

PLAIN LANGUAGE

The National Science Foundation is committed to making all of the information we publish easy to understand. If you have a suggestion about how to improve the clarity of this document or other NSF-published materials, please contact us at plainlanguage@nsf.gov.

Catalogue of Federal Domestic Assistance (CFDA) No.: 47.075 – Social, Behavioral and Economic Sciences
OMB No.: 3145-0058

APPENDIX I

Government and University Host Institutions for the Summer Institute in Japan

(* denotes those laboratories located in Tsukuba)

NOTE: Other government institutions can be considered on a case-by-case basis; other universities cannot serve as host institutes for the Summer Institute.

NOTE: Homepage addresses (URLs) are given, where available. For further information, see the directory of Japanese national laboratories at: <http://stafellow.jst.go.jp/bluebook/host.html>. A database of Japanese scientists willing to host American graduate students is available through the NSF Tokyo Office Web site at: <http://www.twics.com/~nsftokyo/hosts/datamenu.html>; of the researchers in the database, only those at institutions listed in this Appendix I can be hosts for the Summer Institute in Japan.

NOTE: To send a facsimile from the U.S. to one of these Japanese institutions, one should dial 011 (International Code) - 81 (Japan's Country Code) - number given below.

Institution

Fax Number

ENVIRONMENT AGENCY

National Institute for Environmental Studies*

<http://www.nies.go.jp>

(298) 51-2854

MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES

Forestry and Forest Products Research Institute*

<http://ss.ffpri.affrc.go.jp/>

(298) 74-8507

National Institute of Fruit Tree Science*

<http://ss.fruit.affrc.go.jp/new/index2-e.html>

(298) 38-6437

National Agriculture Research Center*

<http://www.narc.affrc.go.jp/index-e.html>

(298) 38-8574

National Food Research Institute*

<http://ss.nfri.affrc.go.jp/gaiyoE.html>

(298) 38-8005

National Institute of Agrobiological Resources*

http://ss.abr.affrc.go.jp/pub/niarl/HomePage/home_e/

(298) 38-7416

National Institute of Agro-Environmental Sciences*

http://ss.niaes.affrc.go.jp/index_e.html

(298) 38-8199

National Institute of Animal Health*

<http://ss.niah.affrc.go.jp/>

(298) 38-7907

National Institute of Animal Industry*

<http://ss.niai.affrc.go.jp/index-e.html>

(298) 38-8573

National Institute of Sericultural and Entomological Science*

<http://ss.nises.affrc.go.jp/index-e.html>

(298) 38-6062

National Research Institute of Agricultural Economics

<http://ss.nriae.affrc.go.jp/indexen.html>

(3) 3940-0232

National Research Institute of Agricultural Engineering*
<http://ss.nkk.affrc.go.jp/index-e.htm> (298) 38-7609

Japan International Research Center for Agricultural Sciences*
<http://ss.jircas.affrc.go.jp/> (298) 38-6337

MINISTRY OF CONSTRUCTION

Building Research Institute*
<http://www.kenken.go.jp/> (298) 64-2989

Geographical Survey Institute*
<http://www.gsi-mc.go.jp/> (298) 64-8087

Public Works Research Institute*
<http://www.gsi-mc.go.jp/> (298) 64-4322

MINISTRY OF EDUCATION, SCIENCE, SPORTS AND CULTURE (Monbusho)

High Energy Accelerator Research Organization (KEK)*
<http://www.kek.jp/> (298) 54-3182

University of Tsukuba*
<http://www.tsukuba.ac.jp/> (298) 53-6019

University of Tokyo
<http://web.yl.is.s.u-tokyo.ac.jp/ut/ut.html> (3) 5689-7344

Tokyo Institute of Technology
<http://www.titech.ac.jp/> (3) 3729-2082

Tokyo Medical and Dental University
<http://www.i-mde.tmd.ac.jp/I-MDE.html> (3) 5803-0100

MINISTRY OF HEALTH AND WELFARE

National Institute of Population and Social Security Research
<http://www.ipss.go.jp/English/info-e/information-e.html> (3) 3591-4816

National Institute of Public Health
<http://www.iph.go.jp/indexeg.html> (3) 3446-2615

National Cancer Center Research Institute
<http://www.ncc.go.jp/index.html> (3) 3545-3567

National Children's Medical Research Center
(No Web URL available) (3) 3414-3208

National Institute of Infectious Diseases
<http://www.nih.go.jp/niid/index-e.html> (3) 5285-1239

National Institute of Health and Nutrition
<http://www.nih.go.jp:80/eiken/index.html> (3) 3202-3278

National Institute of Health Services Management
<http://www.nih.go.jp/byoken/index.html> (3) 3202-6853

National Institute of Health Sciences
<http://www.nihs.go.jp/index.html> (3) 3707-6950

National Institute of Neuroscience
http://NCNWEB.NCNP.go.jp/index_e.html (423) 44-6745

National Institute of Mental Health
<http://www.ncnp-k.go.jp/> (in Japanese only) (473) 72-1858

MINISTRY OF HOME AFFAIRS

Fire Research Institute
<http://www.nihs.go.jp/index.html> (in Japanese only) (422) 76-1545

MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY (MITI): Agency of Industrial Science and Technology (AIST)

Electrotechnical Laboratory*
<http://www.aist.go.jp/ETL/> (298) 54-5087

Geological Survey of Japan*
<http://www.aist.go.jp/GSJ/> (298) 56-4989

Mechanical Engineering Laboratory*
<http://www.aist.go.jp/MEL/enghome.html> (298) 58-7033

National Institute for Advanced Interdisciplinary Research*
http://www.aist.go.jp/NAIR/nair_e.html (298) 54-2524

National Institute for Materials and Chemical Research*
<http://www.aist.go.jp/NIMC/> (298) 54-4488

National Institute for Resources and Environment*
http://www.aist.go.jp/NIRE/index_e.htm (298) 58-8148

National Institute of Bioscience and Human Technology*
http://www.aist.go.jp/NIBH/index_e.html (298) 54-6005

National Research Laboratory of Metrology*
<http://www.aist.go.jp/NRLM/> (298) 54-4202

MINISTRY OF LABOR

National Research Institute of Industrial Safety
<http://www.anken.go.jp/> (424) 91-7846

National Institute of Industrial Health
<http://www.niih.go.jp/> (44) 865-6116

MINISTRY OF POSTS AND TELECOMMUNICATIONS

Communications Research Laboratory
<http://www.crl.go.jp/index.html> (423) 27-6659

MINISTRY OF TRANSPORT

Hydrographic Department, Japan Maritime Safety Agency
<http://www.jhd.go.jp/jhd-E.html> (3) 3541-4397

Institute for Sea Training
<http://www.tosho-u.ac.jp/ja/jyousen/kokai.html> (in Japanese only) (45) 1-7317

Meteorological Research Institute*
<http://www.mri-jma.go.jp/> (298) 53-8545

Electronic Navigation Research Institute
http://www.enri.go.jp/index_e.htm (422) 41-3169

Ship Research Institute
<http://www.srimot.go.jp/index1e.html> (422) 41-3247

Traffic Safety and Nuisance Research Institute
<http://www.bekkoame.or.jp/~tsnri/indexe.htm> (422) 41-3233

Port and Harbour Research Institute
<http://www.phri.go.jp/> (468) 43-1399

NATIONAL POLICE AGENCY

National Research Institute of Police Science
<http://www.nrips.go.jp/> (3) 3221-1245

SCIENCE AND TECHNOLOGY AGENCY

National Institute of Radiological Sciences
<http://www.nirs.go.jp/ENG/nirs.htm> (43) 256-9616

National Institute for Research in Inorganic Materials*
<http://www.nirim.go.jp/> (298) 52-7449

National Institute of Science and Technology Policy
<http://www.nistep.go.jp/> (3) 3503-3996

National Research Institute for Earth Science and Disaster Prevention*
<http://www.bosai.go.jp/> (298) 51-1622

National Research Institute for Metals*
<http://www.nrim.go.jp:8080/public/kikaku/english/index.html> (298) 59-2049

National Aerospace Laboratory
<http://www.nal.go.jp/Welcome-e.html> (422) 42-1371

SEMI-GOVERNMENTAL ORGANIZATIONS

Institute of Physical and Chemical Research (RIKEN)
<http://www.riken.go.jp/> (484) 62-4717

Tsukuba Life Science Center (RIKEN)*
<http://www.riken.go.jp/> (298) 36-2616

National Space Development Agency of Japan*
http://www.nasda.go.jp/index_e.html (3) 5402-6516

NHK (Japan Broadcasting Corporation) Science and Technical Research Laboratories
<http://www.nhk-grp.co.jp/nts/index-e.html> (3) 5494-2418

Japan Science and Technology Corporation (JST)
<http://www.jst.go.jp/EN> (48) 226-5630

NON-PROFIT ORGANIZATIONS

Institute of Research and Innovation

http://www.asahi-net.or.jp/~PJ9K-HAS/ (in Japanese only)	(3) 5689-6350
International Development Center of Japan http://www.nira.go.jp/tt-home/idcj/idcj-idx.html (in Japanese only)	(3) 3630-8095
International Superconductivity Technology Center http://nehan.sendai.kopas.co.jp/ISTEC/index-E.html	(3) 3536-5714
Japan Automobile Research Institute http://www.jari.or.jp/	(298) 56-1124
Japan Foundation for Cancer Research http://www.jfcr.or.jp/index.html (in Japanese only)	(3) 3918-0167
Japan Weather Association http://www.jwa.go.jp/	(3) 5958-8162
Japan Wildlife Research Center (No Web URL available)	(3) 3813-8898
Railway Technical Research Institute http://www.rtri.or.jp/	(425) 73-7356
Remote Sensing Technology Center of Japan http://www.restec.or.jp/restec_e.html	(3) 3403-1766
Research Institute of Tuberculosis http://www.jata.or.jp/EINDEX.HTM	(424) 92-4600
Tokyo Metropolitan Institute of Medical Science http://www.rinshoken.or.jp/index-e.html	(3) 3823-2965
Tokyo Metropolitan Institute of Gerontology http://www.tmig.or.jp/	(3) 3579-4776
Central Research Institute of Electric Power Industry http://criepi.denken.or.jp/	(3) 3287-2841

APPENDIX II

Japanese Corporate Host Institutions for the Summer Institute in Japan

NOTE: Other corporate institutions can be considered on a case-by-case basis.

NOTE: Homepage addresses (URLs) are given, where available. For further information, see the NSF Tokyo Office listing of homepages for Japanese private companies and organizations at: <http://www.twics.com/~nsftokyo/japan.html#PRIVATE>.

NOTE: To send a facsimile from the U.S. to one of these listed companies, one should dial 011 (International Code) - 81 (Japan's Country Code) - number given below.

1. **Asahi Glass Company, Ltd.:** Japan's largest comprehensive glass manufacturer. Soon after the company produced Japan's first domestic sheet glass in 1909, it began moving into related areas such as manufacture of soda ash and the special fire brick required for glass production. Further diversification followed leading the company from glass into construction materials, chemicals, ceramics, and electronics. Focusing on specialty and value-added products in these mainstay fields, the company is expanding into optics, biotechnology, and superconductive electronics, where they now offer a variety of leading-edge materials, components and systems.

Contact Person: Mr. Yasufumi Kanki, Research Information Group, Asahi Glass Company, Ltd. Research Center

Fax Number: (45) 374-8855

URL: <http://www.agc.co.jp/english/index.htm>

Potential research themes:

- 1) Chemicals: Fluorine chemistry, polymer chemistry, organic synthesis, inorganic chemicals, membrane technology, biotechnology, material analysis technology
- 2) Electronics: LCD, optoelectronics
- 3) Glass, Ceramics: Materials development, analysis and simulation technology

2. **ATR Interpreting Telecommunications Research Laboratories (ATR/ITL):** One of the four R&D laboratories of the Advanced Telecommunications Research Institute International (ATR-International), an R&D consortium established in 1986 with support from industry, academia and government to be a major center of basic and creative telecommunications R&D. The ATR/ITL perform advanced research for the speech technology industries in Japan, offering opportunities for people skilled in linguistics, phonetics, psychology, signal processing, discourse analysis, and mathematics. The main research areas include speech synthesis, speech recognition, and language translation.

Contact Person: Dr. Nick Campbell, Head, Department II (Synthesis and Prosody Interpretation), ATR/ITL

Fax Number: (774) 95-1308

URL: <http://www.itl.atr.co.jp/chatr>

3. **Daikin Industries Ltd.:** A major manufacturer of air conditioners for commercial use. Diversified into hydraulic equipment and fluorine chemicals. Pioneer in fluorine gas and fluoroplastics for semiconductor manufacturers. Fostering cryogenic equipment, CAD/CAM systems, and display units.

Contact Person: Mr. Tetsuo Tajima, Manager, MEC Laboratory

Fax Number: (298) 58-5082

URL: http://www.star-net.or.jp/daikin/index_e.html

Potential research themes:

- 1) For students majoring in mechanical engineering: research related to cryogenic systems.
- 2) For students majoring in electronics: research related to superconducting materials.

4. **Eisai Co., Ltd.:** A leading pharmaceutical producer specializing in ethical drugs. Cardiovascular drugs are mainline but the company has advanced into anti-inflammatory analgesics and antibiotics. Key therapeutic areas of the company are disease of immune and metabolic systems, inflammatory, cardiovascular, peripheral and central nervous systems, cancer, etc.

Contact Person: Dr. Yasunori Akita, R&D Personnel Affairs, Tsukuba Research Laboratories

Fax Number: (298) 47-5690

URL: <http://www.eisai.co.jp/index-e.html>

Potential research themes: Pharmaceutical studies, including process chemistry, analysis, pharmacology, metabolism and formulation.

5. **Fujisawa Pharmaceutical Co. Ltd.:** One of the leading pharmaceutical makers with emphasis on antibiotics. Affiliated with the Sanwa Bank group. Leader in "cephalosporin revolution" in antibiotics in Japan; launched first cephalosporin antibiotic in 1971. Currently building up operation setup specializing in pharmaceuticals.

Contact Person: Mr. Yoshinobu Wakabayashi, Chief Manager, Exploratory Research Laboratory

Fax Number: (298) 47-8610

URL: <http://www.fujisawa.co.jp/>

Potential host research groups and research themes:

- 1) Synthesis group: natural products chemistry
- 2) Bio-science group: pharmacological evaluation
- 3) Fermentation group: biological evaluation of fermentation products

6. **Fuji Xerox Co., Ltd.:** Since the establishment in 1962, Fuji Xerox Co., Ltd. has been in the business of leveraging office productivity, not merely producing and selling copiers. In addition to providing customers with the best means to process documents, we offer a full range of services based on the document. The company is promoting innovation in its R&D system and organization, improving management efficiency by shortening lead times, and making vigorous efforts to enhance its digital technologies under its Document Services concept.

Contact Person: Dr. Mutsuo Takenouchi, Manager, Research Planning & Innovation Department

Fax Number: (465) 81-8969

URL: <http://www.fujixerox.co.jp/indexEn.html>

Potential research themes:

- 1) Systems, communications, and network technologies
- 2) Electronic technologies
- 3) Optical device/system technologies
- 4) Imaging and processing technologies
- 5) Imaging materials technologies
- 6) Knowledge management technologies
- 7) Analytical technologies

7. **Hamamatsu Photonics K.K.:** A leading R&D and manufacturing company specializing in light-sensitive devices and their applied instruments, ranging from photoelectric tubes and photomultiplier tubes to a wide variety of light sensors, photodiodes, CdS cells, and other semiconductor devices. Now expanding into such new fields as optical information processing in the life sciences.

Contact Person: Mr. Tsuyoshi Hayakawa, Director, Tsukuba Research Laboratory

Fax Number: (298) 47-5266

URL: <http://www.hamamatsu.com>

Potential research groups:

- Molecular Biophysics
- Molecular Biotechnology

Potential research themes:

- 1) Photonic applications for genome informatics
- 2) Development of time-resolved microscopy for molecular dynamics.

8. Hitachi Chemical Co., Ltd.: Comprehensive processor of synthetic resins, with weight on processing for electrical and electronic equipment. Affiliated with Hitachi, Ltd. Ranks high as producer of molded parts of automobiles and housing equipment. Emphasis on development of new ceramics, including silicon carbide, pharmaceuticals and biochemicals.

Contact Person: Mr. Kouichi Furukawa, Manager, Administration and Accounting Section, Tsukuba Research Laboratory
Fax Number: (298) 64-4008
URL: <http://www.hitachi-chem.co.jp/ENGLISH/index.htm>

Potential research themes:

- 1) Electronic Device and Inorganic Materials - Optoelectronic devices, new wiring boards, photo-electric conventional materials, inorganic electronic materials
- 2) Organic Materials and Optical Devices - New heat resistant materials, optical recording materials, and electronic materials
- 3) Biotechnology - Diagnostic drugs

9. Hitachi, Ltd.: One of the leading high-tech enterprises in the world extending its scope widely from information and communications systems to electron devices, from electrical power and energy machinery to public infrastructure and industrial systems, and even to consumer electronics.

Contact Person: Ms. Michiko Yamazaki, Planning Office, Central Research Laboratory
E-mail: myamazak@crl.hitachi.co.jp
Fax Number: (423) 27-7695
URL: <http://www.hitachi.co.jp/Rd/index.html>

Potential research themes:

- 1) Broadband Intelligent Network
- 2) Multimedia
- 3) Medical and Welfare Systems
- 4) Parallel and Distributed Computing
- 5) System on Semiconductor

10. IBM-Japan's Tokyo Research Laboratory: The Tokyo Research Laboratory is one of IBM's seven research facilities. Its aims are twofold: to contribute widely to the scientific and technological community through research on information technology, and to become an industrial research institute, promoting fundamental and applied research that will be a core for IBM products and solutions.

Contact Person: Mr. Takabumi Minamisawa, IBM Tokyo Research Laboratory
E-mail: minami3@jp.ibm.com
Fax Number: (462) 73-7428
URL: <http://www.trl.ibm.co.jp>

Potential research themes:

- 1) Software technology (Java JIT compiler, Java mobile agent, speech technology)
- 2) Systems for the disabled (XML, pervasive software)
- 3) System technology (mobile computing, storage, LCD display, security hardware)
- 4) Network and solution technology (Data Hiding (TM), text mining, network security, collaboration)
- 5) Computer science theory (data mining, optimization)

11. Ishikawajima-Harima Heavy Industries Co., Ltd.: One of comprehensive heavy machinery makers in Japan. The company was founded in 1853, started out in shipbuilding, and its operations have now expanded to building bridges, constructing chemical and power plants, manufacturing aerospace equipment and a broad variety of other fields. The company is also involved in waste treatment and environmental protection facilities.

Contact Person: Dr. Junichi Sato and/or Ms. Tomoko Shizuka, Administration Department, Technical Development
Fax Number: (3) 3534-2207
URL: <http://www.ihl.co.jp/index-e.html>

Potential research groups:

Materials Technology
Fluid Dynamics & Combustion
Machinery & Structure
Aero-Engine & Space

Potential research themes:

- 1) Materials degradation measurement by intragranular distortion analysis in poly-crystalline materials
- 2) Influence of burnt gas on flame stability in staged combustion

12. Nippon Telegraph and Telephone Corporation (NTT): Japan's largest telecommunications company. Converted from public corporation to private company in 1986. Previously enjoyed monopolistic position in telecommunications industry but now competing with newcomers. Promoting digitization of switchboards to spread information networks and information sharing service.

Contact Person: Mr. Shinichiro Mutoh, Associate Manager, Research Planning Department, NTT Science and Core Technology Group

Fax Number: (46) 270-2371

URL: <http://info.ntt.co.jp/RD/>

Potential research themes:

- 1) R&D on telecommunication networks
- 2) next generation switching systems
- 3) software development
- 4) interdisciplinary research in the area of communication and network technologies

13. Sankyo Co., Ltd.: Second largest pharmaceutical maker in Japan, producing mostly ethical drugs. Also engaged in OTC drugs, agrochemicals, etc. Immunity anticancer agents mainline. Has large-selling drugs including antibiotics and peptic ulcer agents. Stress on overseas expansion, with enhanced measures for in-house R&D capacity paying off.

Contact Person: Dr. Toshiyuki Akiyama, Deputy Director, Research Institute

Fax Number: (3) 5436-8569

URL: <http://www.sankyo.co.jp/>

Potential research themes:

- 1) Organic chemistry, medicinal chemistry
- 2) Pharmacology, pathology, chemotherapy
- 3) Studies on natural products
- 4) Biotechnology, medicinal biochemistry
- 5) Fermentation technology
- 6) Physiochemical analysis, drug metabolism
- 7) Toxicology, laboratory animal science
- 8) Product formulation and analysis
- 9) Synthetic chemistry
- 10) Organic and environmental chemistry

14. Sanyo Electric Co., Ltd.: Major consumer electronics maker. A particular focus and strength of Sanyo is the development of environment-friendly technologists, such as those for clean-energy generation and rechargeable batteries.

Contact Person: Dr. Yorinobu Yoshisato, Manager, Planning Section, Tsukuba Research Center

Fax Number: (298) 37-2830

URL: http://www.sanyo.co.jp/index_e.html

Potential host research groups and research themes:

- 1) Bio-systems Research Group: Biological-information processing
- 2) Eco-systems Research Group: Bio-degradation systems
- 3) Future Electronics Research Group: New-function hard-material electronics
- 4) Superconductivity Electronics Research Group: High-temperature superconductivity electronics

15. Sony Computer Science Laboratory Inc.: Founded in February 1988 for the sole purpose of conducting research related to computer science. Research currently underway focused on distributed operating systems, computer networks, programming languages, human-computer interaction, artificial intelligence, complex systems and other fundamental aspects of next-generation computers.

Contact Person: Ms. Yumiko Kitamori, Administrative Manager
Fax Number: (3) 5448-4273
URL: <http://www.csl.sony.co.jp>

Potential research themes:

- 1) Distributed operating systems
- 2) Computer networks, programming languages
- 3) Human-computer interaction
- 4) Artificial intelligence, complex systems
- 5) Other fundamental aspects of next-generation computers

16. Sony Corporation: A leading consumer electronics maker with audio equipment, TVs and VCRs as mainstays. Multinational company with sales in U.S. surpassing those in Japan. Has production bases worldwide. Developing into telecommunications and information fields.

Contact Person: Ms. Masuyo Yamaguchi, R&D Human Resources
E-mail: yama@dpo.crl.sony.co.jp
URL: <http://www.sony.co.jp/>

Potential research themes:

- 1) R&D on electronic devices and materials (excluding semiconductors)
- 2) digital signal processing
- 3) computer and telecommunication systems

17. Stanley Electric Co., Ltd.: A leading maker of electrical equipment for automobiles and leads for motorcycle lamps. Strengthening setup to develop electronic-related products, such as LEDs and LCDs. Strengthening U.S. plant (in Ohio).

Contact Person: Mr. Kenichi Kondo, Chief Engineer, Tsukuba Research Center
Fax Number: (298) 47-4165
URL: <http://www.stanley.co.jp/index-e.htm>

Potential research themes: R&D on solar cells, organic materials, electronic devices

18. Sumitomo Chemical Co., Ltd.: One of Japan's largest comprehensive chemical manufacturers, offering a diverse range of products, including basic chemicals, fine chemicals, agricultural chemicals, pharmaceuticals, electronic materials, composite materials, and aluminum.

Contact Person: Dr. Yoshihiko Tsuchida, Technical Department, Tsukuba Research Laboratory
Fax Number: (298) 64-4729
URL: <http://www.sumitomo-chem.co.jp/>

Potential research themes: Current R&D activities are focused on creating new materials, metals, polymers, and electronics related materials.

19. Tokuyama Corporation: A major producer of caustic soda and chlorine, Tokuyama also produces cement and such synthetic resins as polypropylene. R&D emphasizes fine chemicals such as polysilicon, resin lenses, dental materials, and new ceramics. Advancing into electronic materials.

Contact Person: Mr. Shigeki Yuasa, General Manager, Tsukuba Research Laboratories.
E-mail: trlitoku@po.infosphere.or.jp
Fax Number: (298) 64-6050
URL: <http://www.tokuyama.co.jp/rd/rd21.htm> (in Japanese only)

Potential research themes:

- 1) Computational chemistry (thermodynamic and stream simulation)
- 2) Organic synthesis (new synthesis and catalyst)
- 3) Fine ceramics (new materials and composite structure)
- 4) Analytical chemistry (organic and ceramic structural analysis)
- 5) Biochemistry (enzyme, protein, microbial, and gene)

20. **Toshiba Corporation:** Toshiba has structured its R&D organization around three major tiers. Corporate laboratories at the Research & Development Center carry out basic research with a five-year to 10-year horizon. The Center's activities are coordinated with those of seven Development Laboratories, each of which are attached to an individual business group and work on product-oriented technologies within a three-year to five-year framework. Research at these laboratories leads to new products and models at the divisional engineering departments found in all Toshiba manufacturing facilities. In addition to the Research & Development Center, one other corporate laboratory, the Manufacturing Engineering Research & Development Center develops manufacturing technologies that are widely used within the company.

Contact Person: Mr. Mitoshi Misaki, group Manager and/or Mr. Ichiro Teraoka, Relations Group, International Division

FAX Number: (3) 5444-9217

URL: <http://www.toshiba.co.jp/index.htm>

Potential research themes:

- 1) Material & Devices
- 2) Communication & Information Systems
- 3) Mechanical Systems
- 4) Semiconductor Devices
- 5) Systems & Software
- 6) Environmental Engineering

21. **ULVAC Japan, Ltd.:** A leading manufacturer of vacuum equipment and systems for a wide range of industry-specific applications, including use in the semiconductor and electronics industries, as well as in the production of packaging and storage of numerous foods and medicines.

Contact Person: Dr. Hiroyuki Yamakawa, Director, ISM Tsukuba Laboratories.

Fax Number: (298) 47-5157

URL: <http://www.ulvac.co.jp/english/index.html>

Potential research themes:

- 1) Vapor deposition polymerization of organic polymer films and their applications
- 2) Surface treatment of materials and their applications
- 3) Thin film processes and their applications

APPENDIX III

Host Institutions for the Monbusho Summer Program in Japan

(*denotes institutions constituting schools and departments in the Graduate University for Advanced Studies)

NOTE: Homepage addresses (URLs) are given, where available. For further information, see the NSF Tokyo Office listings of homepages for national inter-university research institutes (<http://www.twics.com/~nsftokyo/inter-univ.html>) and national universities (<http://www.twics.com/~nsftokyo/universities.html#national>). A database of Japanese scientists willing to host American graduate students is available through the NSF Tokyo Office Web site at: <http://www.twics.com/~nsftokyo/datamenu.html>. Of the researchers in the database, only those at the inter-university research institutes and national universities listed in this Appendix III can be hosts for the Monbusho Summer Program.

NATIONAL INTER-UNIVERSITY RESEARCH INSTITUTES:

National Institute of Japanese Literature

<http://www.nijl.ac.jp/> (in Japanese only)

Investigation, collection, classification and safekeeping of books and other reference materials on Japanese literature

National Institute of Polar Research (NIPR)*

<http://www.nipr.ac.jp/>

Comprehensive scientific research of the polar regions and observation activities thereon

Institute of Space and Astronautical Science (ISAS)

<http://www.isas.ac.jp/>

Research of space science and engineering and their application

National Institute of Genetics*

<http://www.nig.ac.jp/>

Comprehensive research on genetics

Institute of Statistical Mathematics*

<http://www.ism.ac.jp/index-e.html>

Research into mathematical principles of statistics and their application

International Research Center for Japanese Studies*

<http://www.nichibun.ac.jp/Welcome.html>

International and interdisciplinary research into Japanese culture and research cooperation with Japanologists abroad

National Astronomical Observatory*

<http://www.nao.ac.jp/>

Research of astronomy and its related fields, observation of astronomical phenomenon, compilation of almanacs, "Japanese Standard Time Casting, determination and presentation of the Standard Time, and test of clocks

National Institute for Fusion Science*

<http://www.nifs.ac.jp/index.html>

Theoretical and applied research on nuclear fusion plasma

Okazaki National Research Institutes*

<http://www.orion.ac.jp/index.html>

Institute for Molecular Science (IMS)*

<http://www.ims.ac.jp/index.html>

Research into structures and functions of molecules and theoretical research pertaining thereto

National Institute for Basic Biology (NIBB)*

<http://www.nibb.ac.jp/index.html>

Comprehensive study on basic biology

National Institute for Physiological Sciences (NIPS)*

<http://www.nips.ac.jp/index-eng.html>

Comprehensive study on physiology

High Energy Accelerator Research Organization (KEK)*

<http://www.kek.jp/>

Incorporated management of the two affiliated research institutes, and research of high energy accelerator and related applied science

Institute of Particle and Nuclear Studies: Research into elementary particles and nuclei using high energy particle-accelerators, and related theoretical studies

Institute of Materials Structure Science: Research into materials structure and function using synchrotron light and particle beams produced with high energy particle-accelerators, and related theoretical studies.

National Center for Science Information System (NACSIS)

<http://www.nacsis.ac.jp/nacsis.f-index.html>

Collection, classification and provision of scientific information, and research and development of scientific information system

National Museum of Ethnology*

<http://www.minpaku.ac.jp/eng/index.htm>

Collection and safekeeping of materials on various races in the world as well as their exhibition before the public and research of ethnology

National Museum of Japanese History

<http://www.rekihaku.ac.jp/> (only in Japanese language)

Collection, safekeeping and public exhibition of Japanese historical, archaeological and folk materials, and research pertaining thereto

NATIONAL UNIVERSITIES AND COLLEGES:

(Subject to availability of host scientist and housing facility; listed from north to south.)

HOKKAIDO AREA:

Hokkaido University

<http://www.hokudai.ac.jp/index-e.html>

Hokkaido University of Education

<http://www.iwa.hokkyodai.ac.jp/>

Muroran Institute of Technology

<http://www.muroran-it.ac.jp/>

Otaru University of Commerce

<http://www.otaru-uc.ac.jp/welcome-e.html>

Obihiro University of Agriculture and Veterinary Medicine

http://www.obihiro.ac.jp/index_e.html

Asahikawa Medical College

<http://www.asahikawa-med.ac.jp/> (in Japanese only)

Kitami Institute of Technology

<http://www.kitami-it.ac.jp/>

TOHOKU AREA:

Hirosaki University
<http://www.hirosaki-u.ac.jp/> (in Japanese only)

Iwate University
<http://takuboku.cc.iwate-u.ac.jp/>

Tohoku University
<http://www.tohoku.ac.jp/>

Miyagi University of Education
<http://www.miyakyo-u.ac.jp/index-e.html>

Akita University
<http://quartet.bb.akita-u.ac.jp/index-e.html>

Yamagata University
<http://www.yamagata-u.ac.jp/>

Fukushima University
<http://www.fukushima-u.ac.jp/>

KANTO-TOKYO AREA:

Ibaraki University
<http://www.ibaraki.ac.jp/index-e.shtml>

University of Library & Information Sciences
<http://www.ulis.ac.jp/>

University of Tsukuba
<http://www.tsukuba.ac.jp/>

Utsunomiya University
<http://www.utsunomiya-u.ac.jp/>

Gunma University
<http://www.gunma-u.ac.jp/index.html>

Saitama University
<http://www.saitama-u.ac.jp/index-e.html>

Chiba University
<http://www.hike.te.chiba-u.ac.jp/chiba-u/>

The University of Tokyo
<http://web.yl.is.s.u-tokyo.ac.jp/ut/ut.html>

Tokyo Medical and Dental University
<http://www.i-mde.tmd.ac.jp/omdex-E.html>

Tokyo University of Foreign Studies
<http://www.tufs.ac.jp/>

Tokyo Gakugei University
<http://www.u-gakugei.ac.jp/eindex.html>

Tokyo University of Agriculture and Technology
<http://www.tuat.ac.jp/Welcome.english.html>

Tokyo National University of Fine Arts and Music
<http://www.geidai.ac.jp/english/index.html>

Tokyo Institute of Technology
<http://www.titech.ac.jp/>

Tokyo University of Mercantile Marine
<http://www.tosho-u.ac.jp/index.en.html>

Tokyo University of Fisherise
<http://www.tokyo-u-fish.ac.jp/official/index-e.html>

Ochanomizu University
<http://www.ocha.ac.jp/index-e.html>

The University of Electro-Communications
<http://www.uec.ac.jp/index-e.html>

Hitotsubashi University
<http://www.hit-u.ac.jp/foreigner/INDEX.HTM>

Yokohama National University
<http://www.ynu.ac.jp/ynu/ynu-e.html>

The Graduate University for Advanced Studies (GUAS)
http://www.soken.ac.jp/english/index_e.html

Tsukuba College of Technology (Junior college for youth with visual and hearing disability)
<http://www.tsukuba-tech.ac.jp/collegee.htm>

KOSHINETSU AREA:

Niigata University
<http://www.cc.niigata-u.ac.jp/index-e.html>

Nagaoka University of Technology
<http://www.nagaokaut.ac.jp/index-e.html>

Joetsu University of Education
<http://www.juen.ac.jp/> (in Japanese only)

Yamanashi University
http://www.yamanashi.ac.jp/home_e.html

Yamanashi Medical University
<http://www.yamanashi-med.ac.jp/>

Shinshu University
<http://gipwm.shinshu-u.ac.jp/emain.html>

HOKURIKU AREA:

Toyama University
<http://www.toyama-u.ac.jp/>

Toyama Medical and Pharmaceutical University
<http://www.toyama-mpu.ac.jp/>

Kanazawa University
<http://kipcwww.ipc.kanazawa-u.ac.jp/Welcome.html>

Fukui University
<http://www.icpc.fukui-u.ac.jp/>

Fukui Medical School
<http://www.fukui-med.ac.jp/> (in Japanese only)

Japan Advanced Institute of Science and Technology, Hokuriku
<http://www.jaist.ac.jp/>

Takaoka National College (a junior college)
http://www.takaoka-nc.ac.jp/index_eng.html

TOKAI AREA:

Gifu University
http://www.gifu-u.ac.jp/index_E.html

Shizuoka University
<http://www.shizuoka.ac.jp/index-e.htm>

Hamamatsu University School of Medicine
<http://www.hama-med.ac.jp/index.html>

Nagoya University
<http://www.nagoya-u.ac.jp/ENGLISH/index.html>

Aichi University of Education
<http://www.aichi-edu.ac.jp/> (URL: Only in Japanese language)

Nagoya Institute of Technology
http://www.nitech.ac.jp/engl_inf/index_e.html

Toyohashi University of Technology
<http://www.tut.ac.jp/english/index.html>

Mie University
<http://www2.mie-u.ac.jp/english.html>

KANSAI-KINKI AREA:

Shiga University
<http://www.shiga-u.ac.jp/e-main.htm>

Shiga University of Medical Science
<http://www.shiga-med.ac.jp/home.html>

Kyoto University
<http://www.kyoto-u.ac.jp/index-e.html>

Kyoto University of Education
<http://www.kyokyo-u.ac.jp/>

Kyoto Institute of Technology
<http://www.kit.ac.jp/English/Ewelcome.html>

Osaka University
<http://www.osaka-u.ac.jp/english/index.html>

Osaka University of Foreign Studies

<http://www.osaka-gaidai.ac.jp/e-index.html>

Osaka Kyoiku University

http://okumedia.cc.osaka-kyoiku.ac.jp/index_e.html

Hyogo University of Teacher Education

<http://www.hyogo-u.ac.jp/index-e.html>

Kobe University

<http://www.kobe-u.ac.jp/>

Kobe University of Mercantile Marine

<http://jos2.ti.kshosen.ac.jp/index-e.html>

Nara University of Education

<http://www.nara-edu.ac.jp/>

Nara Women's University

<http://www.nara-wu.ac.jp/index-en.html>

Wakayama University

<http://www.wakayama-u.ac.jp/>

Nara Institute of Science and Technology

<http://www.aist-nara.ac.jp/>

CHUGOKU AREA:

Tottori University

http://www.tottori-u.ac.jp/tottori_e.html

Shimane University

http://www.shimane-u.ac.jp/index_e.htm

Shimane Medical University

<http://www.shimane-med.ac.jp/welcome.html>

Okayama University

http://www.okayama-u.ac.jp/index_e.html

Hiroshima University

<http://www.hiroshima-u.ac.jp/index.html>

Yamaguchi University

<http://www.yamaguchi-u.ac.jp/>

SHIKOKU AREA:

The University of Tokushima

<http://www.tokushima-u.ac.jp/ENGLISH/index-en.html>

Naruto University of Education

<http://www.naruto-u.ac.jp/index-E.html>

Kagawa University

<http://www.kagawa-u.ac.jp/index-e.html>

Kagawa Medical School

<http://www.kms.ac.jp/index-e.html>

Ehime University
<http://www.ehime-u.ac.jp/English/index.html>

Kochi University
<http://www.kochi-u.ac.jp/EN/>

Kochi Medical School
<http://www.kochi-ms.ac.jp/>

KYUSHU AND OKINAWA AREA:

Fukuoka University of Education
<http://www.fukuoka-edu.ac.jp/index-e.html>

Kyushu University
<http://www.kyushu-u.ac.jp/index-e.html>

Kyushu Institute of Design
<http://www.kyushu-id.ac.jp/>

Kyushu Institute of Technology
<http://www.kyutech.ac.jp/>

Saga University
<http://www.cc.saga-u.ac.jp/>

Saga Medical School
<http://www.saga-med.ac.jp/index-e.html>

Nagasaki University
<http://www.cc.nagasaki-u.ac.jp/>

Kumamoto University
<http://www.eecs.kumamoto-u.ac.jp/>

Oita University
<http://www.oita-u.ac.jp/>

Oita Medical University
<http://www.oita-med.ac.jp/indexeng.html>

Miyazaki University
<http://www.miyazaki-u.ac.jp/index-e.html>

Miyazaki Medical College
<http://www.miyazaki-med.ac.jp/>

Kagoshima University
<http://www.kagoshima-u.ac.jp/index-e.html>

National Institute of Fitness and Sports in Kanoya
<http://www.nifs-k.ac.jp/home.e.html>

University of the Ryukyus
<http://www.ie.u-ryukyu.ac.jp/>

APPENDIX IV

Host Institutions for the Summer Institute in Korea

NOTE: Other institutions can be considered on a case-by-case basis.

NOTE: Homepage addresses (URLs) are given, where available.

NOTE: To send a facsimile from the U.S. to one of these Korean institutions, the dialing sequence is 011 (International Code) - 82 (Korea's Country Code) - city code and telephone number as given below.

Institution

Address and Phone/FAX Number

Seoul Area:

Center for Theoretical Physics (CTP)
Seoul National University

Director: Prof. Hi-Sung Song
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-880-6523, 886-4589
Fax: 82-884-7167
E-mail: ctp@ctp.snu.ac.kr
<http://stp.snu.ac.kr>

Organic Chemistry Research Center (OCRC)
Sogang University

Director: Prof. Nung-Min Yoon
1-1 Sinsu-dong
Mapo-ku, Seoul 121-742
Tel: 82-2-705-8233
Fax: 82-2-701-0967
<http://www.sogang.ac.kr/~ocrc/>

Research Center for Molecular Microbiology (RCMM)
Seoul National University

Director: Prof. Young-Chil Hah
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-6528
Fax: 82-2-888-4911
E-mail: rcmm@cns.snu.ac.kr
<http://rcmm.snu.ac.kr/>

Global Analysis Research Center (GARC)
Seoul National University

Director: Prof. Sang-Moon Kim
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-6562
Fax: 82-2-877-8435
E-mail: garc@math.snu.ac.kr
<http://garc.snu.ac.kr/>

Research Center for Cell Differentiation (RCCD)
Seoul National University

Director: Prof. Man-Sik Kang
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-6685 / 6
Fax: 82-2-872-1993
<http://www.snu.ac.kr/engsnu/index.html>

Cancer Research Center (CRC)
Seoul National University

Director: Prof. Jae-Gahb Park
28 Yongon-dong
Chongno-ku, Seoul 110-799

Tel: 82-2-740-8091
Fax: 82-2-766-4477
E-mail: snucrc@plaza.snu.ac.kr
<http://plaza.snu.ac.kr/~snucrc/>

Center for Mineral Resources Research (CMR)
Korea University

Director: Prof. Chil-Sup So
1, Anam-dong
Sungbuk-ku, Seoul 136-701
Tel: 82-2-920-1820, 82-2-927-6181
Fax: 82-2-927-6180
<http://www.korea.ac.kr/>

Research Center for Thin Film Fabrication and Crystal
Growing of Advanced Materials (RETCAM)
Seoul National University

Director: Prof. Dong-Nyung Lee
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-7446
Fax: 82-2-886-4156
<http://www.snu.ac.kr/engsnu/index.html>

Atomic-Scale Surface Science Research Center (ASSRC)
Yonsei University

Director: Prof. Chung-Nam Hwang
134 Shinchon-dong
Seodaemun-ku, Seoul 120-749
Tel: 82-2-361-2613
Fax: 82-2-312-7090
<http://www.yonsei.ac.kr/Eng/Admin/1.html#5>

Center for Molecular Catalysis (CMC)
Seoul National University

Director: Prof. J. H. Suh
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-6816
Fax: 82-2-874-3704
<http://www.snu.ac.kr/engsnu/index.html>

Animal Resources Research Center (ARRC)
Kon-Kuk University

Director: Prof. Chang-Woo Kim
93-1 Mojin-dong
Sungdong-ku, Seoul 133-701
Tel: 82-2-450-3670 / 3666
Fax: 82-2-455-5305
http://www.konkuk.ac.kr/english/ENGLISH/RESEARCH_AUXIL/

Research Center for New Drug Development (RCNDD)
Seoul National University

Director: Prof. Nak-Doo Kim
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-7832
Fax: 82-2-874-2203
<http://www.snu.ac.kr/engsnu/index.html>

Engineering Research Center for Advanced
Control and Instrumentation (ERC-ACI)
Seoul National University

Director: Prof. Wook-Hyun Kwon
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-7318
Fax: 82-2-888-4182
<http://www.snu.ac.kr/engsnu/index.html>

Turbo and Power Machinery Research Center (TPMRC)
Seoul National University

Director: Prof. Sung-Tack Ro
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-880-5513
Fax: 82-2-883-0179
<http://www.snu.ac.kr/engsnu/index.html>

Bioproducts Research Center (BRC)
Yonsei University

Director: Prof. Yu-Ryang Pyun
134 Shinchon-dong
Seodaemun-ku, Seoul 120-749
Tel: 82-2-361-3591 / 82-2-361-6820
Fax: 82-2-312-6821
<http://www.yonsei.ac.kr/Eng/Admin/1.html#4>

Advanced Structure Research Station (STRESS)
Hanyang University

Director: Prof. Li-Hyung Lee
17, Haengdang-dong
Sungdong-ku, Seoul 133-791
Tel: 82-2-290-0541
Fax: 82-2-281-2557
E-mail: office@stress.hanyang.ac.kr
<http://www.hanyang.ac.kr/english/teaching/research.html>

Ceramic Materials Research Institute (CPRC)
Hanyang University

Director: Prof. Keun-Ho Auh
17 Haengdang-dong,
Sungdong-ku, Seoul 133-791
Tel: 82-2-290-0517
Fax: 82-2-299-2884
<http://www.hanyang.ac.kr/english/teaching/research.html>

Center for Information Storage Devices (CISD)
Yonsei University

Director: Prof. Young-Pil Park
134 Shinchon-dong
Seodaemun-ku, Seoul 120-749
Tel: 82-2-361-2814
Fax: 82-2-312-2159
<http://www.yonsei.ac.kr/Eng/index.html>

Korea Earthquake Engineering Research Center (KEERC)
Seoul National University

Director: Prof. Sung-Pil Chang
San 56-1, Shilim-dong
Kwanak-ku, Seoul 151-742
Tel: 82-2-887-7346
Fax: 82-2-887-0349
<http://www.snu.ac.kr/engsnu/index.html>

Korea Institute of Science and Technology (KIST)

39-1 Hawall, Gok-dong
Sungbuk-ku, Seoul
Tel: 82-2-958-5114
Fax: 82-2-963-4013
<http://www.kist.re.kr/english/home.html>

Science and Technology Policy Institute (STEPI)

207-43 Chung, Yangri-dong
Dongdaemun-ku, Seoul
Tel: 82-2-250-3114
Fax: 82-2-964-3741
<http://www.stepi.re.kr/>

Korea Ocean Research and Development Institute (KORDI)

385 Block Sa-dong
Ansan, Gyeonggi-Do
Tel: 82-345-400-6000
Fax: 82-345-408-5820
<http://www.kordi.re.kr/>

Kyeongki Area:

Research Center for New Bio-Materials in Agriculture
(RCNBMA), Seoul National University

Director: Prof. Kwan-Hwa Park
103 Seodung-dong

Kwonsun-ku, Suwon 441-744
Tel: 82-331-290-2028 / 82-331-294-1609
Fax: 82-331-294-1336
<http://www.snu.ac.kr/engsnu/index.html>

Safety and Structural Integrity Research Center (SAFE)
Sung Kyon Kwan University

Director: Prof. Young-Jin Kim
300 Chanchun-dong
Jangan-ku, Kyungki-Do
Tel: 82-331-290-7436
Fax: 82-331-290-7482

Taejon Area:

Center for Molecular Science (CMS)
KAIST

Director: Prof. Kyung-Hoon Jung
373-1, Kusung-dong
Yusung-ku, Taejon 305-701
Tel: 82-42-869-8122 / 4
Fax: 82-42-829-8130
<http://www.kaist.ac.kr/>

Center for Artificial Intelligence Research (CAIR)
KAIST

Director: Prof. Jung-Wan Cho
373-1 Kusung-dong
Yusung-ku, Taejon 305-701
Tel: 82-42-869-8711 / 3
Fax: 82-42-869-8700
<http://www.kaist.ac.kr/>

Satellite Technology Research Center (SaTReC)
KAIST

Director: Prof. Dan-Keum Sung
373-1 Kusung-dong
Yusung-ku, Taejon 305-701
Tel: 82-42-869-8612
Fax: 82-42-869-0064
<http://www.kaist.ac.kr/>

BioProcess Engineering Research Center (BPERC)
KAIST

Director: Prof. Ho-Nam Chang
373-1 Kusung-dong
Yusung-ku, Taejon, 305-701
Tel: 82-42-869-8811 / 2
Fax: 82-42-869-8800
<http://www.kaist.ac.kr/>

Rapidly Solidified Materials Research Center (RASOM)
Chungnam National University

Director: Prof. Byung-Sun Chun
220, Kung-dong
Yusung-ku, Taejon 305-764
Tel: 82-42-821-6587 / 9
Fax: 82-42-822-9401
<http://www.chungnam.ac.kr/english/>

Center for Interface Science and Engineering of Materials
(CISEM), KAIST

Director: Prof. Suk-Joong Kang
373-1 Kusung-dong
Yusung-ku, Taejon, 305-701
Tel: 82-42-869-8919, 4113
Fax: 82-42-869-8920
<http://www.kaist.ac.kr/>

Center for Advanced Reactor Research (CARR)
KAIST

Director: Prof. Moon-Hyun Chun
373-1 Kusung-dong
Yusung-ku, Taejon, 305-701

Tel: 82-42-869-8851, 8853

Fax: 82-42-869-8860

<http://www.kaist.ac.kr/>

Opto-Electronics Research Center (OERC)
KAIST

Director: Prof. Young-Se Kwon
373-1 Kusung-dong
Yusung-ku, Taejon, 305-701
Tel: 82-42-869-8559/8551
Fax: 82-42-869-8560
<http://www.kaist.ac.kr/>

Micro Information and Communication
Remote Object-Oriented Systems (MICROS)
KAIST

Director: Prof. Byong-Whi Lee
373-1 Kusung-dong
Yusung-ku, Taejon 305-701
Tel: 82-42-869-8581 ~ 4
Fax: 82-42-869-8580
E-mail: office@micros.kaist.ac.kr
<http://www.kaist.ac.kr/>

Center for Advanced Functional Polymers (CAFPoly)
KAIST

Director: Prof. Sung-Chul Kim
373-1 Kusung-dong
Yusung-ku, Taejon 305-701
Tel: 82-42-869-8431 ~ 2
Fax: 82-42-869-8430
<http://www.kaist.ac.kr/>

System Engineering Research Institute (SERI)

1 Oun-dong
Yunsung-ku, Taejon City
Tel: 82-42-869-1211
Fax: 82-42-861-1999
<http://www.seri.re.kr/>

Korea Research Institute of Bioscience and Biotechnology
(KRIBB)

1 Oun-dong
P.O. Box 115
Yunsung-ku, Taejon 305-600
Tel: 82-42-860-4114
Fax: 82-42-861-1759
E-mail: admin@kribb.re.kr
<http://www.kribb.re.kr/>

Korea Atomic Energy Research Institute (KAERI)

150 Dukjin-dong
P.O. Box 105, Yusung-ku, Taejon
Tel: 82-42-820-2170
Fax: 82-42-820-2702
http://www.kaeri.re.kr/index_e.html

Korea Research Institute of Standards and Science (KRISS)

Doryung-dong
Yusung-ku, Taejon
Tel: 82-42-868-5114
Fax: 82-42-861-1494
<http://krissol.kriss.re.kr/kriss99/english/index.htm>

Electronics and Telecommunications Research Institute
(ETRI)

161 Kajung-dong
Yusung-ku, Taejon 305-350
Tel: 82-42-860-6687
Fax: 82-42-861-5022
<http://www.etri.re.kr/>

Korea Research Institute of Chemical Technology (KRICT)

100 Chang-dong
Yusung-ku, Taejon

Tel: 82-42-860-7833
Fax: 82-42-861-7022
<http://www.kriect.re.kr/eindex.htm>

Korea Institute of Geology Mining and Materials (KIGAM) 100 Chang-dong
Yusung-ku, Taejon
Tel: 82-42-868-3720
Fax: 82-42-861-9720
<http://>

Korea Institute of Energy Research (KIER) 71-2 Chang-dong
Yusung-ku, Taejon
Tel: 82-42-860-3240
Fax: 82-42-860-6224
<http://www.kier.re.kr/index2.html>

Korea Institute of Machinery and Metals (KIMM) 171 Chang-dong
Yusung-ku, Taejon
Tel: 82-42-868-7720
Fax: 82-42-868-7824
<http://www.kimm.re.kr/>

Korea Aerospace Research Institute (KARI) 52 Oun-dong
P.O. Box 113
Yusung-ku, Taejon 305-600
Tel: 82-42-860-2610
Fax: 82-42-820-2004
<http://www.kari.re.kr/>

Korea Ginseng and Tobacco Research Institute (KGTRI) 302 Sinsung-dong
Yousung-ku, Taejon
Tel: 82-42-861-5217
Fax: 82-42-861-1949

Kyongpook Area:

Topology and Geometry Research Center (TGRC)
Kyungpook National University
Director: Prof. U-Hang Ki
1370 Sankyuk-dong
Taegu 702-701
Tel: 82-53-950-6831
Fax: 82-53-959-1717
E-mail: uhang@bh.kyungpool.ac.kr
<http://www.kyungpook.ac.kr/english/eindex5.html>

Center for Biofunctional Molecules (CBM)
Pohang University of Science and Technology
Director: Prof. Dong-Han Kim
San 31 Hyoja-dong
Nam-ku, Pohang, Kyoungbuk 790-784
Tel: 82-562-279-8131 / 2
Fax: 82-562-279-5877
<http://www.postech.ac.kr/e/>

Advanced Fluids Engineering Research Center (AFERC)
Pohang University of Science and Technology
Director: Prof. Chung-Mook Lee
San 31 Hyoja-dong
Nam-ku, Pohang, Kyoungbuk 790-784
Tel: 82-562-279-5904
Fax: 82-562-279-3199
<http://www.postech.ac.kr/e/>

Sensor Technology Research Center (STRC)
Kyungpook National University
Director: Prof. Byung-Ki Sohn
1370 Sankyuk-Dong

Taegu 702-701
Tel: 82-53-950-6825, 952-8743
Fax: 82-53-950-6827
E-mail: bksohn@ee.kyungpook.ac.kr
<http://sensor.kyungpook.ac.kr/>

Research Center for Catalytic Technology (RCCT)
Pohang University of Science and Technology

Director: Prof. Young-Gul Kim
San 31 Hyoja-dong
Nam-ku, Pohang, Kyungbuk 790-784
Tel: 82-562-279-5800
Fax: 82-562-279-5799
E-mail: ygkim@vision.postech.ac.kr
<http://www.postech.ac.kr/e/>

Automation Research Center (ARC)
Pohang University of Science and Technology

Director: Prof. Kun-Soo Chang
San 31 Hyoja-dong
Nam-ku, Pohang, Kyungbuk 790-784
Tel: 82-562-279-5958
Fax: 82-562-279-3499
<http://www.postech.ac.kr/e/>

Center for Advanced Aerospace Materials (CAAM)
Pohang University of Science and Technology

Director: Prof. Nack-Joon Kim
San 31 Hyoja-dong
Nam-ku, Pohang, Kyungbuk 790-784
Tel: 82-562-279-2820 / 2135
Fax: 82-562-279-2399 / 5887
E-mail: caam@vision.postech.ac.kr
<http://www.postech.ac.kr/e/>

Kyongnam Area:

Plant Molecular Biology and Biotechnology
Research Center (PMBBRC)
Gyeongsang National University

Director: Prof. Moo-Je Cho
900 Kajwa-dong
Chinju 660-701
Tel: 82-591-8751-5957
Fax: 82-591-759-9363
E-mail: mjcho@noogae.gsmu.ac.kr
<http://www.gsnu.ac.kr/>

Research Center for Ocean Industrial Development (RCOID)
National Fisheries University of Pusan

Director: Prof. Kyu-Dae Cho
599-1 Daeyeon-dong
Nam-ku, Pusan 608-737
Tel: 82-51-6207-6954
Fax: 82-51-627-1096

Engineering Research Center for Net-Shape
and Die Manufacturing (NSDM)
Pusan National University

Director: Prof. Jae-Chan Choi
30 Changeon-dong
Keumjeong-ku, Pusan 609-735
Tel: 82-51-510-1491/2
Fax: 82-51-512-1722
<http://alumni.pusan.ac.kr/pnu/english/e-index.htm>

Research Center for Dielectric and Advanced
Matter Physics (RCDAMP)
Pusan National University

Director: Prof. Min-Su Jang
30 Changeon-dong
Keumjeong-ku, Pusan 609-735
Tel: 82-51-510-1868/9
Fax: 82-51-515-2390
<http://alumni.pusan.ac.kr/pnu/english/e-index.htm>

Korea Institute of Machinery and Metals (KIMM)

66 Sangnam-dong

Changwon City
Tel: 82-551-80-3000
Fax: 82-551-80-3333
<http://www.kimm.re.kr/>

Jeonbuk Area:

Semiconductor Physics Research Center (SPRC)
Chonbuk National University

Director: Prof. Hyung-Jae Lee
Chonju 561-756
Tel: 822652-270-3607
Fax: 82-652-270-3585
E-mail: hsprc@chonbuknms.chonbuk.ac.kr
<http://sprc.chonbuk.ac.kr/>

Jeonnam Area:

Hormone Research Center (HRC)
Chonnam National University

Director: Prof. Hyuk-Bang Kwon
Kwangju 500-757
Tel: 82-62-520-7787
Fax: 82-62-520-7786
<http://www.chonnam.ac.kr/>

Ultra Fast Optical Network (UFON)
KIST

Director: Prof. Un-Chul Paek
572 Sangam-dong
Kwangsang-ku, Kwangu 506-712
Tel: 82-62-970-2222
Fax: 82-62-970-2233
<http://www.kist.re.kr/english/home.html>

APPENDIX V

Host Institutions for the Summer Institute in Taiwan

NOTE: Other institutions can be considered on a case-by-case basis.

NOTE: Homepage addresses (URLs) are given, where available.

NOTE: To send a facsimile from the U.S. to one of these Taiwan institutions, the dialing sequence is 011 (International Code) - 886 (Taiwan's Country Code) - city code and telephone number as given below.

Institution

Address and Phone/FAX Number

National Laboratories

National Center for High-Performance Computing
Research Theme: High Performance Computing
and Networking

Kuo-chien Kai, Associate Research Scientist
P.O. Box 19-136, 7 R&D Road VI
Science-Based Industrial Park, Hsinchu
TEL: 886-3-5776085 ext. 202
FAX: 886-3- 5773620
E-mail: kckai@nchc.gov.tw
URL: <http://www.nchc.gov.tw/>

National Nano Device Laboratories

Research Themes:

1. Optical and electron-beam lithography
2. Front-end wafer process, multilevel interconnect and dielectric technology
3. Material characterization and measurement
4. High frequency characterization and parameters
5. Extraction of semiconductor devices

Iris Lin
1001-1, Ta-Hsueh Road, Hsinchu
TEL: 886-3-5726100 ext. 7629
FAX: 886-3-5735670
E-mail: irislin@ndl.gov.tw
URL: <http://www.ndl.gov.tw/English/>

Central S&T Units and Research Institute

Precision Instrument Development Center

Research Themes:

1. Micro-electro-mechanical systems
2. Vacuum and thin film technology
3. Diode-pumped solid laser
4. Nanometer scale surface analysis

Heh-nan Lin, Engineer
20, R&D Road VI
Science-Based Industrial Park, Hsinchu
TEL: 886-3-5779911 ext. 322
FAX: 886-3-5773947
E-mail: hnlin@pidc.gov.tw
URL: <http://www.pidc.gov.tw/index-e.html>

Science and Technology Information Center

Research Theme: The construction and promotion
of English-version databases

Hong-Ming Huang
106, Sec.2, Hoping E. Road, Taipei
TEL: 886-2- 27377969
FAX: 886-2- 27377669
E-mail: hmhuang@mail.stic.gov.tw
URL: <http://www.stic.gov.tw/eng-home.htm>

Taiwan Forestry Research Institute

Research Theme: Taiwan long-term ecological research

Dr. Hen-Biau King
53, Nan Hai Road, Taipei
TEL: 886-2-23817107 ext. 408
FAX: 886-2-23752164
E-mail: hbking@serv.tfri.gov.tw
URL: <http://www.tfri.gov.tw/index-e.html>

Universities and Research Institutes

Institute of Molecular Biology
Academia Sinica
Research Theme: Gene regulation and gene expression

Deputy Director Bon-chu Chung
128, Sec. 2, Yenchouyuan Road, Nankang, Taipei
TEL: 886-2-27899215
FAX: 886-2-27826085
E-mail: mbchung@gate.sinica.edu.tw
URL: <http://www.sinica.edu.tw/imb/>

Institute of Chemistry
Academia Sinica
Research Theme: Enzymes and advanced materials
for chemical catalysis: activation of alkanes,
carbon monoxide, and carbon dioxide

Dr. Lou-sing Kan
128, Sec. 2, Yenchouyuan Road, Nankang, Taipei
TEL: 886-2-27884184
FAX: 886-2-27831237
E-mail: lskan@chem.sinica.edu.tw
URL: <http://www.sinica.edu.tw/chem/>

Graduate Institute of Communication Engineering
College of Engineering
National Taiwan University
Research Theme: Wireless communications

Ms. Wen-ing Chao
1, Sec. 4, Roosevelt Road, Taipei
TEL: 886-2-23683770
FAX: 886-2-23683824
E-mail: comm@cc.ee.ntu.edu.tw
URL: <http://www.ee.ntu.edu.tw/welcome-eng.html>

Thermal Science and Flow Control Lab
Institute of Applied Mechanics
College of Engineering
National Taiwan University
Research Theme: Droplet physics, flow control

Prof. An-Bang Wang
1, Sec. 4, Roosevelt Road, Taipei
TEL: 886-2-23630979 ext.405
FAX: 886-2-23678001
E-mail: abwang@spring.iam.ntu.edu.tw
URL: <http://www.iam.ntu.edu.tw/newver/index-e.htm>

Optical Sciences Center
National Central University
Theme: Opto-electronic materials and devices

Director Guo-chung Chi
38, Wu-chuang Li, Chungli
TEL: 886-3-4257681
FAX: 886-3-4258816
E-mail: gcchi@halley.phy.ncu.edu.tw
URL: <http://www.phy.ncu.edu.tw/>

Department of Chemical Engineering
National Tsing-Hua University
Research Theme: Chemical engineering, materials
science, biological engineering

Dr. Sinn-wen Chen
101, Sec. 2, Kuang Fu Road, Hsinchu
TEL: 886-3-5721734
FAX: 886-3-5715408
E-mail: swchen@che.nthu.edu.tw
URL: <http://www.che.nthu.edu.tw/english/>

Department of Industrial Engineering and Management
National Chiao Tung University
Research Theme: Semi-conductor manufacturing
management

Chairman Muh-Cherng Wu
1001, Ta-Hsueh Road, Hsinchu
TEL: 886-3-5731913
FAX: 886-3-5720610
E-mail: mcwu@cc.nctu.edu.tw
URL: <http://www.nctu.edu.tw/english/>

Election Study Center
National Chengchi University
Research Theme: Election studies

Director Yung-tai Hung
64, Sec. 2, Chih-Nan Road, Wen-shan District, Taipei
TEL: 886-2-29387134
FAX: 886-2-29384094

E-mail: syjou@nccu.edu.tw
URL: <http://esc.nccu.edu.tw/>

Private S&T Sector

Development Center for Biotechnology
Research Theme: Development of carbohydrate-based
tumor vaccine

Micheal Yet
81, Chang-Hsin Street, Taipei
TEL: 886-2- 26957597
FAX: 886-2-26953404
E-mail: myet@mail.dcb.org.tw
URL: http://dcb.org.tw/e_index1.html

APPENDIX VI

INFORMATION ABOUT PRINCIPAL INVESTIGATORS/PROJECT DIRECTORS (PI/PD) AND CO-PRINCIPAL INVESTIGATORS/CO-PROJECT DIRECTORS

Submit ONE copy of this form for each PI/PD and co-PI/PD identified on the proposal. The form(s) should be attached to the original proposal as specified in GPG Section II.B. Submission of this information is voluntary and is not a precondition of award. The information will not be disclosed to external peer reviewers. **DO NOT INCLUDE THIS FORM WITH ANY OF THE OTHER COPIES OF YOUR PROPOSAL AS THIS MAY COMPROMISE THE CONFIDENTIALITY OF THE INFORMATION.**

PI/PD Name: _____

Gender: Male Female

Ethnicity: (Choose one response) Hispanic or Latino Not Hispanic or Latino

Race:
(Select one or more) American Indian or Alaska Native
 Asian
 Black or African American
 Native Hawaiian or Other Pacific Islander
 White

Disability Status:
(Select one or more) Hearing Impairment
 Visual Impairment
 Mobility/Orthopedic Impairment
 Other
 None

Citizenship: (Choose one) U.S. Citizen Permanent Resident Other non-U.S. Citizen

Check here if you do not wish to provide any or all of the above information (excluding PI/PD name):

REQUIRED: Check here if you are currently serving (or have previously served) as a PI, co-PI or PD on any federally funded project.

Ethnicity Definition:

Hispanic or Latino. A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.

Race Definitions:

American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Black or African American. A person having origins in any of the black racial groups of Africa.

Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

WHY THIS INFORMATION IS BEING REQUESTED:

The Federal Government has a continuing commitment to monitor the operation of its review and award processes to identify and address any inequities based on gender, race, ethnicity, or disability of its proposed PIs/PDs. To gather information needed for this important task, the proposer should submit a single copy of this form for each identified PI/PD with each proposal. Submission of the requested information is voluntary and will not affect the organization's eligibility for an award. However, information not submitted will seriously undermine the statistical validity, and therefore the usefulness, of information received from others. Any individual not wishing to submit some or all the information should check the box provided for this purpose. (The exceptions are the PI/PD name and the information about prior Federal support, the last question above.)

Collection of this information is authorized by the NSF Act of 1950, as amended, 42 U.S.C. 1861, et seq. Demographic data allows NSF to gauge whether our programs and other opportunities in science and technology are fairly reaching and benefiting everyone regardless of demographic category; to ensure that those in under-represented groups have the same knowledge of and access to programs and other research and educational opportunities; and to assess involvement of international investigators in work supported by NSF. The information may be disclosed to government contractors, experts, volunteers and researchers to complete assigned work; and to other government agencies in order to coordinate and assess programs. The information may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998).

APPLICATION FORM

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page 1

Summer Programs in Japan, Korea and Taiwan For U.S. Graduate Students in Science and Engineering

(This application must be typewritten.)

APPLICATION TO:

Check which program(s) to which you submit this application. If you wish to be considered for more than one program, indicate your preferences by numerical ranking.

Summer Institute in Japan _____

If you choose only the Summer Institute in Japan, is Japanese language training considered by you to be an essential part of the program? Yes _____ No _____

Monbusho Summer Program _____

Summer Institute in Korea _____

Summer Institute in Taiwan _____

NAME:

Last Name	First Name	Middle Name	Other Names Used
-----------	------------	-------------	------------------

SOCIAL SECURITY NUMBER: _____ - _____ - _____

CITIZENSHIP STATUS (Please check):

U.S. CITIZEN _____ U.S. PERMANENT RESIDENT _____
ALIEN REGISTRATION NUMBER _____

CURRENT HOME MAILING ADDRESS (for program mailings, cannot be institutional address):

PERMANENT HOME ADDRESS:

CURRENT ACADEMIC INSTITUTIONAL ADDRESS:

Department _____
Institution _____
Address _____

Office Phone _____ Fax _____
Home Phone _____ Fax _____
E-mail _____

Date (MM/YYYY) when you began graduate studies _____

Current Degree Program: Ph.D. _____ M.D. _____ M.S. _____ M.A. _____ Other _____

APPLICATION FORM

1

page 2

RECOMMENDATIONS TO BE OBTAINED FROM:

(Do not use your proposed host scientist in Japan, Korea or Taiwan.)

Academic Research Advisor

Name _____

Department _____

Institution _____

Phone/Fax/E-mail _____

One Other

Name _____

Department _____

Institution _____

Phone/Fax/E-mail _____

PREVIOUS VISITS TO JAPAN, KOREA OR TAIWAN (place, year, duration and purpose):

POSITIONS AND AWARDS IN THE LAST THREE YEARS:

APPLICATION FORM

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page 3

JAPANESE, KOREAN OR CHINESE LANGUAGE BACKGROUND: Specify courses taken (university level), details of other training (including self-instruction), and any particular strengths you might have in the language. Please note this information is required for planning the language instruction in Japan, Korea or Taiwan and that proficiency in the foreign language is not a prerequisite for participation in the Summer Programs.

I have read this program announcement in detail and have noted the conditions herein.

Signature of Applicant _____ Date _____

POTENTIAL HOST INSTITUTIONS

2

(Please see program announcement for the appropriate method to complete this form. List potential host institutions in priority order, and include names and complete contact information of potential host scientist(s) if available.)

NAME OF APPLICANT: _____

STATEMENT OF PURPOSE

3

(Explain your unique qualifications for participation in the Summer Programs and list the benefits the program will provide to your professional development. May not exceed one page.)

NAME OF APPLICANT: _____

DESCRIPTION OF CURRENT RESEARCH 4

(Provide a summary of your current research projects and interests. This information will be the basis for assignment to an appropriate host laboratory and will be read by potential host scientists. Please write the summary for a technical audience and identify both a general field of study and any specific research interests, especially those relevant to the Japanese, Korean or Taiwan research environment. May not exceed one page.)

NAME OF APPLICANT: _____

RECOMMENDATION FORM

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Page 2

3. Briefly describe the applicant's research contributions, the quality of the research, and the potential significance of the research to your discipline or field.

4. I rank this applicant in the top _____ (percent) among _____ (number) of graduate students I have supervised over the last _____ (number) years.

5. Please check one of the two statements below. (If space A is checked, the Foundation will honor your request to the extent permitted by law.)

A. My identity and this report must be held in confidence.

B. This report may be released to the applicant upon request.

6. [For the Applicant's Academic Advisor only.] I have read and understand the terms and conditions of the Summer Programs in Japan, Korea and Taiwan, and I endorse my student's full participation in the program.
_____ (Academic Advisor's initials here.)

SIGNATURE: _____ DATE _____

(Please send the completed recommendation form to: East Asia and Pacific Program, Room 935, Division of International Programs, National Science Foundation, 4201 Wilson Blvd., Arlington, VA, 22230. **Do not return to applicant.** Recommendations must be postmarked by December 1. Failure to return this form in a timely fashion will jeopardize the application.)

OMB No.: 3145-0058
NSF 99-152 (Replaces NSF 96-151)