



SCOPE/IUPAC Project
on
Environmental Implications of Endocrine
Active Substances: Present State of the Art and Future Research Needs
and
International Symposium
(Program and Third Circular)



Dear Colleagues:

We would like to thank you for your interest in the SCOPE/IUPAC Symposium on Endocrine Active Substances, which you have shown by sending a preliminary registration request. The conference will take place on November 17-21, 2002 in Yokohama (Kanagawa Prefecture, near Tokyo), which is easily accessible by public transportation. Anyone with an interest in Endocrine Active Substances is invited to participate. The main subject of this symposium is "Environmental Implications of Endocrine Active Substances: Present State of the Art and Future Research Needs". The Symposium constitutes a major milestone of the SCOPE/IUPAC International Endocrine Project which is briefly described below. In addition, six supplementary workshops will be held. This Third Circular aims to provide you with the necessary information on scientific programs, fees, accommodation, and other relevant matters.

SCOPE/IUPAC Project on Environmental Implications of Endocrine
Active Substances: Present State of the Art and Future Research Needs

Objectives of the Project:

SCOPE (Scientific Committee on Problems of the Environment) of ICSU (International Council for Science) and **IUPAC** (International Union of Pure and Applied Chemistry) are jointly organizing an International Project on the Environmental Implications of Endocrine Active Substances: Present State of the Art and Future Research Needs. The project started in April 2000 and is to be completed in March 2003. The project aims to prepare a synthesis of the state of the art assessment of existing knowledge on the environmental implications of endocrine active substances. The International Symposium will be held as a major milestone of the Project on November 17-21, 2002 in Yokohama, Japan. In addition, six supplementary workshops will be held.

The main objectives of the project are as follows:

1. To expand and deepen the IUPAC/IUPHAR/IUTOX evaluation (1998) by including other similar evaluations concurrently underway, avoiding unnecessary overlapping;
2. To deal with endocrine disruptor issues as scientific problems that have major significance on the world environment;
3. To prioritize future research needs and to make the best use of available resources;
4. To facilitate effective risk assessment and risk communication on the problem by offering some manageable action;
5. To deal with the problem highlighted by international academia on an international basis, which makes the project quite unique and different from other evaluations, which are regional and/or regulatory-intended.

In this Project approximately 60 representative areas are dealt with by world experts, which are subject to discussion and comments by the participants. The integrated results will include scientific recommendations and manageable options based on these.

International Symposium

Date:

November 17 to 21, 2002

Venue:

Pacifico Yokohama
1-1-1, Minato Mirai, Nishi-ku, Yokohama, Japan
TEL +81-45-221-2155, Web site: <http://www.pacifico.co.jp/>

Organizing Committee:

Chairperson:

Junshi Miyamoto, IUPAC/Chemicals Evaluation and Research Institute, Tokyo, Japan

Members:

Joanna Burger (Co-Chair), Rutgers University, New Jersey, USA
William Kelce, Pharmacia Corporation, Michigan, USA
Kenneth Korach, National Institute of Environmental Health Sciences, North Carolina, USA
Werner Klein, IUPAC/Fraunhofer Institute for Environmental Chemistry and Ecotoxicology, Schmallenberg, Germany
John Ashby, Syngenta Ltd., Cheshire, UK
James Lamb, BBL Sciences, Virginia, USA
Peter Matthiessen, CEH (Center for Ecology and Hydrology), Cumbria, UK
Tadao Matsumoto, Professor, Department of Biology, Graduate School of Arts and Sciences, The University of Tokyo, Japan. Chairperson, SCOPE/JAPAN
Yasuyuki Oshima, President, Japan Wildlife Research Center, Japan. Member, SCOPE/JAPAN
Tatsuo Urabe, Ex-Professor, Nagoya University, Japan. Member, SCOPE/JAPAN

Advisors:

Nobuyuki Itoh, Emeritus Professor, Nagoya City University, and Chairperson of the endocrine disruptors issue committee in Ministry of Health, Labour and Welfare, Japan
Tuguyoshi Suzuki, Emeritus Professor, The University of Tokyo, and Chairperson of the endocrine disruptors issue committee in Ministry of the Environment, Japan

Presentation by the Project Contributors:

Oral Sessions:

All the project contributors (ca. 60 experts) selected by Organizing Committee will present the papers dealing with the following Topics and Subtopics. Each presentation lasting for twenty minutes will highlight the focal points of the Topics. The lecture rooms will be equipped with PowerPoint, overhead projectors and slides.

Poster / Discussion Sessions:

Since oral sessions do not include discussions, poster / discussion sessions will follow as a main vehicle of exchanging views among participants through question and answer, as well as discussions. Free-standing vertical display boards will be prepared for pin-pointing posters and during the respective session the contributors will be present at their posters. A limited number of additional posters will be presented. *All the posters are presented throughout the whole Symposium period.*

Supplementary Workshop:

Supplementary Workshops will be held along with the Symposium. Six subjects, some extracted from the Subtopics, are selected because of the preliminary stages and/or necessity in more integrated approaches

beyond single Topic, and try to tackle the controversial areas through the latest scientific knowledge. The Workshop, starting with a few invited presentations, helps increase understanding of future directions of endocrine disruptor issues, and facilitates sound management on the issues by decision-makers of various sectors.

Workshop 1: QSAR and Related Procedures for Prescreening and Predicting of Potentially Endocrine-active Compounds.

Workshop 2: Toxicogenomics as a rational approach to endocrine disruptor research.

Workshop 3: The need for establishing integrated monitoring programs related with endocrine disruptors.

Workshop 4: Simple, rapid assay for conventional definitive testings of endocrine disruptor hazard.

Workshop 5: Precautionary Principle and Weight of Evidence approach in Endocrine Disruptor Issues.

Workshop 6: Risk management options for endocrine disruptors in national and international programs.

Symposium & Workshop Program

November 17 (Sun)

09:30-10:00 **Hall A**

Opening address by Hiroyuki Yoshikawa, ICSU President, Jerry M. Melillo, SCOPE President and Pieter S. Steyn, IUPAC President

10:00-10:30 **Hall A**

Outline of the Project, Junshi Miyamoto, Chairperson of the Project

-Coffee Break-

Note: Underlined names are oral speakers.

Oral Session of Topic 1 : Hall A

Molecular Mode of Action of Nuclear Receptors; Fundamentals for Understanding the Action of Endocrine Active Substances

Coordinators: Dr. William Kelce, Dr. Kenneth Korach

10:50 Subtopic 1)

Nuclear receptor superfamily (Nuclear receptor superfamily members, structure similarities/diversity, function DNA gene response elements and sequence recognitions.

Hinrich Gronemeyer (France, IGBMC, Institut de Génétique et de Biologie Moléculaire et Cellulaire)

11:10 Subtopic 2)

Mode of action of coactivators and corepressors.

Bert O'Malley, Niel McKenna (USA, Baylor College of Medicine)

11:30 Subtopic 3)

Function and mode of action of nuclear receptors: Estrogen, Progesterone and Vitamin D.

Donald McDonnell, Erin Kimbrel (USA, Duke University Medical Center)

11:50 Subtopic 4)

Biological function and mode of action of the androgen receptor.

Elizabeth M. Wilson (USA, University of North Carolina)

-Lunch-

13:30 Subtopic 5)

Biological function and mode of action of nuclear receptors: Glucocorticoid and mineralocorticoid.

Erich Greiner, Günther Schütz (Germany, German Cancer Research Center)

13:50 Subtopic 6)

Biological function and mode of action of retinoid nuclear receptors.

Pierre Chambon (France, Université Louis Pasteur/IGBMC)

14:10 Subtopic 7)

Biological function and mode of action of orphan nuclear and thyroid hormone receptors.
Ronald M. Evans (USA, The Salk Institute/Howard Hughes Medical Institute), Jun Sonoda (USA, The Salk Institute)

14:30 Subtopic 8)

Molecular mechanisms of cross-talk between growth factors and nuclear receptor signaling.

Didier Picard (Switzerland, University of Geneva)

14:50 Subtopic 9)

Nuclear hormone receptor action through classical and alternative target genes.

Peter J. Kushner (USA, University of California)

-Coffee Break-

15:30 Subtopic 10)

Nuclear receptor action involved with gonadal differentiation.

Ieuan A. Hughes (UK, University of Cambridge School of Clinical Medicine)

15:50 Subtopic 11)

Hereditary diseases related to nuclear receptor gene mutations.

Larry J. Jameson (USA, Northwestern University Medical School)

16:10 Subtopic 12)

Interaction of exogenous endocrine active substances with nuclear receptors.

John A. Katzenellenbogen (USA, University of Illinois)

16:30 Subtopic 13)

Biological function and mode of action of Ah receptor.

Yoshiaki Fujii-Kuriyama (Japan, University of Tsukuba)

16:50 Subtopic 14)

Non-mammalian receptors.

Joseph Thornton (USA, Columbia University), David Crews (USA, University of Texas)

17:10 Adjournment

13:30-16:30

Workshop 5: Hall B

Precautionary Principle and Weight of Evidence approach in Endocrine Disruptor Issues.

Organizer: Professor Joanna Burger, Rutgers University, USA)

Titles and Speakers:

- (1) Introduction to the issues: the Weight of Evidence vs. the Precautionary Principle.
Joanna Burger (USA, Rutgers University)
- (2) The Precautionary Principle and Risk Assessment.
Bernard D. Goldstein (USA, University of Pittsburgh)
- (3) Late lessons from early warnings, 1896-2000: the role of information in decision-making.
David Gee (Denmark, European Environment Agency)
- (4) Why epidemiology warrants the precautionary principle.
Michael Gochfeld (USA, UMDNJ-Robert Wood Johnson Medical School and Environmental and Occupational Health Sciences Institute)
- (5) Weight of Evidence and Endocrine Disruptors.
Karen Hamernik (USA, USEPA)
- (6) The role of the precautionary principle in the EU risk assessment process on industrial chemicals.
Jack H.M. de Bruijn (Italy, European Chemicals Bureau)

18:00-19:30

Reception: Yokohama Grand Inter-Continental Hotel

November 18 (Mon)

Oral Session of Topic 2: Hall A

Environmental Fate and Metabolism of Endocrine Active Substances.

Coordinator: Professor Werner Klein

09:00 Subtopic 1)

Technologies for the detection of endocrine active substances in food and the environment.

Patrick T. Holland (New Zealand, Cawthron Institute)

09:20 Subtopic 2)

Naturally Produced Steroid Hormones and their Release into the Environment.

Laurence S. Shore, Mordechai Shemesh (Israel, Kimron Veterinary Institute)

09:40 Subtopic 3)

Concentration of phytohormones in food and feed and their impact on Human exposure.

Philippe Verger (France, Institut National de la Recherche Agronomique)

10:00 Subtopic 4)

Synthetic hormones and other potentially endocrine disrupting pharmaceuticals - release and fate in the environment.

Flemming Ingerslev (Denmark, The Royal Danish School of Pharmacy)

-Coffee Break-

10:40 Subtopic 5)

Releases of industrial chemicals by different pathways into the environment and their initial concentrations in soil and water.

Andrew Johnson, Monika Jürgens (UK, CEH Wallingford)

11:00 Subtopic 6)

Release of pesticides into the environment and initial concentrations in soil, water, and biota.

Kenneth D. Racke (USA, Dow AgroSciences)

11:20 Subtopic 7)

Degradation, persistence and accumulation in water and soil.

Arata Katayama (Japan, Nagoya University)

11:40 Subtopic 8)

Metabolism of endocrine active substances in mammals.

Norio Kurihara (Japan, Koka Laboratory, Japan Radioisotope Association)

-Lunch-

13:20 Subtopic 9)

Metabolism in aquatic and terrestrial organisms.

Martin Van den Berg, J. Thomas Sanderson (The Netherlands, University of Utrecht)

13:40 Subtopic 10)

Critical factors in exposure modeling of endocrine disruptors.

Pim de Voogt (The Netherlands, University of Amsterdam), Bert van Hattum (The Netherlands, Vrije Universiteit)

14:00 Subtopic 11)

Prioritization of information needs to improve exposure analysis and global conclusions.

Joint authorship

14:20 Adjournment

14:40-16:40

Poster / Discussion Session of Topic 1: Hall C

16:40-18:40

Poster / Discussion Session of Topic 2: Hall C

14:40-18:40

Workshop 1: Hall B

QSAR and Related Procedures for Prescreening and Predicting of Potentially Endocrine-active Compounds.

Organizer: Professor Emeritus Toshio Fujita, Kyoto University, Japan

Titles and Speakers:

- (1) A Mechanism-based QSAR Approach to the Toxicity of Endocrine Disruptive Agents.
Cynthia D. Selassie (USA, Pomona College)
- (2) New 3D Techniques for Ranking and Prioritization of Chemical Inventories.
Ovanes Mekenyan (Bulgaria, University "Prof. As. Zlatarov")
- (3) Integrated QSAR Models for Prediction of Estrogens and Androgens.

- Weida Tong (USA, R.O.W.Sciences)
- (4) 3D-SAR Analysis of Endocrine Disruptors Based on Target Receptor Structure.
Nobuo Tomioka (Japan, Institute of Medicinal Molecular Design, Inc.)
- (5) Probing the Ligand-Binding Pocket of Estrogen Receptor α and β by Combinatorial Chemistry and Design: The Search for Subtype-Selective Ligands Based on Differential Potency and/or Efficacy.
John A. Katzenellenbogen (USA, University of Illinois)

November 19 (Tue)

Oral Session of Topic 3 : Hall A

Effects of Endocrine Active Chemicals in Rodents and Humans, and Risk Assessments for Humans

Coordinators: Dr. James Lamb, Professor John Ashby

09:00 Subtopic 1)

Trends in human male reproductive health: hypospadias, testicular cancer and sperm count.

Niels E. Skakkebaek (Denmark, University of Copenhagen), Richard M. Sharpe (UK, MRC; Medical Research Council - Human Reproductive Sciences Unit)

09:20 Subtopic 2)

Worldwide changes in sperm counts, hypospadias and testicular cancer.

Harry Fisch (USA, Columbia University)

09:40 Subtopic 3)

Breast cancer incidence and mortality and its potential relationship with exposure to environmental hormones.

Lenore Arab (USA, University of North Carolina)

10:00 Subtopic 4)

Steroids, Hormones and Child Development.

Maria New (USA, New York Hospital - Cornell Medical Center)

-Coffee Break-

10:40 Subtopic 5)

Brominated fire retardants and endocrine disruption.

Joseph G. Vos (Netherlands, National Institute of Public Health & Environment)

11:00 Subtopic 6)

Balancing of beneficial and adverse effects of hormonally active agents.

Kenneth D. Setchell (USA, Children's Hospital Medical Center)

11:20 Subtopic 7)

Hormonally active agents and plausible relationships to adverse effects on human health.

Tohru Inoue (Japan, National Institute of Health Sciences)

11:40 Subtopic 8)

Experience with new testing guidelines with endocrine-sensitive endpoints.

Rochelle W. Tyl (USA, Research Triangle Institute)

-Lunch-

13:20 Subtopic 9)

Significance of experimental studies for assessing adverse effects of endocrine active substances in humans.

Leon Earl Gray (USA, NHEERL; National Health and Environmental Effects Research Laboratory-EPA),
Paul M. D. Foster (USA, CIIT; Chemical Industry Institute of Toxicology)

13:40 Subtopic 10)

Critical evaluation of observed adverse effects of endocrine active substances on reproduction and development, nervous and immune systems.

John C. O'Connor (USA, DuPont Haskell Laboratory)

14:00 Subtopic 11)

Modification of endocrine active potential by mixtures (synergism, additivity and antagonism).

Kevin W. Gaido (USA, CIIT)

14:20 Subtopic 12)

Determination of the TDI (Tolerable Daily Intake for humans) and PNEC (Predicted No Effect Concentration in Environmental Species): animal models to ensure human safety.

Penelope Fenner-Crisp (USA, ILSI; International Life Sciences Institute)

14:40 Subtopic 13)

Dose response assessment, including low dose extrapolations and consideration of hormesis.

Hugh A. Barton (USA, NHEERL-EPA)

-Coffee Break-

15:20 Subtopic 14)

Use of NOAEL, benchmark dose, and other models for human risk assessment of hormonally active Substances.

Carole A. Kimmel (USA, EPA), Woodrow Setzer (USA, NHEERL-EPA)

15:40 Subtopic 15)

Weighing the evidence: assessing data quality or reliability for responses to hormonally active substances.

Michael Shelby (USA, National Toxicology Program NIEHS; National Institute of Environmental Health Science)

16:00 Subtopic 16)

Interaction of xenobiotics with the steroid hormone metabolic pathways.

J. Thomas Sanderson, Martin Van den Berg (The Netherlands, University of Utrecht)

16:20 Subtopic 17)

Toxicity versus beneficial effects of phytoestrogens.

Shoji Fukushima, Hideki Wanibuchi (Japan, Osaka City University Medical School)

16:40 Subtopic 18)

Technical problems associated with measuring low dose endocrine-mediated toxicity.

John Ashby (UK, Syngenta Ltd.)

17:00 Subtopic 19)

Evaluation of thyroid function in neonatal and adult rats – The Neglected Endocrine Disruptor.

Mildred S. Christian (USA, Charles River Laboratories)

17:20 Adjournment

13:20-17:20

Workshop 3: Hall B

The need for establishing integrated monitoring programs related with endocrine disruptors.

Organizer: Professor Helmut Segner, Berne University, Switzerland

Titles and Speakers:

- (1) Search for the evidence of endocrine disruption in the aquatic environment; lessons to be learned from joint biological and chemical monitoring in the European project COMPREHEND.
Rik Eggen (Switzerland, EAWAG; Eidgenössische Anstalt für Wasserversorgung, Abwasserreinigung und Gewässerschutz)
- (2) Identifying the causative agents: the use of combined chemical and biological monitoring strategies in monitoring programmes.
Edward Routledge (UK, Brunel University)
- (3) Integration of biological endpoints into chemical monitoring.
Bertold Hock (Germany, Technical University Munich)
- (4) Closing the gap between external and internal exposure in monitoring studies: does tissue residue analysis makes sense ?
Donald E. Tillit, Diana Papoulias (USA, U.S. Geological Survey Columbia Environmental Research Center)

November 20 (Wed)

Oral Session of Topic 4 : Hall A

Effects of Endocrine Active Substances in Wildlife Species

Coordinator: Dr. Peter Matthiessen

09:00 Subtopic 1)

A historical perspective on endocrine disruption in wildlife.

Peter Matthiessen (UK, CEH)

09:20 Subtopic 2)

Endocrine disruption in invertebrates.

Jörg Oehlmann (Germany, Johann Wolfgang Goethe University Frankfurt am Main)

09:40 Subtopic 3)

Endocrine disruption in freshwater fish.

Susan Jobling (UK, Brunel University), Charles Tyler (UK, Exeter University)

10:00 Subtopic 4)

Endocrine disruption in marine fish.

Peter Matthiessen (UK, CEH)

-Coffee Break-

10:40 Subtopic 5)

Effects of endocrine disrupters on aquatic mammals.

Cristina Fossi (Italy, Localita Calcinaia), Marsili Letizia (Italy, Siena University)

11:00 Subtopic 6)

Deformed frogs and environmental retinoids.

Bruce Blumberg (USA, University of California)

11:20 Subtopic 7)

Effects of endocrine disrupting chemicals on sex determination and differentiation in reptiles.

Louis Guillette (USA, University of Florida), Taisen Iguchi (Japan, Okazaki National Research Institutes)

11:40 Subtopic 8)

Central effects of endocrine disrupting chemicals in birds.

John Giesy, Paul D. Jones (USA, Michigan State University)

-Lunch-

13:20 Subtopic 9)

Animal models for the study of the effects of mixtures, low doses, and the embryonic environment on the action of endocrine disrupting chemicals.

David Crews (USA, University of Texas), Joseph Thornton (USA, Columbia University)

13:40 Subtopic 10)

Interactions of physical stressors with the effects of endocrine disruptors in wildlife.

Thomas Pottinger (UK, CEH)

14:00 Subtopic 11)

Genetic, biochemical and physiological factors in variable susceptibility to endocrine disruptors.

Shin'ichiro Kawai, (Japan, Kobe College), Makito Kobayashi (Japan, International Christian University), Hideo Kaneko (Japan, Sumitomo Chemical Co., Ltd.)

14:20 Subtopic 12)

The development of fish tests for endocrine disruptors.

Thomas Hutchinson (UK, AstraZeneca), Hirofumi Yokota (Japan, Chemicals Evaluation and Research Institute), Satoshi Hagino (Japan, Sumika Technoservice Corporation), Kenjiro Ozato (Japan, Nagoya University)

14:40 Subtopic 13)

Endocrine disruption in wildlife: the future.

John Sumpter (UK, Brunel University)

15:00 Adjournment

9:00-11:00

Poster / Discussion Session of Topic 3: Hall C

15:20-17:20

Poster / Discussion Session of Topic 4: Hall C

15:20-18:20

Workshop 4: Hall A

Simple, rapid assay for conventional definitive testings of endocrine disruptor hazard.

Organizer: Professor Shoji Fukushima, Osaka City University Medical School, Japan

Titles and Speakers

- (1) OECD enhanced study
Alexius Freyberger (Germany, Bayer AG)
- (2) Medium-term carcinogenicity assay
Katsumi Imaida (Japan, Kagawa Medical University)
- (3) Thyroid assay
Michael J. Devito (USA, EPA)
- (4) in utero exposure assay (transplacental, transmilk study)
Hiroaki Aoyama (Japan, The Institute of Environmental Toxicology)

November 21 (Thu)

9:00-13:00

Workshop 2: Hall A

Toxicogenomics as a rational approach to endocrine disruptor research.

Organizers: Professor Tomoyuki Shirai, Nagoya City University Medical School, Japan
Dr. Raymond Tennant, NIEHS, USA

Titles and Speakers:

- (1) The Research Program of the National Center for Toxicogenomics.
Raymond Tennant (USA, NIEHS)
- (2) Transcript Profiles Elicited by Developmental Exposure to Endocrine-Mediated Toxicants.
George P. Daston (USA, Procter & Gamble Company)
- (3) Use of Transcript Profiling to Characterise Responses to Natural and Synthetic Estrogens.
George Orphanides (UK, Syngenta Central Toxicology Laboratory)
- (4) Toxicogenomic Assessment of Endocrine Active Substances.
Tim Zacharewski (USA, Michigan State University)
- (5) Toxicant Induced Expression Patterns in Cell Lines and Tumors.
Melissa A. Troester (USA, University of North Carolina at Chapel Hill)
- (6) Application of Toxicogenomics to Endocrine Disrupting Issue.
Tomoyuki Shirai (Japan, Nagoya City University Medical School)

8:30-12:00

Workshop 6: Hall B

Risk management options for endocrine disruptors in national and international programs.

Organizers: Dr. James Lamb, BBL Sciences, USA
Dr. Herman B.W.M. Koeter, OECD, France

Titles and Speakers:

- (1) A government view of endocrine disruption in wildlife.
Andreas Gies (Germany, German UBA; Umweltbundesamt)
- (2) A chemical industry view of endocrine disruption in wildlife.
Rob Taalman, Simon Webb (Belgium, CEFIC; European Chemical Industry Council)
- (3) A conservationist view of endocrine disruption in wildlife.
Gwynne Lyons (UK, WWF; World Wildlife Fund)
- (4) Risk assessment and risk management of endocrine disruption in Australia.
Les Davies (Australia, Department of Health and Ageing)
- (5) Endocrine Disruption: a CDER (Center for Drug Evaluation and Research) / FDA (Food and Drug Administration) perspective on risk.
Abigail C. Jacobs (USA, FDA)
- (6) OECD programs in Advancing the Testing of Substances for Endocrine Disruption.
Herman B.W.M. Koeter (France, OECD)

14:20-15:20

Conclusion and Recommendation of each topic: Hall A

15:20-15:40

Closing Ceremony: Hall A

Official Language:

English. Simultaneous translation service between English and Japanese will be provided throughout the week.

Final Report:

The integrated output of the project (reports of contributors) as well as a brief summary of the workshops by paying due consideration on outside comments and opinions expressed at the International Symposium and thereafter will be published in *Pure and Applied Chemistry*, ca. (over) 700 printed pages. The shortened version (Executive Summary) for non-experts will be published separately. The English version will be available in mid-2003.

Registration

Registration:

Anyone wishing to register will mail or fax the Registrations Form to

M & J International

1-35-17, Imajuku, Asahi-ku, Yokohama, 241-0817 Japan,

Fax: +81-45-361-9681

The registration fee is shown below. Scientists and/or regulators from developing countries and economically disadvantaged countries / regions are encouraged to participate and may be eligible for some financial support.

The registration desk will be open as follows;

November 16 15:00-19:00 at Foyer (5th floor)

November 17-20 08:30-18:00 at Foyer (5th floor)

November 21 08:30-12:00 at Foyer (5th floor)

Registration Fee (in Japanese Yen Only)

	Early-Registration (Received by August 15, 2002)	After August 16, 2002 or On-Site Registration
Regular Participants	24,000 yen	30,000 yen
Students (photo ID)	12,000 yen	15,000 yen
Accompany/Spouses	8,000 yen	10,000 yen

Student Registration

Students must enclose a certificate from the head of their Department or Scientific Institution confirming their status with the registration form. Anyone studying at a university and who has not yet received a PhD degree, is considered to be a student.

The fee for Regular Participants and Students covers the abstract book, and coffee or tea during each session break.

Payments of the Registration Fee should be made using **Credit Card** (VISA, Master Card or American Express only) or via **Bank Transfer**. Regarding On-site registration, participants can pay the registration fee by credit card (VISA, Master Card or American Express) or money (in Japanese yen) at registration desk.

For Bank Transfer, remit the total amount as follows:

Bank Name	Mizuho Bank, Ltd., Oshiage Branch
Account Name	EDS symposium secretariat CERI
Account Number	1597055
Bank Swift Code	MHBKJPJT
Address	3-15-9 Narihira, Sumida-ku, Tokyo 130-0002, Japan TEL: +81-3-3625-2131 / FAX: +81-3- 3626-7854

*Note: All bank charges must be paid by the sender.

Refund:

Cancellations of registered participants or accompanying persons will be refunded minus administrative fee of 5,000 yens. Cancellations must be communicated before October 31, 2002. After this day, no refund will be given.

Personal Invitation:

If you need a personal invitation to the Symposium, please contact M&J International.

Passports and Visas:

All foreign visitors entering Japan must have a valid passport. Visas are required for participants who are citizens of several countries.

Please check your status at: http://www.mofa.go.jp/j_info/visit/visa/index.html. Those who are in need of an entry visa, please apply for an invitation and personal guarantee to the International Symposium Secretariat by **July 15, 2002**.

ICSU (SCOPE and IUPAC) sponsorship implies that entry visas will be granted to all bona fide scientists provided application is made not less than three months in advance. If a visa is not granted one month before the meeting, the Symposium Secretariat should be notified without delay by the applicant.

Useful Information for Your Stay in Yokohama

Accommodations:

Anyone wishing to reserve accommodations should mail or fax the Hotel Reservation Form to:

M & J International

1-35-17, Imajuku, Asahi-ku, Yokohama, 241-0817 Japan,

Fax: +81-45-361-9681 Before August 15, 2002

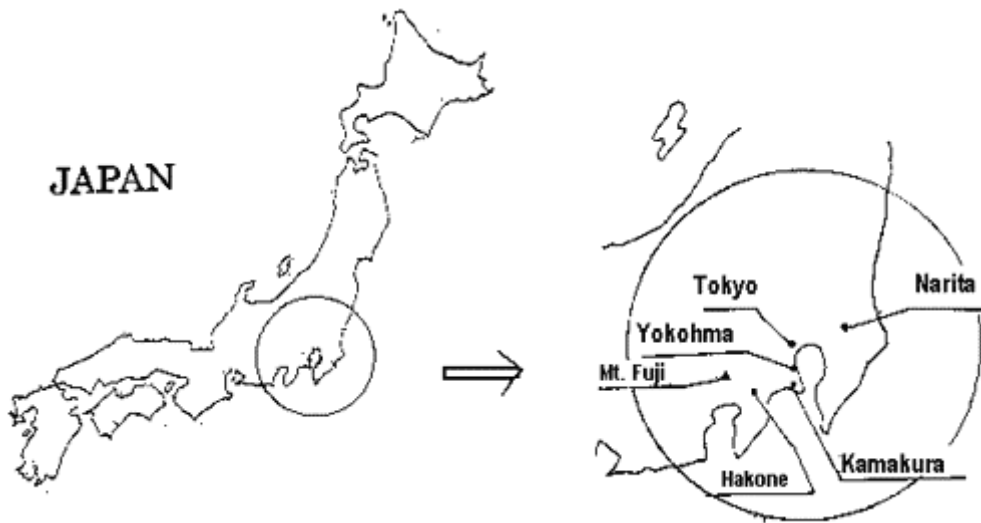
Reservations will be made on a first-come, first-served basis. Please indicate your order of preference on the application form. If your desired hotel is fully booked, your second choice or a hotel of similar grade will be reserved.

Price Cat.	Name of Hotel and Location	Room Rates	
		Single w/ Bath	Twin w/ Bath
A	Yokohama Grand Inter-Continental Hotel (Connected directly to the conference site.) http://www.interconti.co.jp	18,000yen/night	23,000yen/night
B	Sakuragi-cho Washington Hotel (Located close to Sakuragi-cho Station and is about 10 minutes on foot from the conference site.) http://www.yokohama-s-wh.com	12,000yen/night	17,000yen/night
C	Breezbay Hotel (3 minute walk from Sakuragi-cho Station and about 15 minutes away from the conference site.) http://www.breezbay.co.jp	9,000yen/night	14,000yen/night

* Room Rates include breakfast and service charge, but a 5% tax will be added to your bill.

Access:

The conference will take place at Pacifico Yokohama in the city of Yokohama (Kanagawa Prefecture, near Tokyo). It is easily accessible by public transportation.



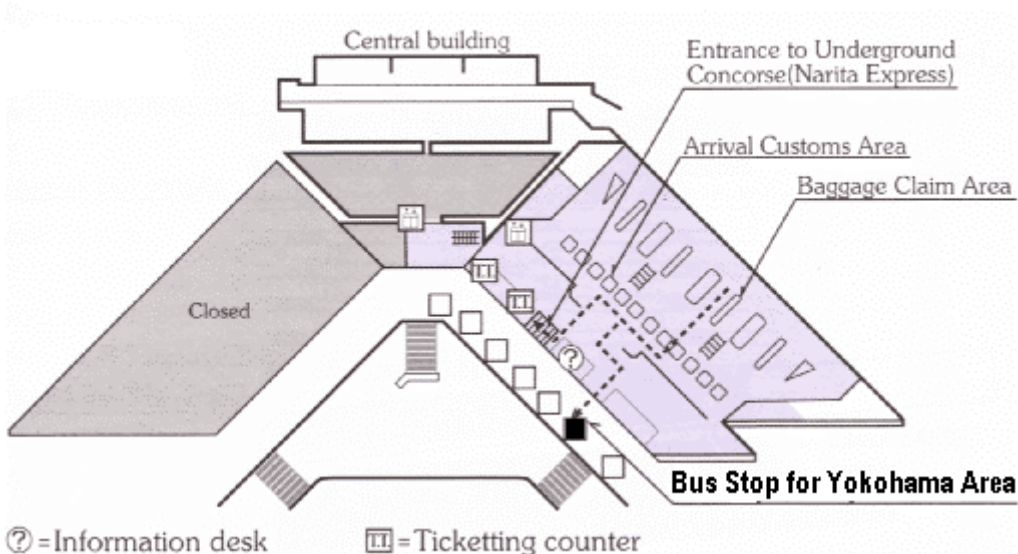
From Narita Airport (New Tokyo International Airport) to YCAT (Yokohama City Air Terminal) by Limousine Bus

Although there are several ways to the Yokohama Area, we strongly recommend the Limousine Bus, which is located in front of the exit of Narita Airport. If landed in Terminal I, please make your way to Bus Stop No.3. If landed in Terminal II, please make your way to Bus Stop No.5 or No. 15. These buses will directly take you to Yokohama City Air Terminal in 90 minutes depending on the traffic conditions. (3,500 Japanese Yen, leaves every 30 minutes) (http://www.limousinebus.co.jp/e/index_route.html)

NARITA AIRPORT											YCAT (YOKOHAMA CITY AIR TERMINAL)										
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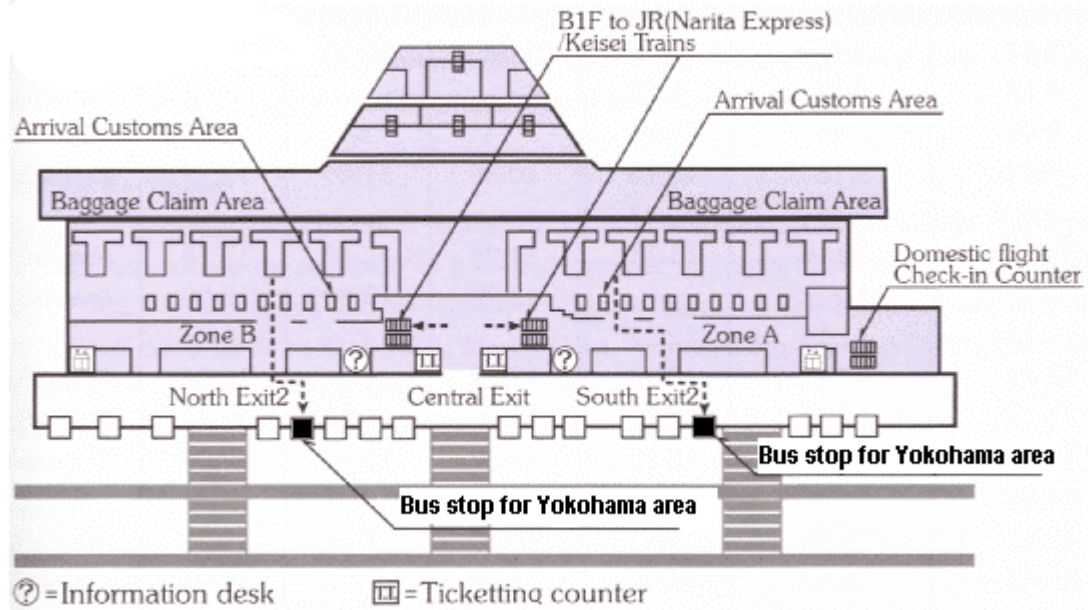
* 07:20, 14:40, 15:40, 17:00, 18:00 and 20:00 buses stop at Yokohama Inter-Continental Hotel (3,800 yen, 100 minutes, depending on traffic conditions).

Narita Airport (New Tokyo International Airport) Terminal I



* Bus stop for Yokohama City Air Terminal is No. 3.

Narita Airport (New Tokyo International Airport) Terminal II

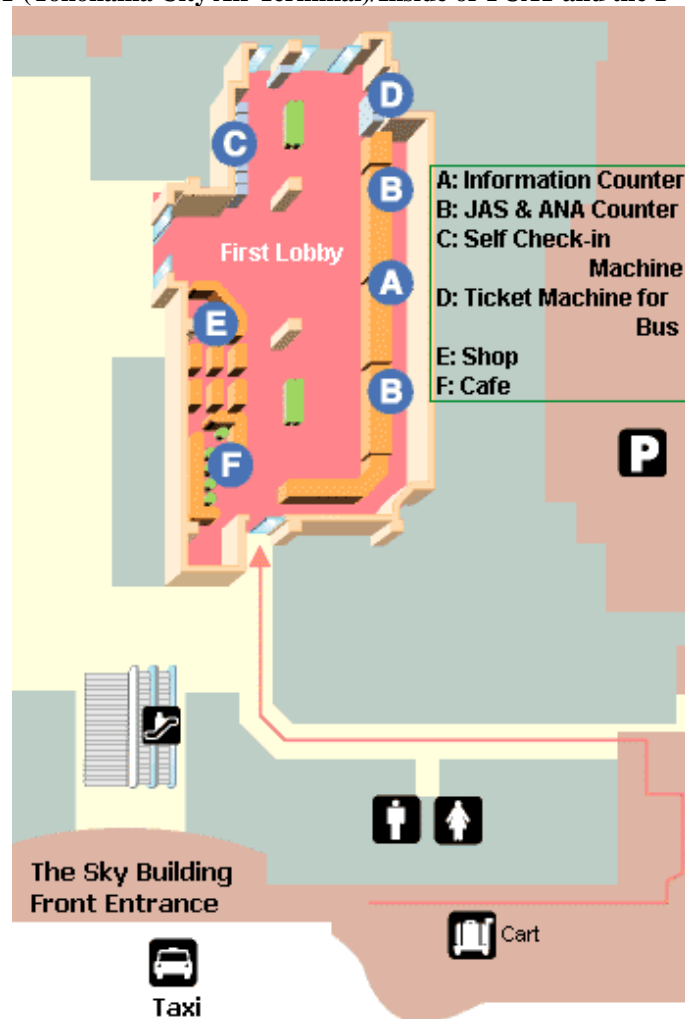


* Bus stop for Yokohama City Air Terminal is No. 5 and No. 15

From Haneda Airport to YCAT (Yokohama City Air Terminal) by Limousine Bus

30 minutes by Limousine Bus to Yokohama City Air Terminal. It costs you 560 yen. Buses run every 10 minutes.

YCAT (Yokohama City Air Terminal)/Inside of YCAT and the 1st Lobby

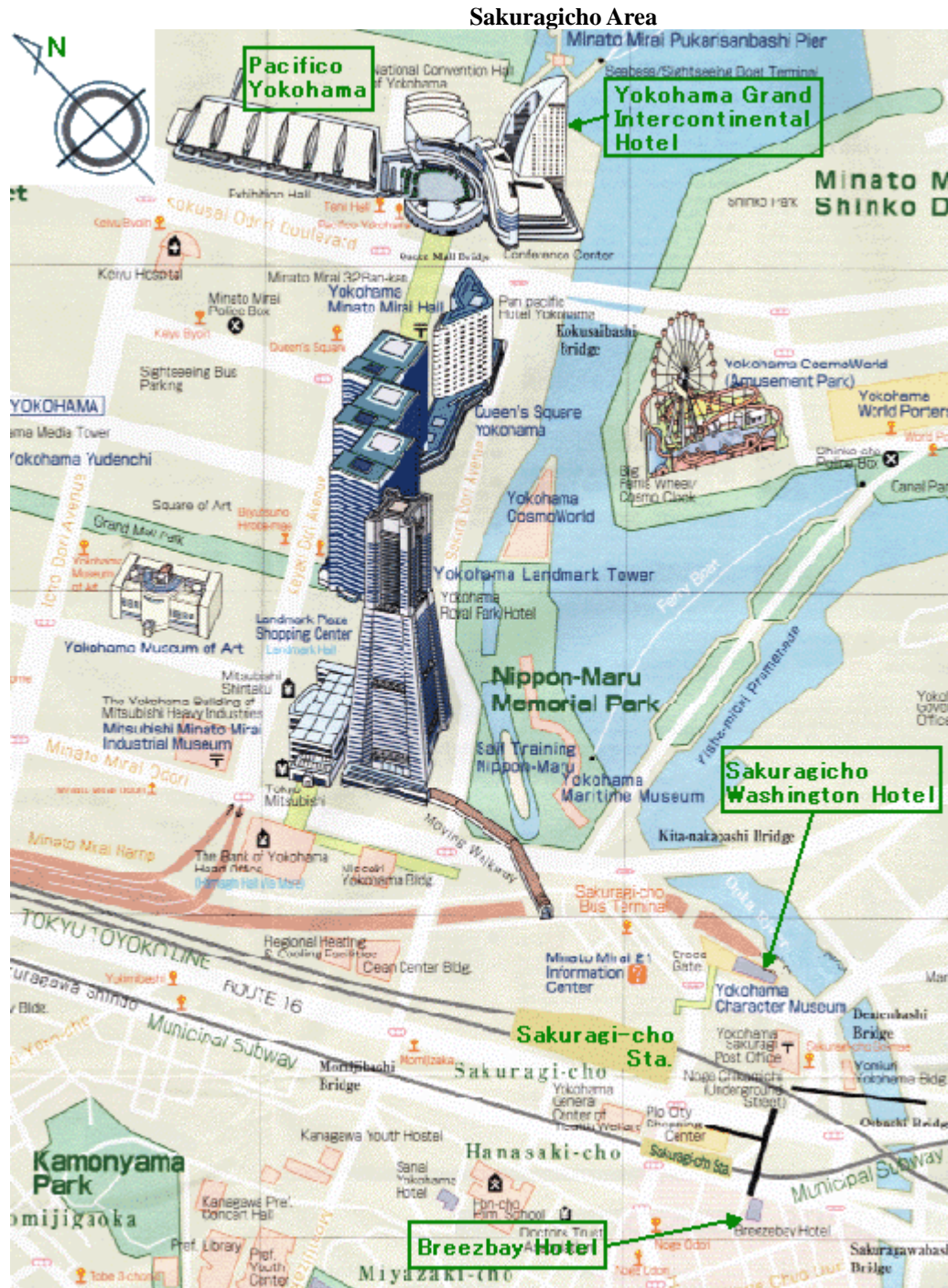


From YCAT (Yokohama City Air Terminal) to the Hotels and Conference site (Pacifico Yokohama)

After arriving at Yokohama City Air Terminal, please take a taxi to the hotel that you have chosen. Taxi stop, which is located just outside, is clearly marked. It will take approximately 10 minutes to reach Yokohama Grand Inter-Continental Hotel, Sakuragicho Washington Hotel or Breezbay Hotel and will cost you around 1,000 yen. From YCAT to the conference site, it will take about 10 minutes and cost you about 1,000 yen.

From Sakuragicho Washington Hotel or Breezbay Hotel to Pacifico Yokohama

10 to 15 minutes on foot from each hotel. 3 to 5 minutes by taxi (about 800 yen) from each hotel. 5 minutes by bus (pole number 4, bus route is 57) from Sakuragi-cho Station



If you need more information, please access the following web sites;

Pacifico Yokohama: <http://www.pacifico.co.jp/index-e.htm>

Narita Airport - New Tokyo International Airport: http://www.narita-airport.or.jp/airport_e/index.html.

Weather:

The latter half of November in Japan is the end of fall. Generally it is rather cool and comfortable. The average temperature during the day time is approximately 14°C. Thus the appropriate attire for the fall season in Japan is a jacket/coat, long-sleeved shirts and sweaters.

Japan Rail Pass:

“The Japan Rail Pass” provides virtually unlimited travel on the national network of JR railways, including the Shinkansen (bullet train). Three types of railways pass issued (7-day pass ¥28,300, 14-day pass ¥45,100, 21-day ¥57,700). Before you depart, Exchange Orders for this pass must be obtained at the overseas offices of authorized travel agents or associated local travel agents. You cannot purchase it inside Japan. Information for touring is available at this web site. (<http://www.jnto.go.jp>)

Currency Exchange:

The current exchange rate of Japanese Yen is about 130 yen to 1US\$ and 120 yen to 1EURO (Apr. 2002). Only Japanese Yen is acceptable at regular stores and restaurants. Credit cards (VISA, Master Card, American Express or Diners Club) may be accepted at hotels, a number of restaurants and souvenir shops. Yen can purchase at foreign exchange banks and other authorized money exchanges on presentation of your passport. At your hotel, only US\$ can be exchanged to Japanese Yen. Please note that bank offices in the city area are closed on Saturdays, Sundays and National Holidays. (November 23 is Labor Thanksgiving Day, National Holiday)

Accompanying Person's Program:*** Japanese Cultural Experience**

Maximum Number of Participants: 21 persons

Assembly Point: In front of Registration Desk

Fee: Free of charge

Tea Ceremony (Cha-no-yu)

Date: November 17, 2002

Time: 9am to 12pm

The Japanese tea used to be the taste of a high-level society in Japan. It is said that Sen-no-rikyu established the present shape in history of tea in the Momoyama Era, about 400 years ago. Afterwards, it has been widely spread among the people in order to learn the ancient Japanese Culture. In the program, you will enjoy being a guest at a tea ceremony with Japanese sweets served.

Flower Arrangement (Ikebana)

Date: November 18, 2002

Time: 9am to 12pm

Ikebana is the art of flower arrangement that is also called Kado. Arranged flowers in a container are placed for display in Tokonoma (the alcove made in a Japanese-style room) or elsewhere. In the program, participants are able to arrange flowers yourselves, under the direction of an instructor and feel the old Japanese traditional beauty.

Origami

Date: November 19, 2002

Time: 9am to 12pm

The art of folding paper into various shapes such as birds, animals, flowers, and many other things, from a square-shaped colored pieces of paper.

*** Yokohama City Tour**

Date: November 18, 2002

Time: 12pm to 4pm

Assembly Point: In front of Registration Desk

Fee: 5,000yen (lunch at China Town included)

This tour will introduce you to both traditional and modern aspects of Yokohama: Sankei-en is a beautiful Japanese Garden dotted with picturesque bridges and historic buildings, including a three-storied pagoda and Japanese old houses.

The conference site, Minato-Mirai 21 area is the modern and urban part of Yokohama. Rising 296 meters into the sky and with 70 stories, Yokohama Landmark Tower has become a new scenic point of Yokohama. The 69th floor's "Sky Garden" Observation Deck offers a magnificent view of the surrounding area. On the way to Pacifico Yokohama from this skyscraper, you can enjoy shopping at Queen's Square, which is a complex of speciality shops, department stores, hotels, concert halls, as well as offices.

* Kabuki Night

Date: November 19, 2002 Time: 4pm to 9pm

Assembly Point: In front of Registration Desk

Fee: 12,000 yen/person (dinner included)

Kabuki is the most celebrated traditional stage drama in Japan performed to the accompaniment of songs and music. It is played at the Kabukiza Theater, near Ginza, Tokyo. Before the performance, sukiyaki dinner will be served.

* Mt. Fuji and Hakone Tour

Date: November 20, 2002 Time: 9am to 4pm

Assembly Site: In front of Registration Desk

Fee: 12,000yen (lunch included)

Hakone is one of the most representative tourist resorts in Japan. Surrounded by scenic mountains, it offers the unique scenery of placid Lake Ashino-ko at the bottom of Mt. Fuji. It also boasts an abundance of hot-springs scattered along the streams of its rivers. Hakone is a lovely National Park, where places of historic interest and modern tourist facilities blend with nature. The district still remains a large number of cultural properties suggestive of a long history and offers many museums and amusement facilities.

* Kamakura Tour

Date: November 21, 2002 Time: 9am to 3pm

Assembly Point: In front of Registration Desk

Fee: 8,000yen (lunch included)

Kamakura played an important role in Japanese history as the place where the first government (the shogunate) established in 1192. Founded by the first shogunate, the historical Tsurugaoka Hachimangu Shrine became Japan's center of politics and culture in the 12th century. The world famous Great Buddha/Daibutsu is a bronze image depicting Buddha in a seated meditative pose. Its imposing stature of 11.4 meters (37ft) high and its unique expression made it known to many countries around the world. The Hase-dera Temple stands on a hill and commands a splendid view of the seacoast. This temple houses a huge wooden statue of Kannon, the Goddess of Mercy.

Contact:

(1) Regarding registration, hotel accommodation, payment methods, access to Japan, social events, invitation letters, entry visa, etc.

Mr. Makoto Nikkawa

c/o M & J International

1-35-17, Imajuku, Asahi-ku, Yokohama, 241-0817 Japan

Tel: +81-45-391-7121 Fax: +81-45-361-9681 E-mail: nikkawa@jise.or.jp

(2) Regarding scientific matters and:

Mr. Kiyohiro Kubota

The International Symposium Secretariat

c/o Chemicals Evaluation and Research Institute, Japan

1-4-25, Kouraku, Bunkyo-ku, Tokyo 112-0004 Japan

Tel: +81-3-5804-6135 Fax: +81-3-5804-6149 or +81-3-5804-6139 E-mail: eds-sympo@ceri.jp

Web sites:

CERI: <http://www.cerij.or.jp/>

IUPAC: <http://www.iupac.org/>

SCOPE: <http://www.icsu-scope.org/>

Calendar:

July 15, 2002 Deadline for contact with the Secretariat for visa application

August 15, 2002 Deadline for Early-registration

Deadline for hotel reservation

Time Table (November 16-21, 2002)

Hour	Saturday (November 16)			Sunday (November 17)			Monday (November 18)		
	Hall A	Hall B	Hall C	Hall A	Hall B	Hall C	Hall A	Hall B	Hall C
8				Registration (8:30-18:00)		Poster Preparation	Registration (8:30-18:00)		
9				9:30 Opening Ceremony			9:30 Topic 2 1) ~ 4)		
10				10:00 Overview of the Project			10:20 Coffee Break		
11				10:30 Coffee Break			10:40 Topic 2 5) ~ 8)		
12				10:50 Topic 1 1) ~ 4)			12:00 Lunch		
13				12:10 Lunch			13:20 Topic 2 9) ~ 11)		
14				13:30 Topic 1 5) ~ 9)	13:30 Workshop 5 Precautionary principle/ approach)		14:20 Coffee Break		
15	Registration (15:00-19:00)		15:00	15:10 Coffee Break				14:40 Workshop 1 (QSAR)	14:40 Poster/ Discussion Session Topic 1
16			Poster Preparation	15:30 Topic 1 10) ~ 14)	16:30				16:40 Poster/ Discussion Session Topic 2
17				17:10					
18				18:00 Reception				16:40	18:40
19			19:00	19:30					

- N.B.: 1. Registration time: November 16; 15:00-19:00, November 17-20; 8:30-18:00, November 21; 8:30-12:00
 Registration place: Foyer of the Fifth Floor
 2. The figure in each Topic indicates the number of subtopics.
 3. All the posters are mounted throughout the Symposium period.
 Poster preparation time: November 16, 15:00-19:00, November 17, 8:00-9:30
 Poster removal time: November 21, 13:00-13:30

Time Table (November 16-21, 2002)

	Tuesday (November 19)			Wednesday (November 20)			Thursday (November 21)		
Hour	Hall A	Hall B	Hall C	Hall A	Hall B	Hall C	Hall A	Hall B	Hall C
8	Registration (8:30-18:00)			Registration (8:30-18:00)			Registration (8:30-12:00)	8:30	
9	9:00 Topic 3 ~			9:00 Topic 4 ~		9:00 Poster/ Discussion Session Topic 3	9:00 Workshop 2 (Toxicogenomics)	Workshop 6 (Risk management)	
10	10:20 Coffee Break			10:20 Coffee Break			10:40 Coffee Break		
11	10:40 Topic 3 ~			10:40 Topic 4 ~			11:00 Workshop 2 (Toxicogenomics)		
12	12:00 Lunch			12:00 Lunch			13:00 Lunch		
13	13:20 Topic 3 ~	13:20 Workshop 3 (Monitoring)		13:20 Topic 4 ~					13:00 Poster removal 13:30
14	15:00 Coffee Break			15:20 Coffee Break			14:20 Conclusion & Recommen- dation		
15	15:20 Topic 3 ~			15:20 Workshop 4 (Rapid Assay)		15:20 Poster/ Discussion Session Topic 4	15:20 Closing Ceremony		
16							15:40		
17	17:20	17:20				17:20			
18				18:20					
19									

SCOPE/IUPAC International Symposium on Endocrine Active Substances

Symposium Registration Form

Please type or print and check the appropriate box. Please complete and return this form by **August 15, 2002** for early registration to:

Makoto Nikkawa, M&J International

1-35-17, Imajuku, Asahi-ku, Yokohama, 241-0817 Japan

Fax: +81-45-361-9681

Name: Prof. / Dr. / Mr. / Ms. _____
 (Family Name) (First Name) (Middle Name)

Affiliation: _____

Address: Home _____ Work _____

_____ **Zip Code** _____ **Country** _____

Phone _____ **Fax** _____ **E-mail** _____

Remittance

Registration Fee	Early-registration (After August 16, 2002)	
Regular Participants:	24,000 yen (30,000 yen) × _____	= _____ yen
Students:(Photo ID)	12,000 yen (15,000 yen) × _____	= _____ yen
Accompany/Spouses:	8,000 yen (10,000 yen) × _____	= _____ yen
Total Amount		_____ yen

Student Declaration: This declaration states that the above person is a full time student
 I confirm that _____ is studying at _____

Signature of the Supervisor _____ Date _____

Payment (should be made in Japanese Yen)

Bank Transfer

I instructed my bank _____ on (date) _____

to remit the above total to the **Mizuho Bank, Ltd., Oshiage Branch** by Bank Transfer.

Account Name : EDS symposium secretariat CERI

Account Number: 1597055

Bank Swift Code: MHBKJPJT

Credit Card

Visa Master Card American Express

Card Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Name of Card Holder: _____ Exp. Date: _____ / _____

Authorized Signature: _____

Date: _____ Signature: _____

(Please keep a photo copy of this form)

SCOPE/IUPAC International Symposium on Endocrine Active Substances

Application Form for Accommodation and Tours

Please type or print and check the appropriate box. Please complete and return this form by **August 15, 2002** to:

Makoto Nikkawa, M&J International

1-35-17, Imajuku, Asahi-ku, Yokohama, 241-0817 Japan

Fax: +81-45-361-9681

Name: Prof. / Dr. / Mr. / Ms. _____

(Family Name) (First Name) (Middle Name)

Affiliation: _____

Address: Home _____ Work _____

_____ Zip Code _____ Country _____

Phone _____ Fax _____ E-mail _____

Name of Accompanying Person(s), if any:

Family Name: _____ First Name: _____

Family Name: _____ First Name: _____

Flight Schedule

Arriving at _____ (airport) on _____ (date) by _____ (flight number)

Departing at _____ (airport) on _____ (date) by _____ (flight number)

Accommodation

Hotel Name	Room Type	Period of Stay	Amount of Deposit
1 st Choice _____	Single Twin	Check-in Date _____	_____ yen (one night room charge)
2 nd Choice _____		Check-out Date _____	

Tours

Course	Date	Fare (per person)	No. of Person(s)	Amount
Yokohama City Tour	Nov. 18	5,000 yen × _____	_____	= _____
Kabuki Night	Nov. 19	12,000 yen × _____	_____	= _____
Mt. Fuji and Hakone Tour	Nov. 20	12,000 yen × _____	_____	= _____
Kamakura Tour	Nov. 21	8,000 yen × _____	_____	= _____

Remittance

Grand Total

_____ yen + 500 yen (handling charge) = _____ yen

Credit Card (should be made in Japanese yen)

Visa Master Card American Express

Card Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Name of Card Holder: _____ Exp. Date: _____ / _____

Authorized Signature: _____

Date: _____ Signature: _____

(Please keep a photo copy of this form)

Supported by:

METI (Ministry of Economy, Trade and Industry), Japanese Government
CERI (Chemicals Evaluation and Research Institute, Japan)

ICSU (International Council for Science)

US NIEHS (U.S. National Institute of Environmental Health Sciences)

IUTOX (International Union of Toxicology)

IUPHAR (International Union of Pharmacology)

SOT (Society of Toxicology)

UNESCO (United Nations Educational, Scientific and Cultural Organization)

UNEP (United Nations Environment Programme)

OECD (Organization for Economic Co-operation and Development)

USEPA (U.S. Environmental Protection Agency)

USFDA (U.S. Food and Drug Administration)

EU (European Union)

ILSI (International Life Science Institute)

ICCA (International Council of Chemical Industry Associations) (CEFIC; European Chemical Industry Council, ACC; American Chemistry Council, JCIA; Japan Chemical Industry Association)

Ministry of Education, Culture, Sports, Science and Technology, Japanese Government

Ministry of Health, Labour and Welfare, Japanese Government

Ministry of Agriculture, Forestry and Fisheries, Japanese Government

Ministry of Land, Infrastructure and Transport, Japanese Government

Ministry of the Environment, Japanese Government

The Chemical Society of Japan, The Japan Society for Analytical Chemistry, Japan Society on Water Environment, The Pharmaceutical Society of Japan, The Japanese Society of Toxicology, Japan Society for Environmental Chemistry, Japan Society of Endocrine Disruptor Research, The Ecological Society of Japan, Japanese Society of Food Chemistry, Pesticide Science Society of Japan, The Japan Society for Bioscience, Biotechnology, and Agrochemistry, Society of Environmental Science, Japan, The Japanese Society of Toxicologic Pathology, The Japanese Environmental Mutagen Society, The Japan Endocrine Society, and Food Hygienic Society of Japan.