

8th International Conference on Environmental Mutagens

“Environmental Mutagenesis — Research for the New Millennium”

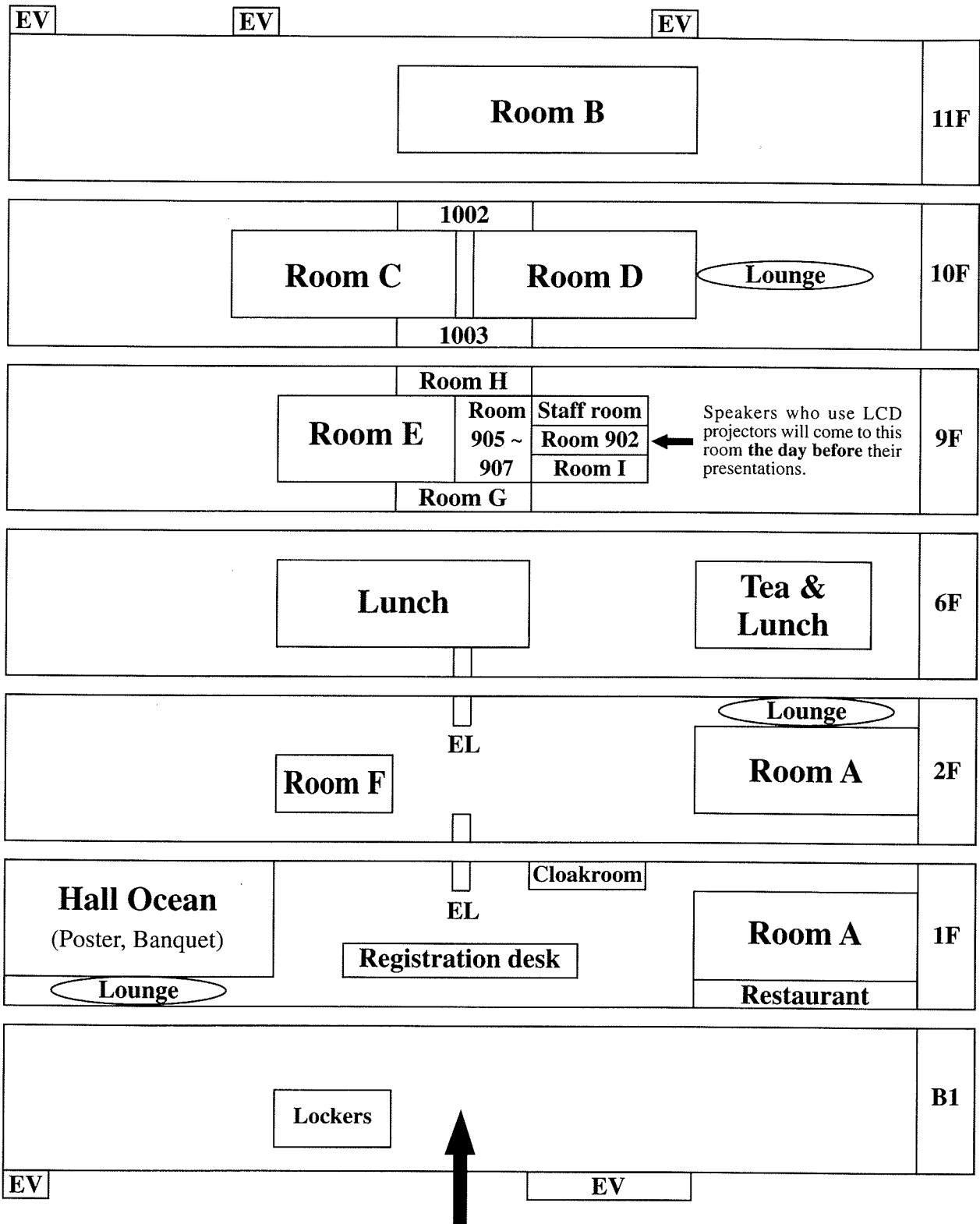


October 21 - 26, 2001
Shizuoka, Japan

Program

Conference Venue

GranShip (Shizuoka Convention & Arts Center)



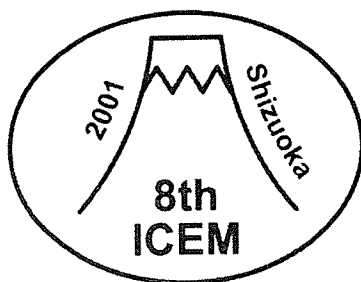
Main Entrance

Room A can be reached from 1st and 2nd floors.

Smoking in GranShip is prohibited except in a lounge on the 1F.

EV: elevator

EL: escalator



8th International Conference on Environmental Mutagens

“Environmental Mutagenesis — Research for the New Millennium”

Program

October 21 - 26, 2001

Shizuoka, Japan

Venue: GranShip (Shizuoka Convention & Arts Center)

79-4 Ikeda, Shizuoka-City 422-8005, Japan

Tel: +81-54-203-5718; Fax: +81-54-203-5726 (Oct. 21-26)

Contents

Conference Venue	
From the Presidents	3
Organizations	4
Special Features of the 8 th ICEM	6
General Information	6
Instructions for Presentations	9
Scientific Program	
Plenary Speakers	12
Sunday 21	16
Monday 22	17
Tuesday 23	20
Time Schedule of General Oral Sessions	25
Wednesday 24	26
Thursday 25	31
Friday 26	36
Poster Presentations	43
Satellite Meetings	61
Social Program	63
Acknowledgments	64
Map of Shizuoka	
Map of Japan & Shizuoka	

From the Presidents

Hikoya Hayatsu, President 8th ICEM

Let's make this conference a milestone in the history of science as it relates to environmental mutagens. The human genome has been elucidated almost completely at the start of this new millennium. There seem to be no limitations in imagining what scientific developments the 21st century will bring. This conference is packed with academic excitement and will certainly stimulate your curiosity and willingness to study further, and hopefully to explore new areas. For participants from overseas, this one-week stay in the historic city of Shizuoka will also be a valuable opportunity to learn about Japan at first hand.

To assist participants to understand where we stand in the history of the science of environmental mutagens and mutagenesis, I record here the sequel of the International Conference on Environmental Mutagens: 1st, 1973, Asilomar, USA; 2nd, 1977, Edinburgh, UK; 3rd, 1981, Tokyo, Mishima, Japan; 4th, 1985, Stockholm, Sweden; 5th, 1989, Cleveland, USA; 6th, 1993, Melbourne, Australia; 7th, 1997, Toulouse, France; 8th, 2001, Shizuoka, Japan.

Please enjoy the 8th ICEM !!

Michael Waters, President IAEMS

I sincerely hope that you will enjoy and benefit both scientifically and socially from the 8th ICEM. Our hosts, the Japanese Environmental Mutagen Society, have spent the last four years actively preparing for this meeting. They have assembled an outstanding scientific program to be presented in the venue of the remarkable new GranShip.

The historic city and prefecture of Shizuoka welcomes the ICEM to Japan for the second time. The 3rd ICEM, held in Tokyo, Mishima and Kyoto in 1981, was for me an exciting, rewarding and unforgettable meeting. As you explore research in this new millennium in beautiful Japan, I am certain that the 8th ICEM will create for each of you the same excitement, scientific rewards and pleasant memories. On behalf of the IAEMS I would like to say a sincere "Domo arigato" to our Japanese hosts for their hard work in organizing this meeting, and for their truly wonderful hospitality. In addition, I would like to express to you my grateful appreciation for the opportunity and honor of having served as President of the IAEMS.

Naohide Kinae, President Japanese Environmental Mutagen Society

On behalf of the Japanese Environmental Mutagen Society, I would like to say to all participants "Welcome to Japan and to Shizuoka". It is a memorial event for us to hold the 8th ICEM at the beginning of the 21st century. The purpose of the conference is to discuss the most recent progress in the field of mutagens/carcinogens and antimutagens/anticarcinogens, and also related genomic sciences. Another important aim is to ensure that the conference will encourage international cooperation and help to stimulate much further research in these fields. The Shizuoka Home-stay Program is expected to offer a pleasant and comfortable environment to the young scientists who have been awarded IAEMS Fellowships as well as many of the senior invited scientists participating in Special Session 1 in our program. We hope that all participants will enjoy the wonderful views of Mt. Fuji, and also the taste of special green teas, mandarin oranges and marine products, the specialities of this area.

Please spend pleasant and fruitful days in Shizuoka !

Organizations

The 8th International Conference on Environmental Mutagens is hosted by the Japanese Environmental Mutagen Society and the Science Council of Japan on behalf of the International Association of Environmental Mutagen Societies.

This Conference is supported by the Ministry of Health, Labour and Welfare, the Ministry of the Environment, the Ministry of Agriculture, Forestry and Fisheries, the Ministry of Education, Culture, Sports, Science and Technology, the University of Shizuoka, Shizuoka Prefecture and Shizuoka City.

Organizing committee

T Sugimura (Japan)	Honorary president
H Hayatsu (Japan)	President
N Kinae (Japan)	Vice president; Local committee chair; Treasurer
Y Ohnishi (Japan)	Vice president; Finance
M Nagao (Japan)	Program chair
MD Waters (USA)	International advisory committee co-chair; IAEMS president
T Sofuni (Japan)	International advisory committee co-chair; IWGT organizer
K Wakabayashi (Japan)	Publication; Finance
PHM Lohman (Netherlands)	Publication; IAEMS general secretary
S Sutou (Japan)	Social event chair; Program
T Nohmi (Japan)	General secretary; Program
M Hayashi (Japan)	Program; IWGT/Awaji satellite organizer
H Kasai (Japan)	Program; Nara satellite organizer
DG MacPhee (Japan)	Program
Y Yamazoe (Japan)	Program
T Kamataki (Japan)	Finance
Y Kikuchi (Japan)	Finance
H Shimada (Japan)	Finance
Y Yoshikawa (Japan)	Finance

International advisory committee

MD Waters (USA)	Co-chair
T Sofuni (Japan)	Co-chair
I-D Adler (Germany)	EEMS
WA Anwar (Egypt)	PAEMS
M Chulasiri (Thailand)	TEMS
JS Felton (USA)	EMS
J Hsueh (China)	CEMS
PHM Lohman (Netherlands)	IAEMS
DG MacPhee (Japan)	MEPSA
LR Ribeiro (Brazil)	ALAMCTA
Y-J Surh (Korea)	KEMS

Program committee

M Nagao (Chair)	O Niwa
WW Au	T Nohmi
Y Hara	T Nomura
M Hayashi	Y Ohnishi
H Hayatsu	T Ono
Y Furuichi	M Oshimura
T Kamataki	YF Sasaki
H Kasai	T Sekiya
N Kinae	S Shibutani
Y Konishi	T Sofuni
Y Kuroda	S Sutou
DG MacPhee	K Tanaka
K Miyagawa	K Wakabayashi
K Negishi	Y Yamazoe
H Nishino	

Local organizing committee (Japan)

N Kinae (chair)	Y Kuroda	H Nukaya	A Sono	K Tuji
T Amagai	S Masuda	I Oguni	C Sugiyama	N Watanabe
M Degawa	S Masumori	T Ohta	S Sugiyama	T Watanabe
M Furugori	T Morita	E Oishi	K Takahashi	N Yokota
A Hyogo	T Moriwaki	J Sano	K Takeishi	J Yoshida
H Ishikawa	H Naitou	T Sawai	H Takemura	J Ishizu
M Nakajima	K Shimoi	M Terada	K Kaji	Y Nakamura
T Shiozawa	Y Terao			

Member societies of IAEMS

Asociacion Latinoamerica de Mutagenesis Carcinogenesis Y Teratogenesis Ambiental (ALAMCTA); Chinese Environmental Mutagen Society (CEMS); Environmental Mutagen Society (EMS); Environmental Mutagen Society of India (EMSI); Environmental Mutagen Society of Thailand (TEMS); European Environmental Mutagen Society (EEMS); The Japanese Environmental Mutagen Society (JEMS); Korean Environmental Mutagen Society (KEMS); Mutagenesis and Experimental Pathology Society of Australasia (MEPSA); Pan-African Environmental Mutagen Society (PAEMS); Philippines Environmental Mutagen Society (PhEMS)

Special Features of the 8th ICEM

1. Home-Stay Program

In order to encourage young scientists to participate in this conference, the Local Organizing Committee has provided opportunities for home-stay in the Shizuoka area during the conference. This program is sponsored also by the International Association of Environmental Mutagen Societies. Thus, fifty scientists recommended by regional Environmental Mutagen Societies all over the world have been awarded the status of IAEMS Fellows, and they are accommodated in homes of citizens who have volunteered to offer the stay.

In addition, senior scientists who have been invited as speakers in Special Session 1 (see below) are also accommodated in citizens' homes.

2. Special Session 1 "Science in Countries with Developing Environmental Mutagenesis Programs"

In collaboration with IAEMS and with the Hollaender Committee of the Environmental Mutagen Society, the 8th ICEM provides a special session for international scientists from selected countries to discuss regional issues in environmental mutagenesis. The scientists invited are from countries where the field of environmental mutagenesis is still growing. This special session is expected to provide a unique opportunity for the sharing of knowledge and for the development of collaborative projects among scientists. Special Session 1 is held in two parts; *Special Session 1a* on Tuesday 23 in the afternoon, and *1b* on Thursday 25 in the afternoon.

General Information

Registration

The Conference Registration Desk will be situated on the 1st floor, main entrance of GranShip, throughout the conference. The registration desk will be open during the following hours:

Sunday 21	13:00 ~ 18:00
Monday 22	8:00 ~ 18:00
Tuesday 23	8:00 ~ 18:00
Wednesday 24	8:00 ~ 12:00
Thursday 25	8:00 ~ 18:00
Friday 26	8:00 ~ 12:00

All participants must register here to receive their name badges, conference bags, final programs, mementos, social tickets (excursion, accompanying persons program), lunch tickets, etc. The conference office will be situated on the 9th floor, Room 905 and 906.

Opening ceremony

The opening ceremony will be held from 17:00, Sunday 21 October, in Room A, which can be reached from the 1st and 2nd floors. Casual attire is acceptable.

Welcome cocktail

Everyone with name badge is invited to the Welcome cocktail which will be held on Sunday 21 October, 18:30~20:30 in Room C+D, 10th floor. Drinks and snacks will be served. You can enjoy a modern "Koto" performance with Japanese traditional "Koto" instruments. There will be flowers arranged in a classical way.

Conference Banquet

All participants with name badges are invited to the Conference Banquet, that will be held on Thursday 25 October, 18:30 ~ 21:30 in Hall Ocean, 1st floor of GranShip.

Sit down at any table you want and help yourself to food and drinks. You can enjoy a traditional Japanese drum performance "FUGAKU TAIKO" (Mt. Fuji Drumming) and Shizuoka-specific modern jazz dancing "YOZAKURA RAMBU" (Fantasy of Nocturnal Cherry Blossoms).

IAEMS meetings

Council meeting I:	Sunday 21, 13:00- 16:00, Room 1003 (10th floor)
Business meeting:	Thursday 25, 13:00-14:30, Room 1003
Council meeting II:	Friday 26, 9:00-11:00, Room 1003
IAEMS office:	Room 1004 (10th floor)

IAEMS tutorial course on the micronucleus test

The IAEMS tutorial course on the micronucleus test will be open during the 8th ICEM in Room I (12th floor) equipped with 10 personal computers and digital projectors. At lunch time of Monday 22, Tuesday 23 and Thursday 25, several presentations and Q&A sessions will be conducted by specialists (tba) who contributed to the preparation of the IAEMS tutorial course module. For more information, contact <hayashi@nihs.go.jp>.

Name badges

Name badges will be given to all participants upon registering. Participants must wear their badges at all times to gain admittance to sessions and social events.

Lunch

Lunch is available on the 6th floor (Reception Hall, Exhibition Gallery) with a dated ticket that you will find in the conference bag. Lunch for vegetarians is available on the 1st floor (Restaurant) with the ticket. You will bring lunch to the lunch-time seminars (10F, Room C) on Thursday 25.

Restaurant is also available on the 1st floor at your own expense.

Green tea and other beverages

Beverages are available in lounges on the 1st, 2nd and 10th floors and in a tea room on the 6th floor. Vending machines are available on the 10th floor.

Messages

Any program changes or urgent announcements from the Secretariat and private messages will be posted on the Message Boards located in the registration area on the 1st floor.

A message facility is available for persons wishing to contact delegates during the conference, at the conference registration desk (1st floor).

GranShip Shizuoka,
Registration Desk
Tel: 81-54-203-5718
Fax: 81-54-203-5726

The all attendees should check the board regularly for messages.

Facsimiles

Delegates can use the facsimile services available at their hotels.

Photocopy

A copy service is available at the Conference Office (9th floor). Charges will be made.

First aid

First aid is available at hotels and the conference venue.

Medical assistance

Medical assistance is available via the hotels where you stay and the conference venue.

Electricity

Japan operates on 100 volts for electrical appliances. The frequency is 60Hz in Shizuoka.

Currency exchange

Only Japanese yen is accepted at stores and restaurants. You can exchange money at foreign exchange banks and other authorized exchanges upon presentation of your passport. It is recommended that you exchange money at the airport. No currency exchange is available at the hotels in Shizuoka other than the Hotel Century Shizuoka.

Credit cards and Traveler's checks

Visa, Master Card, American Express, Diners Club and JCB are widely accepted at hotels, department stores, shops and restaurants. Only major banks and hotels in principal cities accept traveler's checks, and their use in Japan is not common.

Banking

Most banks in the city are available for foreign currency exchange transactions from 9:00 to 15:00 on weekdays. There are no banks near the conference venue.

Post office

A post office is situated near Shizuoka station.

General Information

Tipping

There is no custom of tipping in Japan. Instead, at places such as restaurants, bars and hotels, a 10% service charge is usually added to your bill.

Smoking

In GranShip during the conference, smoking is prohibited except for a designated area of the 1st floor lounge.

Personal computer

In GranShip, no computers are available for personal use.

Snap photo

Snap photocopies will be displayed on boards on the 1st floor during conference. You may take them by paying 100 yen per copy.

Cloakroom and Lockers

A cloakroom is open throughout the conference on the 1st floor. Individual lockers (no charge) are available for small bags and coats on the 1st basement (B1). They are locked by setting on your own a four-figure number of your choice (don't forget your locker number and the four-figure number).

Travel agency desk

There will be a desk of Kinki Nippon Tourist Co. set up in the reception area, where you may obtain information on trains, airplanes, tickets, etc, related to your traveling.

Accommodation

Accommodation has been secured for delegates at the following hotels. Addresses, telephone and facsimile numbers are as follows. Country code of Japan is 81 and area code of Shizuoka is 054.

Hotel

Name of hotel	Phone	Fax
Hotel Century Shizuoka	+81-54-284-0111	+81-54-289-5300
Hotel Associa Shizuoka Terminal	+81-54-254-4141	+81-54-255-3721
Shizuoka-kita Washington Hotel Plaza	+81-54-221-0111	+81-54-251-5695
My Hotel Ryugu	+81-54-251-1315	+81-54-251-1316
Shizuoka Grand Hotel Nakajimaya	+81-54-253-1151	+81-54-251-4500
Hotel A'bant Shizuoka	+81-54-273-1717	+81-54-273-1729
Hotel Ecc Shizuoka	+81-54-251-1741	+81-54-251-6797
Hotel Dorf Shizuoka	+81-54-251-5000	+81-54-253-3000
Shizuoka Daiichi Hotel	+81-54-281-2131	+81-54-281-2145
Shizuoka Station Hotel	+81-54-281-7300	+81-54-281-5320
Sun Palace Hotel 812	+81-54-282-2277	+81-54-282-3790
Hotel Citio Shizuoka	+81-54-253-1105	+81-54-253-0077
Hotel Oak Shizuoka	+81-54-252-2232	+81-54-252-2165
Shizuoka Town Hotel UOYO	+81-54-251-3755	+81-54-251-0585

Embassies and Consulates

Armenia	03-3583-4224	Kenya	03-3723-4006
Australia	0990-54-1022	Korea	03-3455-2601
Austria	03-3451-8281	Mexico	03-3580-2961
Belgium	03-3262-0191	Netherlands	03-5401-0411
Brazil	03-5488-5451	New Zealand	03-3467-2270
Bulgaria	03-3465-1021	Nigeria	03-5721-5391
Cameroon	03-5430-4985	Norway	03-3440-2611
Canada	03-5412-6321	Philippines	03-5562-1600
China	03-3403-0955	Poland	03-3280-2881
Colombia	03-3440-6451	Portugal	03-5226-0614
Croatia	03-5478-8481	Russia	03-3583-4445
Czech Republic	03-3400-8122	Slovakia	03-3400-8122
Denmark	03-3496-3001	South Africa	03-3265-3366
Egypt	03-3770-8023	Spain	03-3583-8533
Finland	03-5447-6000	Sweden	03-5562-5050
France	03-5420-8800	Switzerland	03-3473-0121
Germany	03-3473-2350	Taiwan	03-3280-7800
Greece	03-3403-0871	Tanzania	03-3425-4531
India	03-3262-2391	Thailand	03-3441-1388
Ireland	03-3263-0695	Turkey	03-3470-5131
Italy	03-3453-5291	U.K.	0990-61-2005
Kazakhstan	03-3791-5273	U.S.A.	0990-5-26160

Instructions for Presentations

A. Oral Presentations

35mm slide projectors, overhead projectors and LCD projectors are available in oral presentation meeting rooms. Time allotted for each speaker in symposia, special sessions, workshops and general oral presentations is indicated in the program. The time includes discussion time.

Standard AV equipment in each oral meeting room

- 35mm slide projector
- Overhead projector
- LCD projector
 - Computer: IBM PC/AT compatible laptop-type
 - Operating system: Microsoft Windows 95/98
 - Software: Microsoft Power point 2000
 - Connecting cable: mini D-sub 15pin
- Pointer
- Wireless microphone

1. Electronic Presentation

In order to ensure your presentation is a success, it is important that you are familiar with and abide by the following guidelines. Your cooperation will be appreciated and will help keep the meeting on schedule for the benefit of all attendees.

1) Preparing for your electronic presentation on an LCD projector

Authors using their own laptop computer (Microsoft Windows only) must provide a power cord and any other proprietary cords required by the laptop with a battery charged enough (A.C., 100V/60 Hz in Shizuoka, Japan). PC computers are also available for presentations using CD and FD (3.5 inch, 1.44MB, Windows/MS-DOS formatted) in each meeting room, but **do not support MO or Zip media**. All LCD projectors are capable of up to 1024 X 768 displayed screen resolution. Please check the displayed screen resolution on your laptop, particularly on the new models. The organizing committee is not responsible for the security of any personal equipments during the meeting. **All authors planning to give an electronic presentation on an LCD projector must bring a back-up overhead presentation** in case of unforeseen computer incompatibilities or set-up difficulties with the equipment.

The presentation times indicated in the program must be maintained. It is important that presentations do not start late or extend past their scheduled conclusion because of equipment set-up or associated troubleshooting with computers. Symposium organizers and session chairs will be responsible for keeping their session on time.

2) The day before your presentation

To assist you in your LCD projection, we will provide a **Speaker Ready Room** with LCD projectors and PC computers. We strongly recommend that **All-LCD SPEAKERS** come to the speaker ready room **THE DAY BEFORE** their presentation to check for connectivity and resolution. The hours of operation for the speaker ready room will be from 13:00-18:00 Sunday 21, 8:00-18:00 Tuesday 22 ~ Thursday 25. Location of the speaker ready room (Room 902) is on the 9th floor in GranShip

3) The day of your presentation

It is the presenting authors' responsibility to ensure that their computer is turned on and properly connected to the LCD projector no later than the "break" immediately preceding the scheduled presentation. Break, in this sense, refers to the period of time before the first talk in the morning and in the afternoon.

Several laptops can be plugged into an LCD projector simultaneously via a "switch box" which will be provided. Directions for the use of the projector and the switch box will be provided in each room and the speaker ready room. Minimal audiovisual assistance on non-technical details only can be expected from the slide reception desk of your session room.

2. Check-in and Slide Submission at Speakers' Reception Desks

All speakers and chairpersons, whether using slides or not, are asked to **check-in** at the speakers' reception desk at least 30 min before the start of their sessions.

For symposium and general oral session speakers to arrange their slides, viewers are available at the speakers' reception desk in front of each presentation room. Speakers using slides are asked to **submit their slides** to the reception desk at their earliest convenience, at least 30 min before their sessions.

Speakers using **OHP** should do the operation by themselves using an overhead projector provided in each room.

If you have any questions about oral presentations, please contact Dr. Y Nakamura by e-mail.

[<nakaty@smail.u-shizuoka-ken.ac.jp>](mailto:nakaty@smail.u-shizuoka-ken.ac.jp).

B. Poster Presentation

The space allocated for each poster is 1.8 m (H) x 1.5 m (W). Illustrative material will have to be read by attendees from a distance of 3 m or more, so lettering on illustrations should be large enough and preferably in bold. The poster must have a heading, giving the title of the paper, the author(s), and their institution/dept. All poster presenters should come to the **poster reception desk** that will be situated in the front of Hall Ocean, before presenters mount posters, with clarification of their poster number in the program. You will receive a reasonable supply of push-pins.

Each author is responsible for mounting his/her materials on the board at 9:00 – 10:30 on October 22 (Mon) and for removing the materials at 8:30-9:30 on October 25 (Thur). Each author is required to be present for discussion for the following time period.

Odd program number: October 22 (Mon), 12:50-14:20

Even program number: October 23 (Tue), 12:50-14:20

Scientific Program

Plenary Speakers

Sunday 21 October 2001

Hikoya Hayatsu, Japan (President's Lecture - Mutation Research Service Award Lecture)

PhD; Professor, Kurashiki University of Science and the Arts

1957 Graduated from the University of Tokyo (Pharmaceutical Chemistry); 1964-67 Postdoctoral research on genetic code at the University of Wisconsin, with Dr. H. G. Khorana; 1978-2000 Professor, Okayama University, Faculty of Pharmaceutical Sciences; 2000- Professor Emeritus, Okayama University; 2001- Present position

Editor, Mutation Research- Genetic Toxicology and Environmental Mutagenesis

Awards: The Pharmaceutical Society of Japan Award (1991), Japanese Environmental Mutagen Society Award (1996), Purple Ribbon Award (1998)

Research activities: Early work on nucleic acid chemistry includes discovery of bisulfite-mediated deamination of cytosine, and single-strand specific chemical modification of thymine by permanganate. More recently, these discoveries led to important advances in the detection of methylated cytosines and methods for mutation detection in other laboratories. Since 1970, studies on antimutagens have led to the finding of porphyrin derivatives, hemin, chlorophyll and copper phthalocyanine sulfonates, as effective agents to trap polycyclic planar mutagen molecules by complex formation.

Monday 22 October 2001

Takashi Sugimura, Japan (Keynote Lecture)

M.D; President Emeritus, National Cancer Center

1949 Graduated, University of Tokyo, Faculty of Medicine; 1962-1972 Chief, Biochemistry Division, National Cancer Center Research Institute (NCCRI); 1970-1985 Professor, Institute of Medical Science, University of Tokyo; 1974-1984 Director, NCCRI; 1984-1991 President, National Cancer Center; 1992- President Emeritus, National Cancer Center; 1993 President, Japan Cancer Society; 1994-2000, President, Toho University

Awards: Japan Academy and Imperial Prizes (1976), Outstanding Work Award of the Environmental Mutagen Society, USA (1978), Order of Cultural Merits of Japanese Government (1978), Charles S. Mott Prize of General Motors Cancer Research Foundation USA.(1981), The Japan Prize (1997)

Honors: Member of Japan Academy, Foreign Associates of National Academy of Sciences USA, the Royal Netherlands Academy of Arts and Sciences, Royal Swedish Academy of Sciences, Honorary Doctor of the Leiden University (the Netherlands)

Research activities: 1) Carcinogenicity of 4-nitroquinoline 1-oxide, 2) Carcinogenicity of N-methyl-N'-nitro-N-nitrosoguanidine, 3) Establishment of concept of genetic alterations in carcinogenesis, 4) Mutagenicity and carcinogenicity of heterocyclic amines in cooking meat, 5) Poly(ADP-ribose), 6) Apoptogenic peptide, pierisin from butterfly

Lawrence A. Loeb, USA (Plenary Lecture)

M.D, PhD; Since 1978, Professor Departments of Pathology and Biochemist and Director of the University of Washington's Medical Scientist Training Program and of The Joseph Gottstein Memorial Cancer Research Laboratory at the University of Washington School of Medicine; 1967 PhD from the University of California at Berkeley; 1961 M.D from N.Y.U.-Bellevue Medical School

Among his honors, Dr. Loeb is President Elect of Environmental Mutagen Society and Past President of American Association of Cancer Research

The focus of Dr. Loeb's research is to understand how a normal human cell can replicate its DNA with a phenomenally high accuracy and to determine if this accuracy is diminished in cancer cells. Based on the contrast between the high accuracy of DNA replication in normal human cells and the large numbers of chromosomal abnormalities and mutations reported in human tumors, Dr. Loeb offered the hypothesis that cancer is manifested by a mutator phenotype. Other work in the Loeb lab has focused on lethal mutagenesis of HIV, Werner syndrome and applied molecular evolution. Dr. Loeb has devoted considerable effort to fostering studies on the relation of tobacco smoking to cancer.

J. Carl Barrett, USA (Plenary Lecture)

PhD; Director, Center for Cancer Research, National Cancer Institute, NIH

1974 PhD from Johns Hopkins University (Biophysical Chemistry); 1974-77 Postdoctoral Fellow, Division of Biophysics at Johns Hopkins University; 1995-2000 Scientific Director, National Institute of Environmental Health Sciences; 2000-01 Director, Division of Basic Sciences, National Cancer Institute; 2000-Present Chief, Laboratory of Biosystems & Cancer; 2001-Present Director, Center for Cancer Research, National Cancer Institute, NIH

Editor-in-Chief, Molecular Carcinogenesis, 1992-date; Associate Editor, Cancer Research, 1984-date; Associate Editor, Experimental Gerontology, 1998-date; Associate Editor, Clinical Cancer Research, 1999

Awards: NIH Director's Award (1995); Ramazzini Award (1995); Member, Johns Hopkins Society of Scholars (1998); Honorary Member, Japanese Cancer Association; Member, AACR Board of Directors

Research activities: Research focuses on the molecular and environmental causes of cancer. Conducts studies on the molecular genetics of cancer and mechanisms of cancer progression. His laboratory has made several important contributions to the understanding of the mechanisms of aging and senescence of normal cells and the process of immortalization of cancer cells. His group is also interested in the genes that regulate metastasis and has cloned a novel gene KAI1 that is a suppressor of metastasis in prostate, colon, breast, lung, ovarian, and other cancers. Dr. Barrett has a long-standing interest in hormonal carcinogenesis and the influence of caloric restriction on cancer progression.

Donald MacPhee, Japan (Plenary Lecture)

PhD; Chief, Department of Radiobiology, Radiation Effects Research Foundation, Hiroshima, Japan

1967 Graduated from the University of Edinburgh (Bacterial Genetics); 1967-70 Postdoctoral Fellowships at Stanford University (with Dr. B.A.D. Stocker) and the University of East Anglia (with Dr. C.H. Clarke); 1970-99 Melbourne, Australia (various faculty positions, La Trobe University Department of Genetics until 1979, then Reader in Microbiology; also Principal Scientific Advisor, Environmental Protection Authority, 1997-99); 1999- Present position

Plenary Speakers

Co-editor, *Mutation Research (Reflections in Mutation Research)*
President, IAEMS, 1993-97

Research activities: Early work on bacterial genetics (the first genetic system for *Klebsiella pneumoniae*; lipopolysaccharide biosynthesis in *Salmonella*) led to an interest in DNA repair and mutagenesis in *Salmonella*, and particularly the role of R plasmids in repair and mutagenesis. More recent work has been on mechanisms of spontaneous mutagenesis and their possible roles in carcinogenesis, and current work is primarily concerned with molecular epidemiology and the mechanisms of radiation carcinogenesis.

Jan-Ake Gustafsson, Sweden (Plenary Lecture)

PhD, M.D; Since 1979 Professor and Chairman, Dept Med. Nutrition, and Dept. of Biosciences, Karolinska Institute, Huddinge

1968 PhD (Chemistry) from Karolinska Institute, Stockholm; 1971 M.D (Medicine) from Karolinska Institute, Stockholm

Honors and awards: Fernstrom Prize of the Karolinska Institute (1983), Member, Nobel Assembly, Karolinska Institute (1986), Anders Jahre Prize, Oslo (1992), Gregory Pincus Medal and Award, Worcester Foundation (1994), Member, Royal Swedish Academy of Sciences (1997), Member, Royal Swedish Academy of Engineering Sciences (1998), Sonderberg Prize in Medicine, Stockholm (1998), Adjunct Member of the Nobel Committee of the Karolinska Institute (1998), Foreign Honorary Member, American Academy of Arts and Sciences (2000), Vice chairman of the Nobel Assembly of the Karolinska Institute (2001)

Research activities: Jan-Ake Gustafsson was first to describe the 3-domain structure of steroid receptors. He was also first to purify a nuclear receptor (GR) to homogeneity. Together with Yamamoto, UCSF, Gustafsson first described specific binding of a mammalian transcription factor (GR) to DNA (MMTV). This led to the discovery of hormone response elements. Based on GR-antibodies from Gustafsson's lab the first (partial) cDNA clone of a nuclear receptor was isolated. Another achievement was the first 3-D structure of a nuclear receptor domain (GR-DBD). Most significantly, Gustafsson discovered the second ER, ERbeta, which has led to a paradigm shift in our understanding of estrogen action.

Tuesday 23 October 2001

Alec Jeffreys, UK (Keynote Lecture)

PhD, FRS; Royal Society Wolfson Research Professor, University of Leicester, UK.

1975 Doctorate in Genetics, University of Oxford; 1975-1977 Postdoctoral research on globin genes at University of Amsterdam, with Dr R.A. Flavell; 1977- Faculty Member, Department of Genetics, University of Leicester; 1982-1991 Lister Institute Research Fellow; 1993-1999 Howard Hughes International Research Scholar; 1991 present position.

Awards include a Knighthood (1994) and Fellowships of the Royal Society (1986), the Linnean Society of London (1994), the Academy of Medical Sciences (1998) and the Royal Society of Medicine (2001), plus the Davy Medal of the Royal Society (1987), the Allen Award of the American Society of Human Genetics (1992), the "Albert Einstein" World of Science Award (1996), and the Australia Prize (1998).

Research activities: fundamental studies on human genome organisation, variation and mutation. Co-discoverer of split genes and RFLPs, inventor of DNA fingerprinting. More recently has developed new approaches to detect de novo mutation and recombination events in the human genome, and with Dr Y.E. Dubrova has used these to study environmentally-induced heritable mutation.

Robin Holliday, Australia (Plenary Lecture)

PhD, F.R.S.

1955 Graduated from the University of Cambridge, UK; 1959 PhD; 1958-1965 John Innes Institute, Herford, UK; 1965-1988 National Institute for Medical Research, Mill Hill, London; 1970-1988 Head, Division of Genetics; 1988-1997 Chief Research Scientist, CSIRO Division of Molecular Science. Sydney, Australia.

Awards: Fellow of the Royal Society, London (1976), Foreign Fellow of the Indian National Science Academy (1995)

Research activities: DNA recombination and repair. Devised the "Holliday structure" intermediate in genetic recombination. Isolated the first repair-deficient strains in any eukaryote (*Ustilago maydis*) some of which were recombination defective. Proposed with J.E.Pugh (in 1975) that DNA methylation would be an important control mechanism for genes in higher organisms.

Published extensively on the epigenetic control of genes in cultured mammalian cells, based on DNA methylation. Studied the mechanism of in vitro ageing of cultured human cells, and the differences between these and immortal cell lines. Demonstrated that the dipeptide carnosine could rejuvenate ageing cells, and selectively kill neoplastic cells. Published the book *Understanding Ageing*, Cambridge University Press, 1995.

Thursday 25 October 2001

Errol C. Friedberg, USA (Keynote Lecture)

M.D., FRCPath (Lond).

Dr. Friedberg is Professor and Chairman of the Department of Pathology at the University of Texas Southwestern Medical School, Dallas, Texas, where he holds the Senator Betty and Dr. Andy Andujar Distinguished Chair in Pathology. Dr. Friedberg obtained his medical training in Johannesburg, South Africa and his post doctoral training at Case-Western Reserve University, Cleveland, USA. He was a faculty member in the Department of Pathology at Stanford University for 19 years before moving to Dallas in 1990. Dr. Friedberg has contributed close to 300 manuscripts to the literature on numerous aspects of cellular responses to DNA damage, and is the senior author of the primary text in the DNA repair field, *DNA Repair and Mutagenesis*. He has served as Editor of *Mutation Research-DNA Repair* since 1993 and is Editor-in-Chief of the new journal *DNA REPAIR* to be launched by Elsevier Press in 2002. Dr. Friedberg is the 2000 recipient of the Rous-Whipple Award from the American Society for Investigative Pathology

Sunday 21 October 2001

Sunday 21 October 2001

Opening ceremony **17:00 - 18:30** **Room A**

Moderator: T Nohmi (Japan)

- 17:00 **Opening address** *H Hayatsu (Japan)* President 8th International Conference
on Environmental Mutagens
- 17:10 **Welcome message** *K Kurokawa (Japan)* Vice-President Science Council of Japan
- 17:15 **Welcome message** *N Kinae (Japan)* President The Japanese Environmental
Mutagen Society
- 17:20 **Message** *MD Waters (USA)* President International Association of
Environmental Mutagen Societies
- 17:30 **Telegram message from The Prime Minister of Japan**
(to be read on behalf of the minister)
-

- 17:45 **President's Lecture;** Mutation Research Service *Chair: J Gentile (USA)*
Award Lecture
- PRL Colors and mutagens
 H Hayatsu (Japan)
-

Welcome Cocktail **18:30 - 20:30** **Room C + D**

Monday 22 October 2001

Plenary session		8:30~12:00	Room A
8:30	Keynote lecture KL-1 Daily exposure to environmental mutagens: What is the impact? <i>T Sugimura (Japan)</i>		<i>Chair: C Ramel (Sweden)</i>
9:15	Plenary lecture PL-1 Mutator phenotype in human cancer <i>L Loeb (USA)</i>		<i>Chair: S Nishimura (Japan)</i>
10:00	<i>Break</i>		
10:30	Plenary lecture PL-2 Effector pathway of toxicants revealed by cDNA microarrays <i>C Barrett (USA)</i>		<i>Chair: M Oshimura (Japan)</i>
11:15	Plenary lecture PL-3 Environmental mutagenesis in the 21st century: prospects and possibilities <i>D MacPhee (Japan)</i>		<i>Chair: PHM Lohman (Netherlands)</i>

Lunch, Poster discussion		12:00~14:30	
12:00	Lunch		6F
12:50~14:20	Poster discussion P1-1 ~ P27-53 (odd number posters)		Ocean (1F)

Plenary session 14:30~15:15		Room A
14:30	Plenary lecture PL-4 Nuclear receptors-environment interactions <i>J-A Gustafsson (Sweden)</i>	<i>Chair: T Inoue (Japan)</i>
15:15	<i>Break</i>	

Symposia 1 and Special session 2		15:30~19:20	Room A ~ F
15:30~19:20	Symposium 1A: Strategy and Regulatory Testing: Test Selection and Quantitative Issues <i>Chairs: M Hayashi (Japan), JT MacGregor (USA)</i>		Room A
	<i>Sponsored by Covance Inc. USA</i>		
15:30	1A-1	IWGT strategy and regulatory testing working group: Introduction and background <i>JT MacGregor (USA)</i>	
16:00	1A-2	Revision of UK guidance on a strategy for testing of chemicals for mutagenicity <i>DJ Tweats (UK)</i>	
16:30	1A-3	A scheme for categorization of genotoxins according to data sets & potency <i>L Mueller (Switzerland)</i>	
17:00	1A-4	Strategy and regulatory testing: Test selection and quantitative issues <i>DJ Kirkland (UK)</i>	
17:30	Break		
17:50	1A-5	p53 and Hras2 transgenic tumor models working group <i>JE French (USA)</i>	

Monday 22 October 2001

- 18:20 1A-6 The impact of ICCVAM/ECVAM on the development of new OECD guidelines
LM Schechtman (USA)
- 18:50 1A-7 The IWGT: History and the future
M Hayashi (Japan)
-

15:30~19:20 **Symposium 1B: Dietary Mutagens and Carcinogens**

Chairs: JS Felton (USA), M Nagao (Japan)

Room B

- 15:30 1B-1 A mechanistic understanding of the mutagenic potency of heterocyclic amines from cooked foods
JS Felton (USA)
- 16:00 1B-2 Mechanism of mammary carcinogenesis induced by PhIP
M Nagao (Japan)
- 16:30 1B-3 Mutagens and carcinogens in cooked and processed meats and human cancer
R. Sinha (USA)
- 17:00 1B-4 Mutagens and carcinogens in the New Zealand diet
LR Ferguson (New Zealand)
- 17:30 **Break**
- 17:50 1B-5 Dietary fats, antioxidants and oxidative stress induced DNA damage
H Bartsch (Germany)
- 18:20 1B-6 Carcinogenicity of the *Fusarium* mycotoxin fumonisin B₁ in a two-year rodent bioassay
PC Howard (USA)
- 18:50 1B-7 Dietary modulation of gap junction communication during the rate-limiting step of the initiation/promotion/progression process of carcinogenesis
JE Trosko (USA)
-

15:30~18:50 **Symposium 1C: Translesion DNA Synthesis as a Mechanism of Mutagenesis**

Chairs: GC Walker (USA), F Hanaoka (Japan)

Room C

- 15:30 1C-1 *E. coli*'s response to DNA damage: from molecular structure to subcellular localization
GC Walker (USA)
- 16:00 1C-2 Competition among DNA polymerases during translesion synthesis
RPP Fuchs (France)
- 16:30 1C-3 Translesion replication and mutagenesis in eukaryotes involving DNA polymerase ζ and Rev1 protein
CW Lawrence (USA)
- 17:00 **Break**
- 17:20 1C-4 Xeroderma pigmentosum variant: gene and its product
F Hanaoka (Japan)
- 17:50 1C-5 In search of a function for DNA polymerase ι
R Woodgate (USA)
- 18:20 1C-6 Translesion DNA synthesis, a complicated response to DNA adducts
M Moriya (USA)
-

15:30~18:50 **Symposium 1D: Molecular Cytogenetic Approach to Gene Mapping and Function**

Chairs: AT Natarajan (Netherlands), M Oshimura (Japan)

Room D

- 15:30 1D-1 Mechanisms of formation of chromosomal aberrations: Insights from FISH studies
AT Natarajan (Netherlands)
- 16:00 1D-2 Exploring cancer-related genes within novel amplifications in various types of cancer
J Inazawa (Japan)
- 16:30 1D-3 Molecular cytogenetic approaches to gene mapping and function: Rolling circle amplification to quantify DNA and RNA in single cells
JD Tucker (USA)
- 17:00 **Break**

- 17:20 1D-4 Single molecule analyses of gene structure and function using quantitative DNA fiber mapping
HG Weier (USA)
- 17:50 1D-5 Functional genomics by chromosome engineering
M Oshimura (Japan)
- 18:20 1D-6 DNA replication independent mutation events in the model organism *Saccharomyces cerevisiae*
U Wintersberger (Austria)

15:30~19:20 **Symposium 1E: Ecosystem and Human Health** **Room E**
Chairs: TH Ma (USA), WF Grant (Canada)

- 15:30 1E-1 Plant bioassays – The most effective tools for *in situ* monitoring
WF Grant (Canada)
- 16:00 1E-2 Improving health through better management of the ecosystem
HNB Gopalan (Kenya)
- 16:30 1E-3 Health effects of urban air pollution: Biological indicators studies and epidemiological analysis in Sao Paulo, Brazil
GM Bohm (Brazil)
- 17:00 1E-4 Plant bioassays can contribute to the ecosystem health and human well being
G Cabrera (Mexico)
- 17:30 **Break**
- 17:50 1E-5 Utility of genetic indicators for monitoring ecological condition
SS Sandhu (USA)
- 18:20 1E-6 Use of plant bioassays for the detection of genotoxic effects in soils and water: comparison with chemical and biological parameters
S Knasmueller (Austria)
- 18:50 1E-7 Current status and future development of IPPB/UNEP
TH Ma (USA)

15:30~18:40 **Special session 2: The Future of the IAEMS** **Room F**
Chairs: MD Waters (USA), PHM Lohman (Netherlands)

- 15:30 1F-1 Report on the progress and future of the International Association of Environmental Mutagen Societies (IAEMS)
MD Waters (USA)
- 15:50 1F-2 On the future of IWGT
DJ Kirkland (UK)
- 16:10 1F-3 ICPEMC 2001: Tasks and accomplishments
PHM Lohman (The Netherlands)
- 16:30 1F-4 The future of the IAEMS: Human studies research
RJ Albertini (USA)
- 16:50 **Break**
- 17:10 1F-5 IAEMS internet training courses for long-distance, interactive learning in environmental mutagenesis
DM DeMarini (USA)
- 17:20 1F-6 Alexander Hollaender Fund for international program
WW Au (USA)
- 17:30 The International conference on environmental mutagens in human populations (ICEMHP)
WW Au (USA)
- 17:40 1F-7 4th International conference on environmental mutagens in human populations (4th ICEMHP)
LR Ribeiro (Brazil)
- 17:50 1F-8 Strategic planning and the IAEMS
JM Gentile (USA)
- 18:00 The IAEMS president-elect's view
JM Gentile (USA)
- 18:10 Open discussion

Tuesday 23 October 2001

Plenary session **8:30 ~ 9:15** **Room A**

- 8:30 **Keynote lecture** *Chair: T Nomura (Japan)*
KL-2 Spontaneous and induced DNA instability in the human germline
AJ Jeffreys (UK)
- 9:15 **Break**
-

Symposia 2 **9:30 ~ 12:30** **Room A ~ F**

9:30~12:30 **Symposium 2A: Tea and Health** **Room A**
Chairs: Y Hara (Japan), JH Weisburger (USA)

- 9:30 2A-1 Functional and epidemiological studies on green tea
N Kinae (Japan)
- 9:40 2A-2 Do tea flavanols contribute to the antimutagenic activity of tea?
C Ioannides (UK)
- 10:08 2A-3 Inhibition mechanisms by tea catechins against multistep carcinogenesis
Y Kuroda (Japan)
- 10:36 2A-4 Signal transduction pathways: Targets for green and black tea polyphenols
Z Dong (USA)
- 11:04 2A-5 Preclinical efficacy studies of green and black tea extracts
VE Steele (USA)
- 11:32 2A-6 Green tea in chemoprevention of prostate cancer
H Mukhtar (USA)
- 12:00 2A-7 Tea promotes good health: The underlying mechanisms
JH Weisburger (USA)
- 12:10 Discussion
-

9:30~12:30 **Symposium 2B: Mutagens and Carcinogens in Water, Air and Soil; Significance to Human Health** **Room B**
Chairs: DM DeMarini (USA), K Wakabayashi (Japan)

- 9:30 2B-1 Identification of 2-phenylbenzotriazole(PBTA)-type mutagens in river waters, Japan
K Wakabayashi (Japan)
- 10:00 2B-2 Mutagens in surface waters and soils
PA White (Canada)
- 10:30 2B-3 Mutagenicity of surface soil in Japan
T Watanabe (Japan)
- 11:00 2B-4 Characterizing the sources of human exposure to mutagenic and carcinogenic chemicals in airborne fine particles
J Lewtas (USA)
- 11:30 2B-6 Genotoxic effects in people exposed to urban air pollution in western Europe
R Barale (Italy)
- 12:00 2B-7 Mutation spectra in Salmonella of complex mixtures from air and water: are these mutations in human tumors?
DM DeMarini (USA)
-

9:30~12:30 **Symposium 2C: Molecular Epidemiology with DNA Damage as Markers**
Chairs: RJ Albertini (USA), RJ Sram (Czech) **Room C**

- 9:30 2C-1 Somatic mutations are biomarkers of irreversible DNA damage for molecular epidemiological studies
RJ Albertini (USA)
- 10:00 2C-2 Mutations due to recombination
D Turner (Australia)
- ↙ 10:30 2C-3 Biomarkers of exposure to heterocyclic amines
J Alexander (Norway)
- ↙ 11:00 2C-4 *CYP2A6* genetic polymorphism: metabolic activation of *N*-nitrosamines and its impact in tobacco-related lung cancer risk
T Kamataki (Japan)
- 11:30 2C-5 Biomarker studies in the assessment of cancer risks from ambient air pollution: Achievements, limitations and prospects
SA Kyrtopoulos (Greece)
- ↙ 12:00 2C-6 Molecular epidemiology studies on effects of air pollution
RJ Sram (Czech)

↙ 9:30~12:00 **Symposium 2D: Individual Difference in Human Metabolizing Capacity: Genetic and Environmental Influences**
Chairs: F Kadlubar (USA), Y Yamazoe (Japan) **Room D**

- ↙ 9:30 2D-1 Polymorphisms of *GSTA1* and *CYP2A6* and red meat intake in relation to colo-rectal cancer
F Kadlubar (USA)
- ↙ 10:00 2D-2 Individual differences in human metabolizing capacity – effect on biomarkers
H Autrup (Denmark)
- ↙ 10:30 2D-3 Ah receptor as a potential determinant of individual difference in the drug-metabolizing capacity
Y Fujii-Kuriyama (Japan)
- ↙ 11:00 2D-4 Genetic effects on human *N*-acetylation of aromatic amines: Functional effects of SNPs in *N*-acetyltransferase-2 (*NAT2*)
DW Hein (USA)
- ↙ 11:30 2D-5 Properties of human sulfotransferases on the biotransformation of environmental chemicals
Y Yamazoe (Japan)

9:30~12:00 **Symposium 2E: Health and Aging**
Chairs: Y Furuichi (Japan), J Vijg (USA) **Room E**

- 9:30 2E-1 Premature aging and predisposition to cancers by mutations in DNA helicases
Y Furuichi (Japan)
- 10:00 2E-2 Werner protein functions
V Bohr (USA)
- ↙ 10:30 2E-3 Cellular responses to alkylating agents: Implications for cancer and aging
SC Park (Korea)
- ↙ 11:00 2E-4 Organ-specific mutation accumulation in aging mice
J Vijg (USA)
- ↙ 11:30 2E-5 Tissue-specificity in age-dependent increases of spontaneous mutation in *lacZ*-transgenic mice
T Ono (Japan)

Tuesday 23 October 2001

9:30~12:30		Symposium 2F: Radiation and DNA Repair-Protein Interactions <i>Chairs: K Miyagawa (Japan), T Thacker (UK)</i>	Room F
9:30	2F-1	DNA-PK complex and phosphorylation substrates in DNA nonhomologous end joining <i>DJ Chen (USA)</i>	
10:00	2F-2	Functions of NBS1 in rejoining of DNA double strand breaks <i>K Komatsu (Japan)</i>	
10:30	2F-3	Genomic integrity and repair of double-strand DNA breaks <i>A Pastink (Netherlands)</i>	
11:00	2F-4	A role for RAD54B in homologous recombination <i>K Miyagawa (Japan)</i>	
11:30	2F-5	The role of the XRCC2 gene and related RAD51-like genes in homologous recombination repair and genome stability <i>J Thacker (UK)</i>	
12:00	2F-6	Control of the multiple pathways of excision repair in UV-irradiated human cells <i>PC Hanawalt (USA)</i>	

Lunch, Poster discussion	12:30~14:30		
12:30 Lunch			6F
12:50~14:20	Poster discussion P1-2 ~ P27-54 (even number posters)		Ocean (1F)

Plenary session	14:30~15:15		Room A
------------------------	--------------------	--	---------------

↓ 14:30		Plenary lecture Epigenetics comes of age in the twenty first century <i>R Holliday (Australia)</i>	<i>Chair: PC Hanawalt (USA)</i>
	PL-5		
15:15	Break		

↓ Symposia 3, Workshop 1, and Special session 1a	15:30~19:20		Room A~F
---	--------------------	--	-----------------

↓ 15:30~18:50		Workshop 1: Validation of the in vitro micronucleus assay for safety evaluation of clastogenic/aneugenic compounds <i>Chairs: M. Kirsch-Volders (Belgium), T Sofuni (Japan)</i> <i>Sponsored by Novartis Pharma AG, Switzerland</i>	Room A
15:30~17:15		1. Micronucleus induction vs. chromosome aberration induction and mouse lymphoma assay	
15:30		Introduction of the workshop, <i>T. Sofuni (Japan)</i>	
↓ 15:35	3A-1	Micronucleus induction vs. chromosome aberration induction: Industry experience using V79 and mouse lymphoma cells <i>S Albertini (Switzerland)</i>	
↓ 16:00	3A-2	Micronucleus induction vs. chromosome aberration induction: A Japanese MOL collaborative study using CHL/IU cells <i>T Sofuni (Japan)</i>	
16:25	3A-3	Apoptosis is a confusing factor in micronucleus and metaphase analysis assays. Proposition of a method to avoid this interference <i>D Marzin (France)</i>	
↓ 16:50	3A-4	Micronucleus induction vs. chromosome aberration induction in human lymphocytes in vitro <i>H Norppa (Finland)</i>	
17:15	Break		
17:30~18:30		2. An SFTG International Collaborative Study on in vitro Micronucleus Test, using human lymphocytes and CHO, CHL and L5178Y cell lines (3A-5, 3A-6)	
17:30	2.1	Introduction of the study, <i>E Lorge (France)</i>	
17:35	2.2	Human lymphocytes, <i>E Lorge (France)</i>	
17:45	2.3	CHL/IU cells, <i>A Wakata (Japan)</i>	
17:55	2.4	CHO cells, <i>M Aardema (USA)</i>	
18:05	2.5	L5178Y cells, <i>J Oliver (UK)</i>	
18:15	2.6	Conclusions of the study, <i>E Lorge (France)</i>	
↓ 18:30~18:50		Summary of the in vitro micronucleus group in the IWGT, M Kirsch-Volders (Belgium)	

15:30~19:20	Symposium 3B: Mechanisms of Antimutagenesis and Anticarcinogenesis		Room B
	<i>Chairs: RH Dashwood (USA), Y Kuroda (Japan)</i>		
15:30	3B-1	Antimutagenic and anticarcinogenic effects of white tea <i>RH Dashwood (USA)</i>	
16:00	3B-2	Development of multiple endpoints to isolate antigenotoxins and cancer cell growth inhibitors isolated from agricultural by-products <i>MJ Plewa (USA)</i>	
16:30	3B-3	Modulation by some dietary antimutagens and anticarcinogens of intracellular signaling cascades mediating activation of NF- κ B and subsequent induction of cyclooxygenase-2 <i>YJ Surh (Korea)</i>	
17:00	3B-4	Chemoprevention of smoke-related biomarkers <i>S De Flora (Italy)</i>	
17:30	Break		
17:50	3B-5	Reduction of excess spontaneous mutagenesis in mismatch repair deficient cells by antioxidants <i>TG Rossman (USA)</i>	
18:20	3B-6	Bio-chemoprevention: A concept for cancer control <i>H Nishino (Japan)</i>	
18:50	3B-7	Effectiveness of antimutagens at blocking mutagenic effects of antitumor agents without concomitant blocking of pharmacological efficacy <i>JM Gentile (USA)</i>	

15:30~18:50	Symposium 3C: Transgenic Rodents as a Tool for Modern Risk Assessment		Room C
	<i>Chairs: T Nohmi (Japan), JA Heddle (USA)</i>		
15:30	3C-1	Somatic mutation: Role of proliferation and of dietary factors <i>JA Heddle (Canada)</i>	
16:00	3C-2	The effect of genetic background on mutational sensitivity <i>JG de Boer (Canada)</i>	
16:30	3C-3	The effect of heterozygous loss of p53 on mutagenesis and carcinogenesis in DNA repair-deficient Xpa mice <i>H Van Steeg (Netherlands)</i>	
17:00	Break		
17:20	3C-4	Spectrum of deletion mutations <i>in vivo</i> induced by environmental mutagens <i>T Nohmi (Japan)</i>	
17:50	3C-6	Possible application of human c-Ha-ras proto-oncogene transgenic rats to medium-term screening assays for environmental carcinogens <i>H Tsuda (Japan)</i>	
18:20	3C-7	The development, characterization, and use of the TSG-p53 haploinsufficient and the Tg.AC (v-Ha-ras) mouse models for rapid identification of carcinogens <i>JE French (USA)</i>	

15:30~18:50	Symposium 3D: Genomic Instability		Room D
	<i>Chairs: O Niwa (Japan), RH Schiestl (USA)</i>		
15:30	3D-1	Error-free and -prone bypass of various DNA lesions by human DNA polymerase kappa <i>H Ohmori (Japan)</i>	
16:00	O19-3	Deregulated DNA polymerase beta induces chromosome instability and tumorigenesis <i>J-S Hoffman (France)</i>	
16:30	3D-3	Molecular mechanisms for genomic instability at minisatellite DNA sequences <i>H Nakagama (Japan)</i>	
17:00	Break		
17:20	3D-4	Carcinogens induce DNA deletions <i>in vitro</i> and <i>in vivo</i> - acute and delayed effects <i>RH Schiestl (USA)</i>	

- 17:50 3D-5 Studies of chromosomal instability in haemopoietic stem cells: LET and targeted effects
MA Kadhim (UK)
- 18:20 3D-6 Genomic instability after ionizing radiation and development of late effects
C Streffer (Germany)

15:30~18:20 **Symposium 3E: Endogenous Mutagens and DNA Damage**
Chairs: H Kasai (Japan), S Tannenbaum (USA)

Room

- 15:30 3E-1 Oxidative damage to DNA: extent and repair
J Cadet (France)
- 16:00 3E-2 Physiological and dietary factors modulating oxidative DNA damage
S Loft (Denmark)
- 16:30 3E-3 Action of base excision DNA repair on oxidized abasic sites
B Demple (USA)
- 17:00 **Break**
- 17:20 3E-4 Enzymology of the repair in human cells and in *Escherichia coli* K12 of mutagenic ethenoadducts
J Laval (France)
- 17:50 3E-5 Oxidative DNA damage and repair: New approaches for research
J Swenberg (USA)

15:30~18:30 **Special session 1a: Science in Countries with Developing Environmental Mutagenesis Programs**
Chairs: WW Au (USA), H Hayatsu (Japan)

Room

- 15:30 3F-1 Potential anti-mutagenic activities of pumpkin and bitter leaves in Benin City, Nigeria
JO Akerele (Nigeria)
- 15:45 3F-2 Suppression of benzo(a)pyrene-induced clastogenic effects in mice by thymoquinone
OA Badary (Egypt)
- 16:00 3F-3 A comparison of the sensitivity of three different X-chromosomes for aneuploidy induction in female germ-line cells of drosophila
K Fahmy (Egypt)
- 16:15 3F-4 A correlative study between micronucleus assay and DNA strand breaks measured by comet assay in gamma irradiated mice
RC Chaubey (India)
- 16:30 3F-5 Native flora as a suitable source for bioindicators of polluted environment
G Murin (Slovakia)
- 16:45 **Break**
- 17:15 3F-6 The status of cancer in Tanzania: cancer research and mutation studies at Sokoine University of Agriculture
AJ Ngomuo (Tanzania)
- 17:30 3F-7 Effect of air pollutants/allergens mediated oxidative stress on bronchial asthma: Comparative study in South Africa and Hungary
KSA Mossanda (South Africa)
- 17:45 3F-8 Environmental mutagenesis program in Colombia
LS Hoyos G. (Colombia)
- 18:00 3F-9 Gene-environment interactions and the risk of non-Hodgkin's lymphoma in Egypt
M Abdel-Hamid (Egypt)
- 18:15 3F-10 Studies on the potential uses of essential oils against fungi, mycotoxin and their mutagenic and carcinogenic effects
A Tagne (Cameroon)

Time Schedule of General Oral Sessions

Rm	Session	Topic	8:30	9:00	9:30	10:00	10:30	11:00	11:30
----	---------	-------	------	------	------	-------	-------	-------	-------

Wednesday 24 October

B	7	Antimutagens-anticarcinogens	07-1~7			07-8~12			
	C	2	Mutagens and carcinogens in water, air and soil		02-1~6			02-7~12	
D	6	Mechanisms of mutations	06-1~6			06-7~10			
	18	Transgenerational effects of environmental factors							O18-1
E	14	Molecular epidemiology	014-1~6			014-7~9			
	9	Genetic disease in DNA repair							O9-1~2
F	1	Mutagens and carcinogens in diet	01-1~7						
	13	DNA technology							O13-1~4
G	3	Solar and ionizing radiation mutagenesis	03-1~6						
	21	Comet assay							O21-1~5
H	19	Genomic and chromosomal instability	019-1~6						
	5	DNA adducts							O5-1~5

Friday 26 October

B	7	Antimutagens-anticarcinogens	07-13~18						
	11	Transgenic animals in genetic toxicology							O11-1~6
C	20	Micronuclei <i>in vitro</i> and <i>in vivo</i>	020-1~4						
	22	Germline mutations				O22-1~2			
D	2	Mutagens and carcinogens in water, air and soil							O2-13~18
	8	DNA repair and its mechanisms	08-1~6			08-7~12			
E	16	Individual differences in mutagenesis and carcinogenesis	016-1~6			016-7~8			
	4	Endogenous mutagens							O4-1~4
F	17	Molecular cytogenetics, chromosomal aberrations	017-1~6			017-7~8			
	12	Epigenetic changes							O12-1~3
G	10	Metabolisms of genotoxic agents	010-1~7						
	15	Health and aging							O15-1 P15-6
	23	Thresholds in genetic toxicology							O23-1
	25	Genomics and proteomics in genetic toxicology							O25-1
H	26	Ecosystem and human health							O26-1
	27	Others	027-1~7			027-8~12			

Wednesday 24 October 2001

General oral sessions			8:30~11:45	Room B~F
Session 7: Antimutagens-Anticarcinogens			8:30~ 11:45	Room F Chair
8:30	O7-1	Correlation of difluoromethylornithine response in the human epidermal cell assay with clinical trial biomarker modulation <i>E Elmore (USA)</i>		<i>Y Ohnishi (Japan)</i>
8:45	O7-2	Effect of tea on mutations in the <i>LacZ</i> and <i>dlb-1</i> gene induced by benzo[<i>a</i>]pyrene in the small intestine of mice <i>CAM Krul (The Netherlands)</i>		
9:00	O7-3	Antimutagenic effects of green, pauchong, oolong and black tea extracts and their components in Salmonella testing systems <i>J-K Lin (Taiwan)</i>		
9:15	O7-4	<i>Ex vivo</i> protective effects of South African herbal teas, rooibos (<i>Aspalathus linearis</i>) and honeybush (<i>Cyclopia intermedia</i>), against carcinogen induced mutagenesis <i>JL Marnewick (South Africa)</i>		<i>U Rannug (Sweden)</i>
9:30	O7-6	Plant antimutagens prospective in cancer prevention <i>DM Simic (Yugoslavia)</i>		
9:45	O7-7	Pseudouridine, an antimutagenic component in beer toward <i>N</i> -methyl- <i>N'</i> -nitro- <i>N</i> -nitrosoguanidine and <i>N</i> -methyl- <i>N</i> -nitrosourea <i>S Arimoto-Kobayashi (Japan)</i>		<i>E Elmore (USA)</i>
10:00	Break			
10:30	O7-8	Inhibition of aflatoxin B1-induced clastogenicity and hepatocarcinogenicity by kolaviron (<i>Garcinia biflavanones</i>) in rats <i>EO Farombi (Nigeria)</i>		
10:45	O7-9	Chemoprotective effects of resveratrol against oxidative cell death and DNA damage <i>JH Jang (Korea)</i>		<i>C Mallaveille (France)</i>
11:00	O7-10	The relationship between nitric oxide (NO) concentrations and regulation of cyclo-oxygenase (COX-2) expression by soy isoflavones <i>OJ Park (Korea)</i>		
11:15	O7-11	Antimutagens from Philippine medicinal plants <i>IM Villaseor (Philippines)</i>		<i>JB Guttenplan (USA)</i>
11:30	O7-12	6-Formylindolo[3,2- <i>b</i>]carbazole reduces the DNA-adduct levels and the genotoxic effects of benzo[<i>a</i>]pyrene <i>in vitro</i> and <i>in vivo</i> <i>U Rannug (Sweden)</i>		
Session 2: Mutagens and Carcinogens in Water, Air and Soil			8:30~ 11:45	Room C Chair
8:30	O2-1	Lung inflammation and DNA damage in short-term diesel-exposed mice <i>M Dybdahl (Denmark)</i>		<i>H Tokiwa (Japan)</i>
8:45	O2-2	Studies on DNA damage by the Comet assay in mice exposed for short periods to urban air pollution <i>DV Freire-Maia (Brazil)</i>		
9:00	O2-3	DNA breaks in hematopoietic and peripheral blood cells in mice exposed to urban air pollution <i>M Lemos (Brazil)</i>		
9:15	O2-4	Planaria bioassays for environmental genotoxicity <i>D Pra (Brazil)</i>		<i>G Bronzetti (Italy)</i>

9:30	O2-5	Study of possible DNA damages in operating room personnel exposed to volatile anesthetics <i>AC Basilio (Brazil)</i>	
9:45	O2-6	The <i>in vivo</i> or <i>in vitro</i> formation of 8-hydroxyguanine with the human lung-originating particles <i>N Sera (Japan)</i>	
10:00	Break		
10:15	O2-7	Study in workers exposed in petrol station <i>G Bronzetti (Italy)</i>	<i>DV Freire-Maia (Brazil)</i>
10:30	O2-8	Comparing the mutagenicities of aminobiphenyls for determining structure-activity relationships <i>KT Chung (USA)</i>	
o 10:45	O2-9	Detection of phototoxicity and photochemical genotoxicity on the extracts from airborne particulates <i>S Wakuri (Japan)</i>	
11:00	O2-10	Mutagenic and nongenotoxic benzo[a]pyrene equivalency concentrations of polycyclic aromatic hydrocarbons in river sediments and urban airborne particles <i>M Machala (Czech Republic)</i>	<i>B Binkov (Czech)</i>
11:15	O2-11	Use of plant bioassays for the detection of heavy metal contaminations in the environment <i>BJ Majer (Austria)</i>	
11:30	O2-12	Translation elongation factor 1 delta subunit is a novel cadmium-responsive proto-oncogene <i>P Joseph (USA)</i>	

Session 6: Mechanisms of Mutations

8:30~11:30

**Room D
Chair**

† 8:30	O6-1	Recognition of base pairs containing mutagenic nucleoside analogs by the mismatch repair system of <i>Escherichia coli</i> <i>K Negishi (Japan)</i>	<i>RD Snyder (USA)</i>
8:45	O6-2	Roles of the RAD30 and REV3 genes in solar UV mutagenesis in <i>Saccharomyces cerevisiae</i> <i>E Sage (France)</i>	
9:00	O6-3	Mutagenic specificity of abasic sites studied by yeast oligonucleotide transformation assay <i>C Otsuka (Japan)</i>	
9:15	O6-4	DNA polymerase κ , implicated in spontaneous and DNA damage-induced mutagenesis, is overexpressed in lung cancer <i>J O-Wang (Japan)</i>	
9:30	O6-5	Study on the mechanism of non-targeted mutagenesis in mammalian cells <i>Y-N Yu (China)</i>	PK Cooper (USA)
9:45	O6-6	Molecular analysis of <i>hprt</i> mutations induction by water extract from <i>Tripterygium hypoglaucum (Level) Hutch</i> in human promyelocytic leukemia cells <i>S Liu (China)</i>	
10:00	Break		
10:30	O6-7	Moderate G6PD deficiency causes brain mutagenesis in mice <i>K Felix (USA)</i>	
† 10:45	O6-8	Modification of the Chinese hamster V79 in vitro micronucleus assay for the detection of DNA intercalating agents <i>RD Snyder (USA)</i>	<i>K Felix (USA)</i>
11:00	O6-9	Absence of genotoxic potential of an anticancer agent: A farnesyl transferase inhibitor (SCH 66336) <i>WN Choy (USA)</i>	

Wednesday 24 October 2001

- 11:15 O6-10 Ames microsuspension assay – a screening version of the Ames test – validation and predictivity
W Muster (Switzerland)

Session 18: Transgenerational Effects of Environmental Factors

11:30~11:45

Room

Ch:

- 11:30 O18-1 Forward and reverse mutations induced by ENU in embryonic somatic and germ cells of mice
T Shibuya (Japan)

K Felix (US)

Session 14: Molecular Epidemiology

8:30~11:15

Room

Ch:

- 8:30 O14-1 Increased micronuclei frequency in lymphocytes from mesothelial cancer patients
C Bolognesi (Italy) *P Schmezer (Germany)*
- 8:45 O14-2 The micronucleus test as a screening test for carriers of a BRCA mutation
G Speit (Germany)
- 9:00 O14-3 Detection of leukemia- and lymphoma-specific chromosome translocations in human blood by real-time PCR
MT Smith (USA)
- 9:15 O14-4 Reduced poly(ADP-ribosylation) in lymphocytes of laryngeal cancer patients: Results of a case-control study
P Schmezer (Germany) *H Ohshima (France)*
- 9:30 O14-5 Genetic polymorphism of glutathione S-transferase *M1, P1, T1* and NAD(P)H:quinone oxidoreductase1 genes in relation to antioxidant capacity
A Horská (Slovakia)
- 9:45 O14-6 Biomarkers for occupational diesel exhaust exposure monitoring
S Loft (Denmark)
- 10:00 Break
- 10:30 O14-7 Measurement of oxidative and nitrative stress in human subjects by immuno-dot assays of modified plasma/tissue proteins: Application to molecular epidemiology
H Ohshima (France) *S Loft (Denmark)*
- 10:45 O14-8 Cancer-related characteristics of cigarette smokers: Immunology and epidemiology
K Nakachi (Japan)
- 11:00 O14-9 Personal PAH exposure, DNA adducts and urinary metabolites, markers of diesel exhaust-derived PAH exposure at indoor and outdoor work
K Savela (Finland)

Session 9: Genetic Disease in DNA Repair

11:15~11:45

Room

Cha

- 11:15 O9-1 Werner's syndrome protein is required for correct recovery after replication arrest and DNA damage induced in the S-phase
P Mosesso (Italy) *CS Griffin (US)*
- 11:30 O9-2 Spontaneous and induced instability of myotonic dystrophy-associated CTG repeats in a mismatch repair deficient background
J Surrallés (Spain)

Session 1: Mutagens and Carcinogens in Diet

8:30~10:15

Room

Cha

- 8:30 O1-1 DNA adduct formation and carcinogenicity of aminophenylnorharman (APNH)
Y Totsuka (Japan) *H Fujiki (Japan)*

- 8:45 O1-2 Role of mismatch repair and p53 in PhIP-induced apoptosis
PM Leong-Mogenthaler (Switzerland)
- 9:00 O1-3 Genotoxicity and mutagenicity of 2-amino-3-methylimidazo[4,5-f]quinoline in Big Blue rats are not related to oxidative DNA damage in colon and liver
P Moller (Denmark)
- 9:15 O1-4 Hydroxyhydroquinone in coffee generates reactive oxygen species that induce DNA strand breaking
P-M Leong-Mogenthaler (Switzerland)
K Hiramoto (Japan)
- 9:30 O1-5 Screening compounds for genotoxicity and cytotoxicity: An SOS bioluminescence *Salmonella typhimurium* test to measure genotoxicity kinetics
JE Lampinen (Finland)
- 9:45 O1-6 Genotoxicity of diazinon: Detection of p53 mutation using the PCR and single-strand conformation polymorphism (SSCP) analysis
R Hussein (Egypt)
K Kikugawa (Japan)
- 10:00 O1-7 Lard induced increase of the mRNA level of the DNA repair gene rERCC1 in rat liver
UB Vogel (Denmark)
- 10:15 **Break**

Session 13: DNA Technology

10:45~11:45

**Room F
Chair**

- 10:45 O13-1 An in vitro alkaline elution/rat hepatocyte screening assay for genotoxicity: A rapid and sensitive method using PicoGreen/OliGreen fluorescent dyes
R Gealy (USA)
Y Suzuki (Japan)
- 11:00 O13-2 Useful fluorescent differential display analysis after N-methyl-N'-nitro-N-nitrosoguanidine exposure in rat stomach
C Furihata (Japan)
- 11:15 O13-3 Quartz crystal resonance, a new approach to investigate the pro-oxidant DNA-damaging activity of catalytic antioxidants
MHL Green (UK)
C Furihata (Japan)
- 11:30 O13-4 Detection of mutations in drug resistant genes of *Mycobacterium tuberculosis* using a PCR-SSCP strategy
PB Veronique (Cameroon)

Session 3: Solar and Ionizing Radiation Mutagenesis

8:30~10:00

**Room G
Chair**

- 8:30 O3-1 Liberation of reactive nitrogen oxide species from N-nitrosamine by ultraviolet light irradiation
K Kikugawa (Japan)
F Yatagai (Japan)
- 8:45 O3-2 Photo-Comet-assay with Zn-salts using different cell types
A Czich (Germany)
- 9:00 O3-3 Resistance of murine fetuses to mutation induction by X-rays at the *Dlb-1* locus in the small intestine
K Fujikawa (Japan)
- 9:15 O3-4 Induction of TE 412 transpositions by gamma-irradiation in drosophila
LA Vasilyeva (Russia)
K Fujikawa (Japan)
- 9:30 O3-5 The study of DNA-protein cross-links, abnormal sperm heads and micronuclei in mice exposed to long-term external gamma-radiation at low doses
AN Osipov (Russia)
- 9:45 O3-6 Translesion DNA synthesis and coding property of 5-formyluracil
A Masaoka (Japan)
- 10:00 **Break**

Wednesday 24 October 2001

Session 21: Comet Assay

10:30~11:45

**Room
Ch:**

- 10:30 O21-1 Effect of low dose gamma radiation on DNA strand breaks in human peripheral blood leucocytes by alkaline comet assay
RC Chaubey (India)
- 10:45 O21-2 Prediction of cell line radiosensitivity using the alkaline comet assay
VJ McKelvey-Martin (UK)
- 11:00 O21-3 Evaluation of clastogenic activity in plasma of oral cancer and oral precancer patients using single cell gel electrophoresis (SCGE) assay
VJ McKelvey-Martin (UK)
R Saran (India)
- 11:15 O21-4 Comet electrophoresis of blood nucleated cells and others in genotoxicity assessment
Z-h Tu (China)
- 11:30 O21-5 Comet assay on EPISKIN(R) an in vitro reconstructed skin model: A new tool for the evaluation of (photo)genotoxic potential
J-R Meunier (France)

Session 19: Genomic and Chromosomal Instability

8:30~10:00

**Room
Ch:**

- 8:30 O19-1 Identification of mouse mutants showing genome instability by the flow cytometric micronucleus assay
N Shima (USA)
- 8:45 O19-2 Mechanism of induction of chromosomal instability by viral tumorantigens
E Wintersberger (Austria)
- 9:00 1D-6 DNA replication independent mutation events in the model organism *Saccharomyces cerevisiae*
U Wintersberger (Austria)
- 9:15 O19-4 Radiosensitivity and expression of nucleotide excision repair genes in peripheral blood mononuclear cells of atomic bomb survivors with myelodysplastic syndrome
E Wintersberger (Austria)
S Ban (Japan)
- 9:30 O19-5 Hotspots for instability-associated chromosomal rearrangements in human B-lymphoblastoid cells
SR Moore (USA)
- 9:45 O19-6 Incompatibility of DNA recombination and ring chromosomes and inevitable employment of rod-shaped chromosomes with telomeres in eukaryotes
S Sutou (Japan)
- 10:00 **Break**

Session 5: DNA Adducts

10:30~11:45

**Room
Ch:**

- 10:30 O5-1 Development of a sensitive chemiluminescence immunoassay for benzo[a]pyrene-DNA adducts: Validation for experimental systems and human biomonitoring
RL Divi (USA)
- 10:45 O5-2 Detection of endogenously formed 1, N²-propanodeoxyguanosine adducts of 4-hydroxy-2-nonenal in human and animal tissue as cancer risk marker after oxidative stress
E Eder (Germany)
- 11:00 O5-3 Does diepoxybutane exposure result to DNA-DNA cross-link formation?
U Harju (Finland)
- 11:15 O5-4 Oxaluric acid, cyanuric acid and oxalalone lesions derived from peroxynitrite oxidized 8-oxoG: Three potent sources of G-to-T transversions in vivo
PT Henderson (USA)
- 11:30 O5-5 Identification of tamoxifen-DNA adduct in leucocytes from breast cancer patients
A Umemoto (Japan)

12:00 **Lunch, Excursion**

Thursday 25 October 2001

Plenary session		8:30~9:15	Room A
8:30	Keynote lecture		<i>Chair: M Sekiguchi (Japan)</i>
	KL-3	Multiple error-prone DNA polymerases in prokaryotes and eukaryotes: What is their function? <i>EC Friedberg (USA)</i>	
9:15	Break		

Symposia 4 and Workshop 2	9:30~12:30	Room A~F
----------------------------------	-------------------	-----------------

9:30~12:30	Workshop 2: The Comet Assay- Recent Advances and New Applications	Room A
	<i>Chairs: YF Sasaki (Japan), RR Tice (USA)</i>	

9:30	4A-1	The comet assay - tool or toy ? <i>G Speit (Germany)</i>
10:00	4A-2	<i>In Vitro</i> Studies <i>D Anderson (UK)</i>
10:30	4A-3	Detection of mouse organ-specific genotoxicity by the comet assay <i>YF Sasaki (Japan)</i>
11:00	4A-4	The comet assay: recent advances and applications <i>AR Collins (UK)</i>
11:30	4A-5	Human colon cells as targets to analyse colon cancer risk factors and protective food ingredients in vitro and in vivo <i>BL Pool-Zobel (Germany)</i>
12:00	4A-6	The comet assay: Novel applications and future directions <i>RR Tice (USA)</i>

9:30~12:30	Symposium 4B: Mechanistic Dynamics and Genetic Diseases in DNA Repair	Room B
	<i>Chairs: JHJ Hoeijmakers (Netherlands), K Tanaka (Japan)</i>	

9:30	4B-1	Complex responses to alkylating agents <i>LD Samson (USA)</i>
10:00	4B-2	Preventive mechanisms for mutagenesis and carcinogenesis caused by oxygen radicals <i>M Sekiguchi (Japan)</i>
10:30	4B-3	Molecular dynamics in mammalian base excision repair and cellular consequences of repair deficiency <i>SH Wilson (USA)</i>
11:00	4B-4	Biochemistry of postreplicative mismatch repair <i>J Jiricny (Switzerland)</i>
11:30	4B-5	Transcription coupled repair: mechanism and diseases <i>K Tanaka (Japan)</i>
12:00	4B-6	Nucleotide excision repair and transcription: human syndromes, mouse models and dynamics in living cells <i>JHJ Hoeijmakers (Netherlands)</i>

9:30~12:30	Symposium 4C: Transgenerational Effects of Environmental Agents	Room C
	<i>Chairs: T Nomura (Japan), K Sankaranarayanan (Netherlands)</i>	

9:30	4C-1	Transgenerational teratogenesis and carcinogenesis by radiation and chemicals <i>T Nomura (Japan)</i>
10:00	4C-2	Hormone modulation in offspring as a mechanism of transgenerational carcinogenesis <i>LM Anderson (USA)</i>

Thursday 25 October 2001

- 10:30 4C-3 Genomic instability and radiation-induced cancer
RL Ullrich (USA)
- 11:00 4C-4 Epidemiological studies of transgenerational effects of ionizing radiation
K Mabuchi (USA)
- 11:30 4C-5 Acquired biological effects from exposure to environmental toxicants
WW Au (USA)
- 12:00 4C-6 Impact of advances in molecular biology on the estimation of genetic risks of radiation exposure in humans
K Sankaranarayanan (Netherlands)
-

↙ 9:30~12:30 **Symposium 4D: Protective Mechanisms and the Concept of Thresholds of Genotoxic Activity**

Chairs: JM Parry (UK), S Fukushima (Japan)

Room

- ↙ 9:30 4D-1 DNA polymorphisms as modulators of genotoxic activity and cancer
J Rueff (Portugal)
- 10:00 4D-2 Activation and inactivation of mutagens by recombinant human enzymes: the implication of genetic polymorphisms
PD Josephy (Canada)
- 10:30 4D-3 The relationship between DNA adduct formation, repair, hereditary genetic damage and cancer formation of genotoxic agents
MJM Nivard (Netherlands)
- 11:00 4D-4 Mutagenicity in germ cells and threshold concepts
I Adler (Germany)
- 11:30 4D-5 Low dose carcinogenicity of genotoxic hepatocarcinogens in rats
S Fukushima (Japan)
- 12:00 4D-6 Mechanistic considerations which indicate the presence of the thresholds of activity of genotoxic chemicals
JM Parry (UK)
-

↘ 9:30~12:30 **Symposium 4E: Epidemiology and Environmental Mutagens – Relevance and Limitations – Epidemiology is the touchstone of our science. How reliable is it?**

Chairs: BA Bridges (UK), DG MacPhee (Japan)

Room

The importance of epidemiology as providing the most relevant evidence for the ability of an agent to cause cancer or genetic effects is widely accepted, yet it is incomparably more difficult than experimental science since controls groups or populations cannot be made to order. They must be somehow extracted from what is available naturally. This symposium will deal with a few specific and often controversial issues that will highlight the difficulties and possible abuses of epidemiology. People, for example, are not all the same, either genetically or in the way they live their lives. What do we do when epidemiology tells us something we do not wish to hear because current science does not expect it (mobile phones? power lines? preconceptional effects of radiation?). There will be a discussion session in which the audience and panellists will address some of these issues.

- 9:30 **Introduction**
BA Bridges (UK)
- 9:35 4E-2 Epidemiology and environmental mutagens--relevance and limitations. The example of diet and cancer
P Vineis (Italy)
- 10:20 4E-1 The Seascale childhood cancer cluster - discovered by television, dissected by epidemiology
BA Bridges (UK)
- 11:05 4E-3 Primal force and genetic variation in multistep carcinogenesis
O Hino (Japan)
- 11:50 **Introduction to discussion**
DG MacPhee (Japan)
- 12:00 **Discussion**
Panelist: P Vineis (Italy), BA Bridges (UK), O Hino (Japan), R Sinha (USA)
-

9:30~12:30 **Symposium 4F: Structural Biology on DNA Replication and Its Relevance to Mutation Research**
Chairs: T Kunkel (UK), K Morikawa (Japan) **Room F**

- 9:30 4F-1 Structure-function analysis of eukaryotic DNA mismatch repair proteins
T Kunkel (USA)
- 10:00 4F-2 DNA mismatch repair : from structure to mechanisms
W Yang (USA)
- 10:30 4F-3 Relating structure to mechanism in DNA helicases
DB Wigley (UK)
- 11:00 4F-4 Structural aspects involved in RecA/Rad51-mediated heteroduplex joint-formation, a general step in homologous DNA recombination
T Shibata (Japan)
- 11:30 4F-5 Pathway interactions in replicaton-coupled repair directed by keystone complexes
JA Tainer (USA)
- 12:00 4F-6 Structure and function of the ruv complex
K Morikawa (Japan)

Lunch, Lunch time seminar

12:30 Lunch **12:30~14:30**
 12:40~13:30 Lunch time seminar **6F**
Room C

Human steering committee

Symposia 5 and Special session 1b

14:30~18:00

Room A ~ F

14:30~ 18:00 **Symposium 5A: Micronucleus Assay in Human Monitoring and the HUMN Project**
Chairs: M Fenech (Australia), E Zeiger (USA) **Room A**

- 14:30 5A-1 Brief overview of the objectives of the HUman MicroNucleus (HUMN) project
E Zeiger (USA)
- 14:45 5A-3 Results from the world-wide data base comparison of MN frequency in human lymphocytes lymphocytes
S Bonassi (Italy)
- 15:15 5A-2 The importance of micronutrients, genotype, nucleoplasmic bridges and nuclear buds in the cytokinesis-block lymphocyte micronucleus assay
M Fenech (Australia) CSIRO Adelaide Australia
- 15:45 5A-4 New developments in the epithelial cell micronucleus assay
NT Holland (USA)
- 16:15 **Break**
- 16:30 5A-5 Micronucleus assay in human monitoring and the HUMN project
M Kirsch-Volders (Belgium)
- 17:00 5A-6 Molecular correlation of micronucleus formation and carcinogenesis in human cells
WP Chang (Taiwan)
- 17:30 5A-7 The use of the micronucleus assay in predicting cancer risk and response to radiotherapy
D Scott (UK)

14:30~17:20 **Symposium 5B: Chemical and Biological Properties of DNA Adducts, Relevance to Mutagenesis and Carcinogenesis**
Chairs: S Shibutani (USA), KW Turteltaub (USA) **Room B**

- 14:30 5B-2 Advances in the detection of DNA adducts
PB Farmer (UK)
- 15:00 5B-3 Mechanisms of carcinogenicity and DNA adduct formation by tamoxifen
DH Phillips (UK)
- 15:30 5B-4 Genotoxic potential of anti-estrogens used for breast cancer therapy and chemoprevention
S Shibutani (USA)

Thursday 25 October 2001

- 16:00 **Break**
16:20 5B-5 Recognition and mutagenesis of thymine photo-dimers
E Ohtsuka (Japan)
16:50 5B-6 Applications of accelerator mass spectrometry (AMS) in the quantification of DNA adducts in animals and humans
KW Turteltaub (USA)
-

- 14:30~17:50 **Symposium 5C: Epigenetic Changes Related to Human Health** **Room 5C**
Chairs: PA Jones (USA), T Sekiya (Japan)
- 14:30 5C-1 DNA methylation changes in human cancer
PA Jones (USA)
15:00 5C-2 Epigenetic mechanisms of nickel carcinogenesis
M Costa (USA)
15:30 5C-3 Interactions between DNA methylation and environmental exposures in aging and cancer
JP Issa (USA)
16:00 **Break**
16:20 5C-4 Hypermethylation of RASSF1A, a gene from chromosome 3p21.3, occurs in a variety of human cancers
GP Pfeifer (USA)
16:50 5C-5 Methylation of a CpG island associated with the E-cadherine gene silencing in human cancer cells
T Sekiya (Japan)
17:20 5C-6 Induction of hypomethylation of specific target genomic regions by feeding of methyl deficient diet
T Ushijima (Japan)
-

- 14:30~18:00 **Symposium 5D: Solar Radiation and Mutagenesis** **Room 5D**
Chairs: DG MacPhee (Japan), K Negishi (Japan)
- 14:30 5D-1 DNA replication fidelity on damaged and undamaged DNA
RM Schaaper (USA)
14:55 5D-2 Impact of deficiencies in nucleotide excision repair on acute and long term effects of UV light
L Mullenders (Netherlands)
15:20 5D-3 Detection of ultraviolet photoproducts repair in human skin exposed to natural sunlight
T Ishikawa (Japan)
15:45 5D-4 Molecular mechanisms of UV-induced mutations in human skin cancer
A Sarasin (France)
16:20 **Break**
16:45 5D-5 Somatic cell mutation and apoptosis induced by solar UV in *Drosophila*
T Negishi (Japan)
17:10 5D-6 Photosensitization by sunscreens as measured by genetic recombination and papilloma formation
RC von Borstel (Canada)
17:35 5D-7 Effects of sunlight on blood cells of the normal human population
MHL Green (UK)
-

15:00~18:00		Special session 1b: Science in Countries with Developing Environmental Mutagenesis Programs <i>Chairs: MD Waters (USA), MT Smith (USA)</i>	Room F
15:00	5F-1	Monitoring of genotoxic effects in population of Armenia - principles and results <i>R Aroutiounian (Armenia)</i>	
15:15	5F-2	Comparison of the elimination of unstable chromosome aberrations and frequency of stable chromosome aberrations in population involved in industrial radiography <i>A Fucic (Croatia)</i>	
15:30	5F-3	The family analysis of the chromosome aberration frequencies in the population of the Semipalatinsk nuclear test site <i>RI Bersimbaev (Kazakhstan)</i>	
15:45	5F-4	Genotoxicity tests : Application to occupational exposure as biomarkers <i>S Sardas (Turkey)</i>	
16:00	5F-5	Studies of occupational exposure to mercury vapours influence on the levels of cytogenetic damage detected in lymphocytes <i>A Cebulska-Wasilewska (Poland)</i>	
16:15	Break		
16:45	5F-6	Assessment of occupational exposure to benzene and to lead and the comet Assay <i>H Groot-Restrepo (Colombia)</i>	
17:00	5F-7	Cytogenetic monitoring of occupational exposure to benzene in Bulgarian petroleum refinery workers: Implications for cancer risk prediction and prevention <i>E Mirkova (Bulgaria)</i>	
17:15	5F-8	Toxic lifestyles: A study about the quality of life of Mexico City residents and its relationship with genotoxic damage <i>RD Montero (Mexico)</i>	
17:30	5F-9	Assessment of genetic damage in the symptomatic individuals exposed to arsenic through drinking water in West Bengal, India <i>AK Giri (India)</i>	
17:45	5F-10	Genetic and environmental interactions on oral cancer in Southern Thailand <i>S Kietthubthew (Thailand)</i>	

Friday 26 October 2001

Symposium 6A

8:30~12:00

Room A

8:30~12:00

Symposium 6A: DNA Technology

Chairs: S Aaron (USA), Y Hayashizaki (Japan)

- 8:30 6A-1 Tissue-specific mRNA in the blood for early diagnosis of cancer in the specified organ
M Miwa (Japan)
- 8:55 6A-2 Using serial analysis of gene expression (SAGE) to analyse gene expression changes in cell adhesion
J Powell (UK)
- 9:20 6A-3 cDNA microarray, technology and genomics in mouse embryology
TS Tanaka (USA)
- 9:45 6A-4 cSNP discovery by two-dimensional gene scanning (TDGS)
Y Suh (Korea)
- 10:10 **Break**
- 10:45 6A-5 Bioinformatics software for functional genomics data
M Larsson (Sweden)
- 11:10 6A-6 RIKEN mouse full-length cDNA collection with functional annotation (FANTOM) and its application
Y Hayashizaki (Japan)
- 11:35 6A-7 Functional Genomic Satellite Meeting summary
S Aaron (USA)
-

General oral sessions

8:30~12:00

Room B~H

Time schedule is available on page 25

Closing session

12:00 ~ 12:15

Room A

General oral sessions **8:30~12:00** **Room B~H**

Session 7: Antimutagens-Anticarcinogens **8:30~9:45** **Room B Chair**

- 8:30 O7-13 Chemoprevention against dietary mutagens by induction of phase II enzymes and by ingestion of Brassica vegetables in humans
H Steinkellner (Austria)
- 8:45 O7-14 Prevention of AOM-induced colon cancer by lemongrass
U Vinitketkumnuen (Thailand)
- 9:00 O7-16 Studies on the apoptosis of human promyelocytic leukemia HL-60 cells induced by Tripterygium Hypoglaucom(levl) Hutch
L Ao (China) *CAM Krul (Netherlands)*
- 9:15 O7-17 The effects of some natural antitumors on the biochemical behaviour of neoplastic cells
AM Aboul-Enein (Egypt)
- 9:30 O7-18 Anti-mutagenic potential of pomegranate (*Punica granatum*)
E Lansky (Israel)
- 9:45 **Break**

Session 11: Transgenic Animals in Genetic Toxicology **10:30~12:00** **Room B Chair**

- 10:30 O11-1 Detection of mutations caused by compounds in aquatic environments using *rpsL* transgenic zebrafish
K Amanuma (Japan) *Y Aoki (Japan)*
- 10:45 O11-2 A relational database for the assessment of transgenic rodent assays for gene mutations
IB Lambert (Canada)
- 11:00 O11-3 Application of xylE/ICR transgenic mouse mutation test model to evaluation genotoxicity
M Yin (China)
- 11:15 O11-4 Mutant frequency and spectrum of mutation in the liver cII gene of Big Blue mice treated as neonates with 4-aminobiphenyl
T Chen (USA) *IB Lambert (Canada)*
- 11:30 O11-5 Genotoxicity of MMS and etoposide in pUR288 plasmid mice
H-J Martus (Switzerland)
- 11:45 O11-6 The vehicle, a cofactor in animal model studies after dermal application
A Jacobs (USA)

Session 20: Micronuclei *in vitro* and *in vivo* **8:30~9:30** **Room C Chair**

- 8:30 O20-1 The background of human genetic damage varies during day and night
L Abramsson-Zetterberg (Sweden) *T Suzuki (Japan)*
- 8:45 O20-2 Micronuclei frequencies in normal and dysplastic Papanicolaou's smears
ME Gonsebatt (Mexico)
- 9:00 O20-3 Application of *in vitro* micronucleus assay to 255 chemicals for evaluation of environmental genotoxicity
S-H Kim (Japan)
- 9:15 O20-4 Acute and delayed genotoxic effect of arochlor 1254 on roach *Rutilus rutilus* assessed with micronucleus test
YG Izyumov (Russia)

Friday 26 October 2001

Session 22: Germline Mutations			9:30~10:00	Room Ch
9:30	O22-1	Effect of occupational exposure to styrene in somatic and germ cells of male workers <i>L Migliore (Italy)</i>		<i>T Shibuya (Japan)</i>
9:45	O22-2	A novel approach to germline and somatic mutation analysis of spontaneous and radiation-induced mutation in mice <i>CL Yauk (UK)</i>		
10:00	Break			

Session 2: Mutagens and Carcinogens in Water, Air and Soil			10:30~12:00	Room Ch
10:30	O2-13	The influence of bromate on biological key mechanisms <i>T Grummt (Germany)</i>		<i>H Shimizu (Japan)</i>
10:45	O2-14	2-Phenylbenzotriazoles are metabolically activated by human CYP1A1 and are capable of inducing CYP1A1 <i>Y Yamazaki (Japan)</i>		
11:00	O2-15	Detection and confirmation of mutagenicity in river water in Korea <i>J-H Kwon (Korea)</i>		
11:15	O2-16	Monitoring of benzo(a)pyrene and mutagenic activity in sea water of the Seto Inland Sea, Japan <i>S Kira (Japan)</i>		<i>T Grummt (Germany)</i>
11:30	O2-17	Identification of mutagens in the Waka river in Wakayama, Japan <i>T Takamura-Enya (Japan)</i>		
11:45	O2-18	Quality of tap water in Daoli district, Harbin, PRC <i>Y Zhao (China)</i>		

Session 8: DNA Repair and its Mechanisms			8:30~12:00	Room Ch
8:30	O8-1	XRCC2 and XRCC3 homologous recombination repair genes maintain chromosome stability and correct chromosome segregation <i>CS Griffin (UK)</i>		<i>M Sato (Canada)</i>
8:45	O8-2	Human cells expressing the hepatitis B-virus X protein are deficient in both global- and transcription coupled-nucleotide excision repair <i>G Mathonnet (Canada)</i>		
9:00	O8-3	Double-strand breaks as intermediates of DNA crosslink processing in proliferating but not resting human and yeast cells <i>M Frankenberg-Schwager (Germany)</i>		
9:15	O8-4	Differentiation associated repair: A new DNA repair phenomenon in terminally differentiated cells <i>TP Nospikel (USA)</i>		<i>H Ide (Japan)</i>
9:30	O8-5	Novel pathway involved in the formation of double-strand DNA breaks in mammalian cells <i>M Satoh (Canada)</i>		
9:45	O8-6	Multiple uracil-DNA glycosylase activities in the radioresistant organism <i>Deinococcus radiodurans</i> <i>WA Franklin (USA)</i>		
10:00	Break			
10:30	O8-7	Molecular mechanisms of oxidative stress to DNA and its repair in non-genotoxic carcinogenesis <i>I Rusyn (USA)</i>		<i>P Mosesso (Italy)</i>
10:45	O8-8	Genetic effects and repair of formamidopyrimidine <i>H Ide (Japan)</i>		

11:00	O8-9	Opposite base specificity for excision of pyrimidine ring-ruptured 1,N ⁶ -ethenoadenine by thymine glycol-DNA glycosylase <i>B Tudek (Poland)</i>	
11:15	O8-10	NO-producing dinitrosyl iron complexes with thiol ligands activate the SoxRS and SOS stress regulons in <i>E.coli</i> <i>SV Vasilieva (Russia)</i>	<i>B Tudek (Poland)</i>
11:30	O8-11	Mechanism by which Pir1 targets Apn1 into yeast mitochondria <i>D Ramotar (Canada)</i>	
11:45	O8-12	DNA repair, DNA break formation and signaling in methylating agent-induced genotoxicity and apoptosis <i>B Kaina (Germany)</i>	

Session 16: Individual Differences in Mutagenesis and Carcinogenesis**8:30~11:00****Room E
Chair**

→ 8:30	O16-1	Development of an in vitro p53 mutagenicity assay <i>RK Elespuru (USA)</i>	<i>A Rannug (Sweden)</i>
8:45	O16-3	Increased frequency of p53 transversion mutations in lung cancer patients with XPD variant alleles <i>S-M Hou (Sweden)</i>	
→ 9:00	O16-4	Biotransformation gene polymorphisms and susceptibility to lung cancer <i>A Rannug (Sweden)</i>	<i>AJ Van der Eb (Netherlands)</i>
9:15	O16-5	Role of diesel particles and nitroarenes involving oxidative damage in human lung tissues <i>H Tokiwa (Japan)</i>	
9:30	O16-6	UV-induced stress response in diploid human fibroblasts correlates with cancer-resistance and cancer-susceptibility phenotypes <i>AJ Van der Eb (Netherlands)</i>	<i>RK Elespuru (USA)</i>
9:45	Break		
10:30	O16-7	Comparison of biomarkers after in vitro exposure to cisplatin in peripheral blood lymphocytes from children and adults <i>C Laurent (Belgium)</i>	
10:45	O16-8	Monitoring response of primary normal human mammary epithelial cells to benzo[a]pyrene with a gene array <i>C Keshava (USA)</i>	

Session 4: Endogenous Mutagens**11:00~12:00****Room E
Chair**

11:00	O4-1	Benefits of joint analysis of free radical and cytogenetic parameters during human health assessment in environmental biomonitoring <i>LV Khripach (Russia)</i>	<i>T Nunoshiba (Japan)</i>
11:15	O4-2	Labile iron pool is involved in formation of oxidative DNA damage in mammalian cells <i>M Kruszewski (Poland)</i>	
11:30	O4-3	Mechanism for oxidative mutagenesis in <i>E. coli</i> – Importance of superoxide dismutases and iron uptake regulation as a protection <i>T Nunoshiba (Japan)</i>	<i>M Kruszewski (Poland)</i>
→ 11:45	O4-4	Possible involvement of genetic alterations by endogenous estrogens in the initiation of hormonal carcinogenesis <i>T Tsutsui (Japan)</i>	

Session 17: Molecular Cytogenetics, Chromosomal Aberrations**8:30~11:00****Room J
Chai**

- 8:30 O17-1 The impact of radiation quality on the spectrum of induced chromosome exchange aberrations
J Boei (Netherlands)
- 8:45 O17-2 Radiation-induced translocations in 16p indicate a lack of DNA-proportional distribution of aberrations in the human genome
ET Sakamoto-Hojo (Brazil)
- 9:00 O17-3 The COBRA-FISH assay for detecting chromosomal exchanges in human lymphocytes and fibroblasts: Influence of radiation quality
F Darroudi (Netherlands)
- 9:15 O17-4 Cytogenetic study of human lymphocytes exposed to methylparathion *in vitro*
IP Aranha (Brazil) *F Darroudi (Netherlands)*
- 9:30 O17-5 Effects of inhibitors of DNA helicase and topoisomerase II on UVB-induced sister chromatid exchanges in Chinese hamster cells
Y Ishii (Japan)
- 9:45 O17-6 Nutritional supplementation with antioxidants decreases chromosomal damage in humans
M Dusinska (Slovakia)
- 10:00 **Break**
- 10:30 O17-7 Chromosomal aberrations in human sperm: Evidence for an age effect using multicolor fluorescence in situ hybridization
J Nath (USA) *Y Ishii (Japan)*
- 10:45 O17-8 Stress external temperature treatments induced TE transpositions, and by them – mutations of genes and polygenes in drosophila
VA Ratner (Russia)

Session 12: Epigenetic Changes**11:00~11:45****Room J
Chai**

- 11:00 O12-1 Carcinogenesis mediated through tumor necrosis factor- α (TNF- α): An example with *Helicobacter pylori*
M Suganuma (Japan)
- 11:15 O12-2 The impact of dietary phytoestrogens for men
BM Thomson (New Zealand)
- 11:30 O12-3 Low concentration MNNG elevates the activity of transcription factor API and CREB by activating JNK and PKA signal pathways
G-I Wang (China)

Session 10: Metabolisms of Genotoxic Agents**8:30~10:15****Room C
Chai**

- 8:30 O10-1 Roles of human cytochrome P450 in the mutagenic activation of tobacco-related *N*-nitrosamines
K Fujita (Japan) *MC Poirier (USA)*
- 8:45 O10-2 Metabolic activation of tobacco-related *N*-nitrosamines by mouse CYP2A
M Miyazaki (Japan)
- 9:00 O10-3 Species differences in the *in vitro* metabolism of dienes
WP Watson (UK)
- 9:15 O10-4 *N*-Benzylimidazole for preparation of S9 fraction with multi-induction of metabolizing enzymes in short-term genotoxicity assays
A Koide (Japan)
- 9:30 O10-5 Genotoxicity of antiretroviral nucleoside analog drug combinations
OA Olivero (USA) *T Yokoi (Japan)*

- 9:45 O10-6 Fetal mitochondrial toxicity induced by human-equivalent doses of antiretroviral nucleoside analog drugs in a transplacental Erythrocebus patas monkey model
MC Poirier (USA)
- 10:00 O10-7 Biomonitoring of diepoxybutane by LC/MS/MS
C Fred (Sweden)
- 10:15 **Break**

Session 15: Health and Aging**10:45~11:15****Room G
Chair**

- 10:45 O15-1 Lipoic acid: Genotoxicity and effect on free radicals in yeast
Saccharomyces cerevisiae
C DellaCloce (Italy)
- 11:00 P15-6 Mechanism of acceleration of telomere shortening by oxidative stress
S Kawanishi (Japan)

Session 23: Thresholds in Genetic Toxicology**11:15~11:30****Room G
Chair**

- 11:15 O23-1 Evidence for a threshold for clastogenicity with topoisomerase inhibitors
AM Lynch (UK)

Session 25: Genomics and Proteomics in Genetic Toxicology**11:30~11:45****Room G
Chair**

- 11:30 O25-1 MMS-inducible Gene Mif1: A missing link between the unfolded protein response and ER-associated protein degradation?
C Terleth (Netherlands)

Session 26: Ecosystem and Human Health**11:45~12:00****Room G
Chair**

- 11:45 O26-1 Chromosome aberrations in occupational uranium miners of North Kazakhstan
RI Bersimbaev (Kazakhstan)

Session 27: Others**8:30~12:00****Room H
Chair**

- ↘ 8:30 O27-1 Establishment of a multiple-endpoint genotoxicity test system based on human cells
M Honma (Japan)
- ↘ 8:45 O27-2 In vitro (photo)-genotoxicity testing : A task involving multiple endpoints
C Agapakis-Causse (France)
- ↘ 9:00 O27-3 The combined bacterial SOS-LUX- and Lac-FLUORO-Test for the detection and quantification of geno- and cytotoxic agents
P Rettberg (Germany)
- 9:15 O27-4 Drosophila wts/+ heterozygotes as a carcinogen screening system
RA Sidorov (Russia)
- 9:30 O27-5 Introduction of the supernucleophilic cob(I)alamin as an analytical tool to solve toxicological problems
JEE Haglund (Sweden)
- 9:45 O27-6 Preparation of rAAV vector with a mutation of hFIX in large scale and its expression in vitro and in vivo
H Lu (China)

Friday 26 October 2001

- 10:00 O27-7 Muscle injection of rAAV/mFIX to secrete clotting factor IX corrects the hemorrhagic tendencies in hemophilia B mouse
L Chen (China)
- 10:15 **Break**
- 10:45 O27-8 Structure-activity relationships among resveratrol and its analogues in cytogenetic activity *T Mochizuki (Japan)*
A Matsuoka (Japan)
- 11:00 O27-9 Melatonin, N-acetylcysteine and mannitol as antifree radicals against lipid peroxidation induced by snake and scorpion venom
MA Ghoneim (Egypt)
- 11:15 O27-10 Methods for cancer risk estimation of environmental chemicals based on *in vivo* dose measurements *K Nakachi (Japan)*
M Tornqvist (Sweden)
- 11:30 O27-11 Colorectal cancer in India with reference to mutagenicity in feces
S Tokudome (Japan)
- 11:45 O27-12 Smoking during pregnancy increases genetic damage in genetically susceptible newborn children
RWL Godschalk (The Netherlands)
-

Poster Presentations

Poster presentations will be held in the 1st Floor (Hall Ocean). **Poster discussion will be held on Monday 22 (odd number posters, e.g., P1-1, 3, 5) and Tuesday 23 (even number posters, e.g., P1-2, 4, 6) from 12:50 to 14:20.** This is the time when presenters will stand by their assigned board and be available to discuss their work. Posters will be displayed from 9:00 on Monday through 8:30 on Thursday to enable adequate viewing time. Presenters should contact the Conference Secretariat to obtain a floor plan of the presentation boards. Pins will be provided at the conference site.

Monday 22, Tuesday 23 October 2001

Session 1: Mutagens and Carcinogens in Diet

- P1-1 Aflatoxin: An important determining factor for mutagenesis and carcinogenesis in Egyptian hepatocellular carcinoma
MA Kader AL-Khafif, Egypt
- P1-2 In vivo genotoxicity of mycotoxins; ochratoxin, nivarenol, T-2 toxin, and patulin, by the comet, micronucleus, and transgenic mouse mutation assays
R Al, Japan
- P1-3 Trp-P-1 induces apoptosis in rat liver in vivo
H Ashida, Japan
- P1-4 Trp-P-1 induces apoptosis in immune tissues in vivo
T Hashimoto, Japan
- P1-5 Detection and characterization of the mutagenic potential of Trp-P-2 and 2-chloro-4-methylthiobutanoic acid in human hepatoma cells: Antimutagenic effects of beer extracts
F Darroudi, Netherlands
- P1-6 PhIP causes transformation of a colonic cell line containing a mutated *Apc* allele (IMCE)
A Andreassen, Norway
- P1-7 PhIP-DNA adducts are repaired via nucleotide excision repair (NER)
A Andreassen, Norway
- P1-8 The influence of pH on the UV absorption spectra of PhIP and PhIP metabolites
JC Sasaki, USA
- P1-9 MeIQx and PhIP are formed under physiological conditions
N Kinae, Japan
- P1-10 Is the target organ genotoxicity of the heterocyclic amine PhIP mediated by its oestrogenic activity?
SN Lauber, UK
- P1-11 Suppression of 2-amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine-induced DNA damage in rat colon with grapefruit juice
M Miyata, Japan
- P1-12 Influences of cigarette smoke and/or MeIQx on the metabolic activation of environmental carcinogens by rat liver
Y Mori, Japan
- P1-13 The food mutagen 2-amino-9*H*-pyrido[2,3-*b*]indole (AαC) but not 2-amino-3-methyl-9*H*-pyrido[2,3-*b*]indole (MeAαC) affects intestinal tumorigenesis in *Min*/+ mice
I-L Steffensen, Norway
- P1-14 Mutagenic synergy between aromatic amines and organophosphorus insecticides
ED Wagner, USA
- P1-15 Oxidative DNA damage induced by amino acid metabolites
Y Hiraku, Japan
- P1-16 Mutagenicity of broiled soy sauce and effects of artificial and natural sugars
N Muraoka, Japan
- P1-17 Genetic analysis of NIMBB agouti mice generated from an albino mouse line
CP Palmes-Saloma, Philippines
- P1-18 Social differences and its relationship with exposure to environmental carcinogens
B Silvia, Argentina

- P1-19 Analysis of estrogenic activity of foodstuffs and cigarette smoke condensates using a yeast screen method
T Takamura-Enya, Japan
- P1-20 *p53* gene mutations in human esophageal cancer and human esophageal tissues treated with AMI
L Li, Japan
- P1-21 The mutagenic potential of the combined exposure to two pesticides: Detection of tumor suppressor gene mutation using PCR-SSCP
E-HN El-Khatib, Egypt
- P1-22 Assessment of the mutagenic activity of alpha-cypermethrin: detection of *p53* mutation using SS analysis of polymerase chain reaction
E-HN El-Khatib, Egypt
- P1-23 Mutagenic study of yamgambin and the total extract of the *Ocotea duckei* with *Salmonella typhimuri*
RCP Marques, Brazil
- P1-24 Mutagenic effects of *Luffa operculata*
ECA Oliveira, Brazil
- P1-25 Intra-gastric formation of N-nitrosodimethylamine under human physiological conditions studied with the dynamic *in vitro* gastrointestinal model
C Krul, The Netherlands
- P1-26 Mutagenic and cytotoxic characterization of nitrosophenol and derivatives
S González-Mancebo, Spain

Session 2: Mutagens and Carcinogens in Water, Air and Soil

- P2-1 Size distribution of particulate matter and polycyclic aromatic hydrocarbons in the air of Shimi, Japan
R Yasunami, Japan
- P2-2 Concentration of mutagenic/carcinogenic polycyclic aromatic hydrocarbons in the gas- and particulate phase in Shimizu, Japan
T Ohura, Japan
- P2-3 Mutagenicity of airborne particles and soils in an industrial city in Hokkaido
T Akutagawa, Japan
- P2-4 Mutagenicity of organic extracts from urban air particulate matter in the Czech Republic
M Cerna, Czech
- P2-5 Mutagenicity of airborne particulate samples in area of influence of the petrochemical complex, Grande do Sul state, Brazil
A Ducatti, Brazil
- P2-6 Mutagenicity survey of airborne particle, river water and soil in Japan in 1996 - 2000
O Endo, Japan
- P2-7 Sister chromatid exchanges in human lymphocyte cultures induced by organic matter extracts from airborne particles of Mexico City
S Gomez-Arroyo, Mexico
- P2-8 Mutagenicity of thermal decomposition and combustion products of polyvinylchloride and polyethylene and mutagen formation by them
Y Hisamatsu, Japan
- P2-9 Analysis of mutagenicity level of ambient air and contribution rate of polycyclic aromatic hydrocarbons
T Kubo, Japan
- P2-10 Mutagenic activity of airborne particulates: A survey over a quarter century (1974~2001) in Sapporo
Y Matsumoto, Japan
- P2-11 Assessment of clastogenic activity of airborne particulate matter from an area at high traffic intensity, Catania, Sicily (Italy)
P Mosesso, Italy
- P2-12 Risk estimation for induction of chromosomal translocations leading to leukemia in benzene-exposed people
A Nakayama, Japan
- P2-13 Mutations induced by benzene metabolites, *p*-benzoquinone, muconaldehyde and hydroquinone, human and mouse cells
Y Noguchi, Japan

- P2-14 Mutagenicity of the extractable organic matter of airborne particles in Southwest Mexico City
R Villalobos-Pietrini, Mexico
- P2-15 Evaluation of the genotoxicity of new acridine derivatives with the Ames test, the Salmonella sulA-test and the Comet assay
JF Mata, France
- P2-16 Alternative gene expression of enzymes responsible for the cholesterol and testosterone biosyntheses in testes and livers in lead nitrate-treated rats
M Kojima, Japan
- P2-17 Genotoxicity assessment in aquatic environments under the influence of heavy metals and organic contaminants
VMF Vargas, Brazil
- P2-18 Comparative temporal ecogenotoxicity study using Salmonella/microsome and microscreen phage-induction assays
VMF Vargas, Brazil
- P2-19 Effect of cadmium chloride on the gene expression of several enzymes in the testes and livers of rats
Y Ayabe, Japan
- P2-20 Transforming and tumorigenic potential of tetrachloroethylene in BALB/c-3T3 cells
N Keshava, USA
- P2-21 Genotoxic monitoring of Caí-river water under the influence of petroquimical industrial complexes and urban discharges in the Drosophila wing-spot test
HHR de Andrade, Brazil
- P2-22 Genotoxic effects in Glaucous gulls
A Kroekje, Norway
- P2-23 Biomonitoring of aquatic environment by micronucleus test and comet assay using gold fish
S Masuda, Japan
- P2-24 Chlorination caused in vitro mutagenicity and lipid peroxidation of drinking water
V Mersch-Sundermann, Germany
- P2-25 Genetic response of 3-chloro-4-(dichloromethyl)-5-hydroxy-2(5H)-furanone (MX) in several *in vivo* mutagenicity tests
M Nakajima, Japan
- P2-26 Isolation and identification of a new 2-phenylbenzotriazole-type mutagen (PBTA-4) in river water in Kyoto and Aichi prefectures, Japan
H Nukaya, Japan
- P2-27 Occurrence and behavior of PBTA-type mutagens in effluents from sewage plant
T Ohe, Japan
- P2-28 2-Phenylbenzotriazole (PBTA)-type mutagens isolated from water of the Kitsune River in Fukui, Japan
Y Terao, Japan
- P2-29 Identification of co-mutagenic chlorinated harmans in final effluent from a sewage treatment plant
T Shiozawa, Japan
- P2-30 Mutagenic activity of potassium dichromate ($K_2Cr_2O_7$) and interstitial water in streams in the state of Rio Grande do Sul, Brazil
KC Tagliari, Brazil
- P2-31 The mutagenic tracing study on surface water of Qiantang River Valley
N-X Wu, China
- P2-32 Evaluation of potential harmful effects of organic pollutants in tap water on mice in vivo
K Wu, China
- P2-33 Cellular response to oxidative DNA damage by sodium arsenite
N Mei, Canada
- P2-34 Mutagenic characteristics and contribution of polycyclic aromatic hydrocarbons for mutagenicity of concentrates from municipal river water by Blue Chitin column
K Nakamuro, Japan

Session 3: Solar and Ionizing Radiation Mutagenesis

- P3-1 Effect of visible light on survival and mutagenesis in hemH1 mutants of *Escherichia coli*
A Sikora, Poland
- P3-2 Mutations and DNA strand cleavages caused by *N*-nitrosoproline with sunlight
Y Ando, Japan
- P3-3 Mechanism to maintain genetic information in *Halobacterium salinarium*, a halophilic bacterium
H Terato, Japan
- P3-4 Method for detecting photomutagenic compounds with bacterial mutagenicity test
M Watanabe-Akanuma, Japan
- P3-5 DNA lesions leading to apoptosis and mutations in *Drosophila* caused by UV and X-ray
M Toyoshima, Japan
- P3-6 Roles of three mitogen-activated protein kinases in UV-induced mutagenesis
J-L Yang, Taiwan
- P3-7 Threshold effect in radiation risk depends on dose-rate and *p53* gene
N Kunugita, Japan

Session 4: Endogenous Mutagens

- P4-1 The possible involvement of 5-aminolevulinic acid in the primary liver cancer in acute intermittent porphyria
J Onuki, Brazil
- P4-2 NO-producing dinitrosyl iron complexes with thiol ligands activate SoxRS and SOS stress regulons
E.coli
S Vasilieva, Russia
- P4-3 Characterization of spontaneous mutation in soxRS-deficient strain of *Escherichia coli*
E Yamamura, Japan
- P4-4 Bcl-2 abrogates the burst of endogenous mutagenesis associated with induction of differentiation
BALB/c pre-B lymphocytes
K Felix, Switzerland

Session 5: DNA Adducts

- P5-1 Genotoxicity and embryotoxicity of organic compounds associated with urban air particulate matter (PM10)
B Binková, Czech Republic
- P5-2 Relationship among DNA adduct level, mutagenesis and repair induction with 7H dibenzo[c,g]carbazole
N Bichet, France
- P5-3 Inhibitory effects of beer on the DNA-adduct formations induced by heterocyclic amine mutagens
J Takata, Japan
- P5-4 Structural characterization of PhIP-oligodeoxynucleotide adducts
K Brown, USA
- P5-5 Effect of MX on the formation of DNA adducts of MeIQx and PhIP
Y Furuya, Japan
- P5-6 DNA adducts of the epoxy metabolites of 1,3-butadiene
PT Koivisto, Finland
- P5-7 Detection of oxidative base lesions by aldehyde reactive probe (ARP)
S Kurisu, Japan
- P5-8 Chlorination damage of nucleosides mediated by hypochlorous acid and myeloperoxidase of activated human neutrophils
M Masuda, France
- P5-9 Cross-link formation of oxanine, a NO-induced guanine lesion, with cellular molecules
T Nakano, Japan
- P5-10 Attempts to synthesize estradiol-modified oligodeoxynucleotides
S Itoh, Japan

- P5-11 Formation of adducts from the reaction of 3-chloro-4-(dichloromethyl)-5-hydroxy-2(5H)-furanone with deoxynucleotides
C Sugiyama, Japan
- P5-12 Formation of 2'-deoxyguanosine adducts with 4-[(acetoxymethyl)nitrosamino]-1-(3-pyridyl)-1-butanol
P Upadhyaya, USA

Session 6: Mechanisms of Mutations

- P6-1 The asymmetry of mutagenesis during replication of leading and lagging strands in *E. coli* dnaX mutants
IJ Fijalkowska, Poland
- P6-2 O-helix mutant T664P of *Thermus aquaticus* DNA polymerase I: Altered catalytic properties for incorporation of incorrect but not correct nucleotides
M Suzuki, Japan
- P6-3 *Escherichia coli* DNA polymerase I: Creation of mutator mutants by random mutagenesis
A Shinkai, USA
- P6-4 The role of ϵ subunit of *E. coli* polymerase III and UmuD' C proteins in adaptive mutagenesis
E Grzesiuk, Poland
- P6-5 Cellular expression levels of DNA polymerase IV (DinB) in *Escherichia coli*
S-R Kim, Japan
- P6-6 Fidelity of DNA synthesis by DNA polymerase IV, the product of the *E. coli* *dinB* gene
E Ohashi, Japan
- P6-7 Characterization of *trpE65* mutation in *E. coli* tester strain WP2uvrA for mutagenicity testing
S Ohmae, Japan
- P6-8 Classes of frameshift mutations induced by simple and reactive acridines in the *lacZ* reversion assay in *Escherichia coli*
GR Hoffmann, USA
- P6-9 Replication of double stranded plasmids containing two adducts, one in each strand, in *E. coli*
M Kawanishi, France
- P6-10 The asymmetry of frameshift mutagenesis during replication of leading and lagging strands in *E. coli*
P Jonczyk, USA
- P6-11 Quadruplex formation of the G-rich strand of mouse hypervariable minisatellite Pc-1 and characterization of its binding proteins
H Fukuda, Japan
- P6-12 Activation of ERK by lead acetate confers anti-cytotoxicity and anti-mutagenicity in cultured human cells
Y-W Lin, Republic of China
- P6-13 The mutation and repair kinetics of quiescent and proliferating transgenic cells
JH Bielas, Canada
- P6-14 Mutagenicity of α -acetoxytamoxifen and 4-hydroxytamoxifen in the pSP189 shuttle vector plasmid following replication in human cells
KIE McLuckie, UK
- P6-15 Ethidium bromide and SYBR Green-I enhance the mutations induced by UV-irradiation and chemical mutagens in *E. coli* and *S. typhimurium*
T Ohta, Japan
- P6-16 Mutation screening of acrylamide-induced HL-60 and NB₄ human promyelocytic leukemia *hprt* mutants using multiplex polymerase chain reaction
S Liu, China
- P6-17 Sequence context in 8-oxo-guanine mutagenesis
T Watanabe, Japan
- P6-18 Comparative mutagenesis and oxidative damage induced by bleomycin (Bl) and ferric-nitriloacetate (Fe-NTA) in *LacZ* mice
JB Guttenplan, USA
- P6-19 DNA damage, genotoxicity and oxidative cell death induced by selected endogenous isoquinoline derivatives
M-H Shin, Korea

- P6-20 Oxidative DNA damage induced by metabolites of 4-aminobiphenyl and 2-naphthylamine, smoki related bladder carcinogens
S Ohnishi, Japan
- P6-21 N-nitroso propoxur induced cell cycle delay in human gastric cells
TC Wang, Taiwan
- P6-22 In vitro mutational spectrum of oxaliplatin and cisplatin in the *hprt* gene of Chinese hamster ov cells
MJ Silva, Portugal
- P6-23 The study of genotoxic properties and structure-activity relationships of anthracyclines in the Drosopl wing SMART test
HR Heloísa, Brazil
- P6-24 Genotoxic potency and oxidative stress caused by 1- β -D-arabinofuranosylcytosine (araC) and 5-a 2'-deoxycytidine (5-aza-dC)
HR Heloísa, Brazil
- P6-25 Comparison among mutagenicity of organic concentrates of tap water from different type of reserv
H Cui, China
- P6-26 Studies on the mutagenicity and tumor inducing potency of artificial fragrances
V Mersch- Sundermann, Germany
- P6-27 DNA damage in p53 gene by chloroacetaldehyde and trans-4-hydroxy-2-nonenal
P Kowalczyk, Poland

Session 7: Antimutagens-anticarcinogens

- P7-1 Anti-proliferating activity on human cancer cells and priming activity on TNF- α production o (methylsulfinyl)hexyl isothiocyanate from Wasabi (*Wasabia japonica* Matsum.)
Y Fuke, Japan
- P7-2 Wasabi-derived isothiocyanate derivative, 6-(methylsulfinyl)hexyl isothiocyanate, kills human leuke cells inducing apoptosis
O Nakamura, Japan
- P7-3 Antimutagenic activity of Sawa-wasabi and horseradish
H Masuda, Japan
- P7-4 Scavenging effects of grape procyanidins on active oxygen free radicals
Z Jin-yi, China
- P7-5 Effect of the phytoalexin resveratrol on PhIP-induced mutation in MutaTMMouse mice
A Boyce, UK
- P7-6 Effects of the soy isoflavone genistein on phorbol ester-induced COX-2 expression and ERK1/2 i human breast epithelial cell line (MCF10A)
M-H Chung, Korea
- P7-7 Study on the effect and its mechanism of antimutagenesis of soyasaponin in vitro
L Baixiang, China
- P7-8 Inhibitory effect of soybean isoflavonoids on the mutagenicity of 2-amino-1-methyl phenylimidazo[4,5-*b*]pyridine (PhIP) in *Drosophila melanogaster*
T Hirayama, Japan
- P7-9 Antimutagenic effects towards cooked food mutagens caused by vitamins and flavones in hun metabolically competent HepG2 hepatoma cells
V Mersch-Sundermann, Germany
- P7-10 Effect of ascorbic acid and quercetin on the oxidative DNA damage in vivo
R Fujita, Japan
- P7-11 Mutagenicity of cooked hamburger is reduced by addition of reducing sugars, ascorbate and erythorl to ground beef
T Kato, Japan
- P7-12 In vitro genotoxicity of idarubicin: Induction of oxidized and methylated bases and modulation vitamins C and E and amifostine
J Blasiak, Poland
- P7-13 Genotoxicity of malaoxon: induction of oxidized and methylated bases and protective effect of vitar E
J Blasiak, Poland

- P7-14 Antimutagenicity of retinol and tocopherol in yeast *Saccharomyces cerevisiae*
G Bronzetti, Italy
- P7-15 Antigenotoxic and anticlastogenic effects of *Porphyra spp*
C Butryee, Thailand
- P7-16 Study on antimutagenesis of orange oil and d-limonene
C Wang, China
- P7-17 Effect of *Merdania loriformis* extract on the level of aflatoxin-albumin adduct in rat serum received single dose of aflatoxin B₁
T Chewonarin, UK
- P7-18 Inhibitory effects of curcumin on phorbol ester-induced activation of p38 MAP kinase and subsequent induction of cyclooxygenase-2 in mouse skin
K-S Chun, Korea
- P7-19 The synergistic effect of vanillin on the recombinogenic action of bleomycin in somatic cells of *Drosophila melanogaster*
HHR de Andrade, Brazil
- P7-20 Antigenotoxic activities of anthraquinone-related food pigments mediated by the inhibition of cytochrome P450
E Takahashi, Japan
- P7-21 Antimutagenic activity of an extract of the Brazilian plant *Annona crassiflora* Mart. (Araticum) by micronucleus test in mice
FL Ferreira, Brazil
- P7-22 Green tea extract suppresses the transformation of aryl hydrocarbon receptor by dioxin
I Fukuda, Japan
- P7-23 Suppression of genotoxicity of X-rays in somatic cells of *Drosophila melanogaster* by (-)-epigallocatechin gallate, (-)-epigallocatechin, and theaflavin digallate
K Kawai, Japan
- P7-24 Anti-tumor promoting activity in JB6 p+ cells, apoptotic cell death induction in JB6 transformant, and antioxidative property of plant polyphenols
Y Nakamura, Japan
- P7-25 Antitumor-promoting effect of tea aqueous non-dialysates (TNDs) fractionated from crude tea extracts
Y Nakamura, Japan
- P7-26 Suppressing effect of four kinds of tea on the mutagenicity of smokers' urine
A Kawaguchi, Japan
- P7-27 Anti-mutagenic properties of "Magwa Tea"
G George, South Africa
- P7-28 Dietary phenolics as chemopreventive substances for bladder cancer in smokers: A case-control study
C Malaveille, France
- P7-29 Suppressive effect of spinach feeding on N-nitrosodimethylamine-induced genotoxicity in *Drosophila melanogaster*
J Ebata, Japan
- P7-30 Suppression of experimental lung metastasis of melanoma cells by dietary feeding of 1,4-phenylenebis(methylene)-selenocyanate and auraptene in mice
T Tanaka, Japan
- P7-31 Suppression of azoxymethane-induced colon carcinogenesis in male F344 rats by mandarin juices rich in β -cryptoxanthin and hesperidin
H Kohno, Japan
- P7-32 Chemopreventive properties of *Agaricus blazei* Murril and *Lentinus edodes* mushroom against chemically-induced mutagenesis
PA Lima, Brazil
- P7-33 Antimutagenic effect of different lineages of mushroom *Lentinus edodes* (Shiitake)
MM Sugui, Brazil
- P7-34 Suppression of UV induced DNA damage by mushroom extract; Reichi (*Ganoderma lucidum*) extracts
H Kojima, Japan
- P7-35 Inhibitory effect of piperine on 1,2-dimethylhydrazine-induced formation of aberrant crypt foci in the rat colon
P Temcharoen, Thailand

- P7-36 Induction of quinone reductase by some Thai dietary plants in Hepa 1c1c7 murine hepatoma cells
A Tepsuwan, Thailand
- P7-37 Antimutagenicity, DT-diaphorase inducing activity and anticarcinogenicity of beverage powder jiaogulan (*Gynostemma pentaphyllum*)
C Kulwat, Thailand
- P7-38 Anticlastogenic potential of Asiatic pennywort leaves using in vivo micronucleus test
P Kupradinun, Thailand
- P7-39 Antimutagenicity of Tyouji (clove) oil extracted using supercritical carbon dioxide
H Saito, Japan
- P7-40 Chemoprotective effects of the formulated extract DA-9601 of *Artemisia asiatica* against experimental induced oxidative and inflammatory tissue damage
J-S Lee, Korea
- P7-41 Anti-tumor promoting effects of IH-901, an intestinal bacterial metabolite derived from the protopanaxadiol ginseng saponin
J-Y Lee, Korea
- P7-42 Antimutagenic compounds from *Syzygium aromaticum*
M Hisama, Japan
- P7-43 The anticlastogenicity of *Bixa orellana* seed extract evaluated in mouse bone marrow cells
RO Alves de Lima, Brazil
- P7-44 Antimutagenicity of kimchi and its lactic acid bacteria
J-S Jo, Korea
- P7-45 Antimutagenic and comutagenic effects of chitin-glucans
E Miadokova, Slovakia
- P7-46 Comparison of the genotoxicity of medicinal derivatives from *Ipomoea* in the *in vivo* system *Drosophila*
A Munoz-Moya, Mexico
- P7-47 Antimutagenic, antimicronucleus formation and antineoplastic effects of *Ganoderma lucidum* (Leyss. ex. Fr.) Karst
S Ondee, Thailand
- P7-48 Inhibitory effect of c9,t11-conjugated linoleic acid on the growth of human mammary cancer cells
J Liu, China
- P7-49 The mechanism of inhibitory effects of glycine betaine on the mutagenicity of 2-chloromethylthiobutanoic acid
S Kimura, Japan
- P7-50 Study of the antimutagenicity properties of pseudouridine and other nucleoside and base analogs in the Ames test
T Yoshikawa, Japan
- P7-51 Antimutagenic activity and antioxidative activity of extracts from Umesu
K Yoshikawa, Japan
- P7-52 Antimutagenicity of anthocyanins
A Ohara, Japan
- P7-53 Inhibition of telomerase activity by a conjugate of selenite and platinum in endometrial cancer
J Blasiak, Poland
- P7-54 Antitumorigenic glucosylsterol from *Moringa oleifera* Lam.: Two-stage chemical carcinogenesis and histological study
AP Guevara, Philippines
- P7-55 Inhibition of mouse skin carcinogenesis induced by 7,12-dimethylbenz[a]anthracene and induction of apoptosis in HL-60 cells by xanthorrhizol
K-K Park, Korea
- P7-56 Construction of mismatch repair deficient non-tumorigenic human cells which will be useful for antimutagenesis/carcinogenesis studies
K Mure, USA

Session 8: DNA Repair and Its Mechanisms

- P8-1 The role of XPG in global base excision repair of oxidative DNA damage
BM Haltiwanger, USA
- P8-2 XPG complexes in transcription-coupled repair of oxidative DNA damage in human cells
PK Cooper, USA
- P8-3 The hepatocarcinogenic agent, 3'-methyl-4-dimethylaminoazobenzene, induces a new mOGG1 protein expression in the mouse liver
T Hirano, Japan
- P8-4 AhR-dependent regulation of the mammalian genes encoding pol κ
T Ogi, Japan
- P8-5 Purification and characterization of the archeal DinB homologue
P Gruz, Japan
- P8-6 24 kDa apoptotic fragment of poly(ADP-ribose) polymerase functionally competes with full-length poly(ADP-ribose) polymerase in DNA repair and transcription
TMC Yung, Canada
- P8-7 NMR study of transcriptional switching in DNA methyl phosphotriester repair protein Ada from *Escherichia coli*
Y Matsuda, Japan
- P8-8 The effect of thymine DNA glycosylase deficiency in mice
Y Saito, Japan
- P8-9 Repair activities of mammalian base excision repair enzymes for 5-hydroxyuracil
R Hasegawa, Japan
- P8-10 Cellular repair enzymes involved in the repair of 5-formyluracil
M Matsubara, Japan
- P8-11 Chk2 kinase exists in three structurally distinct forms in mammalian cells
K Sunuma, Japan
- P8-12 New links between 20S proteasome and the response of *S. cerevisiae* to DNA damage
E Sledziewska-Gojska, Poland
- P8-13 Apoptosis by UV-light in nucleotide excision repair (NER) deficient CHO cells: Role of DNA damage, Bcl-2 decline and caspase activation
TR Dunkern, Germany
- P8-14 Indirect characterization of adducts in *Salmonella typhimurium* formed by N-nitrosodiethylamine
CAF Aiub, Brazil
- P8-15 Applications of the comet assay to the study of DNA repair in human populations and individual genes
AR Collins, UK
- P8-16 Mutation spectrum in cII mutants induced by ENU after partial hepatectomy in the MutaMouse liver
T Hara, Japan

Session 9: Genetic Diseases in DNA Repair

- P9-1 The XPA DNA repair gene modulation: implications for DNA repair rates and apoptosis
AR Muotri, Brazil
- P9-2 Possible involvement of BLM in decreasing DNA double strand breaks during DNA replication
W Wang, Japan

Session 10: Metabolisms of Genotoxic Agents

- P10-1 Cytochrome P-450 isozyme levels and metabolic activation in p53(+/-) knockout mice highly sensitive to urinary bladder carcinogenesis
Y Mori, Japan
- P10-2 P4501A1 dependent induction of morphological transformation by benzo[a]pyrene in human lung fibroblast MRC-5V2 cells
H Zhu, UK
- P10-3 Bioactivation of diesel exhaust particle extracts and their major nitrated component 1-nitropyrene by human cytochrome P450 1B1
H Yamazaki, Japan

- P10-4 Induction of cytochrome P450 1B1 in lung, liver, and kidney of rats exposed to diesel exhaust
T Yokoi, Japan
- P10-5 Enhancement by cigarette smoke exposure or MeIQx-induced liver and colon carcinogenesis in rats
A Nishikawa, Japan
- P10-6 Analysis of metabolic activation of aminophenylnorharman, aminomethylnorharman and aminophenylharman using SOS/ *umu* tester strains
Y Oda, Japan
- P10-7 Metabolic activation and inactivation of mutagenic dinitrobenzaldehydes
M Sayama, Japan
- P10-8 Sensitivity of cell lines co-expressing human DT-diaphorase and UDP-glucuronosyltransferase or UDP-glucosyltransferase to some quinones and aromatic nitro compounds
M Sawada, Japan
- P10-9 *Trans*-stilbene oxide-induced sister chromatid exchange in cultured human lymphocytes: Influence of *GSTM1* and *GSTT1* genotypes
S Bernardini, Finland
- P10-10 The use of nitroreductase and acetyltransferase *Salmonella typhimurium* strains to test the mutagenicity of N-nitrosodiethylamine
CAF Aiub, Brazil

Session 11: Transgenic Animals in Genetic Toxicology

- P11-1 Differential response of FVB and C57BL/6 strain mice toward DNA damaging agents: A pilot study with Melphalan
A di Masi, Italy
- P11-2 Development and characterization of a lung epithelial cell line from MutaTM Mouse
GR Douglas, Canada
- P11-3 X-ray-induced mutations in the brain and the spleen of *gpt* delta transgenic mouse
M Hoshino, Japan
- P11-4 Strong genotoxicity of aminophenylnorharman (APNH) in the liver of *gpt* delta transgenic mouse
K Masumura, Japan
- P11-5 The *gpt* delta transgenic mice system detects complex base substitutions and large deletion mutations induced by mitomycin C
A Takeiri, Japan
- P11-6 A novel transgenic rat mutagenesis assay system using Spi- and 6-thioguanine selections
H Hayashi, Japan
- P11-7 A collaborative validation study for *gpt* delta mouse using diethylnitrosamine, chlorambucil, *N*-propyl-*N*-nitrosourea and mitomycin C
N Yajima, Japan
- P11-8 Organ variation and time-course study of mutagenicity induced by *N*-ethyl-*N*-nitrosourea in *gpt* delta transgenic rat
H Kondo, Japan
- P11-9 *In vivo* mutagenicity of 2-amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine (PhIP) in the intestines of *lacZ* transgenic MutaTM Mouse
T Itoh, Japan
- P11-10 Transgenic reporter genes in mice for analyzing the molecular mechanisms underlying experimental carcinogenesis
A Nishikawa, Japan
- P11-11 Mutagenic properties of aristolochic acid in the lambda/*lacZ* transgenic mice (MutaTM mouse)
A Kohara, Japan
- P11-12 Comparison of the genotoxic potential of two platinum-derived drugs using a plasmid based transgenic mouse model
H Louro, Portugal

Session 12: Epigenetic Changes

- P12-1 Overexpression of *APE/Ref-1* antisense gene prolongs mitotic phase and sensitizes cells to apoptosis induced by cadmium
J-P Li, Republic of China
- P12-2 Involvement of catalase in regulation of c-JUN N-terminal kinase activation
S-M Chuang, Republic of China
- P12-3 The shape of the dose response curve for radiation-induced neoplastic transformation at low doses of low LET radiation
E Elmore, USA
- P12-4 DNA damage-associated oxidative stress related to copper accumulation in the LEC rat model
G Jia, Japan

Session 13: DNA Technology

- P13-1 Usefulness of yeast strains established for mutagenic assay, in which cytochrome P450 oxidoreductase is stably expressed
S Ohgiya, Japan
- P13-2 In isolated DNA, formamidopyrimidine-DNA glycosylase-sensitive sites determined by electrophoresis correspond to the amount of 8-oxo-7, 8-dihydro-2'-deoxyguanosine by HPLC-ECD
R Yoshida, Japan

Session 14: Molecular Epidemiology

- P14-1 Polymorphisms in the DNA repair gene XRCC1 and breast cancer
SU Kim, Korea
- P14-2 CYP1A1 and GSTM1 genotypes and *in vivo* micronucleus formation in human lymphocytes induced by smoking and drinking
K-X Xue, China
- P14-3 Relationship between urinary 1-hydroxypyrene glucuronide, aromatic DNA adducts and genotypes for GSTM1/T1 in shipbuilding painting workers
K-h Lee, Korea
- P14-4 Genetic polymorphisms of glutathione S-transferase M1 (*GSTM1*), T1 (*GSTT1*), cytochrome P450 2E1 (*CYP2E1*) & N-acetyltransferase 1 (*NAT1*) and lung cancer
KM Lee, Korea
- P14-5 Biological effect of myeloperoxidase and glutathione S-transferase polymorphisms and their role in lung cancer risk
N Cajas-Salazar, USA
- P14-6 Associations between genetic polymorphism of glutathione S-transferase M1 (*GSTM1*) and topoisomerase IIa & CEA (carcinoembryonic antigen) expression in lung cancer
I Choi, Korea
- P14-7 Genetic polymorphisms of NQO1 & CYP2E1 and risk of bladder cancer
J Choi, Korea
- P14-8 Genetic polymorphism of carcinogen-metabolizing enzymes in Korean OSCC patients and healthy subjects
M-A Choi, Korea
- P14-9 Biomonitoring for coke oven workers - Urinary 1-hydroxypyrene and WBC DNA adducts
M Ichiba, Japan
- P14-10 Assessment of environmental tobacco smokes using questionnaire and biological marker
S Kim, Korea
- P14-11 Detection of DNA and protein adducts in [¹⁴C]-tamoxifen treated women by accelerator mass spectrometry (AMS)
EA Martin, UK
- P14-12 Biomarkers for alcohol carcinogenesis - DNA damages and mutations induced by acetaldehyde -
T Matsuda, Japan
- P14-13 Molecular epidemiological analysis of STEC (Shiga Toxin-producing *E. Coli*) infection in Japan
H Miyamoto, Japan

- P14-14 Risk factors for development of cervical cancer in Venezuela and the U.S.
CH Sierra-Torres, USA

Session 15: Health and Aging

- P15-1 Antioxidative effects of fluvastatin against oxidative DNA damage in vitro
T Aoki, Japan
- P15-2 Antioxidative effects of fluvastatin against DNA damage in Streptozotocin-induced diabetic mice
A Imaeda, Japan
- P15-3 Genotoxicity of anabolic steroids used by young bodybuilders
PRG Pavao, Brazil
- P15-4 Oxidative damage in peripheral blood lymphocytes of Alzheimer and Parkinson disease patients
L Migliore, Italy
- P15-5 Comparison of two determination methods of 8-hydroxy-2'-deoxyguanosine in human urine
K Shimoi, Japan
- P15-6 Mechanism of acceleration of telomere shortening by oxidative stress
S Kawanishi, Japan

Session 16: Individual Differences in Mutagenesis and Carcinogenesis

- P16-1 The Salmonella/human S9 mutagenicity test: Assay of 53 chemicals (collaborative study by JEMS/BMS)
A Hakura, Japan
- P16-2 HCAs combination exposure does not always enhance carcinogenic potential in rat liver and colon- Implications of molecular associations as possible mechanisms
M Maeda, Japan

Session 17: Molecular Cytogenetics, Chromosomal Aberrations

- P17-1 *In vitro* chromosomal aberration test data of existing chemical substances in Japan
T Sasaki, Japan
- P17-2 Chromosomal aberration assay using V79 Chinese hamster lung cells: Historical control data and experiences with the study design
A Czich, Germany
- P17-3 Comparative Genomic Hybridization (CGH) detects chromosomal copy number changes in MNNG-induced gastro-intestinal tumours in the rat
C Corso, UK
- P17-4 Improvement of the testing system to detect structural chromosome damage in rat interphase cells by region-specific DNA probes
K Matsumoto, Japan
- P17-5 SCEs and chromosome aberrations in cultured mammalian cells induced by aminophenylnorharman formed by coupling of norharman with aniline
T Ohe, Japan
- P17-6 Mechanism of induction of chromosome-type aberrations by 1- β -D-arabinofuranosylcytosine
K Sekizawa, Japan
- P17-7 Chromosomal sensitivity towards an antihypertensive drug
M Télez, Spain
- P17-8 Enhancing effect of ethidium bromide on UV-induced chromosome aberrations in cultured CHL cells
H Ichikawa, Japan
- P17-9 Mutations found in the p53 gene are responsible for the elongation of replicative lifespan of macaque cells
Y Shimizu, Japan
- P17-10 Stable variants of sperm aneuploidy among healthy men show associations between germinal and somatic aneuploidy
J Rubes, Czech
- P17-11 Chromosomal aberrations in the occupationally exposed groups in the Czech Republic
P Rössner, Czech

- P17-12 Analysis of cytogenetic damage in airline aircraft pilots
MJ Silva, Portugal
- P17-13 Application of chromosome painting to evaluate the frequency of aberrations in bone marrow cells of chemically treated mice
C Tanzarella, Italy

Session 18: Transgenerational Effects of Environmental Factors

- P18-1 Transgenerational study of radiation induced germline mutation
R Barber, UK

Session 19: Genomic and Chromosomal Instability

- P19-1 Comparison in human breast cancer: analysis of serum p53 antibodies, carcinoembryonic antigen (CEA) and estrogen receptor (ER)
S Sangrajrang, Thailand
- P19-2 Increase of *hprt* point mutation rates in human breast cancer cell lines
N Watanabe, Japan
- P19-3 Chromosome instability and tumour progression
EM Parry, UK
- P19-4 The Fanconi anemia pathway is modulated by chromatin conformation
J Surrallés, Spain
- P19-5 Selfish maintenance and amplification of *Bam*HI restriction modification gene complex on *Bacillus subtilis* chromosome
M Sadykov, Japan
- P19-6 Mapping the distribution of the telomeric like sequence (TTAGGG)_n in the karyotype of two species of rat by the Primed *In Situ* DNA synthesis
C Corso, UK
- P19-7 Induction of genetic instability and chromosomal instability by nickel sulfate in V79 cells
S Ohshima, Japan
- P19-8 Radiation induced genomic instability in SPD8/V79 cells; analysis of homologous recombination, cell growth kinetics, and micronucleus formation
G Olsson, Sweden

Session 20: Micronuclei *in vitro* and *in vivo*

- P20-1 CSGMT collaborative study on rodent skin micronucleus assay
N Asano, Japan
- P20-2 Species difference in micronucleus induction by neuroleptic drugs
S Asanami, Japan
- P20-3 Evaluation of the micronucleus assay using rat: The sex related differences
S Hamada, Japan
- P20-4 *In vivo* micronuclei test in rat newborn astrocytes
W Toga, Japan
- P20-5 Intestinal bacteria enhance the induction of DNA damage and micronuclei of colonic cells by 1,2-dimethylhydrazine in rats
W Ohyama, Japan
- P20-6 Parallel assessment of carcinogenicity with comet and micronucleus assays in the liver and gastrointestinal organs
K Ohsawa, Japan
- P20-7 Mutagenicity of the oleoresin of Brazilian medicinal plant *Copaifera langsdorfii* desfon by micronucleus test in mice
C-C Lee, Brazil
- P20-8 Micronucleus formation *in vivo* in lymphocytes of human peripheral blood and individual susceptibility to lung cancer
K-X Xue, China
- P20-9 Evaluation of aquatic genotoxicity using micronucleus assay in fish erythrocytes
CT Lemos, Brazil

- P20-10 Hexavalent chromium effects in fish erythrocytes
CT Lemos, Brazil
- P20-11 Genotoxic monitoring using micronuclei frequencies of native fish from areas under petrochemical effluents influence
CT Lemos, Brazil
- P20-12 Fish micronucleus test using kidney, gill and erythrocytes
A Takai, Japan
- P20-13 Development of an automated in vitro micronucleus test
FV Goethem, Belgium
- P20-14 The *in vitro* micronucleus assay for assessment of photochemical genotoxicity
A Tu Duy Khiem, France
- P20-15 A flow cytometric method for the analysis of micronuclei in vitro using L5178Y cells
EN Nicholas, UK
- P20-16 Mediation of the genetic damage induced by Basuco in human lymphocytes using the micronucleus test
AP Ocampo A., Colombia
- P20-17 Induction of DNA damage in human lymphocytes treated with a soluble factor secreted by *Taeniocystis solium* metacystodes
R Tzutzy, Mexico
- P20-18 Effect of folate deficiency and MTHFR C677T polymorphism on DNA uracil-content and chromosome damage in human lymphocytes in vitro
JW Crott, USA
- P20-19 Functional interactions between DNA intercalating agents and topoisomerase II revealed using V79 in vitro micronucleus assay
RD Snyder, USA
- P20-20 Chemicals-induced micronucleus formation is not caused by apoptotic mechanism
Y Suzuki, Japan
- P20-21 The MN test in cervix smears and urothelial cells of cervix cancer patients
G Gandhi, India
- P20-22 Cytogenetic monitoring of human populations at risk in the city of Queretaro, Mexico
G Cabrera, Mexico
- P20-24 *In vivo* micronuclei in T-lymphocytes of railway workers exposed to transit chemicals
G C-M Falck, Finland
- P20-25 Toxicogenetic effect of chemotherapy in lymphocytes and buccal mucosa cells of children with malignant tumor
EM Minicucci, Brazil
- P20-26 Assessment of toxic potency and genotoxicity of contaminated air with SPMDs and *Tradescantia* micronuclei assay
M Isidori, Italy

Session 21: Comet Assay

- P21-1 Normalization of indices for evaluating degree of DNA damage in comet assay
K Iwahori, Japan
- P21-2 Parallel assessment of carcinogenicity with comet and RDS assays with multiple organs
S Tsuchimine, Japan
- P21-3 Lack of adequacy of the comet assay for biomonitoring using buccal mucosa cells
AM. de M.C. Gontijo, Brazil
- P21-4 Usefulness of DNA damage assay system using human hepatocytes
S Masumori, Japan
- P21-5 Single versus triple dosing in the comet assay with mouse multiple organs
K Sekihashi, Japan
- P21-6 Evaluating the *in vivo* skin single-cell gel electrophoresis assay (comet assay) for detection of genotoxicity following topical application
T Nishikawa, Japan
- P21-7 Nitroso compounds formed from dialkylamines and nitrite in the gastrointestinal tract is genotoxic to the liver
YF Sasaki, Japan

- P21-8 Evaluation of in vivo genotoxicity of synthetic food additives using the comet assay
K Iwama, Japan
- P21-9 Evaluation of in vivo genotoxicity of twelve synthetic tar dyes permitted in Japan using mouse comet assay
S Kawaguchi, Japan
- P21-10 A collaborative study on the comet assay (alkaline single cell gel electrophoresis assay) using rats
H Baba, Japan
- P21-11 Comet assay: *In vitro* incubation of hepatocytes with aphidicolin improves the detection of DNA bulky adducts induced *in vivo*
T Godard, France
- P21-12 Bacterial cystitis does not cause DNA damage detectable by the alkaline comet assay in urothelial cells of dogs
A Alves, Brazil
- P21-13 Why not anesthetize fish? In vivo and ex vivo evidence of no interference of benzocaine in the comet assay
AM.de M.C.Gontijo, Brazil
- P21-14 DNA damage in fish (*Zosterisessor ophiocephalus* Pall.) red blood cells after in vivo exposure to PCB (Arochlor1254)
L Tallandini, Italy
- P21-15 Effect of exposure time on the results of in vitro comet assay
K Kawamura, Japan
- P21-16 Effect of arsenite on DNA adduct excision and strand break rejoining
D-T Bau, Republic of China
- P21-17 Inhibition of base and nucleotide excision repair by cobalt containing hard metal particles
M De Boeck, Belgium
- P21-18 A study of DNA damage and repair in the p53 gene region using the FISH-comet assay
DJ McKenna, UK
- P21-19 A study of mitomycin C-induced DNA damage and repair in the bladder cancer cell-line RT4 using the alkaline comet assay
DJ McKenna, UK
- P21-20 Modification of the comet assay with acridine orange staining in *Chlamydomonas reinhardtii*
M Dusinska, Slovakia
- P21-21 Assessment of DNA damage and lipid peroxidation in human peripheral blood mononuclear cells treated with silica and Mycobacterium bovis:BCG
SS Makhubela, South Africa
- P21-22 Mutagenic and antimutagenic effect of the Shiitake (*Lentinula edodes* (Berk.) Pegler) using the comet assay
CK Miyaji, Brazil
- P21-23 Hydrazine derivatives induce DNA damage that can be prevented by free radical scavengers
H Oka, Japan
- P21-24 Use of the neutral Comet assay for detecting changes in DNA fragmentation of irradiated fruits (kiwi and orange) during storage
E Park, Korea
- P21-25 Analysis of Bothrops moojeni L-amino-oxidase action in cultured keratinocytes by comet assay
MF Suzuki, Brazil
- P21-26 Effect of fruits consumption and smoking habits in Korean young men on oxidative DNA damage evaluated using Comet assay
M-H Kang, Korea

Session 22: Germline Mutations

- P22-1 Apoptosis in mouse germ cells after ethyl nitrosourea treatment
M Inoue, Japan
- P22-2 Quantitative approach to the changes in the cell population of genital organs in neonatal male rats receiving endocrine-disrupting chemicals
T Baba, Japan
- P22-3 In vivo mutagenicity and clastogenicity of 2-bromopropane
T Kamigaito, Japan

- P22-4 High incidence of mosaic mutations induced by irradiating paternal germ cells of the medaka *Oryzias latipes*
A Shimada, Japan

Session 23: Thresholds in Genetic Toxicology

- P23-1 A novel system to re-evaluate mutagenicity of endocrine disrupters in human cells
K Kita, Japan
- P23-2 Genotoxicity assessment of AMP397, a novel orally active antiepileptic agent
W Suter, Switzerland

Session 24: DNA Microarrays

- P24-1 Differential gene expression in mouse fibroblast cells transfected with the Ha-ras oncogene
ET Sakamoto-Hojo, Brazil
- P24-2 Gene-expression analysis by the AtlasTM glass microarray after gamma-ray, 4NQO, and MMS exp to the human lymphoblastoid TK6 and WTK1 cells
T Suzuki, Japan

Session 26: Ecosystem and Human Health

- P26-1 A peptide of antibacterial activity in pancreatic juice - preliminary results
D Laubitz, Poland

Session 27: Others

- P27-1 A fast and reliable screening version of the mouse lymphoma assay
E Wollny, Germany
- P27-2 A collaborative study on the analysis of mutational specificity with *E. coli* WP3101P-WP3106
H Ishihara, Japan
- P27-3 Introduction of my Home Page "MUTANTS" for mutagenicity database of chemicals
M Ishidate Jr, Japan
- P27-4 Chemical model for cytochrome P450 as an alternative of metabolic activation in mutation assay of environmental carcinogens
K Inami, Japan
- P27-5 Cell transformation assay in BALB/3T3 cells using incorporation of BrdU into cells growing at confluency as a transformed cell marker
Y Kajiwara, Japan
- P27-6 Assessment and prediction of toxicity reduction in oxidation processes by bioassays
B-S Kim, Japan
- P27-7 Identification of estrogenic activity of chlorinated bisphenol A using an ERE-regulated GFP expression system
R Kuruto-Niwa, Japan
- P27-8 Bioassay of environmental chemicals: Effect on tumor cell migration
N Oku, Japan
- P27-9 An assay method using Bhas 42 cells for predicting tumor promoters as determined by the formation of transformed foci
K Ohmori, Japan
- P27-10 Sensitive *umu*-microplate test system with *Salmonella typhimurium* NM3009 and NM2009 for detection of nitroarenes and aromatic amines
Y Oda, Japan
- P27-11 Evaluation of the *umu* test for the detection of chemical mutagens and carcinogens
S Nakamura, Japan
- P27-12 Evaluation of the VITOTOXTM test as a high throughput genotoxicity assay for pharmaceutical development
S Muto, Japan
- P27-13 A prediction system of mutagenicity of halogenated aliphatic compounds using an artificial neural network
K Sawatari, Japan

- P27-14 A simple double-layered cell culture system using Caco-2 and Hep G2 cells for the evaluation of mutagenicity in humans
Y Sakai, Japan
- P27-15 The mechanisms of detection method for nongenotoxic carcinogens (NGC) using Salmonella
I Seino, Japan
- P27-16 Axon projection defects induced in embryos by transdermal exposure of mice to Tretinoin (all-trans Retinoic Acid)
AMG Moran, Philippines
- P27-17 Screening of astrocytoma-inducing chemicals on in vitro micronucleus assay in primary cultured rat astrocytes
Y Miyakoshi, Japan
- P27-18 An in vitro chromosome aberration test with little waste of cells
K Takeshita, Japan
- P27-19 Mutational spectra of chemical agent-induced mutations in the embryos of *rpsL* transgenic zebrafish
S Tone, Japan
- P27-20 Cytotoxicity profile of a locally produced hair spray through *in vitro* and *in vivo* assays
VA Villar, Philippines
- P27-21 Mammalian-cell mutagenicity of 3-chloro-4-methyl-5-hydroxy-2(5H)-furanone (MCF)
J Mäki-Paakkanen, Finland
- P27-22 *In vitro* investigations of phototoxicity and photogenotoxicity of phenothiazine derivatives
C Baudouin, France
- P27-23 Estimation of the mutagenic effects of static magnetic fields
M Ikehata, Japan
- P27-24 Studies into the mechanism(s) of ortho-phenyphenol induced bladder carcinogenesis in F344 rats
S Balakrishnan, USA
- P27-25 In vitro genotoxic evaluation of three alpha asarone structural analogs
M Cassani, Mexico
- P27-26 Cell-concentration method of *umu*-test for monitoring of leachate from a landfill site
S Mohri-Hiratsu, Japan
- P27-27 Concept of early warning system for landfill management using mixture toxicity parameters
M Yamada, Japan
- P27-28 Assessment of the toxic level of leachate from waste landfill site by using the Ames test
H Yoshino, Japan
- P27-29 The use of structure activity-based prediction systems for genotoxicity at Novartis
L Mueller, Switzerland
- P27-30 Apoptosis of thymic lymphocytes detected as a membrane change induced by ionising radiation in *p53* defective mice
H Ryo, Japan
- P27-31 2, 3, 7, 8-Tetrachlorodibenzo-*p*-dioxin (TCDD) is a possible activator of human cytomegalovirus replication
T Murayama, Japan
- P27-32 The effect of fenbendazole, a CYP1A2 inducer, on 2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline (MeIQx)-induced hepatocarcinogenesis in rats
S Suzuki, Japan
- P27-33 Mutagen formation in Maillard reaction model systems under physiologically feasible conditions
A Tada, Japan
- P27-34 Oxidative modification of the nuclear proteins of Long-Evans Cinnamon rats
R Takahashi, Japan
- P27-35 Switching of DNA conformation in response to chemical environment
N Makita, Japan
- P27-36 Radiation induced formation of cellular DNA damage and protection of scavengers in relation to chromatin conformation
P Svoboda, Sweden
- P27-37 X-ray absorption near edge structures (XANES) of DNA on investigating physicochemical processes of ionizing radiation toxicity
K Akamatsu, Japan
- P27-38 Quinazolone(chloro acetyl hydrazine derivatives) as a new radioprotector against gamma-radiation induced micronuclei in human lymphocytes
H Abd-Elsttar Eldawy, Egypt

- P27-39 Anti-oxidant effect of parsley and mint as reflected by inhibition of oxidation in liver microsomes
rats
MA Ghoneim, Egypt
- P27-40 Syntheses and properties of α -acetoxy ω -chloroalkylnitrosamines as candidates of new anti-lead compounds
S Ishikawa, Japan
- P27-41 Melatonin and glutathione: An evaluation of their anti-apoptotic potential on γ -irradiated murine thymocytes through ELISA
VA Villar, Philippines
- P27-42 A comparative study on the effects of melatonin on treated lymphocytes and leukemic cells *in vitro*
VA Villar, Philippines
- P27-43 Suppression of occurrence and advancement of β -catenin-accumulated crypts, possible premalignant lesions of colon cancer, by selective cyclooxygenase-2 inhibitor, celecoxib
Y Yamada, Japan
- P27-44 Antitumorigenic glucosylsterol from *Moringa oleifera* Lam.: Two-stage chemical carcinogenesis and histological study
SJ Velasco, Philippines
- P27-45 Effects of the antimutagens vanillin and cinnamaldehyde on spontaneous mutation: Global expression in *Salmonella*, *E. coli*, and human Hep-G2
DT Shaughnessy, USA
- P27-46 Selection of prioritized and monitored chemicals in waste management area
Y Inoue, Japan
- P27-47 Differential mutational fingerprints of S-(2-chloroethyl)-glutathione and *N*-ethyl-*N*-nitrosourea and the p53 gene
JG Valadez, Mexico
- P27-48 Toxicogenomics and the Chemical Effects in Biological Systems (CEBS) Database
M Waters, USA
- P27-49 Haematological effects of radiation exposure in a population of bats (*chiroptera*) residing in a moraine mine
KA Meehan, South Africa
- P27-50 Suppression of the furylfuramide-induced SOS response by dietary carboxylic acids using *Salmonella typhimurium* TA1535/pSK1002 *Umu* test
T Yamada, Japan
- P27-51 Ferric-nitritotriacetic acid and the profile of polyunsaturated fatty acids in the kidney and liver of rats
OI Aruoma, UK
- P27-52 Mutagenicity in particulate matter (PM10 and PM2.5)
K Kalayanamitra, Thailand
- O4-3 Mechanism for oxidative mutagenesis in *E. coli* - Importance of superoxide dismutases and DNA uptake regulation as a protection
T Nunoshiba, Japan
- P27-53 In Flanders (Belgium), area of residence is associated with significant differences in lymphocyte HPRT mutant frequency in women aged 50-65
N. van Larebeke, Belgium
- P27-54 Epstein-Barr virus genotypes in Thai Nasopharyngeal carcinoma
D Tiwawech, Thailand

Satellite Meetings

Satellite meetings are held in Japan, Korea, China and the US

- Seattle Satellite** October 16-18
Functional Genomics, Seattle, USA
Organized by CS Aaron
<http://www.knt-ec.com/event/icem/index.html>
- Seoul Satellite** October 18-20
Antimutagens & Anticarcinogens, Seoul, Korea
Organized by Y-J Surh, K-K Park
Correspondence: Professor Young-Joon Surh
College of Pharmacy, Seoul National University, Shinlim-dong, Kwanak-ku, Seoul
151-742, Korea
phone +82 2 880-7845; fax +82 2 874-9775;
e-mail surh@plaza.snu.ac.kr
- Shizuoka Workshop** October 19-20
3rd International Workshop on Genotoxicity Testing, Shizuoka, Japan
Organized by T Sofuni, M Hayashi, D Kirkland, L Müller, L Schechtman,
JT MacGregor, N Kinoshita
<http://www.iaems.nl/>
- Awaji Symposium** October 26-28
The 5th International Symposium on Chromosome Aberration - Perspective for
the 21st Century, Awaji Island, Hyogo, Japan
Organized by T Ikushima, G Obe, AT Natarajan, M Ishidate Jr,
Y Kikuchi, T Sofuni, Y Ishii, N Asano, K Kurishita, S Hitotsumachi, T Okigaki,
T Morita, M Hayashi; JEMS • EMMS, The Society of Chromosome Research,
The Japan Radiation Research Society
<http://www.knt-ec.com/event/5thisca/>
- Nara Satellite** October 27-28
Reactive Oxygen & Nitrogen, Nara, Japan
Organized by Y Konishi, H Kasai, D Nakae
<http://wwwsoc.nii.ac.jp/jems/index.html>
- Shanghai Satellite** October 30-31
Human Population Monitoring for Cancer Prevention: 9th Alexander Hollaender
Course, Shanghai, China
Organized by M Yin, J Hsueh (J Xue), Y Zheng
Correspondence: Professor Muquan Yin, Department of Toxicology, Second
Military Medical University, 800 Xiangyin Road, Shanghai 200433, China
Phone +86-21-25070290 +86-21-25071573 (night); fax +86-21-65344373;
e-mail mqyin@public3.sta.net.cn

Train Schedule for Nara Satellite Meeting

JR Shinkansen-Line ¹			Kintetsu Nara-Line ²		
Shizuoka	Train Name	Kyoto	From Kyoto	Train Category	Nara
12:51	Hikari 153	14:29	15:00	Express to Nara	15:32
13:51	Hikari 155	15:29	16:00	Express to Nara	16:32
14:51	Hikari 157	16:29	17:00	Express to Nara	17:32
15:51	Hikari 161	17:29	18:00	Express to Nara	18:32
16:51	Hikari 163	18:29	19:00	Express to Nara	19:32
17:51	Hikari 165	19:29	20:00	Express to Nara	20:32
18:51	Hikari 167	20:29	21:00	Express to Nara	21:32
19:51	Hikari 169	21:29	22:00	Express to Nara	22:32
20:51	Hikari 263	22:29	22:50	Express to Nara	23:24

- ¹ Only JR Hikari Super-Express trains stopping at Shizuoka Station are listed.
- ² Please make sure that the destination of Kintetsu Express train you have chosen is Nara, because there are some express trains going elsewhere.
- ³ Organizing committee recommends Shinkansen Hikari 155 or later one, since "Closing session" will be held at 12:00~ 12:15 Friday 26 October, in Room A.

Transportation for Awaji Symposium

All attendees of this satellite symposium will move together from the GranShip to Awaji Yumebutai International Conference Center after the closing of the 8th ICEM. JR Tokaido line from Higashishizuoka to Shizuoka and then JR Shinkansen Hikari from Shizuoka to Shin-Kobe station are convenient to get to Shin-Kobe. A chartered bus will bring all attendees to the meeting site from Shin-Kobe station. Shinkansen-and bus-tickets should be reserved through registration at the ISCA desk (<http://www.knt-ec.com/event/5thisca> or e-mail: isca@nihs.go.jp)

Social Program

1. Excursions

Optional tours will be available on Wednesday October 24. Each tour will be conducted by English-speaking tour guides. There are three options as indicated below (Attention: Tour D, Western Shizuoka Tour, was cancelled). Attendants are accepted on a first-come, first-served basis.

Departure from GranShip is at 12:30, duration up to 6 hr; cost JPY 2,000 per person for each tour. Get a lunch box at the entrance of the bus in exchange for your dated lunch ticket.

A) Mt. Fuji Tour (12:30-18:30)

Mt. Fuji, 3,776 m (12,338 ft), is the highest and most celebrated mountain in Japan. The tour will reach the Fifth Station, where you may enjoy brief hiking. Please wear stout walking shoes and bring warm clothing and rain wear to allow for sudden weather changes.

A total of 270 people can be accepted. As of September 1st, the number of applicants is 147, so additional 133 people can be accepted.

B) Green Tea Tour (12:30-17:35)

The tour will take you first to the Makinohara-Heights, a tableland covered with tea plantations and with a fine view of Mt. Fuji. At the Shizuoka Prefectural Institute, you can see many kinds of tea plants of the world. You will also experience a traditional tea ceremony at Ocha-no-sato.

A total of 45 people can be accepted. As of September 1st, the number of applicants is 37, so additional 8 people can be accepted.

C) Shizuoka-Shimizu Tour (12:30-17:00)

Kunozan Toshogu Shrine, standing on Kunozan Hill and overlooking Suruga Bay, was built in 1617 by the 2nd Edo Shogun. It is a designated Important Cultural Property and it contains many priceless art objects. About 5 minutes on foot from the Shrine, a cableway can be taken up the Nihondaira Plateau. Covered with tea plantations, this plateau has a fine view of Mt. Fuji to the northeast, the sea to the south, as well as to the port of Shimizu and the pine groves of Miho. The tour will also visit Toro Ruins, the site of a village dating back nearly 2000 years, and Serizawa Keisuke Museum, which is devoted to the works of Keisuke Serizawa, one of Japan's most celebrated modern textile dyeing artists and a native of Shizuoka City.

A total of 135 people can be accepted. As of September 1st, the number of applicants is 87, so additional 47 people can be accepted.

2. Accompanying persons program

Two free tours will be available for up to 90 accompanying persons. Each tour will be conducted by English-speaking tour guides, several volunteers, and spouses of JEMS members. Buses depart from Hotel Century Shizuoka at 10:00. Lunch will be served in exchange of a dated lunch ticket.

October 22, 10:00-16:00

Sengen Shrine — Togeppo Saikokuji Temple — Sumpu Takumi (Traditional handicraft center)

October 23, 10:00-16:00

Nihondaira — Hagoromono-Matsu — Toro Ruins — Serizawa-Art Museum

Acknowledgments

- *The Organizing Committee of the 8th International Conference on Environmental Mutagens (8th ICEM) gratefully acknowledges the financial support of the following organizations.*

The International Association of Environmental Mutagen Societies

The Science Council of Japan

The Hollaender Committee of the Environmental Mutagen Society

The Japanese Environmental Mutagen Society

Shizuoka Prefecture

Shizuoka City

Shizuoka Research Institute

University of Shizuoka

- *The Organizing Committee of 8th ICEM is especially grateful to the citizens who volunteered to participate in the home-stay programs. We sincerely hope that this program provides a great opportunity for creating international friendship. Thanks are also due for the Prefectural officers who devotedly helped us to make this important program possible.*
-

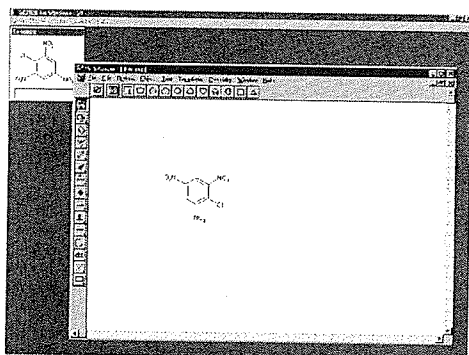


DEREK for Windows

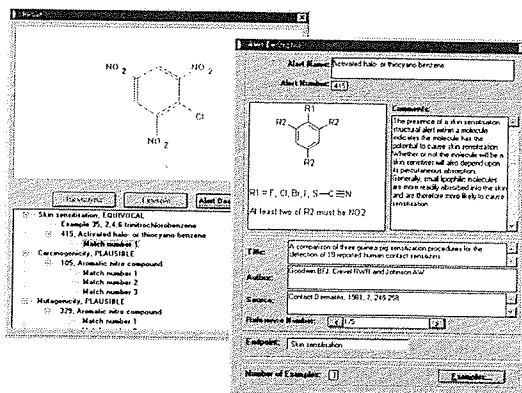
毒性予測エキスパートシステム

DEREKは、化合物の構造からその毒性を予測する知識ベースのエキスパートシステムです。

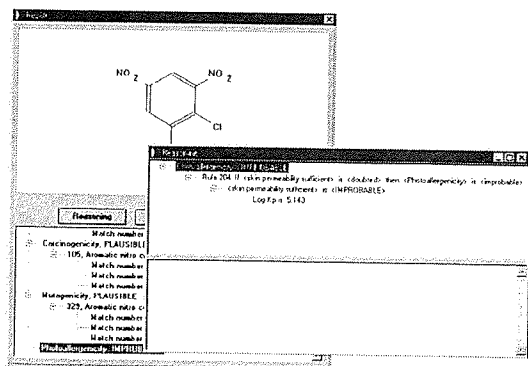
◆ 構造入力



◆ 毒性予測とリファレンスの参照



◆ LogKpによる感作・刺激予測の理由付け

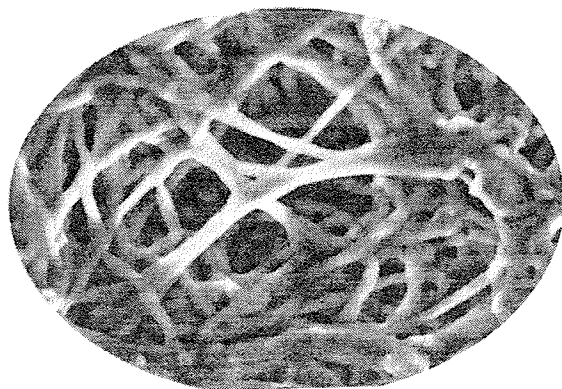


DEREKは他の毒性予測プログラムの様に、統計解析的な手法を用いて定量的に毒性を予測するのではなく、多くの知見から得られる特定の毒性を発現する特徴的な部分構造を定義したルールベースにより、定性的な予測をすることが可能です。

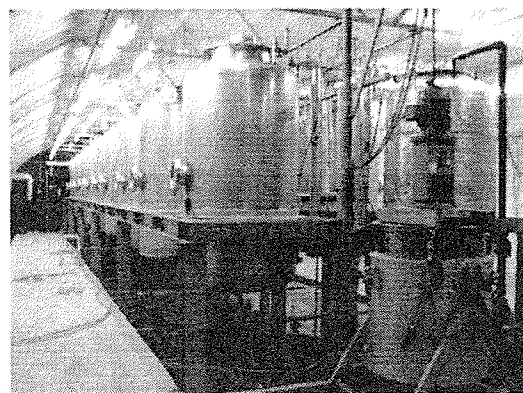
Company introduction

Our company is a venture corporation in establishment third which produces health food got from fruit body and mycelium liquid culture of mushroom. At present, the component of the mushroom of *Phellinus linteus* is studied.

- ① In an acute toxicity test (LD-50), the safety was confirmed.
- ② In the antitumor activity, *Phellinus linteus* is surpassed further than the agaricus in 19 points.
- ③ In I-type allergic reaction inhibition test, the IgE depression effect was confirmed.
- ④ By special culture method (under patent application), it succeeded in mass production of the antioxidant (SOD-like material) with the high activity. The molecular structure of this material is carrying out the analysis the present.



Phellinus linteus mycelium
(electron micrography)



Liquid culture facility
(tank capacity : 20t)

From these experiments, it is proven that *Phellinus linteus* contains various components. Our company searches the research partner for attempting the effective utilization of these components. Our company searches the research institute with assay method in the research on apoptosis, allergic reaction, aging prevention.

Reference

I B I Co., Ltd. Applied Fungi Institute
7841 Anayama Nirasaki Yamanashi 407-0263, Japan
President: Yukihiro AKIYAMA Director: Tomoyuki NAKAMURA
TEL: 81-551-27-2275, FAX: 81-27-2467
E-mail: n-tomo@comlink.ne.jp