

CANCER

in Developing Countries
Facing the Challenge



FOREWORD

Cancer is more than a health concern. In developing countries, it is a looming crisis. The majority of new cancer cases and cancer deaths today occur in the developing world. By 2030, over 13 million people worldwide will die from cancer every year; almost 9 million of these deaths will be in developing countries. Some countries are so poorly equipped to respond that they could see the number of cancer-related deaths double from current levels.

Radiation medicine can contribute greatly to the fight against this disease. A long-established area of expertise at the International Atomic Energy Agency (IAEA), radiation medicine is one of the most effective ways to treat and cure cancer. It can also reduce the pain and suffering associated with some cancers.

The IAEA has been involved with the development of radiotherapy and nuclear medicine programmes for the last 30 years. More than 100 low- and middle-income countries have been helped to create or expand radiation medicine facilities and cancer centres thanks to technical expertise provided by the IAEA's Division of Human Health, made available through projects led by the Department of Technical Cooperation. This falls squarely within the Agency's mandate to use atoms "for peace, health and prosperity".

However, the IAEA's experience has shown that building radiotherapy capacity is not enough. A more comprehensive approach is needed. Equipment and medication will only be effective if they are deployed by trained and motivated health workers within the context of comprehensive national cancer plans. Through its innovative Programme of Action for Cancer Therapy (PACT), the IAEA is combining its expertise in radiation medicine with the experience of the World Health Organization and other international partners in order to deliver comprehensive cancer control to the places that need it most.

Cancer in the developing world is, in my view, an overlooked aspect of global health. I proposed that this year's Scientific Forum should be devoted to this subject because I believe that, by strengthening international cooperation, building public-private partnerships and mobilizing new resources, we can help to save thousands of lives. It is my hope that the Forum will raise awareness on a global level and lead to greater support for cancer control from the international community.



Yukiya Amano
Director General, IAEA



PROGRAMME

Tuesday, 21 September

10.00

Opening Session

Welcome and introduction by the Scientific Forum Moderator, Mr Nik Gowing

Inaugural address by the Director General of the IAEA, Mr Yukiya Amano

Welcoming video message from the Director General of the WHO, Ms Margaret Chan

First Lady of Egypt, Mrs Susanne Mubarak

First Lady of Mongolia, Mrs Khajidsuren Bolormaa

Minister of Health of Kenya, Mr Peter Anyang' Nyong'o

Special Envoy of the French Government, Mr Claude Birraux

Followed by:

Meeting the Doctors: A Simulated Tumour Board

Penelope Engel-Hills, Professor of Radiography, Cape Peninsula University, South Africa

Homer Aquino Macapinlac, Professor, Department of Nuclear Medicine, University of Texas, USA

Maria do Socorro Maciel, Chief of Breast Department, AC Camargo Hospital, Brazil

Nancy Read, Professor of Radiation Oncology, University of Western Ontario, Canada

Gunilla Svane, Professor of Radiology, Karolinska Institute, Sweden

Puay Hoon Tan, Head, Department of Pathology, Singapore General Hospital

Theodor Vandenberg, Associate Professor, Department of Oncology, University of Western Ontario, Canada

13.00–14.30 Lunch Break



14.30–16.00

Cancer as Part of the Global Health Agenda

Andreas Ullrich, Cancer Control Coordinator, World Health Organisation, Switzerland

Eduardo Cazap, President Elect, International Union Against Cancer, Argentina

Franco Cavalli, Member of Board of the International Union Against Cancer (UICC), Switzerland

Fabien Calvo, Deputy Director General, Institut National du Cancer (INCa), France

Craig Nichols, Lance Armstrong Foundation, USA

Mark Clanton, Chief Staff Medical Officer, American Cancer Society, USA

Mohamad Shaalan, Chairman, Breast Cancer Foundation, Egypt

Paul Ndom, Chairman, Alliance des Liges et Associations Francophones Africaines & Méditerranéennes (ALIAM), Cameroon



16.00–16.30 Coffee Break

16.30–18.00

Bringing Partners Together

Cary Adams, CEO, International Union Against Cancer, Switzerland

Joe Harford, Office of International Affairs, National Cancer Institute, USA

Rengaswamy Sankaranarayanan, International Agency for Research on Cancer IARC, France

Luis Santini, President, National Cancer Institute, Brazil

Ben Anderson, Chair and Director, Breast Health Global Initiative, USA

Rajendra Achyut Badwe, Director, TATA Memorial Centre, India

Rolf Staehelin, Director of International Marketing, Varian Medical Systems, Switzerland

Ragnar Dworschak, Director, Best Medical International, USA



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Wednesday, 22 September

10.00-11.15

IAEA's Role in Combating Cancer

Mahmoud Mohamed El-Gantiry, National Cancer Institute (NCI), Cairo University, Egypt

Belal Moftah, Chairman of Biomedical Physics Department, King Faisal Specialist Hospital and Research Centre, Saudi Arabia

Joel Yarney, National Centre for Radiotherapy and Nuclear Medicine, Ghana

Twalib Ngoma, Department of Radiotherapy and Nuclear Medicine, Ocean Road Hospital, Tanzania

Shengzu Chen, President of Chinese Society of Nuclear Medicine, China

Jong-Inn Lee, President, Korea Institute of Radiological & Medical Sciences, South Korea

Rajiv Sarin, Director, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), India



11.15-11.40 Coffee Break

11.40-13.00

Emerging Technologies - Challenges and Opportunities

Homer Aquino Macapinlac, Professor, Department of Nuclear Medicine, University of Texas, USA

Martin Yaffee, Professor, Department of Medical Biophysics, University of Toronto, Canada

Hiroshi Tsuji, Research Centre for Charged Particle Therapy, NIRS, Japan

Niloy Datta, Professor of Radio-oncology, Rajiv Gandhi Cancer Institute and Research Centre, India

Gunilla Svane, Professor of Radiology, Karolinska Institute, Sweden

Takashi Nakano, Professor of Radiation Oncology Department, Director of Heavy Ion Medical Research Center, Gunma University, Japan

13.00-14.30 Lunch Break

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14.30-16.20

Safe and Appropriate Use of New Radiation Medicine Technology in New Surroundings

Yoshiharu Yonekura, President, Independent Administrative Institution, National Institute of Radiological Sciences, Japan

Pierre Scalliet, Department of Radiation Oncology, St-Luc University Hospital, Belgium

Guenther Hartmann, German Cancer Research Centre, Germany

Carlos Almeida, , Chairman, Radiological Sciences Laboratory, State University of Rio de Janeiro (UERJ), Brazil

Gregory B. Jaczko, Chairman, U.S. Nuclear Regulatory Commission, USA

Agnes Buzyn, Chairman of the Board of Directors, French Institute for Radiological Protection and Nuclear Safety (IRSN), France

Shamsideen Elegba, Director-General, Nigerian Nuclear Regulatory Authority, Nigeria

16.20

Closing Session

Director General of the IAEA, Mr Yukiya Amano





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SESSION I

Meeting the Doctors: A Simulated Tumour Board



Dr Penelope Engel-Hills
(South Africa)

is a Radiation Therapist. She is linked with the Radiation Oncology Department at Groote Schuur Hospital and is a Senior Lecturer at the Cape Peninsula University of Technology, where she is an Associate Professor. Dr Engel-Hills' research focus is in work-integrated learning and professional education. Her clinical research is in radiation protection and quality assurance. Dr Engel-Hills has extensive experience of radiation oncology and radiation therapist education on the African continent.



Dr Homer A. Macapinlac
(USA)

is the James A. Anderson Distinguished Professor of Nuclear Medicine and Chair of the Department of Nuclear Medicine at the University of Texas M.D. Anderson Cancer Center in Houston, Texas. Previously, he served as clinical director at the Memorial Sloan-Kettering Cancer Center in New York. Dr. Macapinlac is board certified by the American Board of Nuclear Medicine, with a Certificate of Added Qualification in Nuclear Cardiology, and a fellow of the American College of Nuclear Physicians.



Dr Gunilla Svane
(Sweden)

is an Associate Professor of Radiology at Karolinska Institutet and Head of the Breast Imaging Section, Department of Radiology, Karolinska University Hospital. Her research has been focused on diagnosis of breast cancer. She developed further the stereotactic technique for needle biopsies of non-palpable breast lesions found by mammography. Much of her research has focussed on the importance of changes in breast density for breast cancer risk.



Dr Puay Hoon Tan
(Singapore)

is Senior Consultant Histopathologist and Head of the Department of Pathology at Singapore General Hospital. She has an active interest in breast, urologic and renal pathology, and sits on several Editorial Boards including Modern Pathology and Breast Cancer Research. She is the recipient of several research grants related to translational studies of breast and prostate cancer. She is the Secretary of the Asian Breast Diseases Association, council member at large of the International Society of Breast Pathology, and Councillor for Asia of the International Society of Urological Pathology.



Dr Maria do Socorro Maciel
(Brazil)

is a Breast Surgeon. She graduated from the Faculdade de Medicina da Universidade de S o Paulo in 1998 and acquired her Ph.D. in 2002. She focuses mainly on breast cancer treatment and factors determining prognosis. She is Chief of the Breast Surgery Department at the AC Camargo Hospital in Sao Paolo, Brazil.



Dr Nancy Read
(Canada)

is a Radiation Oncologist who specializes in treating Breast, Head and Neck Cancers. Dr. Read has a strong focus on clinical research and teaching. She is an Associate Professor at the University of Western Ontario and recently won an award for excellence in teaching. Dr. Read also has an interest in patient education and feels strongly that the patient must be an equal partner in making treatment decisions.



Dr Theodore Vandenberg
(Canada)

is Associate Professor of Oncology at the University of Western Ontario. He is London Regional Cancer Program Site Representative for the National Cancer Institute of Canada Clinical Trials Group and is a member of the Board of the Ontario Medical Oncology Associates. Dr. Vandenberg's research interests include evaluating new treatments for metastatic breast cancer, the treatment of bone metastases, phase II and III trials in breast cancer, neuro imaging studies of "chemo brain", tumour markers and cancer care in the developing world.

*Awareness ribbons symbolize various concerns depending on the colours or the patterns used.
Pink - Breast Cancer Awareness*



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SESSION II

Cancer as Part of the Global Health Agenda



**Dr Andreas Ullrich
(Switzerland)**

is Medical Officer for Cancer Control at the WHO department of Chronic Diseases and Health Promotion at WHO Headquarters in Geneva. He developed an organization - wide cancer prevention and control network which is engaging all relevant technical programmes at WHO Headquarters and Regional Offices. Dr Ullrich's current major focus is developing partnerships between WHO and international non - governmental and governmental organizations in cancer control and strengthening links with cancer researchers.



**Dr Eduardo Cazap
(Argentina)**

is a medical doctor and the founder and first President of the Latin American & Caribbean Society of Medical Oncology. As of 2010, he is the President of the International Union against Cancer (UICC) in Geneva. In 2009 he was elected Board Member of the American Society of Clinical Oncology, representing the international members. Dr Cazap has also worked on several collaborative and advisory programs with the World Health Organization and the Pan American Health Organization.



**Dr Craig Nichols
(USA)**

serves as Director of Clinical Program Development and Medical Director of Lymphoma and Testis Cancer Research at Providence Cancer Center. He was formerly Professor of Medicine, the De Armond Chair of Clinical Cancer Research and head of the Division of Hematology and Medical Oncology at Oregon Health & Science University and associate director of the Cancer Institute's Clinical Research program. Dr. Nichols successfully treated seven-time Tour de France winner Lance Armstrong for testicular cancer in 1996 and serves on the board of directors for the Lance Armstrong Foundation.



**Dr Mark Clanton
(USA)**

is chief medical officer of the American Cancer Societies High Plains Division (Texas, Oklahoma, Kansas, Missouri, Nebraska and Hawaii) and deputy chief medical officer for special projects (International Cancer Control and Access to Care in the United States) for the National American Cancer Society in Atlanta, Georgia. He served as deputy director of the United States National Cancer Institute, National Institutes of Health, from 2004 to 2006.



**Prof. Francesco Cavalli
(Switzerland)**

is professor of oncology at the universities of Bern (Switzerland) and Varese (Italy) and Director of the Oncology Institute of Southern Switzerland (IOSI). He is also Chairman of the Scientific Committee of the European School of Oncology. Prof Cavalli was previously Chairman of the Swiss Group for Cancer Research (SAKK) and founding editor of Annals of Oncology. From 2006 to 2008 he was President of the International Union against Cancer (UICC). Between 1995 and 2007 he was a Member of the Swiss Parliament.



**Prof. Fabien Calvo
(France)**

is Deputy General Director of the National Cancer Institute, France. He is also director of the Cancer Multi-Institutions Alliance in France. Dr Calvo specialised in oncology and haematology. He is currently professor of pharmacology at the Denis Diderot Medical University in Paris. His spheres of interest are the biology of metastatic processes, especially proteases, translational research, preclinical pharmacology and early clinical trials in haematology and oncology.



**Dr Mohamed Shaalan
(Egypt)**

is Chairman of the Breast Cancer Foundation of Egypt and Associate Professor of Surgical Oncology at the National Cancer Institute in Cairo. Dr Shaalan works to spread information and raise awareness, improving early detection and helping women to confront the illness from an informed position so they may consider the best options for their care. Dr Shaalan is a member of the health committee of Egypt's ruling party. He is in charge of a national cancer control plan for Egypt.



**Dr Paul Ndom
(Cameroon)**

heads the Medical Oncology Unit of Yaoundé General Hospital, Cameroon. He is a Lecturer at the Faculty of Medicine and Biomedical Sciences at the University of Yaoundé and founding President of SOCHIMIO, a Non-Government Organization that is devoted to education, cancer prevention and advocacy. He is also a founder member and the Chairman of Alliance des Lagues Africaines et Méditerranéennes contre le Cancer (ALIAM) and Director of the International Network for Cancer Treatment and Research (INCTR) office in Cameroon.



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SESSION III

Bringing Partners Together



**Dr Cary Adams
(UK)**

is Chief Executive Officer of the International Union Against Cancer (UICC). He has a degree in Economics, Computing and Statistics from the University of Bath, United Kingdom. Dr Adams worked with Lloyds TSB Group for many years and was appointed Chief Operating Officer of Lloyds TSB Group International Banking in 2008. After leaving the banking sector, he was appointed Chief Executive Officer of the UICC in September 2009.



**Dr Joe Harford
(USA)**

is Director of the Office of International Affairs of the National Cancer Institute. He chairs the Implementation Group of the Ireland-Northern Ireland-NCI Cancer Consortium and is NCI liaison to the Middle East Cancer Consortium, the US-Japan Cooperative Cancer Research Program, the African Organization for Research and Training in Cancer, and the International Network for Cancer Treatment and Research. Dr. Harford is founding editor of Current Protocols in Cell Biology and Short Protocols in Cell Biology.



**Dr Ben Anderson
(USA)**

is Professor of Surgery and Global Health Medicine at the University of Washington in Seattle, where he has devoted his clinical practice to the care of patients with breast cancer and breast health issues. Dr. Anderson holds joint faculty positions in the Fred Hutchinson Cancer Research Center Division of Public Health Sciences and the University Of Washington Department Of Global Health. Dr. Anderson created and chairs the Breast Health Global Initiative, the purpose of which is to develop and implement resource-sensitive, culturally appropriate guidelines for breast cancer early detection, diagnosis and treatment in low- and middle-income countries.



**Prof. Rajendra Achyut
Badwe
(India)**

is Director of the TATA Memorial Centre and Professor and Head of the Department of Surgical Oncology at the Tata Memorial Hospital in India. His specialization is in Breast Cancer Surgery. His research interests include breast cancer, circulating tumour cells, DNA in solid tumours, clinical research methodology, and epidemiological research in oncology. Dr Badwe he is a Reviewer for The Lancet, BJC, Cancer, International Journal of Surgery, Annals of Oncology, and the Indian Journal of Cancer Surgery. He is an Editorial Board Member of The Breast, the International Journal of Surgery, and Mammology.



**Dr Rengswamy
Sankaranarayanan
(France)**

is Head of the Early Detection & Prevention Section and the Screening Group at the International Agency for Research on Cancer (IARC). Dr Sankaranarayanan has considerable international experience and knowhow in evaluating and disseminating early detection strategies and in providing technical assistance in education and training of cancer early-detection programmes, particularly in low- and medium-resourced countries.



**Prof. Luiz Antonio
Da Silva
(Brazil)**

is General Director of the Brazilian National Cancer Institute. He implemented a pioneer project on the integration of health services with the academic sector. Prof. Da Silva is an advising editor for the Brazilian Journal of Medical Education and associate professor of the department of general and specialized surgery at the Fluminense Federal University. He helped to implement Brazil's Unified Health System.



**Dr Rolf Staehelin
(Switzerland)**

is Director for International Marketing at Varian Medical Systems in Europe, the Middle East, India and Africa. His responsibilities include the introduction of new products and systems as well as clinical research activities. His cooperation with the IAEA's PACT programme helped to bring about the development of Varian's UNIQUE radiotherapy system, which is tailored to cancer treatment needs in developing countries.



**Dr Ragnar Dworschak
(Canada)**

has been Director of Technical Services for Best Theratronics Limited, Canada since January 2010. He works as a technical interface in the Gamma Teletherapy and Cyclotron areas, between the engineering/product development team, sales and marketing and prospective, new and existing client base. He spent previous five years working as a Reactor Physicist with Atomic Energy of Canada Limited in Chalk River. Dr Dworschak received a Ph.D. in Laser/Molecular Desorption Physics from the University of Manitoba in Canada.



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SESSION IV

IAEA's Role in Fight against Cancer



**Prof. Mahmoud
M. El-Gantiry
(Egypt)**

is Professor of Radiation Oncology at the National Cancer Institute at Cairo University. He has worked on a number of IAEA research projects and has participated in missions to a number of African countries. He has supervised the IAEA-sponsored fellowships of many radiation oncologists, medical physicists, radiation therapy technologists and nurses in Egypt.



**Dr Belal Moftah
(Saudi Arabia)**

is Chairman of the Biomedical Physics Department at King Faisal Specialist Hospital and Research Centre in Riyadh. Dr Moftah served as a clinical radiotherapy physicist and consultant at various institutions. His focus has been on setting up medical physics and radiotherapy services as well as the development of state-of-the-art radiotherapy techniques. He is counterpart for several IAEA technical cooperation projects as well as Chairman of the IAEA ARASIA Clinical Residency Training Working Group.



**Prof. Shengzu Chen
(China)**

is chief scientist and consultant in the department of nuclear medicine and PET/CT centre of the Cancer Hospital of the Chinese Academy of Medical Sciences, and president of Chinese Society of Nuclear Medicine. Dr. Chen is national coordinator of IAEA in nuclear medicine. His work has included helping the IAEA to organize a regional training course on sentinel lymph node detection in breast cancer and hosting a regional training course on quality management of positron emission tomography (PET).



**Dr Jong-Inn Lee
(South Korea)**

is President of the Korean Institute of Radiological and Medical Sciences (KIRAMS), which has become a regional hub for radiation medicine. As part of its efforts to extend the benefits of radiotherapy to the developing world in collaboration with the IAEA PACT Programme, KIRAMS has trained some 60 medical doctors and scientists from developing countries and dispatched over 20 experts to cancer centers overseas over the last three years. KIRAMS recently launched a project to develop a heavy-ion therapy center and opened a medical branch in Pusan, the second largest city of Korea.



**Dr Joel Yarney
(Ghana)**

is Head of the National Centre for Radiotherapy and Nuclear Medicine in Ghana and director of the treatment facility in Accra. He helped to establish academic training programs in radiation oncology, medical physics, and radiation therapy technology in Ghana, which attracts patients and students from across the West African Sub-Region. Among the specialized techniques he has initiated in Ghana is brachytherapy for prostate cancer.



**Dr Twalib A. Ngoma
(Tanzania)**

is Executive Director of the Ocean Road Cancer Institute in Tanzania, Director of INCTR Tanzania and Immediate Past President of the African Organization for Research and Training (AORTIC). He is an adviser on cancer control to the Tanzanian Government, WHO and the IAEA. Dr. Ngoma is also the local coordinator of the IAEA Programme of Action for Cancer Therapy Model Demonstration Project in Tanzania and Secretary of the Steering Committee for the development of a National Cancer Control Strategy and Action Plan for Tanzania.



**Prof. Rajiv Sarin
(India)**

is Director of the Advanced Centre for Treatment Research and Education in Cancer (ACTREC) at Tata Memorial Centre, Mumbai. He is in charge of the Cancer Genetics Unit and Professor of Radiation Oncology at the Tata Memorial Hospital. His research interests include cancer genetics, breast cancer, brain tumours and public health. He has initiated the first comprehensive clinical and laboratory cancer genetics programme in South Asia and heads the ICMR-funded Centre for Advanced Research in Cancer Genetics and Genomics.

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Grey - Brain Cancer Awareness*



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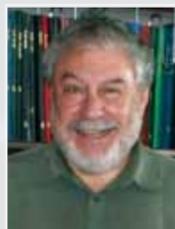
SESSION V

Emerging technologies – Challenges and Opportunities



**Dr Homer A. Macapinlac
(USA)**

is the James A. Anderson Distinguished Professor of Nuclear Medicine and Chair of the Department of Nuclear Medicine at the University of Texas M.D. Anderson Cancer Center in Houston, Texas. Previously, he served as clinical director at the Memorial Sloan-Kettering Cancer Center in New York. Dr. Macapinlac is board certified by the American Board of Nuclear Medicine, with a Certificate of Added Qualification in Nuclear Cardiology, and a fellow of the American College of Nuclear Physicians.



**Dr Martin Yaffe
(Canada)**

is a Professor in the department of Medical Biophysics at the University of Toronto and a Senior Scientist. He is Director of the 1 mm Cancer Imaging Research Program of the Ontario Institute of Cancer Research, directs the University of Toronto training program in physics and radiation biology and has led the Physics Consulting Group for The Ontario Breast Screening Program since its inception in 1990. He chairs the IAEA Committee to develop harmonized quality control standards for digital mammography. He is co-author of the book Digital Mammography.



**Dr Gunilla Svane
(Sweden)**

is an Associate Professor of Radiology at Karolinska Institutet and Head of the Breast Imaging Section, Department of Radiology, Karolinska University Hospital. Her research has been focused on diagnosis of breast cancer. She developed further the stereotactic technique for needle biopsies of non-palpable breast lesions found by mammography. Much of her research has focussed on the importance of changes in breast density for breast cancer risk.



**Dr Takashi Nakano
(Japan)**

is professor and chairman of the Radiation Oncology Department and director of the Heavy Ion Medical Research Center at Gunma University. He is a radiation oncologist who specializes in radiation therapy for gynaecological cancers and charged particle therapy. Dr Nakano has a strong focus on clinical research and teaching. He contributed to the improvement of radiation oncology status in Asian countries as the thematic sector lead country coordinator in health sector of IAEA/RCA and as the project lead country coordinator for radiation oncology projects. He is also chairman of NPO, the Japanese Organization for International Cooperation in Radiation Medicine.



**Dr Hiroshi Tsuji
(Japan)**

is Group Leader of the Particle Therapy Research Group for developing advanced clinical therapy with charged particles at the NIRS in Japan. He graduated from Hokkaido University School of Medicine. He is primarily involved in clinical research on carbon ion radiotherapy using the heavy ion medical accelerator in Chiba for various kinds of malignant tumors including skull-base tumor, head & neck tumor, lung cancer, liver cancer, pancreatic cancer, prostate cancer, gynaecological cancer, rectal cancer and bone & soft tissue sarcoma.



**Prof. Niloy Datta
(India)**

is Senior Consultant & Co-ordinator, Department of Radiation Oncology at the Rajiv Gandhi Cancer Institute and Research Centre, New Delhi, India. His areas of interest include PET CT based radiation treatment planning, image guided teletherapy and brachytherapy, especially in head and neck cancer, breast and cervical cancer. He was also involved in the development of the department of Radiation Oncology at Sanjay Gandhi Postgraduate Institute of Medical Sciences at Lucknow. Prof. Datta is also involved in various IAEA related activities, namely QUARTO programme and PACT mission of the Agency to various countries.

*Awareness ribbons symbolize various concerns depending on the colours or the patterns used.
Gold - Childhood Cancer Awareness*



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SESSION VI

Safe and appropriate use of new radiation medicine technology in new surroundings



**Prof. Yoshiharu Yonekura
(Japan)**

is President of the National Institute of Radiological Sciences, Chiba, and Professor Emeritus of the University of Fukui, Japan. After training in Radiology and Nuclear Medicine, he participated in basic and clinical research on positron emission tomography and neuroscience. His current research focuses on molecular imaging for cancer treatment. He has been a member of ICRP Committee 3 since 2005. Prof. Yonekura has been committed to a multitude of national and international activities on scientific research, particularly in radiation protection, for many years.



**Prof. Pierre Scalliet
(Belgium)**

is Chairman of the Radiation Oncology Department at St. Luc University Hospital of the Catholic University of Louvain in Belgium. Prof. Scalliet has served as Executive Secretary of the European Society for Therapeutic Radiology and Oncology (ESTRO) and is an Editor of the journal "Radiotherapy and Oncology". Prof. Scalliet also contributes to the work of the European Organisation for Research and Treatment of Cancer (EORTC). His research interests include high dose rate brachytherapy, and quality assurance and safety in radiotherapy. He is currently chairman of the Belgian college of radiotherapy, in charge of developing a safety culture throughout the Belgian radiotherapy community.



**Dr Gregory Jaczko
(USA)**

has been Chairman of the U.S. Nuclear Regulatory Commission since May 2009, having served as a Commissioner since January 2005. Throughout his tenure on the Commission, Dr. Jaczko has focused on the NRC being a decisive safety regulator with the confidence of the public. He has worked to ensure clear communication with the public and with licensees. Dr. Jaczko's professional career has focused on the impact of science in the public policy arena.



**Prof. Agnes Buzyn
(France)**

is Chairperson of the Board of Directors of the Institut de Radioprotection et de S reté Nucléaire (IRSN). She is a physician and professor of haematology at Necker Hospital, University Paris Descartes. She leads clinical research projects with many hospitals and universities in the field of leukemia and bone marrow transplantation. Prof. Buzyn patented new tumor markers & biological applications and has published over 100 articles in various scientific publications and medical journals.



**Prof. Guenther Hartmann
(Germany)**

is Group leader of the Research Group on Dosimetry and Oncological Radiation Physics and Deputy Director of the Department of Medical Physics and Radiation Therapy at the German Cancer Research Centre in Heidelberg. Prof. Hartmann is an expert in medical physics, with the emphasis on radio-oncology, with many years of experience in implementing new radiation technologies in clinical practice. He is also involved in IAEA activities such as the implementation of medical physics education programs and quality audits.



**Prof. Carlos Eduardo de Almeida
(Brazil)**

is Professor of Medical Physics and Chairman of the Radiological Sciences Laboratory at the University of Rio de Janeiro, Brazil. He received his M.Sc. and PhD at M.D. Anderson Hospital. He is Fellow of the AAPM and Board Certified by the ACMP. He was previously Director of the Brazilian Radiation Standards Laboratory and Coordinator of the NCI National QA Program in Radiotherapy. He is a medical physicist who has done extensive work on research and training in the radiotherapy physics area and on cost-benefit considerations for cancer care in developing countries.



**Prof. Shamsideen Elgeba
(Nigeria)**

became the first Director-General of the Nigerian Nuclear Regulatory Authority in 2001. He is concurrently Chairperson of the Forum of Nuclear Regulatory Bodies in Africa (FNRBA) and contributes to the work of the African Union Commission Preparatory Committee for the Conference of State Parties to the African Nuclear Weapons Free Zone Treaty. He has contributed as author and co-author to over 200 scientific publications and technical reports, and has wide experience in energy planning and management, in addition to nuclear safety and security.

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Lime - Lymphoma Cancer Awareness*



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IAEA's WORK ON CANCER

Human Health

The Division of Human Health (NAHU) is very active in the field of cancer care, which accounts for some 60 % of its work. Its focus includes cancer detection, staging and treatment. There are two main areas of NAHU activities. The first is quality assurance for the safe and effective use of radiation in medicine in both diagnostic (nuclear medicine and diagnostic radiology) and therapeutic procedures. The second is building capacity in nuclear medicine, diagnostic radiology, medical physics and radiotherapy.

Contact:
Mr Rethy K. Chhem
Director
Division of Human Health
R.Chhem@iaea.org
Tel: 0043 1 2600 21650

The Programme of Action for Cancer Therapy (PACT)

PACT was created within the IAEA in 2004 as a response to the World Health Assembly's call to action against cancer. As the IAEA's umbrella programme for combating cancer, PACT builds upon the Agency's experience in radiation medicine and technology and works closely with the World Health Organization (WHO), its Regional Offices and other national and regional key players to enable developing Member States to introduce, expand and improve their cancer cure and care capacity. The aim is to integrate radiation medicine into a comprehensive cancer control programme that maximises its therapeutic effectiveness and impact. Through impACT Reviews, Member States are helped to assess their cancer needs and develop plans to integrate and align activities and investments in cancer prevention, surveillance, early detection, diagnosis and treatment, and palliative care within a public health system. PACT also addresses other challenges such as making technologies more affordable and suitable. It helps to build capacity and long term support for continuous education and training of cancer care professionals, as well as for community-based civil society advocacy and outreach to combat cancer.

Contact:
Mr Massoud Samiei
Head
Programme of Action for Cancer Therapy
M.Samiei@iaea.org
Tel: 0043 1 2600 22328

Technical Cooperation Programme

The IAEA has worked for over 30 years in some 115 Member States through its Technical Cooperation (TC) Programme to deploy robust radiotherapy and nuclear medicine programmes, spending over \$220 million on cancer-related assistance, with technical support provided by the Division of Human Health (NAHU). In recent years, the funding of activities in this area has reached over \$US 20 million per year. Nearly 25% of the annual budget of the TC programme goes to Human Health projects. At the end of 2009, TC had 142 cancer-related projects in progress around the world (113 national and 29 regional and interregional), ranging from the establishment of radiotherapy services to training of medical physicists and the introduction of advanced techniques for cancer diagnosis such as PET/CT. This assistance has enabled many Member States to establish safe and effective diagnosis and radiation therapy capacity, providing cure and higher quality care to at least a portion of their cancer patients.

Contact:
Mr Juan Antonio Casas-Zamora
Director
Division for Latin America
Department of Technical Cooperation
J.Casas@iaea.org
Tel: 0043 1 2600 22338

Radiation Safety

Safety for the patient is paramount. The IAEA, through its Department of Nuclear Safety and Security, offers unique services in advancing safety in medicine when utilizing radiation. Authorized by its Statute to set safety standards and support their application, the IAEA aims to help to strengthen national legal and regulatory infrastructure and national safety strategies, and also has responsibilities in capacity building through information exchange, education and training of health professionals for accident prevention and patient protection. Notably, the IAEA has developed training material and specific guidance on radiation protection of patients and made them available on a dedicated website (<http://rpop.iaea.org>). With over 10,000 unique visitors per month, the site addresses the concerns of health professionals, regulators, patients and members of the public around the world with free, regularly updated, practical and topical information.

Contact:
Ms Eliana Amaral
Director
Division of Radiation, Transport and Waste Safety
E.Amaral@iaea.org
Tel: 0043 1 2600 22526



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**For further information
please contact:**

**International Atomic Energy Agency
Vienna International Centre
PO Box 100, 1400 Vienna, Austria
Phone: (+43-1) 2600-0
Fax: (+43-1) 26007**

www.iaea.org



*Awareness ribbons symbolize various concerns
depending on the colours or the patterns used.
Lavender - General Cancer Awareness*