

NEWSLETTER

INTERNATIONAL SOCIETY OF CHEMICAL ECOLOGY

Volume 20, Number 1, February 2003

UPDATE ON THE 2003 ISCE ANNUAL MEETING, GyeongJu, South Korea, July 14-19

WEBPAGE http://aginfo.snu.ac.kr/isce2003/main.htm



The 2003 ISCE annual meeting will be held in Gyeongju in South Korea. This meeting is especially significant because it will be the first meeting held in conjunction with the Asia-Pacific Association of Chemical Ecologists. Dr K.S. Boo, the meeting organizer, and his or-

ganizing committee have developed four main symposia within the program schedule. These are: physiology of semiochemicals, plant-insect interactions, practical applications of semiochemicals, and chemistry of semiochemicals. The meeting will be held in the Hotel Concorde at Gyeongju, which also doubles as the principal site of accommodation for attendees.

The details of the application and registration procedures, abstract submission, student travel awards, and all reguired forms for the meeting can be found at the meeting website at http://aginfo.snu.ac.kr/isce2003/main.htm. Accommodation and conference facilities can be viewed at the hotel website: http://www.concorde.co.kr/index1.htm. If you cannot access the website, or have trouble downloading the forms, please contact, ISCE Meeting Gyeongju 2003, Dr Kyung Saeng Boo, Insect Physiology Lab., School of Agricultural Biotechnology, Seoul National University, Suwon, KOREA, 441-744, Tel: 82-31-2902461, Fax: 82-31-2942722. E-mail: ksboo@plaza.snu.ac.kr or ksboo@hotmail.com. Payment for accommodation and registration can be made with a credit card, or by international money order made out to the Korean Society of Applied Entomology. Completed forms and payment details should be faxed or posted to Dr Boo at the above address. The meeting will commence with registration, a social lecture by Dr Jacques Pasteels, followed by an opening reception on the evening of the Monday. Scientific sessions will commence the next day and continue

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through to Friday. The meeting will conclude with the business meeting and a banquet. Most people will leave the conference site on the Saturday morning. Travel permutations to Gyeongju are covered on the meeting website.

There will be a final meeting update in the May-June Newsletter.

Please note the following deadlines:

Early registration: April 30, 2003.

Registration after April 30 and until July 15 is available at a higher cost.

Accommodation: April 30, 2003.

It is advised to book accommodation early to ensure

that a suitable room is available.

Abstract submission: April 30, 2003.

Message From the Editor

It is the time of year when we all should carry out our societal duties and fill in assorted forms. First up is the renewal of membership. Most of those not endowed with life membership need to renew their annual membership. Subscriptions for membership up to three years in advance can also be paid at the one time. With various other matters to concern members at this time of year, payment of the small ISCE membership fee may slip the minds of some people. However, prompt payment of membership dues by the members is critical for funding the various services and awards of the society and, from a selfish point of view, obviates Steve Teale and myself sending out numerous emails reminding the tardy. So, for those of you who are yet to renew their membership, please download the form from the website and send it, and method of payment details, to SteveTeale at:



Department of Biology, State University of New York-ESF, Forestry Drive, Syracuse, NY, USA, 13210-2726. sateale@mailbox.syr.edu_

The second form-filling exercise is registration for the annual meeting. This year the annual meeting will be held in conjunction with the Asia-Pacific Association of Chemical Ecologists in Gyeongju, the ancient capital of Korea. This will be only the second time that the annual meeting has been held in Asia, after having been held in Kyoto, Japan in 1992. It is an excellent opportunity for members to visit an exotic location, present their results to the appropriate forum, as well as meet and catch up with colleagues from Asia who, for various reasons, are unable to attend meetings in North America and Europe. Details of the meeting and where to download and send the various forms are given below or can be obtained directly at: http://aginfo.snu.ac.kr/isce2003/main.htm

Finally, there is the matter of the election of a new vice-president and of four councilors to the ISCE council. Election to these positions gives members the opportunity to contribute to the administration of the society, as well as a greater opportunity to influence ISCE policy and matters such as, recognition of colleagues for outstanding service to the field, and determining where future annual meetings will be held. It is important that a high proportion of members vote, so that the elected candidates represent the whole membership. Voting can be done electronically at http://www.chemecol.org/forms/ballot/ballot.htm or by filling out the form and posting or emailing it to me at: Stephen Foster, Department of Entomology, North Dakota State University, ND 58105, USA; Stephen.foster@ndsu.nodak.edu. Please ensure that your name is on the form so that the validity of your vote can be verified. Only paid up members can vote. Details of the candidates are given below. Note that this is the only canvassing that members are permitted to carry out. Television commercials and advertising hoardings are strictly not allowed.

Stephen Foster Secretary

ABSTRACTS WILL NOT BE ACCEPTED WITHOUT PAYMENT OF REGISTRATION FEES.

Student Travel Award application: February 28, 2003.

MEETING FORMS AND PROGRAM

All required forms for registration, accommodation, abstract preparation, student travel award application, and meeting program can be accessed and downloaded directly from the meeting website at http://aginfo.snu.ac.kr/ isce2003/main.htm. Forms may be downloaded and

printed for submission by mail or FAX to: ISCE Meeting Gyeongju 2003, Dr Kyung Saeng Boo, Insect Physiology Lab., School of Agricultural Biotechnology, Seoul National University, Suwon, KOREA, 441-744, Tel: 82-31-2902461, Fax: 82-31-2942722.

E-mail Dr Boo at <u>ksboo@plaza.snu.ac.kr</u> or <u>ksboo@hotmail.com</u> to arrange for paper copies of the forms to be sent to you.

Completed registration and accommodation forms and student travel award applications must be returned by surface mail or FAX to the addresses given, because original signatures are required. Abstracts should be submitted electronically by email in a rich text format attachment.

Letters of invitation

If letters of invitation are required please contact the meeting host Dr K.S. Boo (<u>ksboo@plaza.snu.ac.kr</u> or <u>ksboo@hotmail.com</u>).

ANNOUNCEMENT: Concerning 19th Annual Meeting ISCE 2002, Hamburg

Please note that for reasons of privacy, all documents concerning personal data (e.g. registration forms showing numbers of credit cards, etc.) of participants at the 2002 Hamburg meeting will be destroyed at the end of February 2003. Claims concerning any refunds of money will not be processed after February 28 2003.

Wittko Francke

ISCE ELECTIONS, 2003 Candidates for ISCE Vice-President

Candidate for ISCE Vice-President: Mark E. Hay

Professor Mark Hay received his Ph.D. in Ecology and Evolution from the University of California Irvine in 1980. His research was conducted via a pre-doctoral fellowship through the Smithsonian Tropical Research Institute in Panama, and focused on how seaweed-herbivore interactions affected seaweed distributions and community structure of coral reefs. He then received a Smithsonian Institution Post-Doctoral Fellowship in Paleobiology at the National Museum of Natural History to study seaweed-herbivore interactions on reefs throughout the Caribbean. After a short visiting position at the University of the Virgin Islands, he spent 17 years at the University of North Caro-

lina at Chapel Hill's Institute of Marine Sciences, where he became Professor of Marine Sciences, Ecology, and Biology. In 1999, he moved to the Georgia Institute of Technology to take the Teasley Chair of Environmental Biology and help found Georgia Tech's Center for Aquatic Chemical Ecology. Much of his research focuses on marine secondary



metabolites and the roles they play in: (1) defenses against herbivores, (2) the evolution of feeding preferences, feeding specialization, and tri-trophic interactions, (3) antifouling, (4) defense of benthic invertebrates, invertebrate larvae, and holoplankton, and (5) setting up complex and indirect interactions that impact non-target species, affecting population regulation, community organization, and maintenance of marine biodiversity. He tests the broader applicability of his marine studies by integrating his findings with those of terrestrial and freshwater investigators. Professor Hay has been active in ISCE as a Councilor (1993-1996), organizer and editor for a special aquatic issue of the Journal of Chemical Ecology (October 2002), annual meeting participant, reviewer for the Journal, and presently serves on the Editorial Board. He serves on 6 editorial boards, multiple boards of scientific societies, numerous scientific panels and working groups for agencies such as the U.S. National Science Foundation and National Oceanic and Atmospheric Administration, co-chairing NSF's workshop on future planning for Biological Oceanography, and on NSF's Decadal Planning Committee for Ocean Sciences. In 2000 he was recognized as an Aldo Leopold Leadership Fellow and in 2002 was identified by ISI's Current Contents as among the world's most cited authors in the Ecology/Environment category.

Professor Hanna Mustaparta, Department of Biology, Neuroscience Unit, Norwegian University of Science and Technology, Trondheim, Norway.



Hanna Mustaparta first began working on insects at the Max-Planck-Institute für Verhaltensphysiologie at Seewiesen. She moved into the field of chemical ecology during a research stay at the University of Gothenburg, while working toward her doctorate at the University of Oslo, Norway. After graduating, she received a Fulbright Fellowship to work at Cornell University, Ithaca, NY, and the State University of New York, Syracuse, where she studied olfactory mechanisms involved in intra- and interspecific communication of bark beetles. She returned to Europe, as an associate professor at the University of Odense, Denmark, before moving to her current position at the Norwegian University of Science and Technology at Trondheim. Her research interests are focused on the mechanisms underlying olfactory coding and olfactory learning in insect-plant interactions and pheromone communication in insects, principally using heliothine moths and forest beetles as model organisms. She collaborates extensively with other laboratories around the world including the, Department of Chemistry-Organic Chemistry, Royal Institute of Technology, Stockholm; Department of Biology, Neurobiology, Freie Universität, Berlin; Division of Neurobiology, and the University of Arizona, Tucson, where she is also an adjunct professor. Dr Mustaparta is a member of The Norwegian Academy of Science and Letters and The Royal Norwegian Society of Sciences and Letters. She is a frequent participant in meetings of ISCE

and regularly referees and publishes papers in the Journal of Chemical Ecology.

ISCE ELECTIONS, 2003 Candidates for ISCE Councilors

Professor Manfred Ayasse, Department of Experimental Ecology, University of Ulm, Germany



Professor Manfred Ayasse received his *Diploma* degree in Biology in 1987 from the University of Tübingen, Germany. In his PhD thesis, under Professor Wolf Engels at the University of Tübingen, he examined the role of chemical communication in primitively eusocial sweat bees. The research focused

on the identification of pheromones that are involved in nest recognition, mate recognition and recognition of castes. He completed the PhD program in 1991. His postdoctoral work with Prof. Hannes Paulus at the Institute of Zoology, Department of Evolutionary Biology, University of Vienna, centered on the reproductive biology of sexually deceptive orchids of the genus Ophrys. Aside from his primary research on orchids, he continued to investigate chemical communication in social insects with the aim of studying the evolution of pheromonal recognition and dominance signals in primitively eusocial bees. He obtained his *Habilitation* in Zoology in 2000, before accepting the position of Professor in Chemical Ecology at the University of Ulm in 2002 in the Department of Experimental Ecology. His current research focuses on the Chemical Ecology and Behavioral Ecology of hymenopteran insects and the reproductive biology of orchids. He collaborates with scientists from diverse disciplines covering behavioral and chemical ecological approaches in different groups of social insects and in orchids. He has been a frequent participant at ISCE annual meetings. Prof. Ayasse is a current member of the International Society of Chemical Ecology, the International

Union for the Study of Social Insects, the Deutsche Zoologische Gesellschaft, and the German Entomological Society. He is a frequent reviewer for various journals covering these research areas.

Dr. Anne-Geneviève Bagnères, Institut de la Recherche sur la Biologie de l'Insecte, CNRS, Tours, France



Dr. Anne-Geneviève Bagnères currently heads a Social Insect-Chemical Ecology group at the Institut de la Recherche sur la Biologie de l'Insecte (IRBI) in Tours, France. Prior to that date, she worked with Professor Jean-Luc Clément at the CNRS center in Marseille. Dr. Bagnères

began her studies in physiology and neurobiology at the University of Pierre and Marie Curie in Paris. In 1989 she was awarded a Ph.D. and won the Paris University Chancellerie Prize for her doctorate thesis. During her Ph.D. she worked with Murray Blum in Georgia, USA. In 1990, after completing a one-year postdoctoral program in analytical chemistry with David Morgan at the University of Keele (UK), she passed the selection process for entry into CNRS researcher based on her experience at the interface between biology and chemistry. In 1996 she received the French HDR diploma for her work on Composition, Variation and Dynamics of Chemical Signatures in Insects. During a sabbatical year in 1996-97, she worked as a visiting scientist in the laboratories of Gary Blomquist and Coby Schal on the biochemistry of insect chemical signals. In her current research on the chemical ecology of social insects, she is a leading proponent of the concept of chemical signatures. While her primary area of interest involves termite chemical ecology, she also participates in collaborative studies involving other insects (e.g., ants, wasps, bees, flies), arachnids (e.g., scorpions, spiders), and mammals (e.g., marmots and mice). She is also active in the European termite phylogeny program. Dr. Bagnères publishes in, and reviews manuscripts for, the Journal of Chemical Ecology, and has participated regularly in ISCE meetings since 1987. She is also a member of the IUSSI and the Isoptera Society.

Dr. Kenneth Haynes, Department of Entomology, University of Kentucky, Lexington, Kentucky, USA

Dr. Kenneth Haynes is currently a Professor in the Department of Entomology at the University of Kentucky, where he has been since 1986. He received a B.Sc. degree in Biological Sciences from the State University of New York at Binghamton in 1976.



His Ph.D. was from the Department of Entomology at the University of California, Davis, where he worked with Professor Martin Birch on mating behavior and chemical communication in the artichoke plume moth. He then took a postdoctoral position with Professor Thomas C. Baker at the University of California, Riverside to work on the potential for evolution of resistance to pheromones in the pink bollworm moth. His research at the University of Kentucky focuses on the evolution of species-specificity of chemical communication in moths and aggressive chemical mimicry by bolas spiders. He teaches courses in Insect Biology and Insect Behavior. Together with Dr. Jocelyn Millar he edited two books on Methods in Chemical Ecology. He frequently publishes in and reviews articles for the *Journal of Chemical Ecology* and has been a member of ISCE since 1986.

Julia Kubanek, School of Biology and School of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta GA, USA



Julia Kubanek has been an Assistant Professor of Biology and Chemistry at Georgia Institute of Technology since 2001. She got her PhD in 1998 at the University of British Columbia with Ray Andersen, studying

marine natural products chemistry and biosynthesis, followed by postdoctoral work with Bill Fenical at Scripps Institution of Oceanography (1998-2000) and with Dan Baden at the University of North Carolina at Wilmington (2000-2001). Her main area of research is aquatic chemical ecology, including studies of plant and invertebrate chemical defenses, chemically mediated phytoplankton-zooplankton interactions, and crustacean pheromones. She is also interested in the biosynthesis of natural products, dating from her PhD days working on isoprenoid biosynthesis in sea slugs. Her most recent publication in the Journal of Chemical Ecology was a co-authored review in 2002. She frequently reviews manuscripts for Journal of Chemical Ecology, and presents her research at meetings of ISCE.

Robert T. Mason, Biology Program, Oregon State University, Corvallis OR, USA



Professor Robert T. Mason received his Ph.D. in Zoology at the University of Texas at Austin in 1987 working with David Crews on the chemical ecology of garter snakes. did his postdoctoral work at the National Institutes of Health in the Laboratory of Biophysical Chemistry working with Hank Fales. During this time, Bob had the opportunity to work with the inimitable

Murray Blum on insect pheromones as well as with John Daly's group working on poison dart frog alkaloids. In 1991 he moved to Oregon State University where he is now a Professor in the Zoology department, J.C. Braly Curator of Vertebrates and Chair of the Biology Program. Mason and his students identified and chemically characterized the first reptilian pheromone (red-sided garter snake) and have been actively involved in developing a pheromonal control program for brown tree snakes on Guam and Hawaii, a serious introduced pest species that

has extirpated 9 species of birds on Guam. He has published over 80 papers, holds 1 patent, has given over 100 invited lectures and was named a National Science Foundation Presidential Young Investigator in 1994. Mason has been an active member of the ISCE having attended the first meeting of the ISCE in Austin, Texas and most of the subsequent meetings. He has served as the chair of the ISCE student travel awards committee and is currently a member of the editorial board for the Journal of Chemical Ecology. Mason will be hosting the Chemical Signals in Vertebrates Conference in Corvallis, Oregon this July, 2003.

Dr. Hiromi Sasagawa, Tokyo Metropolitan Institute for Neuroscience, Japan



Dr. Hiromi Sasagawa received her B. Sc. and M. Sc. in Agriculture at Tamagawa University in Tokyo, Japan. Her PhD, under Prof. Yasumasa Kuwahara and Prof. Sadahiro Tatsuki at the University of Tsukuba, successfully examined the effects of juvenile hormone (JH) on the age polyethism of adult worker honeybees. She continued

working on honeybees as a research fellow of the Japan Society for the Promotion of Science. During her post-doctoral studies (1991-1993) at the University of California-Davis, she worked in the field of environmental toxicology with Prof. F. Matsumura in pursuit of the initial target of dioxin in human cells and mammary tissues, as well as conducting molecular biology studies on baculoviruses with Prof. S. Maeda. Her collaborative work on hygienic grooming behavior in the honeybee and in the Asian honeybee with Prof. C. Y. S. Peng began at the end of her stay at UC Davis. She returned to Japan to work in the National Institute of Sericultural & Entomological Sciences at Tsukuba, studying the expression of social behavior and the mechanisms of recognition in social insects, in particular the roles of semiochemicals

in mediating social behaviors in honey bees and the hygienic grooming behavior of Asian honeybees against *Varroa* mite. Her research interests range from the identification of semiochemicals involved in social communication, to endocrine-based modulation of neural and behavioral responses to these semiochemicals, with a common theme trying to explain the plasticity of honey bee social behavior against environmental changes inside and outside the colony, from genetics to behavior. She has been one of the core members of the Asia-Pacific Association of Chemical Ecologists (APACE) since its inauguration in 1997. She has regularly attended ISCE meeting since the Kyoto meeting in 1992.

Member News



Professor Jeremy McNeil, FRSC, former ISCE President and recipient of the 2003 ISCE-silver-medal has recently received another highly prestigious prize, an Alexander von Humboldt-Award for his pioneering research and outstanding achieve-

ments in chemical ecology. Jeremy will be in Germany for the first nine months of 2003, and during his stay he will collaborate with Professors Wittko Francke (Hamburg) and Stefan Schulz (Braunschweig) on a number of projects, including identification of the sex pheromone of an aphid parasitoid and an oviposition stimulant in sunflower pollen for the sunflower head moth. Clearly Jeremy, who recently took early retirement from Laval University, Canada, intends to remain active in Chemical Ecology.

New Book: Chemoecology Of Insect Eggs And Egg Deposition. Eds. Monika Hilker and Torsten Meiners, 2002, Blackwell, Berlin Information at: http://www.blackwell.de/buecher/5/2633339x.htm

Upcoming Meeting of Interest

29 July - 1 August, 2003: "Chemical Signals in Vertebrates X" in Corvallis, Oregon, USA. This is the tenth meet-

ing of those interested in chemical signaling in vertebrates. Topics will be wide ranging with representation from all the major vertebrate groups. The purpose of the conference is to bring together the international expertise from researchers in order to discuss and exchange ideas on the state-of-the-art of chemical ecology in vertebrates. More information about the meeting can be found by contacting the host, Robert T. Mason at:

masonr@science.oregonstate.edu.

All correspondence concerning the workshop should be addressed to: Robert T. Mason, Department of Zoology, 3029 Cordley Hall, Oregon State University, Corvallis, Oregon, USA. Phone: 541-737-4107, Fax: 541-737-0501.

FONDATION JEAN-MARIE DELWART AWARD 2003

IN ANIMAL AND HUMAN ETHOLOGY CHEMICAL COMMUNICATION

The Jean-Marie Delwart Foundation in 2003 will award a prize for an original work or series of works, individual or collective, in the field of Chemical Communication, dealing with the specific action of certain substances on organisms (invertebrates, vertebrates including humans, plant/animal relations, etc.) in relation with the corresponding behavioural patterns

The Prize, \$10,000 in amount, will be attributed to works written or translated in French or in English, which should be sent for April 15th 2003 to the following address:

Fondation Jean-Marie Delwart At the attn of Raphaëlle Holender U.C.L. Bâtiment Pythagore 4, Place des Sciences (Bte 4) B-1348 Louvain-la-Neuve Belgique

Info: fondation.j.m.delwart@skynet.be

The applications can be submitted either by the candidates themselves, by recognized specialists in the field, or by academic institutions (Academies, Universities, Faculties, Departments, Centres of Research, etc.). In all cases, the applications must be accompanied by a letter of presentation, a detailed curriculum vitae and a complete list of publications (in quadruplicate). The candidates are requested to send copies of the works they con-

sider most linked with their application (reprints and/or books).

The Jury is composed of members of the scientific committee of the Jean-Marie Delwart Foundation and of members of the Académie Royale des Sciences de Belgique.

The Prize will be awarded in December 2003 at the occasion of the Public Session of the Académie Royale des Sciences de Belgique.

Positions Available

Postdoctoral position: Chemical Ecology and Community/Ecosystem Genetics (University of Wisconsin)

A postdoctoral Research Associate position will be available summer 2003 as part of a large, multi-investigator, multi-institutional project funded under NSF's Integrated Research Challenges in Environmental Biology program. This project is evaluating how genetic and chemical variation in naturally occurring and synthetic hybrids of cottonwood species mediates ecological structure and function at population, community and ecosystem levels. (See the upcoming Special Feature article on "extended phenotypes" by Whitham et al. in the March 2003 issue of Ecology.) Field sites include a number of riparian habitats throughout the Intermountain West. Project PIs include T. Whitham, S. Hart, P. Keim, and G. Martinsen of Northern Arizona University, and R. Lindroth of the University of Wisconsin. For more information about the collaborative project, go to:

http://www4.nau.edu/cottonwoods/groupdirectory.htm. Primary responsibilities of the Research Associate are to coordinate and conduct research involving chemical analyses of cottonwood samples. Collaborative projects underway relate cottonwood chemistry to arthropod communities, mycorrhizal communities, mammalian foraging, and litter decomposition. Results from this work will be integrated with that of other project coordinators to understand the influence of cottonwood genetic structure on chemical variation, and the linkages between chemical variation and community and ecosystem function at local and regional scales.

Qualifications include expertise in plant chemical analyses, and interest in the chemical ecology of trophic interactions or ecosystem function. Strong interpersonal, labo-

ratory, statistical and writing skills are essential. Extended collecting trips to field sites in the western U.S. will likely be required.

Salary and benefits: \$30,000 - 32,000, commensurate with experience. Excellent medical/dental health plans available at no cost to Associate. Application: Preliminary inquiries are welcome, preferably by phone or email. To apply, send c.v., names/addresses of three references, representative reprints, and a letter detailing your fit to the position to:

Dr. Rick Lindroth

Phone: 608-263-6277 Dept. of Entomology

E-mail: lindroth@entomology.wisc.edu

1630 Linden Dr. Madison, WI 53706

For additional information about the Lindroth research

group, visit

http://entomology.wisc.edu/~lindroth/

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The Camille & Henry Dreyfus Foundation Scholar/Fellow Program For Undergraduate Institutions Virginia Military Institute Department Of Chemistry

Applications are invited for the Camille & Henry Dreyfus Foundation Scholar/Fellow Program for Undergraduate Institutions. The fellow applicant should be a recent Ph.D. in Organic Chemistry in the areas of, natural products structure elucidation, alkaloid synthesis, or chemical ecology. The applicant should be seeking a career in college teaching with a strong undergraduate research program. Salary is \$35,000/ year. Details of the program can be found at www.dreyfus.org. Applications, including: a graduate school c.v., list of publications, a brief description of research interests and teaching philosophy, and one letter of recommendation from a doctoral mentor should be sent to Dr. T. H. Jones, Department of Chemistry, Virginia Military Institute, Lexington, VA 24450. VMI is an AA/EO employer

Ballots

CUT OUT BALLOTS AND MAIL TO ISCE SECRETARY.

You may also register your votes by email to the secretary at stephen.foster@ndsu.nodak.edu, or fill out the electronic ballot form at http://www.chemecol.org/forms/ballot/ballot.htm

Ballots or Emails must be received by April 30, 2003 in order to be registered.

| Name: | |
|---|--|
| e-mail: | |
| Vice President (choose one): | |
| | Dr. Mark Hay Dr. Hanna Mustaparta |
| Councilors (choose ONLY 4 of 6 candidates): | |
| | Dr. Manfred Ayasse, Germany Dr. Anne-Geneviève Bagnères, France Dr. Kenneth Haynes, USA Dr. Julia Kubanek, USA Dr. Robert Mason, USA |
| | Dr. Hiromi Sasagawa Janan |



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