

International Agency for Research on Cancer



**Governing Council
Fifty-sixth Session**

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MINUTES OF THE FIRST MEETING

IARC, Lyon

Thursday, 15 May 2014, at 09:05

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

Secretary: Dr Christopher P. Wild, Director, IARC

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Participating State Representatives

Dr Mark PALMER, Chairperson Dr Nathan RICHARDSON	United Kingdom of Great Britain and Northern Ireland
Professor Agnès BUZYN, Vice-Chairperson Mr Armel T'KINT DE ROODENBEKE	France
Professor Christopher BAGGOLEY	Australia
Dr Hemma BAUER	Austria
Mr Lieven DE RAEDT	Belgium
Dr Luiz Antonio SANTINI (<i>unable to attend</i>) Dr Marisa Dreyer BREITENBACH	Brazil
Dr Stephen M. ROBBINS Ms Lucero HERNANDEZ	Canada
Professor Herman AUTRUP	Denmark
Professor Juhani ESKOLA Professor Harri VAINIO	Finland
Dr Chariklia BALAS	Germany
Professor G.K. RATH (<i>unable to attend</i>)	India
Mr Keith COMISKEY	Ireland
<i>No Representative</i>	Italy
Dr Yousuke TAKASAKI Mr Kenji OKADA	Japan
Dr Jack HUTTEN Mr Jeroen HULLEMAN	Netherlands
Dr Edgar RIVEDAL Dr Karianne SOLAAS	Norway
Dr FALEH Mohammed Hussain Ali	Qatar
Dr Duk-Hyoung LEE	Republic of Korea
Dr Svetlana AXELROD Ms Lidia GABUNIYA Professor Boris ALEXEEV	Russian Federation
Dr Rafael DE ANDRÉS MEDINA	Spain

Professor Mats ULFENDAHL	Sweden
Dr Diane STEBER-BÜCHLI (Rapporteur)	Switzerland
Professor Murat TUNCER (<i>unable to attend</i>)	Turkey
Dr Lisa STEVENS	United States of America
Dr Charlie DARR	
Dr Pamela PROTZEL-BERMAN	

World Health Organization

Dr Oleg CHESTNOV, Assistant Director-General
Ms Joanne MCKEOUGH, Office of the Legal Counsel
Dr Andreas ULLRICH, Medical Officer, Prevention of Noncommunicable Diseases (PND)

Observers

Ms Sandhya SINGH South Africa

Professor Mads MELBYE, Outgoing Chairperson, Scientific Council (*unable to attend*)
Professor Cornelia ULRICH, Incoming Chairperson, Scientific Council

Union for International Cancer Control (UICC)

Mr Juerg BOLLER, Chief Operating Officer

External Audit

Mr Lito Q. MARTIN, Commission on Audit, Philippines (*unable to attend*)

Secretariat

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Dr E. STELIAROVA-FOUCHER

Dr K. STRAIF

Dr M. TOMMASINO

Dr L. VON KARSA

Dr J. ZAVADIL

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

The CHAIRPERSON declared open the Fifty-sixth Session of the Governing Council and welcomed participants, including Professor Ulrich, the incoming Chairperson of the Scientific Council, Dr Chestnov, the representative of the WHO Director-General, and Ms Sandhya Singh, observer for South Africa.

The SECRETARY likewise welcomed participants. He was particularly pleased by the presence of the observer for South Africa, since the Agency had no Participating States from Africa at present.

2. ELECTION OF RAPPORTEUR: Item 2 of the Provisional Agenda

On the proposal of Dr RIVEDAL (Norway), Dr Steber-Büchli (Switzerland) was elected Rapporteur, the proposal being seconded by Dr BAUER (Austria).

3. ADOPTION OF THE AGENDA: Item 3 of the Provisional Agenda (Document GC/56/1 (Prov.))

Mr DE RAEDT (Belgium), supported by Dr ROBBINS (Canada), suggested that items 20 and 21 of the provisional agenda, "New proposed structure for presenting IARC's Budget and reporting" and "Plans for the preparation of IARC Medium-Term Strategy for 2016–2020" should be considered earlier than scheduled, namely at the beginning of the morning meeting on Friday 16 May.

It was so **agreed**.

The agenda, as amended, was **adopted**.

4. PRESENTATION AND DISCUSSION OF THE BIENNIAL REPORT 2012–2013: **Item 4 of the Agenda** (Document GC/56/2)

The SECRETARY introduced the Agency's Biennial Report 2012–2013, contained in Document GC/56/2. The report provided a detailed formal description of the Agency's activities, and was accompanied by a brochure, *IARC – a unique agency*, which gave a more general description of the Agency's aims.

The Agency existed to provide the scientific evidence base required for cancer prevention. Cancer incidence was increasing rapidly, especially in low- and middle-income countries (LMICs), and the Agency was well placed to promote the required international collaboration and make independent judgements about the evidence which was obtained.

One priority in the Agency's activities was descriptive epidemiology – i.e. describing the situation of cancer throughout the world. The GLOBOCAN database had been updated in 2012 and now provided estimates not only of cancer incidence and mortality, but also of cancer prevalence one, three and five years after diagnosis, which provided valuable information for the planning of cancer services. The GLOBOCAN information had been correlated with the Human Development Index (HDI) prepared by the United Nations Development Programme to show the significant extra burden of cancer which was predicted to fall on low- and medium-HDI countries by 2030.

Another database, Cancer Incidence in Five Continents, whose 10th print edition had been published during the biennium, brought together data on the incidence of cancer over time, collected by high-quality cancer registries worldwide: it showed, for instance, that decreases in infection-related cancers such as cervical and stomach cancer had been more than offset in LMICs by the increase in breast, prostate and colorectal cancer. The number of countries providing data was still relatively low, however. The Agency collaborated, with the United States National Cancer Institute, the Union for International Cancer Control and other partners, in the Global Initiative for Cancer Registry Development, which aimed to establish high-quality cancer registries in areas of the world which were currently underserved. Regional Hubs had been set up in Argentina, India, Turkey and sub-Saharan Africa, and others were planned for the Caribbean and the Pacific islands. Twenty-four priority countries had been identified, of which 20 were currently not featured at all in Cancer Incidence in Five Continents. The Agency, in partnership with the European Network of Cancer Registries, had set up the European Cancer Observatory (<http://eco.iarc.fr>), which provided information about the cancer burden in Europe.

Two volumes of the Agency's best-selling publication, the WHO Classification of Tumours series or "Blue Books", had been published during the biennium: the fourth edition of *Classification of tumours of the breast* in 2012, which was already on its second print run, and the fourth edition of *Classification of tumours of soft tissue and bone* in 2013. The high calibre of the contributors to those publications was evidence of the Agency's excellent reputation as a scientific institution.

The Agency's second priority was to establish the causes of cancer. During the biennium, Monograph meetings had taken place on polychlorinated and polybrominated biphenyls (PCBs) (future Vol. 107), some drugs and herbal medicines (future Vol. 108) and outdoor air pollution (future Vol. 109). The latter had aroused a great deal of public interest. An advisory group on quantitative risk characterization had met in November 2013 and concluded that the Agency should include as much quantitative information as possible in the Monographs, but should not itself conduct quantitative risk assessments.

Work had also been done to estimate the proportion of cancers attributable to various risk factors: for instance, it had been estimated that approximately 10% of all cancers in women, but only 0.6% in men, were associated with human papillomavirus (HPV). Future estimations were planned for risk factors such as excess body weight, tobacco and alcohol consumption and occupation. A prospective study within the European Prospective Investigation into Cancer and Nutrition (EPIC) project had shown that HPV antibodies were present in 35% of people who subsequently went on to develop head and neck cancer. Another study, in three industrial cities of the Russian Federation, showed a strong link between vodka consumption and mortality from all causes, including cancer. The Agency had also participated in the establishment of an African

network of human nutrition centres, but there were few tools suitable for use in that setting, and the existing methodologies were unvalidated. For those two projects, assistance from external partners would be required. A study of 1200 women with breast cancer in Soweto, South Africa had shown a large proportion of patients with HIV infection, who might require different treatment from others, and had also shown that patients who lived further from the hospital were likely to have cancer at a more advanced stage at the time of diagnosis.

The advances in basic science obtained from laboratory research were now being used in both the clinical setting and in population-based studies. Within the EPIC study, biomarkers for *trans* fatty acids had been shown to be associated with an increase in body mass index over the subsequent five years – i.e. the subject was more likely to become obese. Other discoveries were the identification of biomarkers associated with the consumption of polyphenol-rich foods and the identification of mutations in DNA associated with the known carcinogen aristolochic acid and with renal cancer.

The third priority was the evaluation of cancer prevention activities, which was of direct relevance to health policy. Evidence from India and Costa Rica indicated that two doses of HPV vaccine, and potentially even one dose, were of comparable effectiveness to the three doses currently recommended, which had important implications for both cost and patient compliance.

The fourth priority was support for implementation of research findings. The Agency had participated in a pilot project on screening for colorectal cancer in one province of Thailand, which had provided valuable information about current health-system capacity and the changes that would be needed before the screening programme could be scaled up. Another prospective study sought to identify the reasons for the disproportionately high level of breast cancer in sub-Saharan Africa.

The fifth and final priority was education and training of cancer professionals. The application procedure for IARC Fellowships had been streamlined, which had doubled the number of applications received. The Agency had hosted a meeting of the European School of Screening Management in March 2013.

Dr ROBBINS (Canada) welcomed the Agency's ongoing transition to open-access publishing and the work it was doing to link laboratory science with health and population epidemiology studies. He asked whether it had undertaken any multigenerational cohort studies to investigate epigenetic phenomena in two or even three generations of the same family.

The SECRETARY said that there were no multigenerational studies, but that the Agency was investigating biological changes associated with exposures to certain substances in very early life, as well as the effect of parental exposures to certain substances on childhood cancers such as leukaemia.

Dr RIVEDAL (Norway) welcomed the priority given to the Monograph programme during the biennium, with the publication of the special multipart Vol. 100 and the publication of the delayed volumes to bring the programme up to date.

Professor ESKOLA (Finland) said that more use should be made of data from sources such as the WHO *Global status report on alcohol and health 2014* to show the effect of alcohol consumption on cancer rates, thus contributing to efforts to reduce alcohol consumption worldwide.

Dr DE ANDRÉS MEDINA (Spain) said that the Agency should not neglect the rarer cancers, each of which occurred only in small numbers, but which added up to a major problem when taken together. Moreover, they might affect some populations disproportionately.

The SECRETARY said that some studies were conducted on rarer cancers, such as nasopharyngeal carcinoma in North Africa and Malaysia or gallbladder cancer in persons in certain occupations in Japan.

Dr STEVENS (United States of America) commended the unique role of the Agency in cancer research and the dissemination of information to the global cancer community, as shown by the recent regional meetings held in Latin America and the Eastern Mediterranean Region.

Professor BAGGOLEY (Australia) commended the Agency on the work described in the biennial report.

Dr AXELROD (Russian Federation) noted that the study on vodka consumption mentioned by the Director had been conducted in only three cities of the Russian Federation. Cancer registries were being upgraded and more research was being conducted in other parts of the country, which should eventually produce a more accurate picture of the situation in the country as a whole.

The SECRETARY said that the Agency would be glad to advise on the upgrading of cancer registries in the Russian Federation, which would also improve the Agency's own estimations of the cancer situation in future.

The RAPPORTEUR read out the following draft resolution on the IARC Biennial Report for 2012–2013 (GC/56/R1):

The Governing Council,

Having reviewed the IARC Biennial Report for 2012–2013 (Document GC/56/2),

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

The resolution was **adopted**.

5. DIRECTOR'S REPORT: Item 5 of the Agenda (Document GC/56/3)

The SECRETARY introduced his Director's Report, dealing with administrative matters (Document GC/56/3). Following his reappointment the previous year, he had presented his vision for the future of the Agency on IARC Staff Day in November 2013 and discussed it with the personnel. That vision would be translated into the Medium-term Strategy for 2016–2020.

The *World Cancer Report 2014*, published earlier in the year, had brought together over 250 contributors from 40 countries, with personal perspectives provided by eminent cancer specialists. The report emphasized the need to match advances in cancer treatment with advances in prevention.

He had identified five "building blocks" for success in the Agency's work: the quality of the scientific staff, including effective succession planning; partnerships, both with Participating States and with national, regional and international research groups; resources, both for research and for the buildings and equipment without which the staff could not work effectively; communication, which would enable users to find and use the information which the Agency produced; and administration, which supported the Agency's research.

Turning to ways of assessing the quality of the Agency's activities, he said that, in respect of the normalized impact of its publications, the Agency had been ranked 24th worldwide among over 4000 institutions, i.e. in the top 0.5%, and fourth among specialized cancer research institutions in the SCImago Institutions Rankings. It had been ranked 93rd overall and 12th among specialized cancer research institutions for high-quality publications and 78th and 5th, respectively, for scientific excellence. In terms of international collaboration, i.e. papers produced in collaboration with institutions in other countries, it had been ranked 28th overall and first among specialized cancer research organizations. In another ranking system, Mapping Scientific Excellence, the Agency had been ranked ninth out of 1231 institutions in the Medicine category for its probability of publishing highly cited papers and 15th for its probability of publishing in the most influential journals. The first cycle of peer reviews of all research Sections by the Scientific Council and subject-specialist experts was now complete: the reviews had described the work of all Sections as being a perfect fit to the mission of the Agency, and that of all but one Section as being of outstanding scientific quality.

A number of notable events had taken place during the year. The IARC Medals of Honour had been awarded to Professor Pelayo Correa and Dr Harold Varmus. The second IARC Cancer and Society Lecture, given by Professor Sir Michael Marmot on World Cancer Day in February 2014, had been entitled "Fair society, healthy lives". With eight of his senior scientists, he had participated in a joint meeting with the WHO Regional Office for the Eastern Mediterranean in October 2013, generously hosted by the Government of Qatar. Key scientific meetings had included a meeting on endpoints for trials of prophylactic vaccination against human papillomavirus (HPV), held in September 2013, and another in December 2013 on the eradication of *Helicobacter pylori* as a strategy for the prevention of gastric cancer. The Agency had also led work on the update of the European Code against Cancer, due to be published later in 2014, which provided guidance to the general population at a summary level, an intermediate level with questions and answers on cancer prevention, and a detailed evidence base for the scientific community.

Turning to the Agency's work to support key areas of cancer prevention, he drew attention to IARC Technical Publication No. 43, published in collaboration with WHO and the International Association of Cancer Registries and available free of charge, which provided technical advice for LMICs wishing to set up population-based cancer registries. As part of a long-standing collaboration with the Institut Català d'Oncologia in Barcelona, Spain, online data had been made available on the prevention of cancers associated with HPV infection in 193 countries throughout the world. The Biobank Cohort-building Network (BCNet) had been set up to support biobanks in LMICs, which could collect a great deal of information even in challenging field conditions. The new network had proved particularly popular among the countries of sub-Saharan Africa.

The number of articles published by Agency staff had remained constant at around 350 per year, with an increasing number appearing in the top 20% of journals in the fields concerned, primarily oncology and public, environmental and occupational health. The Agency's new open-access policy was in preparation and would be submitted for the approval of the Governing Council at its next session. Almost all sales of paid-for publications involved the WHO Classification of Tumours ("Blue Books") series. The Agency's website received around 1000 visits per day, and the Monographs and Globocan websites around 500 visits each. Popular downloads included the Monographs series and the standard teaching work *Cancer epidemiology: principles and methods*, which was due to come out in a new edition shortly.

He gave details of the extrabudgetary funding obtained by the Agency, mostly in the form of research grants. The value of new research contracts attributable to IARC had fallen slightly, although it was not clear whether that was a temporary phenomenon or the beginning of a trend. Approximately 60% of expenditure on scientific programmes came from the regular budget, and the remainder from voluntary contributions.

Turning to education and training, he noted that 11 fellowships had been awarded to scientists from LMICs in 2013, and the figure for 2014 would be comparable. Four scientists, including one from Zambia, had taken up Senior Visiting Scientist awards. The Early Career Scientists' Association, formed on the recommendation of the Scientific Council, had done a great deal to bring together trainees, students, postdoctoral scientists and IARC Fellows – who had numbered 126 in 2013 out of a total staff of approximately 300 – for training, career development and social activities. Fifty-six participants had attended the IARC Summer School in 2013, approximately 83% of them from LMICs. The Agency's e-learning capacity had been greatly expanded: it was planned to develop e-learning courses and materials with the International Atomic Energy Agency and with the Institut Català d'Oncologia in Barcelona, the latter in Spanish for the use of Latin American countries.

A number of measures had been taken to streamline the Agency's operations, including the future introduction of the SharePoint content management system. The state of the buildings was a cause for constant concern: one of the two main extractors serving the laboratories had been replaced, the electrical system in the Latarjet building had been isolated from that of the main Tower so that it would continue to work even if the latter failed, and a new water heating system had been installed which allowed the main heating system to be "rested" during the summer months. He expressed his gratitude to the City of Lyon for its support for those emergency measures.

The Agency was involved in a number of strategic partnerships. At global level, it collaborated with WHO in many areas, including the Global action plan for the prevention and control of noncommunicable diseases (NCDs) for the period 2013–2020, with the wider United Nations community in the Interagency Task Force on the Prevention and Control of NCDs, with the International Atomic Energy Agency in the Programme of Action for Cancer Therapy (PACT) and with the Union for International Cancer Control on the Global Initiative for Cancer Registry Development. At regional level, it worked closely with networks such as the Network of National Cancer Institutions of Latin America (RINC) and the Asian National Cancer Centers Alliance (ANCCA). The following week, he would be meeting officials from the Chinese Ministry of Health to discuss formal cooperation and concluding a memorandum of understanding with the Lalla Salma Foundation in Morocco.

Finally, he drew attention to two recent publications which gave important insights about cancer control. An article published in the United Kingdom medical journal *The Lancet* on 3 May 2014¹ estimated the contribution which reaching the targets set for the reduction of six major risk factors would make towards meeting the United Nations “25x25” target (reducing premature deaths due to cardiovascular diseases, chronic respiratory diseases, cancers and diabetes by 25%, compared with 2010 levels, by 2025). The expected reduction in deaths from cancer was therefore relatively small, much smaller than for cardiovascular disease, for example: this reflects the broader range of important risk factors for cancer and the longer latency period for many cancers compared to the other diseases. Secondly, data collected by the United States Institute for Health Metrics and Evaluation showed that, while NCDs accounted for 58% of deaths and 48% of disability-adjusted life years (2010 figures), they had received only 2% of development assistance for health in 2013. He called upon Governing Council members to point out the potential role of the Agency, particularly in respect of action to influence health indicators related to cancer, in any discussion they might have with their national ministries concerned with development assistance.

Professor AUTRUP (Denmark) commended the Director on the progress described in the report.

Dr HUTTEN (Netherlands) welcomed the emphasis in the report on the political and social impact of the Agency’s work. The need to reconcile the vision and mission of the Agency with those of national governments must be taken into account in the preparation of the new Medium-term Strategy 2016–2020.

Mr TAKASAKI (Japan) welcomed the Agency’s emphasis on education and training, particularly the creation of the Early Career Scientists’ Association, and its international collaboration.

¹ Kontis V, Mathers C, Rehm J, Stevens GA, Shield KD, Bonita R et al. Contribution of six risk factors to achieving the 25x25 non-communicable disease mortality reduction target: a modelling study. *Lancet* 2014 [published online 3 May]. doi:10.1016/S0140-6736(14)60616-4.

Dr DREYER BREITENBACH (Brazil) drew attention to an e-learning course developed in her country, entitled "ABC of Cancer" and intended to facilitate early diagnosis of cancer by physicians not specializing in oncology. The course might be adapted for use in other Latin American countries.

The SECRETARY said that the Agency sought to ensure that its vision was relevant by consulting national governments at WHO and regional meetings and in discussions with national partners. The relevance of many issues, such as dietary biomarkers, to national policy would need to be carefully explained, and would be discussed in detail during the development of the new Medium-term Strategy.

Dr BALAS (Germany) commended the Agency on its success in communicating its work to the general public. It should not neglect social media such as Facebook and Twitter.

Dr AXELROD (Russian Federation) said that her country hoped to collaborate with the Agency at a subregional level, for instance in eastern Europe and central Asia. A centre on NCDs of the WHO Regional Office for Europe was due to open in Moscow shortly. It was important to ensure that NCDs were duly taken into account in the post-2015 development agenda.

The SECRETARY, responding to a query from Mr DE RAEDT (Belgium), said that his vision for the Agency was the one which he had presented to the Governing Council during his interview for reappointment, focusing largely on cancer prevention. The discussions on IARC Staff Day had shown up a lack of public awareness about the Agency's work, even in Lyon itself. Staff had said that they were not always sure how their work contributed to the Agency's overall goals, which was one of the reasons for the development of the new project tree. Staff had also spoken of the uncertainty associated with the Agency's funding; many staff were on short-term contracts funded from extrabudgetary resources, which was inevitably a source of stress.

Professor ESKOLA (Finland) commended the Agency on its excellent reputation, as shown by its international publication rankings, while noting that its role was not to compete with national cancer institutes, but to support them, particularly in LMICs. He asked for details of the Agency's social media policy and its publications policy, particularly the implications of the changeover to digital publication for the best-selling "Blue Books" series.

Taken as a whole, national government expenditure on development assistance added up to much more than that of even a major charity such as the Bill and Melinda Gates Foundation, but its impact in any one area was small. International agencies like IARC had a good understanding of activities which would benefit LMICs, and could provide valuable advice. The Agency should report specifically on its activities in LMICs in order to provide examples of the kinds of work which national governments might wish to fund.

Dr RICHARDSON (United Kingdom) commended the Agency on the excellent results achieved in the peer-review assessments, and asked what lessons the administration had derived from them for the new Medium-term Strategy.

Dr STEVENS (United States of America) welcomed the new regional perspectives brought by new Participating States Brazil and Qatar and the recent joint meeting with the WHO Regional Office for the Eastern Mediterranean. She asked whether the report of the Working Group on Primary End-points for Prophylactic HPV Vaccine Trials had been widely publicized, for instance by means of press releases or e-mail circulation lists.

The SECRETARY said that the main lesson he wished to take forward into the new Medium-term Strategy was the need for operational and implementation research, observational studies and population-based cancer registries. Replying to a point raised by Professor ULRICH (Incoming Chairperson, Scientific Council), he said that he was drafting a response to the *Lancet* article, which he hoped would be published soon.

The RAPPORTEUR read out the following draft resolution on the Director's Report (GC/56/R2):

The Governing Council,
Having reviewed the Director's Report (Document GC/56/3),

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.

The resolution was **adopted**.

6. ADDRESS BY THE DIRECTOR-GENERAL, WHO: Item 6 of the Agenda

The Governing Council watched a video message recorded by Dr Margaret Chan, Director-General of WHO, who was unable to attend the meeting in person. Dr Chan commended the Agency for its scientific contribution to cancer control, particularly in LMICs. Its practical guidance on visual screening for cervical and oral cancers would help to reduce the huge gaps in survival between wealthier and poorer countries. Its evidence about the link between cancer and certain persistent viral, bacterial and parasitic infections had opened up a whole new area of cancer prevention. The Agency had rightly earned the respect and affection of the world scientific community.

Dr CHESTNOV (Assistant Director-General, Noncommunicable Diseases and Mental Health, WHO) said that WHO's work in NCDs since 2011 had focused on the implementation of the Global action plan for the prevention and control of noncommunicable diseases 2013–2020. The plan included nine voluntary global targets, of which one dealt with cancer and other NCDs, and 25 indicators in a global monitoring framework, including cancer incidence and availability of cancer screening. The Agency was involved in the United Nations Interagency Task Force on the Prevention and Control of NCDs, which was the subject of increasing interest among United Nations agencies, as well as the global coordination mechanism for NCDs which was currently in preparation and which would be discussed by WHO Member States at the World Health Assembly the following week. The Agency would also be involved in future work on the global status reports on NCDs, following on from the baseline document, the *Global status report on noncommunicable diseases 2010*.

A high-level meeting of the United Nations General Assembly was due to take place in New York in July 2014 to undertake the comprehensive review and assessment of the 2011 Political Declaration on NCDs. It was expected to extend WHO's mandate to lead the implementation of the Political Declaration for another two or three years, with the involvement of Member States, nongovernmental organizations and the private sector.

In 2013, WHO had collaborated with the Agency on the Global Initiative for Cancer Registry Development: establishing cost-effective cancer registries was a challenge for many countries. Publications such as the *World Cancer Report* had aroused enormous interest throughout the world. Other WHO activities with links to cancer control included the Organization's call for Member States to include hepatitis B and HPV in their immunization schedules, and the agenda item on palliative care which would be discussed at the forthcoming World Health Assembly.

It was essential to strengthen cancer control planning in order to avoid duplication. The WHO/IARC Liaison Officer, Dr Andreas Ullrich, worked to promote links at country level. The assistance of IARC would be essential to help WHO to make the best possible use of its limited resources in collaborations such as its partnership with the International Atomic Energy Agency in the PACT programme.

The CHAIRPERSON thanked Dr Chestnov for his presentation.

7. REPORT OF THE FIFTIETH SESSION OF THE SCIENTIFIC COUNCIL: Item 7 of the Agenda (Document GC/56/4)

8. DIRECTOR'S RESPONSE TO RECOMMENDATIONS FROM THE FIFTIETH SESSION OF THE SCIENTIFIC COUNCIL: Item 8 of the Agenda (Document GC/56/5)

Professor ULRICH (Incoming Chairperson, Scientific Council) introduced the report of the Fiftieth session of the Scientific Council (Document GC/56/4). General comments made by members of the Scientific Council included the need for improved screening for prostate cancer, the current underfunding of research in cancer prevention despite the enormous potential benefits for all countries, and the success of the implementation of metabolome analysis for new biomarker

research. With reference to the *Lancet* article mentioned by the Director, she suggested that a contribution from the Scientific Council might add weight to the Director's proposed response.

Dr Paul Brennan, Head of the Section of Genetics, had suggested the creation of a new series of e-publications entitled "Tumour Seminars". A group of experts on a particular cancer site would meet to discuss recent research and current challenges for the site concerned. The Scientific Council had agreed that a pilot publication should be prepared, concentrating on cancers of particular significance in LMICs and on primary and secondary prevention rather than treatment, and that the expert meeting should be broadcast promptly in the form of a webinar.

The Scientific Council had approved the Director's request to purchase a bench-top next-generation sequencer and a tandem mass spectrometer coupled to ultraperformance liquid chromatography. It had stressed the importance of investment in cutting-edge equipment in order to support the Agency's leading scientific role, but had pointed out that maintenance costs for some equipment, particularly the mass spectrometer, could quickly exceed the purchase price. At present, those costs were met mainly from research grants.

The Scientific Council had discussed the Agency's involvement in a study of the effects of exposure to chrysotile asbestos in the city of Asbest, Russian Federation. It had identified a number of valuable scientific features in the study, including the large size of the cohort, the high proportion of females and the detailed information on exposure. It had acknowledged the potential threats to the scientific integrity of the study and the measures which had been implemented to mitigate them, and had recommended that the Agency should withdraw from the study if the design, conduct or analysis of the study were compromised at any point.

Three cross-cutting issues had been presented for comment by the Scientific Council. In respect of the first issue, mutation spectra in experimental models and in humans, the Scientific Council had welcomed the use of next-generation sequencing technology to identify mutational signatures that reflected specific environmental exposures. In respect of childhood cancer, the Scientific Council had noted that the Agency was well placed to coordinate the large international consortia required to investigate that relatively rare group of cancers and to involve LMICs, which were currently underrepresented. The Agency should explore funding opportunities, for instance with the United States National Cancer Institute. Thirdly, the Scientific Council had suggested that the Agency should take a larger role in developing evidence-based recommendations in the area of HPV vaccination in LMICs, notably on the efficacy of administering one or two doses of vaccine rather than the currently recommended three.

The Scientific Council had reviewed the Section of IARC Monographs and found the scientific quality of both its past performance and its future plans to be outstanding and the relevance of both its past performance and its future plans to be a perfect fit to the mission of the Agency. It had recommended that the Section should make more of its work available online and investigate the feasibility of making the Monograph Series into a searchable online database. Additional funding would be required for the planned re-launch of the *IARC Handbooks of Cancer Prevention* series.

The second Section review had concerned the Section of Molecular Pathology, with a separate review of the Blue Books series. The Scientific Council had recommended that the Blue Books should be updated more regularly, which would require increased staffing and other resources, and should be made accessible to a wider audience by means of e-publications and an online database. A viable business plan would be required, particularly for the latter. The Blue Books should have a stable budget, independent of fluctuations in the revenue from book sales. A higher proportion of revenue from Blue Book sales should revert to the Agency and specifically to the Blue Books. The Agency's name should be incorporated into the title of the series.

The SECRETARY, responding to the recommendations of the Scientific Council, said that the 2014 IARC Research Forum, an internal meeting which brought together all the research Groups, would be devoted to prostate cancer and the opportunities for the Agency to conduct research in that field, particularly in LMICs.

The Section of Early Detection and Prevention, reviewed by the Scientific Council in 2013, was being restructured in anticipation of the forthcoming retirement of a number of its senior staff. An implementation scientist and a health economist were to be recruited.

A pilot Tumour Seminar, on renal cancer, would be held in the autumn of 2014, in collaboration with the United States National Cancer Institute.

The measures which he had put in place to mitigate the risks identified in connection with the chrysotile asbestos study in the Russian Federation included a Scientific Advisory Board chaired by Professor Melbye, the outgoing Chair of the Scientific Council. He would keep the Governing Council informed of the progress of the study.

The *IARC Handbooks on Cancer Prevention* series was to be re-launched from November 2014 with an update of the volume on breast-cancer screening, funded with the generous support of the French National Cancer Institute. Future plans included new volumes on weight control, physical activity and prostate and cervical cancer screening. He asked Governing Council members for guidance about possible sources of stable funding for the programme.

Data from the Agency's research into HPV vaccination had been shared with WHO, the public health authorities of Colombia, India and South Africa, and researchers in the United States of America and the United Kingdom. The Agency continued to monitor the effectiveness of HPV vaccination in Bhutan and Rwanda.

Mr HULLEMAN (Netherlands) said that two meetings of cancer funding and research organizations in his country had identified eight major areas of prevention research. He asked whether, in the opinion of the Scientific Council, the whole area of prevention was underfunded, or only specific subareas.

Professor ULRICH (Incoming Chairperson, Scientific Council) said that the Scientific Council had cited neglected but vital issues such as obesity, physical inactivity and HPV. The results of prevention research were often not translated into health policy because of a lack of health

economics research. Replying to a point raised by Dr STEVENS (United States of America), she said that the current political tensions in eastern Europe did not appear to have affected the conduct of the Russian chrysotile asbestos study.

The SECRETARY said that he had a very broad understanding of the concept of prevention, covering an understanding of the burden of cancer, its causes, evaluation of interventions and support for implementation research. He asked for details of the areas of prevention identified by the Netherlands, if possible.

Replying to a point raised by Dr STEVENS (United States of America), he said that the Agency had renegotiated its publications contract with WHO. In future, it would issue its own e-publications, while WHO would continue to distribute the print editions, which were still in demand among the pathology community. The Agency's first e-book, *Air pollution and cancer* (IARC Scientific Publication No. 161) had now been published. A senior post was planned in the Section of Molecular Pathology, specifically to support the development of the Blue Books. The business model for the latter required careful consideration, since it needed to generate sufficient income to remain viable, even as it moved over to a digital format.

Dr BALAS (Germany) welcomed the Tumour Seminars series and the proposed fact sheets on the Monographs. She asked about the level of funding required for the *IARC Handbooks on Cancer Prevention*.

Professor ESKOLA (Finland) noted that systematic and unbiased evaluations of prevention tools, which the Agency was well placed to provide, were of great value to national public health authorities. He did not oppose the proposed Tumour Seminars series, but it was important to ensure that resources were not diverted from tried-and-tested publications such as the Monographs and Handbooks.

The SECRETARY said that the pilot version of the Tumour Seminars involved only one meeting and an online publication. The cost to the Agency so far amounted to a few thousand euros.

He hoped to establish a small team within the Section of Monographs to prepare new Handbooks. A senior scientist would be required to lead the team, and the costs involved would therefore be €400 000–500 000 per year. The updated volume on breast cancer screening – a publication which would be used to secure funding for future volumes – would be supervised by a visiting scientist at a cost of approximately €20 000, which he had allocated from the current budget of the Section.

Professor ULRICH (Incoming Chairperson, Scientific Council) said that it was important to ensure a wide range of specialist knowledge, including areas such as health economics, among the experts selected for meetings of publications like the Handbooks and Tumour Seminars series.

Dr DE ANDRÉS MEDINA (Spain) asked whether it was feasible to expect to fund the maintenance of high-tech equipment from research grants in the long term. The Scientific Council report referred to possible collaboration with local groups in order to increase bioinformatics capacity: however, it was important not to neglect regional and global initiatives such as the European ELIXIR project.

Professor ULRICH (Incoming Chairperson, Scientific Council), replying to a point raised by Dr ROBBINS (Canada), said that the late effects of childhood cancer treatment definitely constituted a potential area for research.

The SECRETARY said that the administration now monitored the maintenance costs associated with all items of equipment shared across two or more research Sections and attributed the relevant proportion of costs to the Section concerned. Maintenance costs were funded partly from the core budget and partly by research grants. Approximately one quarter of the equipment recommended for purchase by the Scientific Council would be funded from extrabudgetary resources.

More emphasis had been placed on bioinformatics in recent years, and a number of in-house bioinformatician posts had been created. The Agency also enjoyed a fruitful collaboration with the bioinformatics department of the Centre Léon Bérard in Lyon.

The RAPPORTEUR read out the following draft resolution on the report of the Scientific Council (GC/56/R3):

The Governing Council,
Having reviewed the Report presented by the Fiftieth Scientific Council (Document GC/56/4) and the Director's response (Document GC/56/5),

1. NOTES the Report (Document GC/56/4) with great interest;
2. CONGRATULATES the members of the Scientific Council for their supportive and excellent work; and
3. COMMENDS the Director for his constructive responses to the recommendations of the Fiftieth Session of the Scientific Council.

The resolution was **adopted**.

The meeting rose at 13:20.