

International Agency for Research on Cancer



**Governing Council
Fifty-third Session**

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MINUTES OF THE FIRST MEETING

IARC, Lyon

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Chairperson: Professor Pekka Puska (Finland)

Secretary: Dr Christopher P. Wild, Director, IARC

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Dr Irene KEINHORST	Germany
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Ms Patsy CARR	Ireland
Professor Valentino MARTELLI	Italy
Dr Masato MUGITANI Dr Shiho TAKAOKA	Japan
Mr Jeroen HULLEMAN	Netherlands
Mr Geir BUKHOLM	Norway
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Dr Oleg P. CHESTNOV Ms Julia BAKONINA	Russian Federation
Dr Carlos SEGOVIA	Spain
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Ms Joanne MCKEOUGH, Office of the Legal Counsel
Dr Andreas ULLRICH, Chronic Diseases Prevention and Management

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Professor Ian FRAZER, Incoming Chairperson, Scientific Council
Professor Jean-Pierre BOISSEL, Chairperson, IARC Ethics Committee (IEC)

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1. OPENING OF THE SESSION: Item 1 of the Provisional Agenda

The CHAIRPERSON declared open the Fifty-third Session of the Governing Council and welcomed participants, including the WHO Regional Director for Africa, Dr Sambo. For the first time, noncommunicable disease (NCD) control had been featured on the global political agenda, as shown by the convening of the recent Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control (Moscow, 28–29 April 2011) and the forthcoming United Nations High-level Meeting on noncommunicable disease prevention and control, due to take place on 19 and 20 September in New York. IARC had been closely involved in the preparations for both conferences.

He said that, with the agreement of the Governing Council, he would allow a representative of Turkey – whose application for membership of the Agency would be considered later in the session – and representatives of Argentina and Brazil, both former Participating States, to attend the session as observers.

Professor Tuncer (Turkey), Dr Osatnik (Argentina) and Dr Santini (Brazil) took places in the meeting room as observers.

The SECRETARY likewise welcomed participants and stressed the importance of the session for all the Agency's staff, many of whom would be following the proceedings from a neighbouring room or on their office computers. He invited members to study the posters illustrating the work being done by junior scientific staff and to ask any questions they wished of the scientists.

2. ELECTION OF VICE-CHAIRPERSON AND RAPPORTEUR: Item 2 of the Provisional Agenda

On the proposal of Professor ULFENDAHL (Sweden), Dr Palmer (United Kingdom of Great Britain and Northern Ireland) was elected Vice-Chairperson.

On the proposal of Professor AUTRUP (Denmark), Professor Bishop (Australia) was elected Rapporteur.

3. ADOPTION OF THE AGENDA: Item 3 of the Provisional Agenda (Document GC/53/1 (Prov.) Rev.2)

The CHAIRPERSON noted that two items on the agenda, namely the application of Turkey for membership of IARC (agenda item 14 – see Document GC/53/19) and the proposal by Spain for the repayment of its arrears of contributions (agenda item 6 – see Document GC/53/20) had been received only shortly before the current session. If he saw no objection, he would take it that the Governing Council wished to consider the two items, in spite of their late submission.

He asked the Council if two items from the Provisional Agenda (document GC/53/1 (Prov.) Rev.2) could be taken in a different order, namely that agenda item 7 "Address by the Director-General, WHO" be taken before item 5 "Director's Report" and that agenda item 14 "Admission of a new Participating State –Turkey" be taken after item 18 "Requests for use of funds from the Governing

Council Special Fund". He would refer to the item numbers as stated in the Provisional Agenda (document GC/53/1 (Prov.) Rev.2).

It was so agreed.

The agenda was **adopted**.

4. PRESENTATION AND DISCUSSION OF THE INTERIM ANNUAL REPORT 2010: Item 4 of the Agenda (Document GC/53/2)

The SECRETARY, illustrating his remarks with slides, presented the interim annual report for 2010 (Document GC/53/2), highlighting the main points of the Agency's scientific work over the previous year. In respect of the global burden of cancer, he said that data collected by the GLOBOCAN project on global cancer incidence and mortality showed that the incidence of cancer, i.e. the number of new cases, had amounted to 13 million in 2010. Projections based purely on expected demographic changes, rather than any change in the underlying pattern of cancer incidence itself, indicated that the number of new cases worldwide in 2030 was likely to reach over 20 million. The GLOBOCAN data also highlighted the growing gap in cancer burden between the more developed and the less developed regions of the world, in terms of both incidence and mortality.

The GLOBOCAN project was already acknowledged as a valuable source of cancer statistics. The data were freely available, in an easily accessible form, on the GLOBOCAN 2008 area of the IARC web site (<http://globocan.iarc.fr>). Another online tool, *CI5plus* (<http://ci5.iarc.fr/>), presented annual incidence data for 101 selected populations and 28 of the most common cancer sites, using data from the *Cancer incidence in five continents* series. The tool could also provide an overview of data from cancer registries in an individual country, showing trends over time.

A new publication entitled *Cancer survival in Africa, Asia, the Caribbean and Central America* highlighted the enormous differences in cancer survival in different countries: for instance, the five-year survival rate for large-bowel cancer was less than 10% in the Gambia and Uganda, but over 60% in the Republic of Korea. The document was available for download free of charge from the IARC web site (see <http://survcan.iarc.fr/>) and would shortly be available in print.

Turning to the issue of cancer etiology, he drew attention to the recent publication of Volume 14 of the IARC *Handbooks of cancer prevention*, which demonstrated the effectiveness of increased excise taxes and prices in reducing tobacco consumption and encouraging cessation. Evidence from the European Prospective Investigation into Cancer and Nutrition (EPIC) study showed that pipe and cigar smoking were not inherently less harmful than cigarette smoking: lower cancer rates were due to the lower intensity of inhalation of the smoke. A study called INHANCE, covering 12 000 people with head and neck cancer, had shown that cancer risk fell by up to 30% in people who had quit smoking one to four years before, and that after 20 years their risk was as low as that of a lifetime non-smoker. Two meta-analyses of alcohol consumption had shown that the risk

of laryngeal or oesophageal cancer was slightly increased by occasional alcohol drinking, with the risk being higher in Asian populations.

The Agency had brought together research groups from North America, Europe, Costa Rica and South Africa in a consortium called AGRICOH to investigate the cancer risk associated with exposure to pesticides in agricultural communities. It was also involved in a pilot follow-up study of cancer mortality among workers exposed to chrysotile asbestos in the city of Asbest, Russian Federation, and a study of lung cancer among people exposed to diesel motor exhaust fumes: the latter had shown a 30% increase in cancer risk.

The Agency's work on the prevalence of human papillomavirus (HPV), which was associated with cervical cancer, was valuable for the planning of cervical cancer control activities, including vaccination and screening. Infection rates were over 50% in West Africa, but much lower in parts of Asia. More recently, there had been considerable interest in a possible association between HPV and head and neck cancers.

A new paper on acoustic neuroma in mobile phone users was due to be published shortly, and a Monograph meeting on the risks of mobile phone use would take place in the next few weeks. A cohort study in nine European countries on the risk of leukaemia or other cancers in children undergoing medical diagnostic procedures such as CT scans had begun in February 2011. He hoped that the study would yield valuable information on dose optimization for diagnostic procedures in young children, and that it could later be extended to countries outside Europe.

An international expert group, the Agenda for Research on Chernobyl Health (ARCH), had developed a strategic research agenda for short-, medium- and long-term research into the after-effects of the Chernobyl nuclear accident, including the foundation of a dedicated research establishment. The group had emphasized the need for accurate exposure data to be collected as soon as possible after an adverse event – a need which had become particularly apparent following the damage to nuclear reactors in the recent earthquake and tsunami in Japan.

The Agency was involved in a number of studies of breast cancer in low- and middle-income countries, including one on molecular subtypes of premenopausal breast cancer and environmental exposure to carcinogens in Latin America, which would be linked to molecular analysis of the tumours. Research of that kind, which linked laboratory investigations and epidemiological studies, was one of the Agency's strengths. IARC was also joint leader, with the United States National Cancer Institute, of a genome-wide association study of renal cell carcinoma which used genetic tools to determine the genetic, epigenetic and proteomic changes associated with that form of kidney cancer.

Turning to the mechanisms of carcinogenesis, he said that a study conducted by the Agency in collaboration with the German Cancer Research Centre, on exposure to ultraviolet light in mice genetically engineered to express HPV36 E6 and E7 oncoproteins, had found an increased incidence of squamous cell carcinomas. The study showed the value of linking experimental work and epidemiological observations.

A study on epigenetic changes in hepatocellular carcinoma (HCC) tumours in people exposed to various risk factors – alcohol, hepatitis B and hepatitis C – was an example of the possible links between environmental exposure and such changes. Research into the mechanisms of

carcinogenesis could help in the classification of different types of tumour, as shown by the use of molecular markers to identify various types of low-grade diffuse gliomas.

The Agency had been involved for some time in research into oesophageal cancer in the Islamic Republic of Iran, which had one of the highest incidence rates for that type of cancer in the world. Current research focused on exposure to polycyclic aromatic hydrocarbons and consumption of very hot tea.

The WHO/IARC Classification of Tumours series ("Blue Books") were still IARC's best-selling publications. The *WHO Classification of tumours of haematopoietic and lymphoid tissues* (Vol. 2, 4th ed.) had sold over 36 000 copies, while the latest publication, *Pathology and genetics of tumours of the digestive system* (Vol. 3, 4th ed.), had sold 7 000 copies since its publication in late 2010. He thanked the Governing Council for its financial support for the publication of those standard works.

In the IARC Monographs series, the meeting to discuss some chemicals in industrial and consumer products, some food contaminants and some water chlorination by-products (Monograph Vol. 101) had taken place in February 2011 and preliminary results had been published in *Lancet Oncology* in April. The next meeting, the second on non-ionizing radiation and including mobile phones, would take place in May 2011 and would be published as Volume 102. Further meetings on bitumen, bitumen fumes and some heterocyclic polycyclic aromatic hydrocarbons and on polyomaviruses and malaria (future Vols. 103 and 104) would take place in October 2011 and February 2012, respectively.

One major area of interest in early detection and prevention was the potential effectiveness of clinical breast examination (i.e. an examination performed by a health professional rather than the woman herself) in developing-country settings. A cluster-randomized trial of 115 000 women was being conducted in southern India, consisting of three rounds of examinations at three-year intervals. In the first round, the detection rate for breast lumps measuring over 2 cm in diameter had been approximately 20% in the study group, compared with only 7% in the control group. The second round of screening was now under way. There was a high degree of community acceptance of the trial: 90% of the women invited had attended for screening, and 70% of those with abnormal results would be referred for further investigations.

Finally, he drew attention to the European Union Guidelines for Quality Assurance in Colorectal Cancer Screening, launched in February 2011, which had involved cooperation between a large consortium of 49 countries, including all the IARC Participating States.

Replying to a question from Professor BISHOP (Australia), Rapporteur, he said that the Agency was currently investigating the feasibility of preparing projections of cancer incidence for each WHO region, in respect of risk factors such as tobacco use or infections.

Professor VAINIO (alternate to Professor Puska, Finland) said that the *Cancer incidence in five continents* and GLOBOCAN projects provided immensely valuable information. However, if that information was to be used to influence behaviour and decision-making, it must be made available not only free of charge, but also in a clear and flexible form which could be adapted to suit local

circumstances, as in the informative and accessible talks and web broadcasts presented by Professor Hans Rosling, Professor of Public Health Science at the Karolinska Institutet in Stockholm.

Although the information contained in the *Cancer incidence in five continents* database was extremely valuable, it was obtained from a relatively small number of well-run cancer registries, from which data were extrapolated to provide estimates for other countries and regions. The Agency should support the many countries which wished to set up their own cancer registry.

The Monographs programme was a major achievement of the Agency, but the experience of the past must be put to good use in order to determine appropriate priorities for the future.

Ms FLAMANT (France) said that IARC should continue to give priority to the unique works of reference and collections of data which it produced, such as the Blue Books and the Monographs series. National agencies made constant use of those invaluable benchmark data. Another strength of IARC was its ability to bring together research subjects suffering from particular types of cancer in different countries, for types of cancer where numbers were too small for any one country to put together a valid research cohort. Finally, IARC should continue to publish data on more politically sensitive subjects, such as the associations between cancer and tobacco, alcohol or nutrition, where national agencies sometimes had difficulty making themselves heard.

Dr HARMFORD (United States of America) expressed his support for the *Cancer in five continents* and GLOBOCAN projects, which were unique aspects of IARC's work. It was gratifying to see that the backlog in publication of the Monographs series had now been cleared. He asked about the contribution which the Agency was making to the training of the next generation of scientists.

The SECRETARY said that he fully appreciated the importance of reliable cancer statistics, and had increased IARC's spending on that area. The GLOBOCAN project allowed data to be presented in a number of ways, showing the cancer burden in a particular country or the incidence of a particular cancer, for example. Feedback from Governing Council members about the information they needed and how the data provided by IARC were used at the policy level would be very welcome. He was aware of the gaps in coverage by cancer registries – only 1% of the population of Africa and 4% of the population of Asia were covered by high-quality registries. The Agency had recently advised Indonesia and Oman on their own registries. Development of the registry network would require not only technical assistance from the Agency but also increased commitment from governments, which he hoped would be encouraged by the forthcoming UN high-level meeting on noncommunicable diseases.

Replying to a question from Dr MUGITANI (Japan), he said that the Monograph meeting on Non-ionizing Radiation, Part II: Radiofrequency Electromagnetic Fields, which included mobile phones, was due to take place at the end of May 2011, with the publication of the associated Monograph following in due course.

The RAPPORTEUR read out the following draft resolution on the IARC Interim Annual Report 2010 (GC/53/R1):

The Governing Council,

Having reviewed the IARC Interim Annual Report for 2010 (Document GC/53/2),

1. EXPRESSES its satisfaction with the work accomplished; and
2. COMMENDS the Director and his staff on the Interim Annual Report 2010.

The draft resolution was **adopted**.

5. ADDRESS BY THE DIRECTOR-GENERAL, WHO: Item 7 of the Agenda

Dr ALWAN (Assistant Director-General, Noncommunicable Diseases and Mental Health, WHO), delivered a statement on behalf of the Director-General of WHO, Dr Margaret Chan. WHO welcomed its increasingly close collaboration with IARC and the excellent coordination of the two organizations' respective activities. The growing recognition of the major burden imposed by noncommunicable diseases in all countries provided a unique opportunity for both organizations. Cancer and other noncommunicable diseases had killed over 36 million people in 2008, accounting for 63% of all deaths around the world.

Noncommunicable diseases, which had once been considered diseases of affluence, now imposed their greatest burden on people in low- and middle-income countries: nine out of 10 deaths from noncommunicable diseases in people aged under 60 years occurred in developing countries or countries with economies in transition. The highest rates of such premature deaths occurred in the WHO African, Eastern Mediterranean and South-East Asia Regions. Noncommunicable diseases killed people at a younger age in developing countries than in high-income countries. The number of deaths was projected to increase rapidly over the next 20 years, with the greatest increase being expected in low- and middle-income countries, especially in Africa. Cancer incidence was projected to increase by 82% between 2008 and 2030 in low-income countries, by 70% in lower-middle-income countries and by 40% in high-income countries. If no action was taken, annual cancer incidence was expected to rise from an estimated 12.7 million in 2008 to 21.4 million by 2030, with almost two-thirds of those cases occurring in low- and middle-income countries. Those countries were the most vulnerable and the least resilient, with the smallest capacity for implementing prevention, early detection and treatment programmes.

Fortunately, the need to give greater priority to the control of cancer and other noncommunicable diseases was increasingly being recognized. The forthcoming UN High-level Meeting on noncommunicable diseases provided a valuable opportunity to scale up global efforts to combat cancer. The evidence on cancer control collected by IARC would be of great strategic importance in those discussions. The Agency's emphasis on the need for data on morbidity, mortality and survival to contribute to cancer control planning had been endorsed by United Nations Member States in their regional consultations in preparation for the High-level Meeting. Ninety-five Ministers of Health had listened to WHO's call for the adoption of specific measures to prevent

cancer, including prevention of chronic infections and environmental and occupational exposures, at the First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Diseases, which had taken place two weeks before in Moscow, Russian Federation. Participants in those meetings had also discussed calls for population-based early detection and screening activities to reduce cancer morbidity and mortality.

In May 2008, the World Health Assembly had adopted an Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases. The Action Plan included a framework for noncommunicable disease surveillance, including cancer, and stressed the need for prevention and implementation research. The Agency had contributed to the development and implementation of a research agenda which would address the increasing cancer burden. Over the previous two years, for instance, it had collaborated with the WHO Noncommunicable Diseases and Mental Health Cluster to develop a prioritized research agenda on noncommunicable diseases, intended to support the multidimensional and multisectoral research need to generate and strengthen the evidence base for cancer control.

The Agency worked with many WHO departments, particularly Noncommunicable Diseases and Mental Health, Health Systems Services, Family and Community Health and Innovation, Information, Evidence and Research (see document GC/53/9). It had contributed to the drafting of the first *WHO global status report on noncommunicable diseases*, which reviewed the global burden of noncommunicable diseases and their common behavioural and intermediate risk factors. The report provided NCD-specific mortality estimates and proposed evidence-based strategies and frameworks for strengthening surveillance, reduction of risk factors and the promotion of health care for cancer and other noncommunicable diseases, particularly in low- and middle-income countries. It further reviewed Member States' policies and plans, infrastructure, health workforce and access to technology and medicines. It would provide a baseline for global and national monitoring of noncommunicable diseases and their risk factors and assessment of the progress made by countries.

The Agency had collaborated with WHO and other leading international cancer research institutes in the drafting of the WHO global cancer research agenda, which defined research priorities and identified the most urgent knowledge gaps in low- and middle-income countries. It had stepped up its collaboration with the WHO Innovation, Information, Evidence and Research Cluster to develop high-quality datasets and estimates which would give Member States an accurate starting-point for developing national plans to combat cancer and other noncommunicable diseases. The estimates had been harmonized to leave only minor discrepancies at regional and global levels. It had further contributed to the WHO International Conference on Environmental and Occupational Determinants of Cancer: Interventions for Primary Prevention (Asturias, 17–18 March 2011), at which international experts had drawn attention to the global threat of environmental and occupational exposure to carcinogens. The final declaration of the conference called upon governments and nongovernmental organizations to step up activities to protect the public from carcinogenic chemical, physical and biological agents. IARC was also working with the WHO Noncommunicable Diseases and Mental Health Cluster to prepare global indicators for monitoring noncommunicable diseases, which would be presented at the High-level Meeting in September.

The growing priority accorded to cancer control could bring significant new opportunities for the Agency, in particular in the fields of research into cancer surveillance and risk factors, etiology and primary and secondary prevention approaches. The identification of new resources would be essential if IARC was to realize its full potential in those areas.

The CHAIRPERSON thanked Dr Alwan for attending the session and encouraged members of the Governing Council to acquaint themselves with the *WHO global status report on noncommunicable diseases 2010* if they had not already done so.

6. DIRECTOR'S REPORT: Item 5 of the Agenda (Document GC/53/3)

The SECRETARY, introducing his report (GC/53/3) and illustrating his remarks with slides, said that he would welcome feedback from members on the range and depth of the information provided in the Director's report. He began by paying tribute to Dr Elaine Ron, an expert in radiation epidemiology at the United States National Cancer Institute and a former member of the Scientific Council, who had died in 2010.

The Agency had played a major part in the preparations for the First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Diseases in Moscow. He himself had been a member of the International Steering Committee and had addressed the plenary. The Agency had also contributed to the preparation of the *WHO global status report on noncommunicable diseases 2010*, which reflected some of its main priorities, including the importance of vaccination against hepatitis B and human papillomavirus, the need for early detection and treatment programmes and the valuable work of cancer registries in recording data on both mortality and morbidity related to cancer.

He was keen to broaden the geographical representation of States in the Agency's membership since some regions, including Africa, Latin America and South-East Asia, were still under-represented. Potential new Participating States must have an active cancer research community and be prepared to make the necessary financial commitment. He welcomed the observer for Turkey, whose application for membership would be considered later in the session, and the observers for Argentina and Brazil, with whom constructive talks had taken place regarding their possible readmission to the Agency. Both countries had paid their outstanding contributions during the previous two years. Talks with China and Mexico among other countries were under way.

At IARC Day the day before, medals had been awarded to Professor Robert Smith of the American Cancer Institute and Professor You-Lin Qiao of the National Cancer Centre, China. The meeting had also commended the achievements of Dr Nubia Muñoz, a former Agency staff member who had been awarded the French Légion d'Honneur in 2010 for her work on the causes and treatment of cervical cancer. HRH Princess Chulabhorn Mahidol of Thailand and Dr Nora Berra, Secretary of State for Health of France, had visited IARC during the year.

He gave brief details of the scientific highlights of IARC's work in 2010, including the GLOBOCAN project and recent publications in the Monographs series (see document GC/53/3, paras. 16–20). New DNA sequencing equipment would be installed shortly: the purchase had been approved by

the Chairperson of the Governing Council, and a draft resolution expressing the formal approval of the entire Governing Council would be considered under the current agenda item. The Agency's EPIC-Soft dietary assessment software was being used in the monitoring of food consumption in a number of European countries, under the auspices of the European Food Safety Authority (EFSA). However, in order for IARC to receive funding directly from EFSA, it must be nominated by at least one of the EFSA Member States as a "competent organization" and accepted as such by EFSA. He would, accordingly, be most grateful if any Participating States which were also members of EFSA would consider making that nomination on the Agency's behalf.

He listed the senior scientific appointments at the Agency over the previous year (see document GC/53/3, para. 23), including Dr Njie, the new head of the Gambia Hepatitis Intervention Study (GHIS) Group, Dr Straif, the new head of the Monographs programme and Dr Herrero, new medical officer in the Screening Group of the Section of Early Detection and Prevention, who would take up his post in June 2011.

He gave details of Agency publications in 2010: 285 articles had been published, of which 231 had appeared in peer-reviewed journals. Although the total number was slightly lower than the previous year, the percentage of peer-reviewed and invited contributions had remained constant. A total of 53% of articles had appeared in journals which were considered to be among the top 20% of journals in their field. A large majority published in journals of public, environmental or occupational health were in the top 20% but the rate was lower in oncology. Also, IARC's policy of publishing work by less experienced scientists from developing countries in the interests of developing research capacity sometimes meant that the articles were not accepted by the more prestigious journals. A further 76 articles had been published up to March 2011.

A total of 15 500 Agency publications had been sold in 2010, of which over 90% were accounted for by the Blue Books. Overall sales were down, and so was overall revenue, although the Agency now received more of the profits from each publication sold, thanks to the new publication agreement with WHO Press, which distributed all IARC publications. An internal advisory committee met regularly to discuss the publications policy.

He presented a number of graphs and charts showing the level of voluntary contributions, i.e. extrabudgetary funding – mainly competitive research grants – obtained by IARC. The total figure for 2010 for projects in which IARC was involved was US\$ 71 million, which was seven times the corresponding figure for 2009. The share of that sum allocated directly to the Agency was US\$ 13 million. Those figures, while extremely gratifying, were partly explained by the times at which particular contracts had been signed, which meant that the corresponding figure in future years might be lower. A further 119 new applications for grant funding had been submitted in 2010, an increase on previous years. He gave further figures showing the actual expenditure of voluntary contributions in 2010, since grants were typically spread over a number of years, and the proportion of voluntary contribution expenditure to total expenditure (i.e. voluntary contributions plus regular budget). The latter figure stood at between 30% and 35% in respect of expenditure on scientific activities, which excluded administration and governance, and between 25% and 30% overall. Most voluntary contributions were obtained from the United States National Institutes of Health, the European Union and French institutions.

He gave details of the staffing structure at the Agency (see document GC/53/3, para. 48). Sixteen new members of staff had been employed in fixed-term posts, and 14 staff had departed. An IARC Alumni Group had been formed to maintain links with former staff members.

In 2010, IARC had awarded 10 fellowships and one senior visiting scientist award, to Dr Jia Chen of Mount Sinai Medical Center, United States of America. Dr Joakim Dillner of the Karolinska Institutet in Sweden had been granted the senior visiting scientist award for 2011: later in the session, the Governing Council would consider a request for two more such awards, given the exceptional quality of the current batch of applicants. The IARC-Australia Postdoctoral Fellowship had also been awarded for the first time. He would welcome the opportunity to set up further bilateral fellowships with any Participating States which were interested. A Postdoctoral Fellowship Charter had been drawn up, which provided, inter alia, for training in generic skills such as the writing of grant applications. An internal advisory committee on education and training met regularly to monitor IARC's policy in that area.

Over 400 scientists had taken part in training courses over the year, including 61 participants in the summer schools on cancer registration and epidemiology. The Agency had coordinated the content and timing of its courses on cancer survival with other relevant courses being taught at the London School of Hygiene and Tropical Medicine, and was due to run a course on statistical practice in cancer epidemiology in September 2011, as part of the Virtual University for Cancer Control network.

A second successful Staff Day had been held in September 2010. The 2011 Work Climate Survey had yielded positive results, with the number of harassment claims down by approximately half to seven cases, of which one had already been successfully resolved. The Agency's senior management was aware of the need to improve even further communication with staff, workflows and career development and to reduce bureaucracy. He hoped to recruit a human resources professional on secondment from a Participating State under the WHO Junior Professional Officer programme.

The Agency continued to collaborate closely with the Union for International Cancer Control (UICC), particularly in respect of the World Cancer Congress and World Cancer Leaders' Summit, and with the International Association of Cancer Registries and the European Network of Cancer Registries.

Turning to the issue of future risks and opportunities, he said that he was well aware of the financial constraints on Participating States: the risk of successive budget cuts or even the failure of some Participating States to pay their assessed contributions was a very real one. The Agency had a relatively small pool of potential funders – if major donors such as the United States National Cancer Institute or the European Union were to cut funding for any reason, IARC would not be in a position to implement its Medium-Term Strategy. Another risk was the state of the Agency's buildings and facilities, which were in a state of disrepair which might discourage the most able and ambitious scientists from joining or remaining at IARC. Nevertheless, the current interest in noncommunicable diseases in the international community was a great opportunity for the Agency, thanks to its four decades of experience, its outstanding research record and the trust it had built up among its wide network of collaborators. The increasing emphasis placed on international research by national cancer institutes might bring extra funding to IARC, although the prospect of awarding national funding to an international agency was a sensitive issue for many

governments. He called for the support of Governing Council members in identifying such potential opportunities.

Dr CHESTNOV (Russian Federation) commended the Director on his report and thanked all those Participating States which had contributed to the successful outcome of the recent conference in Moscow. He trusted that IARC would take the final document of the Conference, entitled "Moscow Declaration: commitment to action, way forward", into account in its future work. He endorsed the Director's proposal that additional Participating States should be recruited as a way of increasing regular budget funding and improving geographical coverage. A mechanism should be introduced to preserve the balance between the regular budget and voluntary contributions. It was a mark of confidence that extrabudgetary funding was available from individual countries such as the United States of America and France, but it was important for the Director to maintain control over the way those resources were used.

He suggested that the Agency should draw up a strategy on collaboration with other research institutions. Its role should be one of integration and harmonization, including knowledge management and criteria for the assessment of research activities. He asked how the Agency's publications were used in practice. Were they often cited in the publications of WHO or the Agency's other partners?

Dr HARFORD (United States of America) suggested that the journals which published articles written by IARC staff should also be assessed in the light of their interest in low-and middle-income countries – for example, the number of articles with significant input from scientists in those countries, or which reported on samples obtained from those countries. It was important to highlight the factors which made IARC special and distinguished it from national cancer institutes.

He wished to make it clear that, although the United States National Institutes of Health provided substantial funding for the Agency's research, there was no quota system – all the grants in question had been awarded on merit and in open competition with other institutions all over the world. The United States Government believed that, by funding research in the best institutions, wherever they were based, it would contribute to scientific progress which would ultimately benefit its own citizens. He called upon other Governing Council members to plead that cause with their own governments.

Professor VAINIO (alternate to Professor Puska, Finland) welcomed the findings of the recent Work Climate Survey. A healthy work climate was essential for innovation and productivity. Senior management should receive appropriate training in leadership skills in order to ensure that IARC's most important capital – its staff – was happy and productive.

Any bibliometric analysis of the Agency's publications should seek to determine exactly which countries and institutions collaborated most closely with the Agency, and whether those links served the Agency's overall goals.

The figures relating to extrabudgetary funding were most encouraging. The Agency might also consider applying more frequently to private charities, such as the Bill and Melinda Gates Foundation, whose aims were consistent with its own.

Ms FLAMANT (France) commended the Director's Report, which provided useful key performance indicators. She, too, felt that recruiting new Participating States was the way to obtain more funding for IARC: she thus welcomed the presence of observers and the Regional Director for Africa at the session.

Her Government would certainly consider nominating the Agency as a "competent organization" at EFSA. Like the United States of America, her country did not have a special allocation of research funding reserved for the Agency: all research grants were awarded entirely on merit. However, one possible deterrent was the charge which WHO levied on all voluntary contributions, to reflect the costs to the Organization associated with their management: she hoped that there were no plans to increase it.

She noted that sales of Agency publications had dropped sharply over the previous year. While it was clearly desirable to make publications available free of charge to developing countries, and it was certainly more environmentally friendly to distribute them electronically, she was concerned at the decrease in an important source of revenue.

Dr BAUER (Austria) said that one way of measuring the impact of IARC publications was to record how often they were cited by other authors. Had any steps been taken to do so? She asked for more details of the Agency's work on biostatistics. The Director had said that 14 staff had left the Agency: was that an unusual number for a single year?

Dr KEINHORST (Germany) welcomed the outcome of the Moscow conference, which had brought IARC valuable publicity. She reiterated the suggestion by Professor Vainio that the Agency should apply to charitable foundations for additional funding.

Mr ADAMS (Union for International Cancer Control – UICC), speaking at the invitation of the CHAIRPERSON, welcomed the expansion of the GLOBOCAN project, which was an invaluable source of information for civil society organizations. There was an urgent need to establish more cancer registries: the forthcoming High-level Meeting in New York would be a great opportunity to plead that cause. He called upon members to use their good offices to encourage their Heads of State to attend. All members would be warmly welcomed at the World Cancer Leaders' Summit, organized by UICC, which was due to take place in Dublin in November 2011.

The CHAIRPERSON, speaking as the member for Finland, noted that IARC was a valuable partner in joint research for small countries such as his own, which had limited resources for their own research projects.

The SECRETARY, replying to the points raised, said that voluntary contributions were used only for projects which were part of IARC's Medium-Term Strategy, which had been approved by the Governing Council. All proposed projects were reviewed by the Director's Office with that principle in mind.

The call by a number of members for an indicator showing the extent of the Agency's collaboration with scientists in low- and middle-income countries echoed a similar suggestion by the Scientific Council at its most recent session in January 2011. He would consider the best way to measure such collaboration – one possibility was the membership of research consortia. His policy so far on the establishment of key performance indicators had been to use data from a clearly traceable source which could be obtained with a reasonable degree of effort.

The Agency had, in fact, obtained funding for a number of projects from the Bill and Melinda Gates Foundation, including projects on HPV vaccination in India. The Foundation generally funded research related to infectious diseases rather than noncommunicable diseases like cancer. The IARC Grants Office monitored possible sources of research funding and notified the relevant members of staff of likely opportunities.

An overhead charge of 13% (WHO standard rate) was, indeed, levied on all voluntary contributions, which thus supported the Agency's activities overall as well as the individual projects.

It was true that sales of Agency publications were considerably reduced compared with the previous year, but that was partly due to the fact that the latest Blue Book had been published only in October 2010. Three million publications in the Monographs series had been downloaded free of charge from the Agency's web site in 2010. The Governing Council rightly wished to see information made available free of charge, but that inevitably entailed a loss of revenue.

It was difficult to measure the impact of the Agency's work at the policy level. The Agency had distributed a questionnaire on that issue to Participating States the previous year, but had received very few replies. He would continue to consider possible ways of measuring that impact.

The number of staff taking up posts at the Agency, and the number leaving, was within normal limits, as far as he was aware. He had been encouraged by the high quality of job applicants.

The RAPPORTEUR read out the following draft resolution on the Director's Report, dealing with the purchase of equipment for next-generation DNA sequencing (GC/53/R2):

The Governing Council,
Having reviewed the Director's Report (Document GC/53/3),
Recalling its Resolution GC/52/R11, in which it requested the Director to report on the selected option for the next-generation DNA sequencing,
NOTES the Director's decision, following evaluation by the Chair and the Vice-Chair of the Scientific Council and approval by the Chair of the Governing Council, of purchasing the equipment for the next-generation DNA sequencing for installation in the Agency laboratories (document GC/53/4).

The draft resolution was **adopted**.

The RAPPORTEUR read out the following draft resolution on the Director's Report (GC/53/R3):

The Governing Council,

Having reviewed the Director's Report (Document GC/53/3),

1. THANKS the Director for the Report and the introduction of a standard set of data at the end of his Report (GC/53/3);
2. REQUESTS the Director to continue this standard reporting on an annual basis; and
3. EXPRESSES its satisfaction with the Director's written and oral Reports.

The draft resolution was **adopted**.

Dr HARMON (United States of America) asked for the Governing Council to be provided with paper copies of the slide presentations made by Secretariat members at future sessions.

7. PROPOSAL FROM SPAIN FOR THE REPAYMENT OF ITS OUTSTANDING CONTRIBUTIONS: Item 6 of the Agenda (Document GC/53/20)

The SECRETARY said that Spain had not yet paid its contributions to IARC for 2009 and 2010, partly because of a transfer of responsibilities within the Spanish Government from the Ministry of Health, Social Policy and Equality to the Ministry of Science and Innovation. The Government had already paid its regular assessment for 2011, and now proposed to pay its arrears over the next two years, so that it would be up to date in its contributions by 2014.

The shortfall in Spain's contributions had been covered from the Working Capital Fund. The additional payments from Spain would therefore be used initially to reimburse the Fund, and any remaining monies would be added to the regular budget. In view of the good intentions demonstrated by Spain, he asked the Governing Council to consider reinstating Spain's voting rights, even though it was technically still in arrears.

Replying to a question from Dr MUGITANI (Japan), Mrs McKEOUGH (Office of the WHO Legal Counsel) confirmed that the Governing Council would need to adopt a specific resolution restoring Spain's voting rights.

Dr PALMER, Vice-Chairperson, speaking as the member for the United Kingdom, said that the remedy proposed by Spain was appropriate, and supported the restoration of its voting rights.

The RAPPORTEUR read out the following draft resolution on the repayment of the outstanding contributions of Spain (GC/53/R23):

The Governing Council,

Having considered document GC/53/20 "Proposal from Spain for the repayment of its outstanding contributions",

And noting the desire of Spain to participate fully in the International Agency for Research on Cancer,

1. ACKNOWLEDGES the payment by Spain of its assessed contribution for 2011 in the amount of €859 341, which was received by IARC on 9 May 2011;

2. APPROVES exceptionally the proposal from Spain to repay its outstanding contributions for 2009 and 2010, amounting to a total of €1 604 910 at 31 December 2010, as follows:

- €754 534 to be paid to IARC before the opening day of the regular session of the Governing Council in May 2012, and

- €850 376 to be paid to IARC before the opening day of the regular session of the Governing Council in May 2013;

3. AGREES that in any given year the amount of the arrears must be received in full and credited to the outstanding contributions account of Spain, for reimbursement of the Working Capital Fund, before any contribution may be credited towards the General Fund and hence used for current programme activities; and

4. DECIDES with immediate effect that, provided the contributions due from Spain pursuant to paragraph 2 above and pursuant to the Statute and Financial Regulations of the International Agency for Research on Cancer are paid on time, it shall not be considered for the purposes of Article VIII.5 of the Statute to be in arrears.

The draft resolution was **adopted**.

Dr SEGOVIA (Spain) thanked the Governing Council and the Director for their understanding and flexibility.

8. REPORT OF THE FORTY-SEVENTH SESSION OF THE SCIENTIFIC COUNCIL: Item 8 of the Agenda (Document GC/53/4)

DIRECTOR'S RESPONSE TO RECOMMENDATIONS OF THE SCIENTIFIC COUNCIL: Item 9 of the Agenda (Document GC/53/5)

Dr RIVEDAL (Outgoing Chairperson, Scientific Council), illustrating his remarks with slides, presented the report of the Scientific Council on its forty-seventh session in January 2011 (GC/53/4). On the advice of the WHO Legal Counsel, at the opening of the session the 17 members present had been invited to declare any potential conflicts of interest. However, none

of the interests declared had been considered to represent a potential or clear conflict of interest with respect to the content of the meeting.

The Scientific Council had studied the Interim Annual Report 2010 and had offered to assist the Director in any areas of IARC's work in which its expertise might contribute to the solution of specific problems. It had congratulated the Director on clearing the backlog in the publication of the Monographs.

The Scientific Council had discussed the report of the fifty-second session of the Governing Council in May 2010. It had expressed concern about the financial pressures on the Agency, but had also noted the need to invest in new scientific equipment, including the DNA sequencer which had now been purchased. The Scientific Council had stressed the need to maintain an appropriate balance between the outsourcing of such technical operations, which was less expensive, and the purchase of equipment for use in-house, which would maintain expertise among the staff and encourage the recruitment of high-quality scientists.

The Director had then presented an update of matters arising from the previous session of the Scientific Council in January 2010. The Scientific Council had welcomed the helpful and stimulating collaboration which it enjoyed with the Agency's senior management team. It had asked to spend more time on issues of strategy and future plans, rather than the more formal items which currently took up a large part of its sessions. It had agreed to conduct future peer reviews (formerly called "cluster reviews") immediately prior to its January sessions for a two-year trial period: the main concern was that such a practice would not leave enough time to complete the report of the review for consideration by the entire Scientific Council. It had commended the Director on the success of the fellowships programme and encouraged him to seek further sources of funding in order to expand it.

The Scientific Council had further discussed the Director's response to the peer review of the Section of Infections in 2009, which had yielded an "outstanding" rating and a "perfect fit" with the Agency's mission. The Scientific Council had asked for the results of earlier reviews to be made available. The review of the Section of Genetics in November 2010 had likewise yielded an "outstanding" rating and a "perfect fit" with the Agency's mission: the activities of the Genetic Cancer Susceptibility Group had been rated "satisfactory", as the Head of the Group had only recently taken up his post, and a further small-scale review had been scheduled for January 2012. The Scientific Council had stressed the need for the Group to find a distinct scientific identity within the Section of Genetics.

The following members of the Scientific Council had been appointed to the panels undertaking peer reviews in 2012: Dr Pollán Santamaria (Chairperson), Dr Anttila and Dr Melbye would participate in the review of the Section of Cancer Information, and Dr Gallagher (Chairperson), Dr Smith and Dr van den Brandt would participate in the review of the Section of Environment and Radiation. The Secretariat would recruit additional external members for those panels.

The Scientific Council had recommended that the Governing Council should approve a number of purchases intended to replace outdated scientific equipment and improve working conditions for the staff. Future grant applications would include an allocation for up to 50% of relevant equipment costs. The Scientific Council had noted with approval the involvement of the Laboratory

Steering Committee (LSC) and Laboratory Services and Biobank Group (LSB) in decisions on new equipment, which had improved the transparency of the process.

In its review of the proposed programme and budget for 2012–2013, the Scientific Council had expressed concern at the increase in statutory costs beyond the Agency's control, mostly related to staffing, but had noted with appreciation that the Director had reduced administration costs and transferred some funds from the Director's Office to the scientific programmes. The Scientific Council's priority was to ensure adequate funding for the Agency's scientific activities. It had congratulated the Director and his staff on the increased transparency of the budget process, and had recommended that the Governing Council should approve the proposed programme and budget.

The Scientific Council had reviewed the key performance indicators prepared by the Director, at the request of the Governing Council, with the aim of providing an objective measure of the Agency's performance. The Scientific Council believed that key performance indicators were no substitute for peer reviews, which remained the best way of evaluating the Agency's scientific activities. It had suggested that the key performance indicators should be used for a trial period of four years, and then reviewed. A number of further indicators had been suggested, including the number of hits on the Agency's web site, the number of downloads, and the degree of collaboration with scientists from low- and middle-income countries. Indicators developed by WHO might also be useful.

The Scientific Council had considered the activities of the Laboratory Services and Biobank Group, which had been restructured in 2009. A new web site was to be set up to describe its facilities and activities. The Scientific Council had welcomed the Agency's global leadership in biobanking and emphasized the importance of making samples available to the world scientific community. It recommended that the Governing Council should approve the actions proposed for the Group.

The Scientific Council had discussed at length the activities of the Biostatistics Group, which currently provided biostatistical support to all other Sections in addition to its own activities. That was a pragmatic approach, but one which should be reviewed regularly. An ad hoc Advisory Group on Biostatistics had been set up in November 2010. The Group had suggested, inter alia, that biostatisticians in other Sections should formally allocate 20% of their time to the Biostatistics Group, that a further full-time biostatistician should be employed to work separately from the Group, and that the Group should be made part of the Director's Office. Due emphasis should be given to methodological activities in order to attract high-quality visiting scientists. It was important to ensure that there was sufficient funding to finance such visits in order to maintain the Agency's global reputation in biostatistics.

At its previous session, the Scientific Council had expressed concern at the large number of members who would come to the end of their terms of office at the same time. At the forty-seventh session, it had decided that maintaining an appropriate balance of skills and experience among members was the main priority, and had therefore decided to maintain its current system of membership rotation for the time being.

The Scientific Council had elected a new Chairperson, Professor Ian Frazer of Australia, and a new Vice-Chairperson, Dr Mads Melbye of Denmark, for its forty-eighth session. It had enjoyed an exceptionally warm working relationship with the Director: it was important both for the Director to take the Scientific Council's suggestions into account, and for the Scientific Council to accept that it was not there to do the Director's job in his place.

Mr BUKHOLM (Norway) asked whether the Scientific Council had considered the possible impact of the current financial situation in detail: had it, for instance, discussed detailed scenarios of potential cuts in the scientific programme? Might such cuts create an imbalance between the various areas of research and thus jeopardize IARC's overall research strategy?

The meeting rose at 13:25.