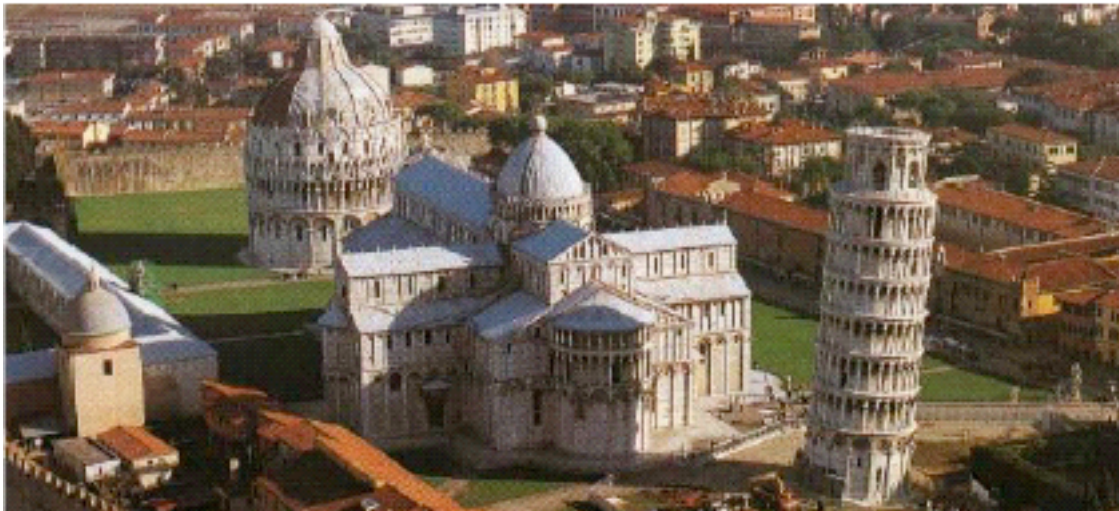


**ICMAA–VIII
EIGHTH INTERNATIONAL CONFERENCE ON
MECHANISMS OF ANTIMUTAGENESIS AND
ANTICARCINOGENESIS**

Pisa, Italy, 4–8 October 2003



AGENDA AND SCIENTIFIC PROGRAM

AGENDA OF ICMAA-VIII AT A GLANCE

Time	Saturday, October 4	Sunday, October 5	Monday, October 6	Tuesday, October 7	Wednesday, October 8
9.00 – 11.00		Introduction Session 1	Session 4	Session 6	Session 9
11.00 – 11.30		BREAK	BREAK	BREAK	BREAK
11.30 – 13.00		Session 1	Session 4	Session 6	Session 9
13.00 – 14.45		LUNCH and Poster Session A	LUNCH and Poster Session B	LUNCH and Poster Session C	LUNCH
14.45 – 16.30		Session 2	Session 5	Session 7	
16.30 – 17.00		BREAK	BREAK	BREAK	
17.00 – 18.45	Registration at		Session 5	Session 8	
17.00 – 19.00	Kinzica Hotel ^a	Session 3			
	Welcome reception at the "Museo dell'Opera del Duomo"	Tasting of Tuscan products at S. Rossore Park	Social dinner at Uliveto Terme	Free dinner	

^aAfter October 5, from 8.30 onwards, registration will be in the lobby of the CNR Auditorium

Organizing Committee

F. Bronzetti, Italy
 G. Bronzetti, Italy (Chair)
 G. Cantelli Forti, Italy
 L. Caltavuturo, Italy
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Contact Persons

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During the Conference, a dedicated e–mail address will be available. During the conference, the telephone number +39–050–315.2074 will be available.

The ICMAA Series

ICMAA–VIII will be the 8th in a series of successful conferences on mechanisms of antimutagenesis and anticarcinogenesis, held every 2–3 years since 1985. The following is the list of the previous conferences:

- ICMAA–I: Lawrence, Kansas, USA, 16–20 October 1985
- ICMAA–II: Ohito, Japan, 4–9 December 1988
- ICMAA–III: Il Ciocco (Lucca), Italy, 5–10 May 1991
- ICMAA–IV: Banff, Canada, 4–9 September 1994
- ICMAA–V: Okayama, Japan, 2–6 December 1996
- ICMAA–VI: Arcachon (Bordeaux), France, 25–29 October 1998
- ICMAA–VII: Grand Rapids, Michigan, USA, 23–27 September 2000.

At Grand Rapids it was decided to hold future ICMAAs under the umbrella of IAEMS (International Association of Environmental Mutagenesis Societies).

Locality

The conference site is located in Pisa, a beautiful Italian town which used to be a prosperous Etruscan harbour and a glorious Marine Republic. “Campo dei Miracoli” (see the photograph in the cover page) represents Pisan wealth and power expressed through superlative art, harmonizing Roman classicism with Byzantine refinement and Arab decorative drawing. The grand Basilica, the imposing Baptistery, the astonishing Churchyard and the worldwide famous Leaning Tower are marble masterpieces. They are surrounded by Romanesque and Gothic churches, squares and palaces traced out along the Arno River and the ancient streets of this University town of great prestige, which was the birthplace of Galileo Galilei.

Pisa is in the region of Tuscany, which is placed at the heart of Italy. This region is a land of extraordinary beauty and harmonious nature, and is permeated everywhere by science, art and culture in towns like Florence, Siena, Lucca, San Gimignano, Volterra, and many others, and in the surrounding countryside.

Venue

ICMAA–VIII will be held in the recently built facilities of CNR (Consiglio Nazionale delle Ricerche or National Research Council of Italy), where a modern and well equipped 300–seat auditorium and several other meeting rooms are available.

The CNR Research Area (see the website <http://www.area.pi.cnr.it>) is about 3 km North–East from downtown Pisa.

The address is: CNR Research Area, Via Moruzzi 1, Località San Cataldo, 56124 Pisa, Italy.

Scope of the Conference

There is increasing evidence that cancer and other mutation–related diseases can be prevented not only by avoiding exposures to recognized risk factors but also by favouring the intake of protective factors and by modulating the defense mechanisms of the host organism. This preventative strategy, referred to as chemoprevention, can be pursued either by means of pharmacological agents and/or by dietary factors, based on risk–benefit and cost–benefit analyses. The efficacy and safety of chemopreventive agents can be evaluated according to a variety of methodological approaches, ranging from *in vitro* test systems to animal models and studies in humans. An essential step is to understand the mode of action of inhibitors of mutagenesis and carcinogenesis, which provides a rational basis for their application. In a period of exciting advancement of science in the general area of molecular biology, mutagenesis and carcinogenesis, ICMAA–VIII will update the state of the art regarding the mechanisms of inhibitors.

Scientific Contents

In the framework of the general objectives of this type of conference, the maximum emphasis of ICMAA–VIII will be given to mechanistic aspects rather than to effects and methodologies, although quite often it is difficult to distinguish between primary mechanisms and secondary effects. Since the choice of methods is crucial for exploring mechanisms, new methodological approaches of particular relevance, aimed at exploring mechanisms, will find a niche in the program. In addition, ICMAA–VIII will concentrate on protective mechanisms rather than on other issues related to mutagenesis and carcinogenesis. Data relevant to humans will be particularly welcome.

The following is an outline of the mechanisms of dietary and pharmacological agents which will be highlighted in ICMAA–VIII, and which will represent the main topics for oral and poster presentations:

- Inhibition of uptake of mutagens/carcinogens
- Inhibition of endogenous formation of mutagens/carcinogens
- Modulation of metabolism
- Blocking of free radicals and electrophilic metabolites
- Antioxidant mechanisms
- Inhibition of cell replication
- Modulation of DNA metabolism and repair
- Control of gene expression
- Signal transduction modulation
- Modulation of apoptosis
- Protection of intercellular communications
- Induction of terminal differentiation
- Effects on the hormonal status
- Effects on the immunological system
- Inhibition of angiogenesis
- Inhibition of invasion and metastasis
- Other mechanisms.

General Arrangement of the Conference

ICMAA–VIII will be held in sessions arranged according to individual mechanisms and categories of inhibitors. All sessions will be plenary, and will include invited and contributed oral presentations, and poster presentations. Either 15 min or 30 min, including discussion, will be allotted for the oral presentations.

Official Language

The language of the conference will be English.

Registration/Information Desks

All delegates will receive their badge, conference bag, abstract book, scientific program, tickets for lunches, breaks, and other social events upon registration:

–On October 4, from 17.00 to 19.00, at Villa Kinzica Hotel (Piazza Arcivescovado, 2), very close to Piazza dei Miracoli, with the leaning tower, and the museum where the welcome reception will be held.

–After October 5, from 8.30 onwards, in the lobby of the CNR Auditorium.

Most credit cards will be accepted at the registration desk.

Audiovisuals

Any audiovisual equipment is available in the conference room. Unless specifically requested, we encourage the use of 35 mm slides (single slide projection) or of computer assisted presentation (e.g., PowerPoint). Overhead projectors will also be available. Slides or CD-ROMs should be handled into the Pre-View Room at least 30 min before the start of the session. Presenters using

computer projection do not need to bring a laptop as presentations will be loaded onto a main computer. It is recommended that speakers bring two copies of their presentation. Please identify the file of your presentation with your name.

Poster Sessions

The authors are kindly requested to mount their posters at the beginning of the Conference and to remove them at the end, and to be available for informal discussion at the time indicated in the program. The posters will be numbered and arranged in 3 Sessions (A, B, and C) for official discussion.

The space available for each poster will be 90 cm (width) x 150 cm (height). The poster layout should be in well readable characters and be adequately structured. The aims of the study, methods, results, and conclusions should be clearly stated. Please avoid excessive details and crowded presentations.

Transportation

Pisa is well served by highway, railway, and an airport connected with several Italian airports and hubs, such as Rome and Milan, as well as with some European airports. By train, from Pisa you can reach, for example, Florence in 45 minutes, Rome in two hours, Venice in three hours, etc. We suggest taking a taxi to reach the hotels from the railway station or the airport

Insurance

The organizers cannot accept any liability for personal injuries, damage or theft to property belonging to delegates, either during or as a result of the meeting. Please check the validity of your own personal insurance.

Cancellation of the Congress

The organizers reserve the right to cancel the conference in case of any unpredictable event.

Medical Assistance

Medical assistance is available both via the hotels and the conference venue.

Time Zone

The time zone in Italy is GMT + 1 hour.

Climate

The temperature in Pisa at that time of the year is usually around 18–20°C (64–68°F). The weather is usually fine, but rain and showers are possible.

Electricity

Electrical appliances work at 220 Volts.

Currency and Cards

The official currency in Italy is Euro (€). Other currencies can be converted into € at airports, railway stations, banks, hotels, and exchange offices. The most common credit cards are widely accepted at hotels, restaurants, and shops. Travel cheques can be cashed in banks.

Post-Offices

There are a number of post-offices in the areas of the airport, railway station, and hotels.

Acknowledgements

The organizers express their gratitude to the following Agencies and Companies for their support:

- Amministrazione Provinciale di Pisa, Pisa
- Assessorato Regione Toscana, Firenze
- Associazione Oncologica Pisana, Pisa
- Azienda Ospedaliera Pisana, Pisa
- Banca Monte Paschi, Pisa
- Banca Toscana, Pisa
- Baxter Biosciences, Ospedaletto, Pisa
- Consorzio Chianti Gallo Nero, Firenze
- Comune di San Giuliano Terme, Pisa
- Consiglio Nazionale delle Ricerche (CNR), Pisa
- Dipartimento di Scienze della Salute, Università di Genova
- Ferrarini, Reggio Emilia
- Istituto di Biologia e Biotecnologia Agricolturale (IBBA), Area di Ricerca del CNR, Pisa
- International Association of Environmental Mutagenesis Societies (IAEMS)
- Nestlé Research Center, Vevey, Switzerland
- Opera Primaziale, Pisa
- Parco di S. Rossore – Massaciuccoli, Pisa
- Uliveto Terme. Acque Minerali, Uliveto, Pisa
- Zambon Group, Bresso, Milano

Scientific program of ICMAA–VIII

Saturday, October 4, 2003

17.00–19.00 Registration at Villa Kinzica Hotel (Piazza Arcivescovado 2, in the North–East side of "Piazza dei Miracoli", nearby the leaning tower)

19.00–End Welcome reception in the museum "Opera della Primaziale Pisana" ("Museo dell'Opera del Duomo", Piazza Arcivescovado, see the website <http://www.pisa2000.it>). It will be a get-together party, with no talk.

From Sunday onwards the Conference will be held in the CNR auditorium ("Area della Ricerca di Pisa", located in via Moruzzi 1, Località San Cataldo, Pisa). Complimentary bus shuttles will leave every morning from the hotels. A schedule time will be available. The shuttles will come back at the end of the day.

Sunday, October 5, 2003

Introductory Session

Chair: Giorgio Bronzetti (Italy)

9.00–9.30 Welcome address by Luigi Donato (President, CNR Research Area of Pisa) and other authorities

Introduction to ICMAA–VIII (Giorgio Bronzetti, Lynnette R. Ferguson, Silvio De Flora)

9.30–9.45 James Gentile (USA): Introductory remarks on IAEMS and ICMAA

9.45–10.00 Delbert Shankel (USA): An overview of the history of ICMAA

Session 1: Mechanistic approaches to the chemoprevention of cancer and other mutation-related diseases

Chair: James Gentile (USA) and Carlo Croce (USA)

10.00–10.30 Carlo M. Croce (USA) Regression of upper gastric cancer in mice by FHIT gene delivery

10.30–11.00 Gary J. Kelloff (USA): An overview of new targeted drugs for cancer chemoprevention

11.00–11.30 BREAK

11.30–12.00 Silvio De Flora, Francesco D'Agostini, Roumen M. Balansky and Alberto Izzotti (Italy and Bulgaria): Molecular epidemiology and chemoprevention of cancer and other mutation-related diseases

12.00–12.30 Vernon E. Steele (USA): Current and future mechanistic approaches to the chemoprevention of cancer

12.30–13.00 Adriana Albini, Ulrich Pfeffer, Roberto Benelli, Francesca Tosetti, Monica Morini, Nicoletta Ferrari, Spiridione Garbisa and Douglas Noonan (Italy): Chemoprevention of angiogenesis and chronic inflammation, experimental evidence and microarray screening

13.00–14.45 LUNCH and *Poster Session A*

Session 2: Modulation of oxidative and genotoxic damage

Chair: Helmut Bartsch (Germany) and Takehiko Nohmi (Japan)

- 14.45–15.00 Catherine B. Klein, Kanae Mure, Audrey King and Toby G. Rossman (USA): Antioxidants do not prevent deletion mutations
- 15.00–15.15 L. Migliore, S. Molinu, A. Naccarati, M. Mancuso, A. Rocchi and G. Siciliano (Italy): Effect of coenzyme Q10 therapy in modulating cytogenetic and oxidative DNA damage in mitochondrial disease patients
- 15.15–15.30 Ramune Reliene and Robert H. Schiestl (USA): The effect of antioxidants on genetic instability in ataxia telangiectasia
- 15.30–15.45 Darina Slamenová, Juraj Lábaj and Bozena Kosíková (Slovak Republic): Reduction of genotoxic effects of active oxygen species by lignin. Application of the comet assay
- 15.45–16.00 Klaus Felix, Simone Gerstmeier, Antonios Kyriakopoulos, Dietrich Behne, O.M. Zack Howard, Hui-Fang Dong, Siegfried Janz, Michael Eckhaus and Georg W. Bornkamm (USA and Germany): Selenium depletion prevents pristane-induced plasmacytomagenesis in genetically susceptible BALB/c mice
- 16.00–16.15 Rose I. Goncharova, Tatyana D. Kuzhir, Olga V. Dalivelya, Nadzeya I. Ryabokon and Gunars J. Duburs (Belarus and Latvia): Long-term effects and some mechanisms of protective action of antimutagens of the 1,4-dihydropyridine series in animals and human cells
- 16.15–16.30 Martin Grootveld (UK): Monitoring and control of mutagenic lipid oxidation products generated in culinary oils during thermal stressing episodes
- 16.30–17.00 BREAK

Session 3: Modulation of DNA damage and repair, hormonal factors and immune functions

Chair: Darina Slamenová (Slovak Republic) and James E. Trosko (USA)

- 17.00–17.30 Charles Waldren, Diane Vannais, Akiko Ueno, Jeanette Roberts and Jun Kumagai (USA and Japan): A role for long-lived protein radicals (LLR) in mutagenicity and genomic instability: alleviation by vitamin C and RibCys
- 17.30–17.45 Su-Ryang Kim, Keiko Matsui, Masami Yamada, Takashi Kohno, Hiroshi Kasai, Jun Yokota and Takehiko Nohmi (Japan): Suppression of chemically induced oxidative mutagenesis by three alleles of human *OGGI* gene encoding 8-hydroxyguanine DNA glycosylase
- 17.45–18.00 R.C. von Borstel, Michael D. Hamilton, Oksana Iavorovska and Reid W. von Borstel (Canada and USA) Fidelity action: DNA-repair enhancement or cell replacement?
- 18.00–18.15 Mugimane G. Manjanatha, Sharon Shelton, Bobbie Rhodes, Michelle Bishop, Lascelles Lyn-Cook and Anane Aidoo (USA): Evaluation of the effects of soy isoflavones and 17 β -estradiol on 7,12-dimethylbenz(*a*)anthracene (DMBA)-induced genotoxicity and carcinogenicity in transgenic rats
- 18.15–18.30 Joseph Guttenplan, Mikael Khmel'nitsky, Wieslava Kosinska, Zhonglin Zhao and Leonard A. Cohen (USA): Bimodal distribution of mutant fractions in several organs from aged *lacZ* mice and effects of dietary vitamin E + selenite
- 18.30–18.45 David J. Waters, Shuren Shen, Dawn M. Cooley, David G. Bostwick, Junqi Qian, Lawrence T. Glickman and J. Steven Morris (USA): Relationship between selenium status and the extent of genotoxic stress within the aging prostate
- 18.45–19.00 Yu F. Sasaki, Kazumi Kabasawa and Satomi Kawaguchi (Japan): Detection of *in vivo* genotoxicity of endogenously formed *N*-nitrosocompounds and its suppression by ascorbic acid, teas and fruit juices

At the end of the session, bus transfer to San Rossore Park, in the Municipality of San Giuliano Terme (6 km from Pisa) and tasting of typical Tuscan products.

Monday, October 6, 2003

Session 4: Chemoprevention of mutation and cancer by dietary factors and vitamins (I)

Chair: Stefano Bonassi (Italy) and John Heddle (Canada)

- 9.00–9.30 Hans Verhagen, Stefan Coolen, Guus Duchateau, Mark Hamer, Janet Kyle and Andreas Rechner (The Netherlands): Assessment of efficacy of dietary ingredients and substantiation of health claims – Introducing the concept “kinetics of biomarkers”
- 9.30–10.00 Lynnette R. Ferguson (New Zealand): Selenium intervention and human health – A New Zealand perspective
- 10.00–10.30 Giorgio Bronzetti, Giampaolo Poi, Stefania Frassinetti, Leonardo Caltavuturo, Marco Cini and Clara Della Croce (Italy): Prevention of mutagenesis induced by free radicals
- 10.30–11.00 Siegfried Knasmüller, Markus Zsivkovits, Maria Uhl, Gerhard Sontag, Sylvie Rabot, Evelyne Lhoste, Franziska Ferk and Fekadu Kassie (Austria, France and Germany): Impact of the intestinal microflora and of dietary lactobacilli on the genotoxic effects of heterocyclic amines
- 11.00–11.30 BREAK
- 11.30–12.00 Wan-Mohaiza Dashwood, Qingjie Li, Mohamed Al-Fageeh, Nico Dissmeyer and Roderick H. Dashwood (USA): Mechanisms of antimutagenesis and anticarcinogenesis by white tea
- 12.00–12.30 F. Darroudi, S. Knasmüller, V. Mersch-Sundermann, E. Lhoste and A. Bader (The Netherlands, Austria, Germany and France): Assessment of the mutagenic, co-mutagenic and anti-mutagenic potential of human dietary components in human hepatocytes and hepatoma cells
- 12.30–13.00 Piero Dolara, Giovanna Caderni, Cristina Luceri and Angelo Pietro Femia (Italy): Chemoprevention of colon tumors by dietary agents
- 13.00–14.45 LUNCH and *Poster Session B*

Session 5: Chemoprevention of mutation and cancer by dietary factors and vitamins (II)

Chair: Piero Dolara (Italy) and Siegfried Knasmüller (Austria)

- 14.45–15.15 Michiyo Kimura, Keizo Umegaki, Mitsuru Higuchi, Philip Thomas and Michael Fenech (Japan and Australia): MTHFR C677T polymorphism, folic acid and riboflavin are important determinants of genome stability
- 15.15–15.45 Radim J. Sram, Zdenek Smerhovsky, Zdena Stavkova, Ivo Solansky and Jan Dejmek (Czech Republic): The impact of plasma folic acid levels of mothers and newborns on intrauterine growth retardation and birth weight
- 15.45–16.15 Beatrice L. Pool-Zobel, G. Beyer-Sehlmeyer, G. Festag, N. Haag, T. Kautenburger, S. Kühler, A. Schäferhenrich and B. Marian (Germany and Austria): Butyrate produced during gut flora-mediated fermentation of dietary fibre inhibits growth and modulates glutathione S-transferases in the human colon adenoma cell line LT97

- 16.15–16.30 Maria Uhl, Fekadu Kassie, Sylvie Rabot, Bettina Grasl-Kraupp, Michael Kundi and Siegfried Knasmüller (Austria, Germany and France): Investigations of post initiation effects of Brassica vegetables on IQ-induced DNA-preneoplastic lesions in colon and livers of F344 rats
- 16.30–17.00 BREAK
- 17.00–17.30 Peri Noori, Saimei Hou, Irene Jones, Cynthia Thomas, and Bo Lambert (Sweden and USA): Human HPRT mutations: studies of dietary influences and differences between populations in Sweden, USA and Russia
- 17.30–18.00 John Heddle (Canada): The influence of diet on the frequency of somatic mutations
- 18.00–18.15 Sakae Arimoto-Kobayashi, Jun Takata, Toshimitsu Konuma, Rie Fujioka, Keinosuke Okamoto and Hikoya Hayatsu (Japan): Protective effects of beer on genotoxicity of 3-amino-1.4-dimethyl-5*H*-pyrido[4,3-*b*]indole (Trp-P-2) in human derived cultured cells and on DNA-adduct formation in mice
- 18.15–18.30 C. Cavin, C. Bezençon, G. Guignard and B. Schilter (Switzerland): Several complementary mechanisms may account for the chemoprotective properties of coffee
- 18.30–18.45 Hideki Mori, Yasuhiro Yamada, Yoshinobu Hirose, Toshiya Kuno and Akira Hara (Japan): Precancerous lesions for colon cancers in rodents. Application for cancer chemoprevention

At the end of the session, bus transfer to the hotels downtown Pisa. At 20.30, transfer to Uliveto Terme (10 km from Pisa) for the social dinner.

Tuesday, October 7, 2003

Session 6: Antioxidant mechanisms, modulation of metabolism and DNA repair

Chair: Giorgio Cantelli-Forti (Italy) and Thomas W. Kensler (USA)

- 9.00–9.30 Okezie I. Aruoma, Monica Deiana, M. Assunta Dessì, Shinya Toyokuni and Theeshan Bahorun (UK, Italy, Japan, and Mauritius): Free radical scavenging, enzyme induction and chemoprevention
- 9.30–10.00 Helmut Bartsch and Jagadeesan Nair (Germany): Biomarker application in etiology and prevention studies of chronic degenerative diseases
- 10.00–10.30 Thomas W. Kensler, Mi-Kyoung-Kwak, Nobunao Wakabayashi, Ken Itoh, Hozumi Motohashi and Masayuki Yamamoto (USA and Japan): NRF2-regulated genes: Identification and role in cancer chemoprevention
- 10.30–11.00 Gary Williamson (Switzerland): Enzyme induction by dietary phytochemicals: Does *in vitro* data reflect the situation *in vivo*?
- 11.00–11.30 BREAK
- 11.30–12.00 Hiroshi Ohshima (France): Cancer prevention by modulation of chronic inflammatory processes
- 12.00–12.30 Rudolf Fahrig, Jörg-Christian Heinrich, Falk Wilfert, Christian Praha, Christina Leisser, Georg Krupitza, Denise Sonntag and Matthias Hänel (Germany and Austria): Modulation of multidrug resistance mechanisms
- 12.30–13.00 Miral Dizdaroglu (USA): Substrate specificities of DNA glycosylases involved in base-excision repair of oxidative DNA damage

13.00–14.45 LUNCH and *Poster Session C*

Session 7: Modulation of proliferation, apoptosis and gene expression

Chair: Vernon E. Steele (USA) and Philip C. Hanawalt (USA)

- 14.45–15.00 Patrizia Hrelia, Carmela Fimognari and Giorgio Cantelli-Forti (Italy): Glucosinolates and apoptosis
- 15.00–15.15 Francesco D'Agostini, Carlo Bennicelli, Cristina Cartiglia, Elena Tampa and Silvio De Flora (Italy): Modulation by chemopreventive agents of apoptosis and FHIT expression in rats exposed to cigarette smoke
- 15.15–15.30 Tiziana Maurich, Mariacarla Iorio, Paola Collecchi and Gino Turchi (Italy): Erybraedin C but not bitucarpin A, two structurally related pterocarpanes purified by *Psoralea bituminosa*, induces apoptosis in human adenocarcinoma cell lines proficient and deficient mismatch repair system
- 15.30–15.45 Jung H.Y. Park (South Korea): Conjugated linoleic acid (CLA) inhibits colon cancer cell proliferation and induces apoptosis: possible mediation by IGF signaling
- 15.45–16.00 Simone G.J. van Breda, Ebienus van Agen, Leopold G.J.B. Engels, Jos C.S. Kleinjans and Joost H.M. van Delft (The Netherlands): Identification of mechanisms at the genome level for protection against colon cancer by vegetables
- 16.00–16.15 Daniel A. Casciano, Joseph G. Shaddock, Robert Delongchamp and Angela J. Harris (USA): Comparison of basal gene expression in cultured primary rat hepatocytes and freshly isolated rat hepatocytes
- 16.15–16.30 Barbara Delage, Céline Bairras, Valérie Enderlin, Véronique Pallet, Paul Higuieret, and Pierrette Cassand (France): High fat diet and vitamin a supplementation effect on induced carcinogenesis in rat colon: Modulation of nuclear receptor expression
- 16.30–17.00 BREAK

Session 8: Studies in humans and human cells

Chair: Young-Joon Surh (South Korea) and Radim J. Sram (Czech Republic)

- 17.00–17.15 Byung Mu Lee, Kyong L. Lee and Sun Dong Yoo (South Korea): Potential cancer chemopreventive effects of aloe and propolis in smokers
- 17.15–17.30 L. Vannucci, M. Pospisil, F. Mosca and A. Fiserova (Italy and Czech Republic): Natural cell immunity, carbohydrates and cancer
- 17.30–17.45 Michele F. Panunzio, Antonietta Antoniciello and Giorgio Bronzetti (Italy): Ageing and antioxidant status: the “Selor” project
- 17.45–18.00 Franziska Ferk, Siegfried Knasmüller, Maria Dusinska, Adelheid Brantner, Maria Uhl and Asima Chakraborty (Austria and Slovak Republic): DNA-protective effects of sumach (*Rhus coriaria*) in humans and human derived cells *in vitro* and identification of its active principles
- 18.00–18.15 U. Pfeffer, N. Ferrari, R. Dell'Eva, M. Morini, D. Noonan and A. Albini (Italy): *N*-acetylcysteine and (-)-epigallocatechin-3-gallate squelch the inflammation background of endothelial cells
- 18.15–18.30 Gisela Werle-Schneider, Jörg Hümmerich, Barbara Bertram, Odilia Popanda, Helmut Bartsch and Peter Schmezer (Germany): Expression profiles of DNA repair genes in human lymphoblastoid cells exposed to (-)-epigallocatechin gallate
- 18.30–18.45 Mi-Sung Kim, Eun-Jung Lee, Hyeong-Reh Choi Kim and Aree Moon (South Korea and USA): Modulation of H-ras-induced cell motility and invasive phenotype in human breast epithelial cells

Bus transfer to downtown Pisa and free dinner.

Wednesday, October 8, 2003

Session 9: Modulation of signal transduction and gene expression

Chair: Lynnette R. Ferguson (New Zealand) and Silvio De Flora (Italy)

- 9.00–9.30 Philip C. Hanawalt (USA): Understanding the role of global genomic DNA repair and transcription-coupled repair in relation to potential targets for anticarcinogenesis
- 9.30–10.00 Young-Joon Surh (South Korea): Intracellular signaling cascades as prime molecular targets for chemoprevention by edible anti-inflammatory phytochemicals
- 10.00–10.30 Alberto Izzotti, Cristina Cartiglia, Maria Bagnasco, Mariagrazia Longobardi, Elena Tampa and Silvio De Flora (Italy): Multigene expression and proteomic analysis in chemoprevention research
- 10.30–11.00 Karam El-Bayoumy, Bhagavathi A. Narayanan, Dhimant H. Desai, Narayanan K. Narayanan, Brian Pittman, Shantu G. Amin, Joel Schwartz, and Daniel W. Nixon (USA): Mammary cancer chemoprevention by selenium: molecular mechanisms with cDNA microarray analysis
- 11.00–11.30 BREAK
- 11.30–12.00 Clarissa Gerhäuser, Elisabeth Bertl, Gerlinde Pappa, Christian Herhaus and Helmut Bartsch (Germany): Novel mechanisms of sulforaphane-mediated cancer chemoprevention
- 12.00–12.30 Peter J. Stambrook, Changshun Shao, Jay A. Tischfield and Yiling Hong (USA): Embryonic stem cells as a model for antimutagenesis
- 12.30–13.00 James E. Trosko, Chia-Cheng Cheng, Mei-Hui Tai and Brad Upham (USA): The role of stem cells and cell–cell communication in cancer chemoprevention strategies
- 13.00– FAREWELL LUNCH

POSTER SESSION A (1–29)

- 1 Kyoung-Ok Hong, Seong Hwan Kim, Won-Yoon Chung, Jae Kwan Hwang, and Kwang-Kyun Park (South Korea): Preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity in mice is related with its ability to regulate the activities of transcription factors, NF- κ B and AP-1
- 2 Hyun-Jeong Kim, Won-Yoon Chung, Jae-Kwan Hwang and Kwang-Kyun Park (South Korea): The apoptosis-inducing capability of xanthorrhizol in human promyelocytic leukemia (HL-60) cells
- 3 Mi-Jeong Kim, Won-Yoon Chung, Jae-Kwan Hwang and Kwang-Kyun Park (South Korea): Inhibition of VEGF (vascular endothelial growth factor)-induced angiogenesis by xanthorrhizol, a sesquiterpene isolated from *Curcuma xanthorrhiza*
- 4 Min-Ah Choi, Seong Hwan Kim, Won-Yoon Chung and Kwang-Kyun Park (South Korea): Anti-metastatic activity of xanthorrhizol and its mechanisms
- 5 Seong Hwan Kim, Kyoung-Ok Hong, Won-Yoon Chung, Jae Kwan Hwang, and Kwang-Kyun Park (South Korea): Identification of differentially expressed genes involved in preventive mechanism of xanthorrhizol on cisplatin-induced hepatotoxicity
- 6 Chang-Ki Lee, Kwang-Kyun Park, Jae-Kwan Hwang and Won-Yoon Chung (South Korea): Effects of xanthorrhizol on Wnt signaling pathway components in human breast cancer cells
- 7 Soo-Yeon Choi and Mi-Kyung Sung (South Korea): Dietary quercetin suppresses inflammatory responses and reduce colon precancerous marker formation in rats fed high-fat diets
- 8 Hwa-Young Kim, In-Hee Han and Mi-Kyung Sung (South Korea): Effects of soybean saponin supplementation on colon tumor development in carcinogen-treated F344 rats
- 9 Myung A. Kim and Yong K. Lee (South Korea): Selective induction of apoptosis by turmerones isolated from tumeric (*Curcuma longa L.*) in human cancer cell lines
- 10 Rami Lee, Yangjee Kim, Young Joon Lee and Hai Won Chung (South Korea): The selective effect of genistein on the toxicity of bleomycin in normal lymphocytes and HL-60 cells
- 11 Jae-Hee Park, Won-Yoon Chung, Chang-Ki Lee and Kwang-Kyun Park (South Korea): Inhibitory effect of hemin on TPA-induced acute inflammation in mouse skin
- 12 Min Jung Park, Won-Yoon Chung and Kwang Kyun Park (South Korea): Antimutagenic activity and apoptosis-inducing capability of the methanolic extract of *Allium victorialis L.* var *platyphyllum* Makino
- 13 Soo-Young Park, Sang-Chul Kim, Jae-Hee Hyoun, Young-Ki Lee, Deok-Bae Park, Se-Jae Kim, Eun-Sook Yoo and Hee-Kyoung Kang (South Korea): Induction of the apoptosis of HL-60 promyelocytic leukemia cells by *Eurya emarginata*
- 14 Soo-Young Park, Sang-Chul Kim, Jae-Hee Hyoun, Young-Ki Lee, Deok-Bae Park, Eun-Sook Yoo and Hee-Kyoung Kang (South Korea): Mistletoe (*Viscum album* var. *coloratum*) grown in *Carpinus laxiflora* bl. induces the differentiation of HL-60 acute promyelocytic leukemia cells
- 15 Jae-Yun Kim, Kwang-Kyun Park, Seong Hwan Kim and Won-Yoon Chung (South Korea): Cyclosporin A-induced gingival hyperplasia is regulated by testican 1 – MMP-2 signaling pathway
- 16 Ok Hee Kim, Hye Seung Jun, Mi Sun Park, Mi Ok Eom, Seung Wan Jee, Tai Kyung Ryeom, Young Joon Surh and Ho Il Kang (South Korea): Suppressive effect of capsaicin on pulmonary metastasis of B16-F10 melanoma cells
- 17 Hye-Young Min, Hyen-Joo Park, Eun-Jeong Park and Sang Kook Lee (South Korea): Suppressive effects on the expression of cyclooxygenase-2 and inducible nitric oxide synthase by a natural sesquiterpenoid alantolactone in lipopolysaccharide-stimulated mouse macrophage cells

- 18 Kensese S.A. Mossanda, Hye-Kyung Na and Kyung-Soo Chun (South Africa and South Korea): Evaluation of mutagenic, antimutagenic and chemopreventive activities of some foodstuffs and medicinal plants: inhibition of NF- κ B activation
- 19 Jun Kumagai, Kazuki Ohi, Jeanette Roberts, Seiji Kodama, Masami Watanabe, Diane Vannais and Charles A. Waldren (Japan and USA): Effect of RibCys on scavenging mutagenic long-lived radicals in mammalian cells after irradiation
- 20 Roumen M. Balansky, Carlo Bennicelli, Anna Camoirano, Andrea Merello, Silvio De Flora and Alberto Izzotti (Bulgaria and Italy): Prenatal chemoprevention of genotoxic damage and multigene expression alterations in mouse fetus liver after transplacental exposure to cigarette smoke
- 21 Cristina Cartiglia, Mariagrazia Longobardi, Maria Bagnasco, Anna Camoirano, Silvio De Flora and Alberto Izzotti (Italy): Transplacental chemoprevention of birth-related genomic and transcriptional changes in mouse lung
- 22 Jimmy W. Crott, Sang-Woon Choi, Richard F. Branda and Joel B. Mason (USA): Dietary folate intervention modulates the frequency of a 4.8 kb mitochondrial DNA deletion in an age and organ-specific manner in rats
- 23 Klaus Felix, Joon Sue Kim, Kee-Oh Chay Axel Polack, Georg Bornkamm, Lionel Feigenbaum and Siegfried Janz (USA and Germany): Up-regulated c-Myc sensitizes mutagenesis in B lymphocytes: promotion of mutations by deregulated myc during inflammation driven B cell tumorigenesis
- 24 Tatyana D. Kuzhir, Olga V. Dalivelya and Nataliya V. Savina (Belarus): Antimutagenic effects of some 1,4-dihydropyridine derivatives due to modulation of DNA repair in germ cells
- 25 Nadzeya I. Ryabokon, Nataliya V. Nikitchenko, Joanna Rzeszowska-Wolny, Gunars J. Duburs and Rose I. Goncharova (Belarus, Poland and Latvia): Cancer preventive and radioprotective effects of a 1,4-dihydropyridine derivative in human cells
- 26 Natalya V. Savina (Belarus): Profile of glutapyrone activity associated with the adaptive response of *Drosophila* germ cells to alkylating agents
- 27 Aliaksandr M. Slukvin, Rose I. Goncharova, Gunars J. Duburs, Janis R. Uldriks and Egils A. Bisenieks (Belarus and Latvia): protective effects of diludine on reproductive activity, development and cytogenetic variability of *Cyprinus carpio* L
- 28 Olga V. Dalivelya and Volga A. Dudaladava (Belarus): Effects of the antimutagen of the 1,4-dihydropyridine series on heat-shock puffing and chromosome disjunction in meiosis in *Drosophila* assays
- 29 Lilianne Abramsson-Zetterberg (Sweden): Folic acid supplementation and the impact on chromosome damage

POSTER SESSION B (30–60)

- 30 C. Della Croce, J. Barillari, P. Perocco, D. Canistro, G. Potenza, A. Sapone, M. Broccoli, A. Affatato, S. Trespidi, R. Iori, M. Paolini, M. Cini, G. Poi, L. Caltavuturo and G. Bronzetti (Italy): Glucoraphanin: genotoxicity, metabolizing enzymes effects and free radical generation
- 31 Clara Della Croce, Giampaolo Poi, Leonardo Caltavuturo, Marco Cini, Marco Badi, Guido Paoli and Giorgio Bronzetti (Italy): Protective effect of potassium ascorbate in different strains of yeast *Saccharomyces cerevisiae*
- 32 Stefania Frassinetti, Leonardo Caltavuturo, Marco Cini, Clara Della Croce, Giampaolo Poi and Giorgio Bronzetti (Italy): Effects of zinc compounds in the yeast *Saccharomyces cerevisiae*

- 33 A. Sapone, D. Canistro, G. Potenza, C. Della Croce, R. Iori, J. Barillari, G. Bronzetti, G. Poi, M. Cini, L. Caltavuturo, P. Perocco and M. Paolini (Italy): Genetic and metabolic effects of gluconasturtiin, a glucosinolate derived from cruciferae
- 34 Branka S. Vukovic-Gacic, Jelena B. Knezevic-Vukcevic, Dragana S. Mitic, Tanja S. Beric-Bjedov, Biljana J. Nikolic, Jasna V. Stanojevic and Draga M. Simic (Serbia and Montenegro): Antioxidants screened by the *Escherichia coli* K12 assay system
- 35 Milicevic Zorka and Vladan Bajic (Serbia and Montenegro): Chaperone stabilization of p53 conformation in breast cancer utilizes inhibition of its metastatic potential
- 36 Vladan Bajic, Milecevic Zorka and Biljana Spremo-Potparevic (Serbia and Montenegro): Cycloheximide induces a negative adaptive response in cells exposed to taxol
- 37 Lidia Wolska, Barbara Kusznierevicz, Joanna Grzeskowiak and Agnieszka Bartoszek (Poland): The influence of fermentation processes on antioxidant properties of white cabbage and sauerkraut: an attempt to identify phenolic compounds involved
- 38 Jadwiga Marczevska, Bozena Chlopkiewicz, Elzbieta L. Anuszewska and Waldemar Priebe (Poland and USA): Genotoxic and mutagenic activity of the novel anthracycline analogs
- 39 A. Cebulska-Wasilewska, A. Wiechec, I. Pawlyk, A. Panek, B. Binkova, R.J. Sram and P.B. Farmer (Poland, Czech Republic and UK): Confounding factors influence lymphocyte susceptibility to the induction of DNA damage
- 40 Eva Horváthová, Darina Slamenová, Sona Robichová and Lubica Hrusovská (Slovak Republic): Antimutagenicity of butylated hydroxyanisole *in vitro*
- 41 Angela Dvornyk, Tamara Pererva, Lyudmila Mozylevskaja and Victor Kunakh (Ukraine): The system of the unstable bacterial mutants for studying the antimutagenic activity of plant extracts
- 42 Larysa L. Macewicz, Lubow L. Lukash and Olena M. Suchorada (Ukraine): Genetical activity of some low-molecular substances and *Sambucus nigra* bark lectin
- 43 Ali K. Zhanataev, Konstantin V. Kobelev, Andrey V. Oreschenko and Andrey D. Durnev (Russia): Effects of barley beer on spontaneous and induced clastogenesis *in vivo*
- 44 Victoria A. Nikitina, Ali K. Zhanataev, Ekaterina S. Sidneva, Andrey D. Durnev (Russia): The effect of vitamin intake on clastogenic effect of prooxidant drug dioxidine in the lymphocyte culture *in vitro*
- 45 Svetlana Vasilieva, Elena Moschkovskaya and Anatoly Vanin (Russia): A phenomenon of a "quasi - adaptive response" to alkylation damage induced by the signalling molecule dinitrosyl iron complex with glutathione
- 46 Svetlana Vasilieva (Russia): Vitamin para-aminobenzoic acid (PABA) provides protection against DNA damage *in vivo*
- 47 Chin Lin Hong, Chia-Yu Wei and Ching-Hua Su (Taiwan): Antimutagenic activity of the methanol extracts from the fruit-body of *Antrodia camphorata* solid culture by free radical scavenging effect
- 48 Natsue Yokohama, Akane Zenke and Yu F. Sasaki (Japan): Do comet assay positive results of food dyes relate to carcinogenicity?
- 49 Eiko Wada and Yu F. Sasaki (Japan): Detection of cell death in rodent stomach and its enhancement by ascorbic acid
- 50 Saeko Okutani and Yu F. Sasaki (Japan): Detection of the fate of DNA damage induced by pro-mutagens in HepG2 cells
- 51 Kentaro Taira, Yukiko Miyashita, Eizo Takahashi and Tomoe Negishi (Japan): Characterization of antimutagenic activity derived from *Agrocybe cylindracea*
- 52 Yoji Okugawa, Chie Otsuka, Asako Kawakami, David Loakes and Kazuo Negishi (Japan and UK): Accurate translesion DNA synthesis past 8-oxodg is dependent on DNA polymerase eta
- 53 Chie Otsuka, David Loakes and Kazuo Negishi (Japan and UK): Mutagenic properties of abasic sites in REV1 mutant lacking the dCMP transferase activity

- 54 Kentaro Yoshikawa, Norifumi Shirasaka and Takao Terashita (Japan): Search for compounds from Maitake mushroom, *Grifola frondosa* that protect against the mutagenic effect of Trp-P-2
- 55 Ahmed M. Aboul-Enein (Egypt): The mode of action of carotenoids and vitamin A as antitumors
- 56 Ayman Samy Daba (Egypt): Edible mushroom *Pleurotus ostreatus* as a source of anti-cancer and immunomodulating drug
- 57 El-Hussein Naguib El-Khatib (Egypt): The protective effect of vitamin C against cyfluthrin-induced clastogenicity in rat bone marrow cells
- 58 Isela Alvarez-González, Eduardo Madrigal-Bujaidar and J.J. Espinosa-Aguirre (Mexico): Antigenotoxic effect of grapefruit juice and evaluation of its CYP3A modulatory activity
- 59 M. Carmen García-Rodríguez, Gerardo Pérez-Flores, J. Carlos Nevares, J. Francisco Sánchez-Ruiz and Mario Altamirano-Lozano (Mexico): Comparison of effects of chlorophyllin administered by different routes on genotoxicity of hexavalent chromium in CD-1 mice: pregnant, non-pregnant females and fetuses
- 60 M. Carmen García-Rodríguez, Yolanda Santiago-Moreno, Mario Altamirano-Lozano and Lena Ruiz-Ramírez (Mexico): Genotoxic effects of casiopeinas: a new type of antineoplastic agents

POSTER SESSION C (61–92)

- 61 Alejandra Hernández-Ceruelos, Eduardo Madrigal-Bujaidar (Mexico): Chemoprevention of chamomile essential oil evaluated by the comet assay in testes and bone marrow cells
- 62 Laura Martino-Roaro, Raul Mojica-Espinosa, Isela Alvarez-Gonzalez and Eduardo Madrigal-Bujaidar (Mexico): Determination of the antigenotoxic and antioxidant activity of grapefruit juice against daunorubicin
- 63 Emmanuel E. Obaseiki-Ebor and Peter Oladosu (Nigeria): Antimutagenic activity of extracts of *Bryophyllum pinnatum* S. Kurtz (Crassulaceae) leaf juice
- 64 Emmanuel E. Obaseiki-Ebor, E.M. McGhee and Delbert M. Shankel (Nigeria and USA): Improved detection and inhibition of the genotoxic and mutagenic potentials of a food condiment known as a-one (monosodium glutamate)
- 65 N. Mezzoug, M. Idaomar, A Muñoz Serrano and A. Alonso-Moraga (Morocco and Spain): Genotoxicity and antigenotoxicity of *Glycyrrhiza glabra* evaluated by *w/w⁺* assay of *Drosophila melanogaster*
- 66 A. Antoniciello, M.F. Panunzio, G. Bronzetti and M. Panunzio (Italy): Project “Selor”. Preliminary results
- 67 L.L. Lukash, O.A. Kovalenko and O.V. Pidpala (Ukraine): Mutagenic process under the influence of early viral genes of adenovirus in somatic mammalian cells *in vitro*
- 68 Simona Baldi, Tiziana Maurich, Valter Lubrano and Gino Turchi (Italy): Antioxidant properties of the chalcone plicatin B
- 69 Tiziana Maurich, Luisa Pistelli and Gino Turchi (Italy): Antimutagenic activity of two structurally related pterocarpan purified from *Psoralea bituminosa* in cultured human lymphocytes
- 70 Christine Belloir, Marie-Hélène Siess, Caroline Daurat and Anne-Marie Le Bon (France): Evaluation of the antigenotoxic potential of garlic sulfur compounds in HepG2 cells
- 71 F. Cignoli, C. Mamini, M. Rossi, L. Coppola, R. Bazzano, G. Turconi and C. Roggi (Italy): Prognostic evaluation study on a sample of women with diagnosis of breast cancer submitted to a dietary and nutritional educational intervention - methodological aspects

- 72 Steve Durant and Peter Karran (UK): A novel class of DNA-PK inhibitors – DNA damage sensitisers and antimutagens
- 73 Satwinderjeet Kaur and Subodh Kumar (India): Protective effect of a triterpene fraction from *Terminalia arjuna* against genotoxicity of mutagens in *Salmonella typhimurium*
- 74 B. Nagarajan (India): Modulation of cytokines and DNA adducts in cervical cancer
- 75 S. Venkataraman and Bini K. Philip (India): antioxidant and immunomodulatory activities of *Sida cordifolia* Linn. as a chemopreventive and chemotherapeutic agent for cancer
- 76 F. Guglielmi, M. Lodovici, C. Luceri and P. Dolara (Italy): The antioxidant activity of the dietary phenolic compound 4-coumaric acid in rabbit blood
- 77 L. Wilms and J. Kleinjans (The Netherlands): DNA-damage reducing effects of flavonoid supplementation in a human intervention study
- 78 Jeanine L Marnewick, Wentzel C.A. Gelderblom and Elizabeth Joubert (South Africa): Protective properties of South African herbal teas *Aspalathus linearis* (rooibos) and *Cyclopia intermedia* (honeybush) in short term *in vitro* assays and *in vivo* carcinogenesis assays
- 79 W. John McKeague, C. Stephen Downes, Angela P. McGlynn and Hugh McGlynn (UK): The role of ki-RAS and p53 mutation status in colon cancer cell chemosensitivity
- 80 Anca L. Smyth and Hugh McGlynn (UK): Modifications of the radiosensitivity of a renal cancer cell line as a consequence of polyunsaturated fatty acid supplementation
- 81 Gerlinde Pappa, Renato Iori, Jessica Barillari, Helmut Bartsch and Clarissa Gerhäuser (Germany and Italy): Isothiocyanates and indole derivatives derived from brassica vegetables induce apoptosis in colon adenocarcinoma cell lines
- 82 Maria J. Silva, Paula Costa, Henriqueta Louro, Anabela Dias and Maria G. Boavida (Portugal): Modulation of *in vitro* mutagenic activity of platinum-derived drugs
- 83 Paola Simioli, Sofia Pavanello, Silvia Lupi, Erminio Clonfero and Pasquale Gregorio (Italy): Non smoking coke oven workers have urinary mutagenicity levels related to occupational PAH exposure
- 84 Selvaraju Veeriah, Tanja Kautenburger, H. Dietrich, Frank Will and Beatrice L. Pool-Zobel (Germany): Apple flavonoids inhibit growth of the human colon cancer cell line HT-29 and modulate expression of genes involved in biotransformation of xenobiotics
- 85 H. Verhagen, O.I. Aruoma, J.H.M. van Delft, L.O. Dragsted, L.R. Ferguson, S. Knasmüller, B.L. Pool-Zobel, H.E. Poulsen, G. Williamson, S. Yannai (The Netherlands, UK, Denmark, New Zealand, Austria, Switzerland, Israel): The 10 basic requirements for a scientific paper reporting antioxidant, antimutagenic or anticarcinogenic potential of test substances in *in vitro* experiments and animal studies *in vivo*
- 86 Milena Villarini, Massimo Moretti, Rossana Pasquini, Giuseppina Scassellati Sforzolini, Cristina Fatigoni and Daniela Paoletti (Italy): modulation of genetic and non-genetic biomarkers in rats administered with 1,2-dimethylhydrazine by a *Lactobacillus casei* strain
- 87 Alexander Vaglenov, Bernhard Kaltenboeck, Stoyan Lalchev, A. Creus and Ricard Marcos (USA, Bulgaria and Spain): Genomic instability in shoe workers modulated by polyvitamin-polymineral treatment. Evaluation of aneugenic and clastogenic activity of occupational exposure to solvents using pancentromeric fish
- 88 Patricia M. Heavey, Roisin M. Hughes, Colette Butcher and Ian R. Rowland (UK): Evaluation of the biological activity of faecal water as a biomarker for colon cancer risk
- 89 Rosella De Salvia, Renata Cozzi, Mario Fiore, De Grassi Francesca, Paolo Perticone, Ruggero Ricordy, Alena Alonso, Jorge L. Fuentes and Ángel Sánchez-Lamar (Italy): *Pinus caribaeae* protective effect on x-ray induced damage in CHO cell cultures
- 90 D. Talini, S. Berti, G. Ghelardi, R. Bibbiani, L. Migliore, M. Vincentini, G. Loprieno and N. Serretti (Italy): Biomonitoring of workers exposed to paints and solvents: biomarkers of exposure and effect

- 91 V. Sakthisekaran, V. Magesh and K. Selvendiran (India): Piperine induced apoptosis in experimental lung carcinogenesis
- 92 Metka Filipic, Tanja Fatur, Janja Plazar, Javor Kac, Alec Mlinaric and Tamara Lah-Turncek (Slovenia): Modulatory effects of xanthohumol on genotoxicity of heterocyclic amine (IQ) in the Ames test and the comet assay with HepG2 cells