International Agency for Research on Cancer

World Health Organization

Governing Council
Fifty-fourth Session

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MINUTES OF THE FIRST MEETING

IARC, Lyon

Thursday, 17 May 2012, at 09:05

Chairperson: Professor Pekka Puska (Finland)

later: Dr Mark Palmer (United Kingdom of Great Britain and Northern Ireland)

Secretary: Dr Christopher P. Wild, Director, IARC

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Participating States Representatives

Professor Pekka PUSKA, ***Chairperson***	Finland
Dr Sakari KARJALAINEN	
Professor Harri VAINIO	
Dr Mark PALMER, ***Vice-Chairperson***	United Kingdom of Great Britain and Northern Ireland
Dr Diane STEBER BÜCHLI, ***Rapporteur***	Switzerland
Professor Christopher BAGGOLEY	Australia
Dr Hemma BAUER	Austria
Mr Lieven DE RAEDT	Belgium
Dr Morag PARK	Canada
Ms Lucero HERNANDEZ	
Professor Herman AUTRUP	Denmark
Professor Agnès BUZYN	France
Dr Irene KEINHORST	Germany
Professor G.K. RATH (unable to attend)	India
Dr Tony HOLOHAN (unable to attend)	Ireland
No Representative	Italy
Dr Masato MUGITANI	Japan
Dr Yukiko NAKATANI	
Mr Jeroen HULLEMAN	Netherlands
Dr Henrietta BLANKSON	Norway
Dr Byung-Guk YANG	Republic of Korea
Dr Soon-se PARK	
Dr Jeongseon KIM	

Dr Oleg SALAGAY Dr Elena SKACHKOVA Ms Yulia BAKONINA	Russian Federation
Dr Carlos SEGOVIA	Spain
Professor Mats ULFENDAHL (unable to attend)	Sweden
Professor Murat TUNCER	Turkey
Dr Lisa STEVENS Dr Joe HARFORD Dr Peter MAMACOS	United States of America

World Health Organization

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Ms Joanne MCKEOUGH, Office of the Legal Counsel
Dr Cecilia SEPULVEDA, Chronic Diseases Prevention and Management
Dr Andreas ULLRICH, Chronic Diseases and Health Promotion

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Professor Mads MELBYE, Incoming Chairperson, Scientific Council

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Dr B. SYLLA
Dr M. TOMMASINO
Dr L. VON KARSA

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

The CHAIRPERSON declared open the Fifty-fourth Session of the Governing Council and welcomed participants, including the outgoing Chairperson of the Scientific Council, Professor Frazer, the incoming Chairperson, Professor Melbye, and the representative of the WHO Director-General, Dr Chestnov, himself a former member of the Governing Council.

The SECRETARY likewise welcomed all participants. It was a time of great opportunities for cancer research, particularly in view of the recent upsurge of interest in noncommunicable diseases in political circles, but also a time of financial constraints. He and his staff welcomed the support, guidance and encouragement of the Governing Council.

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

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

On the proposal of Professor AUTRUP (Denmark), Dr Steber Büchli (Switzerland) was elected Rapporteur.

3. ADOPTION OF THE AGENDA: Item 3 of the Provisional Agenda (Document GC/54/1 (Prov.))

The CHAIRPERSON suggested, following requests by a number of Participating States, that item 20 of the Agenda, the report of the Subcommittee on the admission of new Participating States regarding the criteria for and implications of admitting new Participating States, should be discussed later that day rather than the next.

On that understanding, the agenda was **adopted**.

4. PRESENTATION AND DISCUSSION OF THE BIENNIAL REPORT 2010–2011: Item 4 of the Agenda (Document GC/54/2)

The SECRETARY, illustrating his remarks with slides, presented the Biennial Report for 2010–2011 (Document GC/54/2).

The first part of the report highlighted some of the principles which he had sought to pursue in the Agency's work, namely collaborative and interdisciplinary research, health services development and education and training. He gave details of the global burden of cancer over the period of the Biennial Report. Cancer incidence was rising particularly quickly in low- and

middle-income countries; it was therefore important to concentrate on those countries and on cancer prevention. The Agency's Globocan 2008 tool made it possible to show cancer incidence projected to 2030. The CI5*plus* database could now show comparable annual data from approximately 100 selected populations in 86 cancer registries for 28 major cancer sites, as well as trends over time within certain constraints. A 2011 publication, *Cancer survival in Africa, Asia, the Caribbean and Central America* (IARC Scientific Publication, No 162), showed the dramatic differences in survival rates in various parts of the world, but also the potential for improved survival if cancer was diagnosed early. The Globocan 2008 tool had been expanded to cover cancer prevalence as well as incidence, which would supply useful information about the number of patients potentially requiring treatment or support services. It provided estimates of five-year prevalence in 184 countries and regions.

The Global Initiative for Cancer Registry Development in Low- and Middle-Income Countries had been launched in November 2011, with the support of the Union for International Cancer Control (UICC). The Initiative aimed to improve the coverage and range of cancer information through regional hubs which would provide training and support for national cancer registries. One hub had already opened, at the Tata Memorial Centre in Mumbai, India, and a second was due to open in Turkey during 2012. Further hubs were planned for Latin America and Africa.

Seven new volumes in the IARC Monographs series had been published in print, and all six parts of the special Volume 100 edition were available online and would be published in print later in the year. Three Monograph meetings had been held, and the schedule of meetings and publications was now back on course. One Monograph in particular, *Non-ionizing radiation, Part II: radiofrequency electromagnetic fields [includes mobile telephones]* (Vol. 102), had attracted considerable public interest, with radiofrequency electromagnetic fields being classified as "possibly carcinogenic to humans". New tools for searching the Monograph databases were being developed: for instance, to search for the risk factors associated with cancer in a particular site using a touch-and-type interface.

Turning to the mechanisms of carcinogenesis, he gave a number of examples of laboratory work designed to identify carcinogens and contribute to prevention strategies. In one research project, transgenic mice engineered to express human papillomavirus genes had been irradiated with ultraviolet light and had been found to develop actinic keratosis and squamous cell carcinoma, showing precancerous lesions analogous to those found in human skin cancer. Another project investigating low-grade diffuse gliomas in the human brain had enabled gliomas to be classified by means of alterations in the retinoblastoma pathway in cases where common genetic alterations were inconclusive.

The Agency's wide-ranging work in cancer etiology was illustrated by a paper, published in *Lancet Oncology* which showed that 16% of cancers worldwide were caused by infections. Crucially, the paper also revealed the striking differences between various regions of the world: for instance, one cancer in three in sub-Saharan Africa was associated with an infection, while the figure for Australia and New Zealand was one in 30. Those results highlighted the need for a region-specific approach to cancer control.

The promotion of multicentre research studies was a major aspect of the Agency's work. The AGRICOH consortium, consisting of 26 cohort studies of agricultural workers, was currently engaged on a project on haematological malignancies and another on excess risk of cancer among agricultural workers, for whom exposure to pesticides was a particular concern. Another study, conducted in collaboration with the United States National Cancer Institute, was investigating dose optimization and the risk of leukaemia and other cancers in children subjected to frequent computed tomography (CT) scans.

He had endeavoured to develop the Agency's work on cancer and nutrition by strengthening methodologies related to biomarkers and dietary assessment tools. A study of vitamin D levels in Mexican women in relation to cancer risk and survival had shown that higher levels of the vitamin decreased breast cancer risk in both premenopausal and postmenopausal women: the results were also a valuable source of information about a type of cancer not widely studied outside high-income countries. Another study, investigating the relationship between vitamin D status and survival among people with colorectal cancer, again showed how laboratory work could be integrated with epidemiological studies. Research tools developed by the Agency were being adapted to new purposes: for instance, the 24-hour dietary recall tool used in the European Prospective Investigation into Cancer and Nutrition (EPIC) study was now widely used in general dietary surveys both in Europe and outside, including Brazil, Mexico and the Republic of Korea.

The Agency participated in many large research collaborations investigating rare types of cancer. One study of the association between Hodgkin lymphoma and infection with Epstein-Barr virus (EBV), involving genome-wide scanning of 1200 people with Hodgkin lymphoma and 6400 controls, had identified two novel loci in the major histocompatibility complex (MHC) region which were common to both subgroups, and other loci which were unique to one subgroup or the other. Those results indicated that any attempt to determine genetic susceptibility to Hodgkin lymphoma should take into account risk factors such as the presence of EBV.

Turning to cancer prevention, he said that a preliminary analysis of results from the Trivandrum Breast Cancer Screening Study in India had been published during the biennium under review. The first round of the study, involving clinical breast examination (i.e. an examination performed by a health professional rather than the woman herself) of over 50 000 women, was now complete, and the results showed that tumours were being detected at an earlier stage and with less lymph-node involvement. The second round of examinations was now under way.

The Agency was also involved in training and assessment in the national cervical cancer screening programme in Bangladesh. Over 30 master trainers had been trained. They had then passed their knowledge on to over 1600 nurses and 200 physicians, who screened approximately 400 000 women every year using the technique of visual screening with acetic acid. Such collaboration allowed for a research component, dealing with such issues as coverage, loss to follow-up and treatment outcomes, to be included in national programmes at relatively low cost. In the same way, the Agency had been involved in assessing the acceptability, feasibility, organization, implementation, monitoring and evaluation of colorectal

cancer screening in the general population in a pilot project in Lampang Province, Thailand. To date, 100 000 participants had been screened over two years, of whom 1.5% had been referred for colonoscopy.

Finally, he briefly reviewed the major publications of the Agency over the biennium, including the *WHO classification of tumours of the breast*, 4th ed., due to be published in the summer of 2012, and Volume 14 of the Handbooks of Cancer Prevention in Tobacco Control series, entitled *Pricing policies and control of tobacco in Europe*.

Professor AUTRUP (Denmark) congratulated the Director on the impressive progress demonstrated in the Biennial Report.

Dr SALAGAY (Russian Federation) commended the Agency for its excellent work in cancer genetics, etiology and epidemiology, which were fully consistent with his own country's activities at national level. He asked how the Agency's work on tobacco control was coordinated with that of the WHO Tobacco Free Initiative and the Secretariat of the WHO Framework Convention on Tobacco Control. He asked further about trends in the impact of the Agency's publications over recent years.

The SECRETARY said that the Agency's Secretariat maintained close and regular contact with both the Tobacco Free Initiative and the Framework Convention Secretariat. The Agency aimed to conduct appropriate research and generate the evidence required for policy-making in an easily used form.

It was difficult to measure the use made of the information produced by the Agency: however, as well as noting anecdotal evidence of the value of publications such as the Monographs programme, he had begun to measure indicators such as the hit rate and download rate of certain documents on its web site, which would be made available to the Governing Council.

Dr STEVENS (United States of America) commended the quality and volume of work achieved by the Agency, as reflected in the Biennial Report. She welcomed the new features incorporated into the Globocan project, since surveillance of the global cancer burden was an essential element of the noncommunicable disease control activities which would be discussed at the forthcoming World Health Assembly. The Agency should focus on areas where it could contribute most effectively to global cancer control and make the best possible use of its relationship with its network of national and international partners. She commended the Agency's excellent record of publication in peer-reviewed journals and the continued quality of the WHO/IARC Classification of Tumours series ("Blue Books") and the Monographs series. She welcomed the Agency's strong focus on collaboration, and particularly the alumni network it had built up in cancer centres across the world. However, she would like to see more quantitative performance indicators in future reports.

Dr KEINHORST (Germany) praised the readability and clarity of the report, which would be a useful tool for informing external partners. The collaboration between the Agency and other relevant international agencies had clearly improved greatly. She asked about the Agency's proposed role as a collaborating partner in the European Partnership for Action Against Cancer (EPAAC) (see the Biennial Report, document GC/54/2, p. 31).

The SECRETARY said that, to date, the Agency had provided information on the cancer burden in European Member States as part of its work package under EPAAC. However, the European Commission Directorate-General for Health and Consumers (DG SANCO) now aimed to do more of that work in-house, and the Agency's role was therefore being re-evaluated. DG SANCO had likewise decided that the Agency's function as Secretariat of the European Network of Cancer Registries would no longer be funded under its direct contract with the Agency. For the moment, the Agency was funding the Secretariat's activities, but the situation would need to be clarified.

Professor BAGGOLEY (Australia) praised the readability of the Biennial Report and commended the Agency for its focus on interdisciplinary research and its achievements in publications and training.

The RAPPORTEUR read out the following draft resolution on the IARC Biennial Report 2010–2011 (GC/54/R1):

The Governing Council,

Having reviewed the IARC Biennial Report for 2010–2011 (Document GC/54/2),

1. EXPRESSES its satisfaction with the work accomplished; and

2. COMMENDS the Director and his staff on the Biennial Report.

The draft resolution was **adopted**.

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

Dr CHESTNOV (Assistant Director-General, Noncommunicable Diseases and Mental Health, WHO) distributed a statement by the WHO Director-General, Dr Margaret Chan (see Annex to this record, p. 21). Cancer and other noncommunicable diseases were high on the agenda of WHO. Honest and responsible collaboration and coordination and joint accountability in all activities to combat noncommunicable diseases were essential if international agencies were to meet their commitments. He knew from his former role as the representative of the Russian Federation on the Governing Council that the Agency could be proud of its achievements and confident in its ability to take a long-term perspective and tackle complex problems. The Governing Council had shown an admirable capacity to reach consensus on the core aims of

the Agency, without the time-consuming negotiations which were so often a feature of international relations.

If the Agency was to reach its full potential, particularly at a time when many Participating States were experiencing financial constraints, then it must find new partners and new resources. To support it in that task, WHO had appointed a WHO/IARC liaison officer, Dr Andreas Ullrich, who would optimize the current collaboration between the two agencies and identify new opportunities. The terms of reference of the post were currently in preparation.

The Agency had a worldwide mandate, laid down in the Medium-Term Strategy and Implementation Plan for 2010–2014. It already had a sound network of collaborators in low- and middle-income countries, which were the countries which would suffer the greatest cancer burden over the next 20 years, but which also had the least capacity to face that challenge and conduct the necessary research into cancer causes and prevention. The Agency's aims were achievable, but it would need to recruit new Participating States and create new strategic partnerships in the Middle East, South-East Asia and Africa, as it had recently done in Latin America.

He was proud to work for WHO, a globally recognized institution which was committed to technical excellence and was now opening itself up to the scrutiny of Member States as never before. WHO would continue to support the Agency and investigate new ways of fulfilling the latter's research potential through the WHO collaboration network.

In reply to the question about tobacco control from the representative of the Russian Federation, he said that the Agency's role in pure research complemented WHO's activities in implementation. There was little practical experience of implementation of the WHO Framework Convention on Tobacco Control as yet: the Agency could provide valuable scientific advice on the necessary tools and methodologies. Dr Ullrich, in his role as liaison officer, would do a great deal to facilitate that process.

Mr ADAMS (International Union for Cancer Control – UICC), speaking at the invitation of the CHAIRPERSON, noted that the Director-General's statement highlighted the importance of palliative care and the commitments in the Political Declaration to expand population-based screening and vaccination programmes, and hoped that those issues would be taken into account in the WHO debate on the targets and indicators to be defined in connection with the Political Declaration, along with the issue of breast cancer, which was not currently mentioned at all.

The CHAIRPERSON thanked Dr Chestnov for attending the session.

Dr Palmer, Vice-Chairperson, took the Chair.

6. DIRECTOR'S REPORT: Item 6 of the Agenda (Document GC/54/3)

The SECRETARY, illustrating his remarks with slides, introduced his Director's Report (Document GC/54/3), covering the period since the previous session of the Governing Council. The emerging political focus on cancer and other noncommunicable diseases had been demonstrated at the High-level Meeting of the United Nations General Assembly on the Prevention and Control of Non-communicable Diseases, held in New York in September 2011, which he had attended in his capacity as Director of the Agency. The Agency had the expertise, status and reputation required to provide the evidence base for cancer control. It must continue to focus on its core business, research, and particularly on the burden of cancer, causes and prevention, including prevention strategies, and capacity building, including participation in and support for research at country level.

On becoming Director of the Agency, he had looked at ways of strengthening the research agenda over a 10–20-year period. He had made a number of senior scientific appointments over the previous year, including Dr Herrero, head of the new Prevention and Implementation Group, Dr Njie, head of the Gambia Hepatitis Intervention Study (GHIS), based in the Gambia, Dr Straif, head of the Section of IARC Monographs, and Dr Herceg, head of the Section of Mechanisms of Carcinogenesis. It was an exciting time for cancer research: basic research into the mechanisms of carcinogenesis was finding applications both in the early detection and treatment of cancer, particularly in the area of personalized, or stratified, medicine for individuals, and in the investigation of the causes and prevention of cancer at the population level. Most research concentrated on the former, which made the Agency's relative emphasis on population-based applications even more valuable. It was becoming clear that there was a direct link between the risk factors applying to an individual and the prognosis for that individual's cancer because of the genetic alterations which occurred in tumours owing to exposure to certain substances, lifestyle factors, etc.

The Agency's record of publication in scientific journals had remained constant, with a total of 341 articles being published in 2011, of which 242 had appeared in peer-reviewed journals. Fifty-seven per cent of the articles had been published in journals rated in the top 20% in their field. Most of the articles were on oncology, followed by public, environmental and occupational health.

Turning to education and training, he said that the new Postdoctoral Fellowship Charter had been developed following requests by junior scientists at the Agency for more structured training. The Charter listed the training opportunities open to fellows and postdoctoral scientists – including training in generic skills such as the preparation of grant applications – and the commitments and obligations of both sides. He hoped that the Charter would give potential applicants more information about the fellowship programme and demonstrate the Agency's commitment to training.

Thirteen IARC fellowships had been awarded in 2011, of which five had been awarded to candidates from low- and middle-income countries. That figure was lower than in previous years, since one of the funders, the European Union's Marie Curie Actions programme, had

stipulated that the fellowships should be open to candidates from all parts of the world. More candidates from low- and middle-income countries were likely to be appointed to the 2012 fellowships.

The Senior Visiting Scientist programme continued to be extremely popular, with applications from some exceptional candidates. Four places had been awarded in 2011, thanks to the extra funding approved by the Governing Council, and more highly suitable candidates had applied for the 2012 round of visits. He considered the programme to be a good indicator of the Agency's excellent scientific reputation: it brought world-class scientists to the Agency at relatively low cost and provided valuable mentoring for junior staff. The Scientific Council review of the Agency's education and training activities had been postponed pending the appointment of the new head of the Education and Training Group: Ms Anouk Berger had now taken up her post, and the review was scheduled for the next session of the Scientific Council. A draft resolution formally endorsing that decision would be submitted to the Governing Council later in the meeting.

The Lyon local authorities had agreed to provide the sum of 2.4 million euros for urgent repairs to the IARC Tower, principally the air conditioning, air circulation and heating systems. The work was due to take place over a one-month period in the summer of 2012. Longer-term plans for the site had also been the subject of considerable discussion, which would be taken up in a separate agenda item.

The next-generation sequencer financed by the Governing Council Special Fund was now in use by several research groups across the Agency, and further investments had been made in bioinformatics and IT support. The Governing Council had likewise financed the purchase of two mass spectrometers (see Resolution GC/52/R11), which were now in use for research in the area of metabolomics – the study of metabolic profiles in relation to diet and cancer risk. The new equipment enhanced the laboratory support which could be provided for epidemiological research.

Work was continuing to catalogue the Agency's biobank, identifying all the samples, recording their location and linking together all related information. The physical housing of the 1.5 million samples was also a significant issue. An access policy was under discussion in-house and would be submitted to the Scientific Council at its next session: the aim was to set up international research collaborations using the biobank collections. A grant application related to infrastructure in collaboration with the European Union Biobanking and Biomolecular Resources Research Infrastructure (BBMRI) programme had been successful.

The former Division of Administration and Finance had been renamed the Section of Support to Research, headed by Mr David Allen. Ms Elisabeth Françon had joined the Agency as head of the Administrative Service Office, responsible in particular for liaison with the Lyon authorities, while Ms Angkana Santhiprechachit had arrived only the week before to take up the post of Administration and Finance Officer. Mr Philippe Damiecki had become head of Information Technology Services, an internal appointment. Workflows and procedures were being streamlined

and, where possible, automated. The administrative departments also paid considerable attention to risk management in order to ensure short-term and long-term business continuity.

Turning to the Agency's partnerships, he welcomed the appointment of Dr Ullrich as liaison officer with the Agency's key partner, WHO. Other major partners were UICC, the International Atomic Energy Agency's Programme of Action for Cancer Therapy (PACT) and the International Association of Cancer Registries. For many years, the Agency had received research funding from the United States National Cancer Institute, but more recently given the creation of the Center for Global Health, the collaboration between the two agencies had been extended to more strategic areas, including financing for participants in the IARC summer schools, cancer registration and biobanking in low- and middle-income countries.

The Global Initiative for Cancer Registry Development in Low- and Middle-Income Countries (GICR) had brought together a wide range of institutions which wanted to collect information about cancer incidence, especially in low- and middle-income countries. The Agency coordinated the activities of the Initiative, leaving each of the partners to contribute its own area of interest. The Agency and UICC were currently raising funds for the proposed global network of regional hubs, of which the first, in Mumbai, India, was already in operation. The Agency aimed to conclude three-year collaborative research agreements with local institutions in descriptive epidemiology and other relevant research areas.

Another new regional initiative, the IARC-Latin America Collaboration Meeting (I-LAC) held in March 2012, had been attended by members of the Latin American Network of National Cancer Institutes (RINC) and representatives of WHO, the Pan American Health Organization, the United States National Cancer Institute and UICC. The Agency had presented its current activities in the region and learned about the priorities of the national institutes. The initiative had been well received, and it was hoped to expand it to other regions in the future.

Another type of partnership was the bilateral training agreements for postdoctoral scientists concluded between the Agency and – so far – two Participating States, Australia and Ireland. The Participating State paid the scientist's salary, while the Agency met the running costs of the project and the costs of supervision and training.

Turning to the issue of resources, he said that, at a time of great opportunity and increasing demands for collaboration, resource constraints were a challenge which all research institutions had to face. He had continued his discussions with potential new Participating States, principally Brazil, which had declared its intention to rejoin the Agency soon, and also Argentina, China and Mexico.

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 between 2008 and 2011. There had been a large increase in the total value of signed contracts (i.e. contracts in which the Agency was one of a number of partners) over the previous two years. Actual expenditure of voluntary contributions by the Agency itself had also risen, attributable to phased expenditure from multi-year contracts signed in earlier years. Approximately 35% of the budget for the scientific programme of activities was financed from

voluntary contributions, with the major sources being the United States National Cancer Institute and the European Union, as well as the French National Cancer Institute and French charitable foundations. Over 100 new grant applications had been submitted in 2011.

Direct voluntary contributions for specific activities were another source of income. For example, the French Directorate-General for Health had funded research into the impact of alcohol and tobacco on all-cause mortality and cancer as part of the EPIC study. Discussions were under way with the Japanese Ministry of Health, Labour and Welfare about a possible study of exposure to low-dose radiation.

There was potential for obtaining further resources in connection with some of the Agency's publications. The IARC Handbooks of Cancer Prevention series was highly regarded, and there was definitely a demand for authoritative recommendations from an international agency, particularly in the area of cancer screening. In recent years, the Handbooks had concentrated on tobacco control, with funding from external sources, but there was potential for obtaining voluntary contributions for work in other areas where it would be difficult to finance activities from the regular budget in the current stringent economic situation.

The WHO/IARC Classification of Tumours series (Blue Books) still accounted for over 95% of sales of Agency publications. Both the total volume of sales and the revenue from sales had declined compared with 2009 (which, had, however, been an exceptional year). The renegotiation of terms with WHO Press, the sole distributor, had ensured that more of the profits reverted to the Agency, and the Blue Books series was expected to continue to cover its costs over the next few years.

Turning to communication, he drew attention to the Agency's updated web site, which had gone live just before the Governing Council session. A web metrics tool, Urchin 7, had been installed to track the number of visits to the site and the number of different visitors. Baseline data were currently being collected, and the Governing Council would be kept informed of developments over time, since members had often asked about the public interest shown in the information produced by the Agency. In the last seven months of 2011, a total of 180 000 individual visitors, or an average of over 800 per day, had visited the site. The number of separate visits had averaged over 1200 per day. The parts of the site most frequently visited were the Monographs and the Globocan pages. On 1 June 2011, the day after the release of Vol. 102 in the Monographs series on radiofrequency electromagnetic fields, including mobile telephones, there had been over 9000 visits. The documents most frequently downloaded were on mobile telephones and mycotoxins, as well as the Monographs classification list, the *World cancer report* and the Blue Books.

A new system, currently under development, would allow visitors to navigate more easily between three of the Agency's major sources of information – Globocan, the Monographs and the Blue Books. For example, the user would be able to look up the incidence, prevalence and mortality of liver cancer on Globocan, link to the Monographs series to see the major carcinogens and risk factors associated with it, and then move to the Blue Books for information about the tumour itself.

The SCImago Institution Rankings (SIR) tool was used to assess the impact of the Agency's scientific publications. The tool, which used bibliographical and citation data from the Elsevier Scopus database, produced a normalized impact rating comparing the Agency's publication record with those of over 3000 other research institutions worldwide, a rating of the quality of the journal where the article was published and – an issue of particular interest to the Governing Council – the percentage of articles with at least one author from a country other than that of the institution, which in the Agency's case was France. The Agency ranked 32nd in the normalized impact rating and second among specialized cancer research organizations. It was ranked ninth, and first among specialized cancer research organizations, in the list of institutions publishing articles with international collaborators. Those results constituted an independent and relatively objective assessment of the impact of the Agency's publications.

Professor Puska took the Chair.

Dr KARJALAINEN (alternate to Professor Puska, Finland) congratulated the Agency on its excellent impact rating. The figure of 36% of extrabudgetary funding was also a commendable achievement, particularly since the Agency was often not allowed to bid against national cancer institutes. However, that did encourage it to enter into partnerships with other institutions, as shown by the fact that 90% of published articles had at least one author from a country other than France. It would be useful to see the Agency's most significant partners depicted in a spider diagram or other diagrammatic form.

Some of the issues raised by the Director, such as the use of vitamin D, came up in various areas of cancer control – prevention, treatment, etc. – and would benefit from a careful analysis of the available data of the kind provided in the Handbooks of Cancer Prevention series. It might also be necessary to update older publications, such as the Handbook on breast cancer screening which was still widely used, to take into account new work such as the Trivandrum Breast Screening Study.

He was concerned at the relatively low numbers of Fellowship awardees who came from low- and middle-income countries. Such training was very important for building capacity among cancer care professionals in the developing world. The Agency must not lose sight of its global mandate.

The Monograph on mobile telephone use had, understandably, generated considerable public interest. However, he was confused by the experts' conclusion that the radiofrequency electromagnetic fields generated by such telephones were "possibly carcinogenic to humans": did that mean that governments should act to discourage mobile telephone use by children, or not? At the same time, low-intensity electric fields were beginning to be used to treat cancers such as gliomas of the brain. The Agency should conduct more research on those issues and provide guidance.

Dr SKACHKOVA (alternate to Dr Salagay, Russian Federation) commended the Director on his report. Her country welcomed the Agency's efforts to attract new partners and to expand the network of cancer registries, and would contribute as much as possible. The increased emphasis on the publications programme, especially electronic publications, was a good move which would increase the Agency's visibility. The Agency should liaise more effectively with WHO representatives at local level, such as the WHO country office in Moscow, in order to involve national specialists more closely in its work. In the same way, it should maintain a close relationship with ministries of health.

Dr KEINHORST (Germany) welcomed the appointment of so many high-level staff to the Agency. Cancer information activities had clearly improved in terms of both staffing and scientific work. She asked for more information about the regional hubs set up under the Global Initiative for Cancer Registry Development in Low- and Middle-Income Countries. How were they financed, and how were they integrated into other international activities? The formal appointment of a WHO/IARC liaison officer was a sound move, but she would like to know more about his specific responsibilities.

Professor BAGGOLEY (Australia) welcomed the evidence of increased use of the Agency's web site, which would help to promote easy and direct access to the Monographs, in particular. He commended the Agency's work on tobacco control and the associated risk factors. Many countries were keen to investigate the risks and benefits associated with cancer screening, particularly in relation to breast and prostate cancer.

Mr ADAMS (Union for International Cancer Control – UICC), speaking at the invitation of the CHAIRPERSON, said that UICC was fully behind the Global Initiative for Cancer Registry Development in Low- and Middle-Income Countries. It was a long-term project, but it was imperative to provide future generations with the information they needed for the fight against cancer. The Initiative was intended to improve cancer registration in all countries, not just low- and middle-income countries. He hoped that Dr Ullrich, as WHO/IARC liaison officer, would do his best to publicize the initiative within WHO and with Member States.

The CHAIRPERSON, speaking in his personal capacity, said that the impressive number of downloads from the Agency's web site showed the importance of the information provided. He welcomed the Agency's efforts to support the expansion of national cancer registries and set up the regional hubs but asked for more information about the Director's vision for a future global network of cancer registries.

The SECRETARY, responding to the points raised, said that there were many ways of presenting the links between the Agency and its various partners, including details of research consortiums, collaborative research agreements and publications. None of them was perfect, but the publications record was one of the most objective. He would continue to consider ways of presenting the information visually.

On the fellowships programme, he said that the applications were evaluated by an independent external committee which was aware of the Agency's focus on low- and middle-income countries. It was also valuable to recruit scientists who wished to work on projects in low- and middle-income countries, even if they themselves originated from higher-income countries.

At the Monographs meetings, experts evaluated the carcinogenic risks associated with certain substances, but did not make recommendations. However, WHO often updated its own recommendations in the light of the expert evaluation, so close liaison in that area was important. The Agency publicized the Monographs meetings one year in advance, and informed national institutions in the Participating States when a particularly controversial meeting was about to be held. He would welcome further suggestions from members about institutions which should be notified. The Monograph on radiofrequency electromagnetic fields had shown the gaps in knowledge which still remained, and the Agency was involved in a European grant to study the mechanistic aspects of possible genetic alterations resulting from exposure to such fields.

Responding to the questions raised by the member for Germany, he said that the regional hubs planned under the Global Initiative for Cancer Registry Development in Low- and Middle-Income Countries were a way of meeting the many requests for technical support from individual cancer registries. The Agency would provide approximately US$ 100 000 for training and additional staff at the regional hub and for financial assistance for some participants in the training courses. For the second regional hub, planned for Izmir, Turkey, the Center for Global Health of the United States National Cancer Institute had pledged US$ 50 000 per year for three years. A small working group would be set up within the Agency, consisting of the heads of the regional hubs and senior Agency staff, to share experiences and best practice. The structure of the hub might be different in different regions: in Africa, for instance, no one institution was in a position to lead the regional activities, and the Agency was therefore working with the African Cancer Registry Network on preparations for the future hub. A method of evaluating the impact of the regional hubs would need to be found: one possibility was the scale of provision of data contributed to the Cancer Incidence in Five Continents (CI5) series.

The terms of reference for the WHO/IARC Liaison Officer, Dr Ullrich, were currently being prepared. He would remain a WHO staff member, but would have his own office and administrative support at the Agency, where he would spend two or three days every month. His role would be to identify opportunities for the Agency so it could get involved in suitable cancer-related initiatives at an earlier stage than had been possible in the past: for instance, funding for research related to cervical cancer was available through the GAVI Alliance.

The RAPPORTEUR read out the following draft resolution on the Director's Report (1), approving the postponement of the review of education and training in the Agency (GC/54/R2):

The Governing Council,

Having reviewed the Director's Report (Document GC/54/3),

Recalling its Resolution GC/52/R5, in which it requested that a review of Education and Training (ETR) be scheduled during the 48th session of the Scientific Council in 2012,

1. NOTES the Director's decision, pending recruitment of the Head of ETR, of postponing the review until the 49th session of the Scientific Council in 2013; and

2. REQUESTS the Director to report on the review of this key area at the 55th session of the Governing Council in May 2013.

The draft resolution was **adopted**.

The RAPPORTEUR read out the following draft resolution on the Director's Report (2) (GC/54/R3):

The Governing Council,

Having reviewed the Director's Report (Document GC/54/3),

1. THANKS the Director for the Report and for the Key Performance Indicators provided therein;

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.

Replying to a question from Dr MUGITANI (Japan), the SECRETARY said that "standard reporting" referred to the information which was provided in every Director's report, for instance the information on the Agency's publications record over the previous four years, shown in Table 1.

The draft resolution was **adopted**.

7. REPORT OF THE FORTY-EIGHTH SESSION OF THE SCIENTIFIC COUNCIL: Item 7 of the Agenda (Document GC/54/4)

DIRECTOR'S RESPONSE TO RECOMMENDATIONS FROM THE FORTY-EIGHTH SESSION OF THE SCIENTIFIC COUNCIL: Item 8 of the Agenda (Document GC/54/5)

Professor FRAZER, Outgoing Chairperson, Scientific Council, introduced the report of the Forty-eighth session of the Scientific Council (document GC/54/4). The Scientific Council had held its annual three-day session in February 2012, and had been pleased to welcome the Chairperson of the Governing Council to its deliberations.

There had been two significant changes to the Scientific Council's methods of work: it had spent less time on the formal reports before it, giving it more time to discuss the scientific programme, and it had conducted its scientific peer reviews immediately before the session, rather than some months before, as in the past.

The Section reviews had all been very positive. The review of the Section of Cancer Information had concluded that the past work and future plans of the Section were outstanding in quality and a perfect fit with the Agency's overall strategy. The Scientific Council had endorsed the proposed regional hub structure for cancer registration and had identified the need for additional computer software and computing capacity to support the Section.

The review of the Section of Environment and Radiation had likewise concluded that the past work and future plans of the Section were outstanding in quality and a perfect fit with the Agency's overall strategy. The Scientific Council had suggested that the Section should set priorities for its activities, since it was impossible to cover such a broad field with the staff and resources available, and had identified the need for more staff and enhanced computing capacity.

The Scientific Council had conducted a follow-up review of the Genetic Cancer Susceptibility Group, part of the Section of Genetics which had been reviewed in 2010, as the Group Head had only just taken up his post at the time of the review. The Scientific Council had concluded that the Group was making excellent progress.

The Scientific Council had asked the Agency's administration to prepare a report on next-generation sequencing – a competitive field which held unique opportunities for the Agency. After discussing the report and talking with staff, it had concluded that the Agency had appropriate plans for action in that area.

The Scientific Council had conducted a valuable discussion on the issue of rare and emerging cancers. It had also taken part in an informative poster session in which junior staff had presented and discussed their work.

The work of the Sections which had not undergone formal review before the session had been briefly discussed, which had proved a valuable opportunity to stay in touch with the work of the Sections concerned and provide feedback for the staff. The Scientific Council had noted the many opportunities for fruitful cross-section collaboration between the various Sections.

The Scientific Council had endorsed the Director's proposal to purchase a number of items of scientific equipment for DNA sequencing and processing and digital scanning of slides, which were required to maintain the Agency's international performance and competitiveness.

In conclusion, he thanked all the members of the Scientific Council for their thorough preparation and active participation in the session. His term of office was now at an end: he would be replaced by Professor Mads Melbye of Denmark.

The CHAIRPERSON thanked Professor Frazer for his contribution to the work of the Scientific Council.

The SECRETARY, responding to the report of the Scientific Council, said that the staff of the Agency greatly appreciated the advice, constructive criticism and leadership of the members of the Scientific Council. The structure of the session had been changed to allow for greater scientific exchanges between members and the staff. The Section reviews were now conducted immediately before the session, which helped to reduce costs. The current structure would be continued at the next session and then reviewed.

He was cheered by the positive Section reviews. However, the issues of resources and computing capacity had come up several times. Three bioinformatics staff – a senior technician and two PhD students – were employed in the Genetic Cancer Susceptibility Group, and a temporary data analysis facility had been set up to deal with the data produced by statistical packages for an expanding number of research groups. Recruitment for a P2 bioinformatician post funded from the regular budget would begin shortly.

He thanked all the members of the Scientific Council for their contribution, and welcomed Professor Melbye in his new capacity as Chairperson.

Dr STEVENS (United States of America) thanked the Scientific Council for the guidance it provided for the Agency's staff. She commended the Sections of Cancer Information and Environment and Radiation on their contribution to the Agency's work, as reflected in the reviews.

The RAPPORTEUR read out the following draft resolution on the report of the Scientific Council (GC/54/R4):

The Governing Council,

Having reviewed the Report presented by the Forty-eighth Scientific Council (Document GC/54/4) and the Director's response (Document GC/54/5),

1. WELCOMES the increased emphasis placed on discussion of scientific topics, as reflected in the new format of the agenda of Scientific Council sessions;

2. NOTES the Report (Document GC/54/4) with great interest;

3. CONGRATULATES the members of the Scientific Council for their supportive and excellent work; and

4. COMMENDS the Director for his constructive responses to the recommendations of the Forty-eighth Session of the Scientific Council.

The draft resolution was **adopted**.

The meeting rose at 12:45.

Annex – Statement by Dr Margaret Chan, Director-General of WHO

Mr Chairman, Governing Council Members, Ladies and Gentlemen,

I am happy to address you today on the occasion of the IARC Governing Council meeting, and I am sorry I cannot be with you in person.

These are momentous days for IARC. We are at the start of supporting countries in their efforts to implement the commitments included in the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases, adopted at the United Nations High-level Meeting on Non-communicable Diseases, which took place last September at the United Nations General Assembly in New York. These commitments actively support and facilitate cancer-related research aimed at enhancing the knowledge base for national, regional and global action. I followed very closely IARC's strategic contributions to the preparatory process leading to the High-level Meeting, including the First Global Ministerial Conference on Healthy Lifestyles and NCD Control organized by the Russian Federation and WHO in April 2011, which reaffirmed the relevance and value of IARC's activities in the context of the global noncommunicable disease agenda. I am also closely following IARC's efforts to welcome potential Participating States and new partnerships, particularly with low- and middle-income countries. I am also pleased to note that the SIR Normalized Impact Report in 2011 has ranked IARC in the top 1% of more than 3000 scientific institutions worldwide, thanks to the eminent work of our IARC colleagues under the leadership of Dr Wild.

Ladies and gentlemen,

The rapid rise of cancer in developing countries has revealed major disparities between countries.

In 2008, more than two-thirds of all cancer deaths occurred in low- and middle-income countries. The estimated percentage increase in cancer incidence by 2030, compared with 2008, will be greater in low-income countries (82%) and lower-middle-income countries (70%), compared with upper-middle-countries (58%) and high-income countries (40%).

Many powerful global trends are contributing to the rise of cancer in the developing world. Let me mention three of these: population ageing, rapid unplanned urbanization and the globalization of unhealthy lifestyles.

While many cancers develop slowly, lifestyle changes are taking place with a stunning speed and sweep. These trends are not easily reversed. This is why international treaties, such as the WHO Framework Convention on Tobacco Control, are such important strategies for prevention. But much more needs to be done.

Progress in cancer treatment combined with early detection and screening interventions have improved survival rates for many cancers in high-income countries. But survival rates in low- and middle-income countries still remain very low.

On average, 70% of cancer patients in developing countries are diagnosed at a very late stage of illness, when treatment is no longer effective. The only possible intervention is palliative care, including pain relief. Sadly, even this intervention fails to reach more than 5 million terminally-ill cancer patients every year.

Most care for these diseases is covered through out-of-pocket payments, leading to catastrophic medical expenditures. A recent World Bank study estimates that out-of-pocket expenses in India for a single stay at a public hospital to treat cancer amount to between 40% and 50% of per capita income. The study also finds that the odds of incurring catastrophic hospitalization expenditures are nearly 160% higher with cancer than for a communicable condition.

I know you will join me in expressing the sense of urgency that is needed to realize the commitments included in the Political Declaration to reduce these increasingly widening gaps among countries.

The Political Declaration gives high priority to improving access to cancer screening programmes, as well as vaccinations to prevent infections associated with cancers. It also recognizes that prevention must be the cornerstone of the global response to cancers and other noncommunicable diseases. We need this kind of commitment now more than ever before.

Ladies and gentlemen,

In just the past few years, the political and public profile of cancers and other noncommunicable diseases has risen to unprecedented heights.

We know where the next immediate challenge lies: in reducing mortality from cancers between the ages of 30 and 70 by 25% by 2025. We have a tough job ahead of us.

The Heads of State and Government who adopted the Political Declaration knew that its commitments were long-term, and that steadfast resolution will be just as vital as conducting the research needed to generate knowledge and to translate that knowledge into action.

How is IARC contributing to the implementation of the Political Declaration? No one can question that IARC possesses unique technical assets.

And how might the changes brought about by the Political Declaration affect IARC's work in the future? I would like to highlight four points. Let me be specific. We are here today to sharpen this leading edge.

First, IARC is contributing to setting the global cancer agenda. Positioning the Agency to participate in global collaborative efforts is an important component of the projects in front of you. This is a transformational vision.

Second, through close collaborations with cancer registries worldwide, IARC provides vital data on the global cancer burden. Importantly, IARC recently established the Global Initiative for Cancer Registry Development in Low- and Middle-Income Countries, which will enable policy-makers to work towards a common baseline against which progress can be measured. This is enlightened policy. This sets IARC apart.

Third, IARC is disseminating a remarkable body of the highest scientific quality of research with a direct relevance to cancer prevention. Information on risks associated with exposure to risk factors is a vital platform for prevention. Evaluating interventions and how they may be implemented in health-care settings is also critical in translating research into public health action. We must never forget: the social and economic costs of cancers are considerable and form a huge financial and societal burden.

Fourth, IARC is assisting with capacity building through training activities, using its collaborative network in developing countries. IARC is encouraging long-range planning that helps countries anticipate problems and move towards self-reliance. This is a pro-poor vision.

Ladies and gentlemen,

I have a final point.

Eight months ago, we met in New York for the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases, which was a watershed event, with a very clear "before" and "after".

This week, you will consider the Biennial Report 2010-2011 and the Report of the IARC Director.

I warmly welcome both reports and applaud the Report of the IARC Director in its efforts to highlight the serious and far-reaching commitments of the Political Declaration.

Let today's and tomorrow's Governing Council meeting pave the way for strengthening this formidable instrument and its momentum.

With the commitments of the Council members and the excellent work of the Agency, the projects presented during the next two days will become a reality.

Thank you.