

International Agency for Research on Cancer



**Scientific Council
Forty-seventh Session**

**SC/47/12
03/02/2011**

*Lyon, 26–28 January 2011
Princess Takamatsu Hall*

REPORT OF THE SCIENTIFIC COUNCIL ON ITS FORTY-SEVENTH SESSION

INTRODUCTION

1. The Forty-seventh Session of the Scientific Council of the International Agency for Research on Cancer (IARC) was opened by Dr Edgar Rivedal (Chairperson of the Scientific Council), at 13:45 on Wednesday 26 January 2011. He welcomed the participants, including the new members of the Scientific Council, Dr Ahti Anttila (Finland), Professor Bettina Borisch (Switzerland), Professor Mads Melbye (Denmark), Professor Martyn Smith (USA) and Professor Piet A. van den Brandt (Netherlands).
2. He also welcomed Dr A. Ullrich (WHO Representative), Dr R. Zanetti (UICC Representative – Observer) and Dr S. Négrier (Director of the Centre Léon Bérard – Observer).
3. Apologies for absence were received from Dr Y.-J. Bang (Republic of Korea), Dr H. Grönberg (Sweden), Dr V. Shanta (India), Professor D. Zaridze (Russian Federation) and Dr P. Puska (Chairperson of the Governing Council, Finland).

DECLARATION OF INTERESTS

4. The Secretariat has received the advice from WHO Legal Counsel that any interests should be disclosed at the opening of the Scientific Council Session and noted in its Report. Declarations were summarized by the Secretariat and made available for consultation by all Scientific Council members during the meeting. Please refer to the Annex at the end of this Report.

ELECTION OF RAPPORTEUR

5. Dr Alex Markham was elected Rapporteur.

ADOPTION OF THE AGENDA (Document SC/47/1)

6. **The agenda was adopted.**

PRESENTATION OF THE INTERIM ANNUAL REPORT 2010 (Document SC/47/2)

7. The Director presented the IARC Interim Annual Report 2010. Broad themes described included:

- Cancer Burden: GLOBOCAN was described and the predicted growing cancer burden in the less developed regions until 2030 and beyond was highlighted.
- Production of "Cancer Incidence in Five Continents": this publishes cancer incidence rates at approximately five-year intervals. The new on-line CI5plus contains annual incidence for 101 selected populations from 86 cancer registries permitting analysis of time trends.
- Cancer Survival data in various low- and middle-income countries (see, for example, *Lancet Oncology*, 11, 165-173, 2010).
- Cancer etiology: Tobacco Control (e.g. IARC Handbook on effectiveness of tax and price control policies; EPIC data on pipe smoking; studies on the dangers of tobacco chewing); alcohol-related cancer risks; environmental and occupational cancer risks from several perspectives (e.g. diesel exhaust, asphalt, chrysotile (asbestos) and agricultural pesticide exposures; the ongoing Interphone study on mobile phone use risks; high-dose diagnostic radiology exposures with the rapid escalation of CT use); infection and cancer risk (including examining the distribution of HPV types in HIV-positive women with cervical cancer in Sub-Saharan Africa); epidemiology of breast cancer worldwide, including studies on its molecular pathology in Central and South America; GWASs in renal cell carcinoma (see *Nature Genetics* 43, in press, Jan 2011); CAGEKID study with the International Cancer Genome Consortium (ICGC), including cohorts from several eastern European countries.
- Mechanisms of Carcinogenesis: the Director described a few of the many ongoing programmes including the role of TP53 mutations in breast cancer prognosis and response to anti-oestrogens; epigenetic changes in hepatocellular carcinoma that mirror disease development and exposure to HBV, HCV and alcohol; influence of 1-C metabolites on methylation changes (and the role of B vitamins); and pathological classification and prognosis of gliomas based on specific validated molecular markers.
- Cancer Prevention and Control: production of the IARC Monographs continues and the historical backlog has been cleared; screening studies include a cluster randomized trial of clinical breast examination in rural India with challenging targets for detection and resulting survival improvements; and the publication of the EU Quality Assurance Guidelines for Colorectal Cancer Screening Programmes.

8. The Chair congratulated the Director on the quality and breadth of the work ongoing at IARC. It was particularly welcome to hear that the backlog of IARC Monographs had been cleared.

9. The importance of raising the prominence of the potential risks of increasing use of CT scanning worldwide was discussed. The Cancer Information and Infections Sections are looking at worldwide attributable cancer risk associated with chronic infections, rather than single

country studies. The principle that wider territorial studies might be encouraged rather than single jurisdiction studies was discussed and the methodological challenges involved were noted.

10. The Scientific Council asked whether there were any areas where there were specific problems that they might help resolve. In brief, no specific problem areas were identified for urgent attention. The possibility of IARC Monographs in new areas was raised e.g. genetic risk and gene/environment interactions. Consideration of this issue will be the focus of a number of forthcoming meetings at IARC and the International Advisory Group will also be consulted.

11. There was some discussion of how successful IARC screening programmes might be extended to demonstrate that the conclusions were equally applicable in other populations. Whilst there was agreement of the desirability of this, the resource constraints of replicating these long-term studies was recognized.

12. The Scientific Council congratulated the Director and his staff on the IARC Interim Annual Report 2010.

REPORT OF THE MEETING OF THE 52ND SESSION OF THE GOVERNING COUNCIL (Document SC/47/3)

13. The Director presented the Report of the 52nd Governing Council (May 2010).

14. The following updates were provided:

- The Governing Council approved the Director's Report.
- The Director mentioned it was important to strike a balance between research and the advisory activities in which IARC Staff are involved with WHO. Close collaboration is ongoing with respect to the First Global Ministerial Conference on Healthy Lifestyles and Noncommunicable Disease Control (NCD) to be held in Moscow in April 2011 and the UN high-level NCD Summit in New York in September 2011.
- Staff issues: Communications; IARC 30-year service awards; problem of compulsory retirement age at 62; partners of non-EU staff joining the Agency and wishing to work.
- Around 300 publications were produced in the last year.
- Approval by the Governing Council of the Medium-Term Strategy for 2010–2014.
- The Governing Council advised that significant increases in regular budget were unlikely.
- The demands on the Agency will continue to grow as the cancer burden increases worldwide. This means that the financial pressures on the Agency will also intensify.
- Infrastructure costs were discussed. The 13th floor is vacant and will need funds for refurbishment. The Director is also having discussions with the City of Lyon (the owner of the main building) and the National Cancer Institute of France (INCa) concerning the ageing of the tower and the €300 000 per annum currently being spent on repairs and maintenance as a result.
- The Secretariat with the Subcommittee on the Admission of new Participating States is in discussion with: Brazil, Turkey, Argentina, South Africa and other potential participants.

15. The Scientific Council noted the Report of the meeting of the 52nd Governing Council. The need for judicious investment in scientific equipment at IARC was emphasized. The example of high throughput DNA sequencing was highlighted. The cost arguments for outsourcing this activity were recognized as was the desirability of some in-house capability for specific types of study. The same philosophy will be adopted for metabolomics, by developing relations with partners in Lyon. The possible damaging effect on recruitment due to a lack of investment in state-of-the-art equipment was recognized.

16. The Vice-Chair of the Governing Council expressed the Council's gratitude to the Scientific Council for their role in ensuring the quality of IARC research to justify the ongoing funding.

DIRECTOR'S REPORT AND UPDATE FROM THE 46TH SESSION OF THE SCIENTIFIC COUNCIL AND DISCUSSION (Document SC/47/4)

17. The Director presented the update from the last Scientific Council. He was pleased to note the increasing involvement of Scientific Council members, which has been of benefit to the Agency.

18. The following points were highlighted:

- The tragic loss of Dr Elaine Ron was noted with regret by the Scientific Council.
- Over the last two years many of the issues requiring attention which had been identified by the Governing Council and the Director upon his appointment had been resolved.
- Consolidation of the Agency's financial base was now felt to be the priority, focusing on increasing external income and attracting new Participating States.
- The Director highlighted progress in the recruitment of new senior scientific staff over the past year.
- Increased attention is being paid to the career development of postdoctoral fellows.
- Educational courses are now being offered in collaboration with leading external institutions worldwide.
- There has been a significant increase in demand for visiting fellowships at IARC, at all levels of seniority. The need for stakeholders to support visitor programmes was highlighted; Cancer Council Australia was mentioned as an example.
- An IARC Alumni organization has been launched on "LinkedIn[®]".
- Regular teleconferences with the Governing and Scientific Council Chairs and Vice-Chairs have now been established in order to increase communication.

- It was proposed that the Section peer review process should take place at the same time as the annual January Scientific Council meeting and held on the Monday/Tuesday prior to the full Scientific Council Session (Wednesday through Friday). This would increase Scientific Council involvement in the peer review process and avoid two trips to the Agency by Scientific Council members during the year. This would also reduce the administrative burden for the Agency. The Director proposed that there should be an opportunity for more “open” strategic scientific discussions at the Scientific Council.

19. The Director’s Report was welcomed.

20. The Scientific Council discussed the Director’s proposal that consideration be given to reintegrating the peer-review process into the January meeting of the Scientific Council (see paras. 3–9 of document SC/47/4). After discussion of the advantages and disadvantages of this proposal, there was support for merging for a trial period the peer review and Scientific Council processes. It was therefore decided that the Scientific Council recommend to the Governing Council that this proposal be adopted in 2012 and then be reviewed. It was further suggested that if the peer review process was to be reconsidered, the Scientific Council should be given the possibility of commenting on “what comes next” scientifically. Whilst the Scientific Council plays an essential “safety net” review role of IARC’s past work, members would like to focus more on future plans and early discussion of possible new directions. The Scientific Council strongly supported the Director’s suggestion that in Scientific Council meetings more time should be devoted to specific discussion of scientific issues, and less to consideration of formal documents.

21. The financial constraints on IARC were noted. Closer integration of the work of the IARC Senior Leadership Team, the Scientific and the Governing Councils was noted with satisfaction. Expansion of the Fellowships programme was encouraged and it was suggested that all alternative sources of financial support should be explored. This might be achieved through the good offices of past and present Scientific Council members in their home countries. Visitors should bring some benefit to IARC as well as being beneficiaries themselves of the IARC “experience”.

DIRECTOR’S RESPONSE TO THE SECTION OF INFECTIONS (INF) REVIEW, HELD AT IARC IN NOVEMBER 2009 (Document SC/47/5)

22. The Director responded to the November 2009 review of this Section and detailed actions taken following the review of the Section.

23. The Director noted with satisfaction the high overall evaluation assigned to the Section of Infections (INF) and to both of its Groups, the Infections and Cancer Epidemiology Group (ICE) led by Dr Silvia Franceschi and the Infections and Cancer Biology Group (ICB) led by Dr Massimo Tommasino.

24. The Scientific Council strongly supported the conclusions in the Report from the Review Panel (Document SC/46/WP4) and the recommendation that the Section be adequately supported for their ongoing work. The Director confirmed that this was his intention within the constraints faced in general across the Agency.

25. The Review Panel had noted that the Agency did not allow the naming of non-permanent staff on research grants submitted for funding. This has since been addressed and is now permitted. However, even though named on the grant, the scientist concerned would have to proceed through the normal IARC competitive selection process for advertised posts on extrabudgetary funds.

26. The work of ICB relies on adequate laboratory equipment and infrastructure; the Group is benefitting generally from additional investment in this area including the acquisition of the Luminex apparatus and, in future, will benefit from the purchase of next generation DNA sequencing equipment. The work of ICE was supported by the appointment of a new junior post for database management.

- The Scientific Council welcomed the results of the review and was fully supportive of the measures that had already been taken to address the issues raised therein.
- The Scientific Council noted with satisfaction that the members of this Section now clearly felt that they were being supported by the Director to the extent merited by their recognized scientific quality.
- The strategy of moving to appoint at a junior scientist level rather than seeking world-leading experts was questioned. The pressing need to provide adequate support to the outstanding leaders of this Section, at junior level, was explained and accepted.
- It was proposed that Scientific Council Reviews from previous years should be made available to all Scientific Council members. This was particularly important for new members of the Scientific Council. The Director undertook to place these documents on the password-protected web site for Scientific Council members. The confidentiality and potential sensitivity of these documents was stressed.

27. The Section Heads thanked the Scientific Council members for the helpful commentary provided in the Review. The Chair congratulated the Section Heads on their achievements. The comments of the Director were noted and accepted by the Scientific Council.

SCIENTIFIC REPORT OF THE SECTION OF GENETICS (GEN) REVIEW AND DISCUSSION (Document SC/47/WP4)

28. The Scientific Report of the GEN Review was presented by Dr Ian Frazer, Chair of the Review Panel.

- The external advisors and Scientific Council members of the Review Panel were thanked for their valuable contributions.
- The Review Panel noted the following concerning the GEN Section overall:
 - The Heads were both relatively recent appointees.
 - The GEN Section was rated "Outstanding".
 - The fit with IARC's mission was rated as "Perfect fit".
 - Additional interactions with other Groups at IARC were encouraged.

- The issue of next-generation high-throughput sequencing was discussed. It was strongly recommended that a resource should be set up at IARC. This should be for small- to medium-scale projects. Collaborations with outside Genome Centres (e.g. in Paris and Lyon) for large-scale sequencing undertakings should continue.
- The Section provides genetics services within IARC. The service and research components of the Section activities should be clearly separated for budgetary purposes.
- Mentorship of postdoctoral staff should be encouraged. Flexibility to allow postdocs to stay for up to three years in this area was strongly recommended.

Concerning the GEP Group:

- The Group was rated as "Outstanding".
- The fit with IARC's mission was rated as "Perfect fit".
- The Group was strongly placed to take advantage of IARC cohorts available in the developing world. Its particular disease interests were endorsed.

Concerning the GCS Group:

- The GCS activity was rated as "Satisfactory", reflecting the fact that its new Head had only been in post for a very short time.
- The fit with the IARC mission was rated as "Perfect fit".
- It was recommended that an additional "light touch" review should take place in January 2012, when the detailed scientific proposals from the new Head of GCS would be considered.
- Whilst there was support for continued close joint working between GEP and GCS, the need for GCS to develop a distinct scientific identity was emphasized.

29. The overall recommendations for the Section (GEN) and the GCS and GEP Groups were discussed and approved.

30. In response, the Director:

- Described work to procure high-throughput sequencing equipment to be placed under the leadership of GCS in the GEN Section. This has been facilitated to an extent by the fall in the prices of such equipment. The Director accepted the importance of establishing this technology platform as a matter of urgency and purchase is imminent.
- Outlined progress in making recommended Bioinformatics appointments and in hardware provision. Discussion on establishing closer links with the Biostatistics Group was deferred to Agenda Item 14.
- Had increased the separate budget for the Genetics Services Platform.
- Noted the ongoing negotiations to collaborate locally with the new bioinformatics group of Dr Gilles Thomas, for which a Memorandum of Understanding was in preparation.
- Updated the Scientific Council on progress to advertise and fill posts in this Section.

- Accepted the need for access to high quality histopathology expertise, locally and via networks as outlined in the Report. Collaboration with local hospitals on imaging was a possibility.

31. The Scientific Council was pleased to note the considerable progress that had been made in implementing the recommendations of the Review Panel. The Scientific Council particularly emphasized the importance of distinguishing the roles of GEP and GCS in the review of the aims of GCS that will take place in January 2012. The Section Heads thanked the Review Panel for their input.

32. The Section of Genetics Review Panel Report was formally accepted by the Scientific Council.

PURCHASE OF SCIENTIFIC EQUIPMENT (Document SC/47/14)

33. The Scientific Council considered the Director's proposal to request a contribution of €240 000 from the Governing Council Special Fund (GCSF) for essential scientific equipment, to be used primarily as shared resources and thus benefiting the work of laboratory groups across the Agency.

34. The following items were proposed for purchase:

- a) DNA aliquoting robotic apparatus and multi-well plate reader
- b) Solid phase extraction robot
- c) Real-Time PCR detection system and DNA-quantification system
- d) High performance sonicator

35. The Scientific Council considered these items and noted the valuable roles of the Laboratory Steering Committee (LSC) and the Laboratory Services and Biobank Group (LSB). This meant that there was now a transparent process at IARC for the management of the equipment base with the aim of maximizing efficiency. This should normally allow future equipment requirements to be identified in the routine budgeting process. Requests to the GCSF (currently €2.7m available) might therefore be less frequent (and more strategic) in the future. It was suggested that as a general principle, 50% of equipment costs should be included in external grant applications, wherever possible. Many funding bodies find applications attracting shared institutional funding particularly attractive.

36. The Vice-Chair of the Governing Council felt that with the Scientific Council's support, the Governing Council would be supportive, particularly if a medium-term projection of likely future requirements from the GCSF could also be produced.

37. The Scientific Council recommends that the Governing Council approve the above-mentioned purchase of scientific equipment.

SCIENTIFIC COUNCIL MEMBERSHIP OF SECTION REVIEW PANEL IN 2011

38. The Scientific Council discussed the Sections to be reviewed in 2011: Section of Cancer Information (CIN), Head: Dr David Forman and Section of Environment and Radiation (ENV), Head: Dr Joachim Schüz.

39. Review Panel members need to be identified as soon as possible to ensure a timely process. After discussion, the following membership was proposed and accepted:

- Drs Pollán Santamaria, Anttila and Melbye will participate in the CIN Review Panel. It was agreed that Dr Pollán Santamaria would chair the CIN Review Panel.
- Drs Gallagher, van den Brandt and Smith will participate in the ENV Review Panel. It was agreed that Dr Gallagher would chair the Review Panel.
- The external members should be chosen by the Secretariat in consultation with the Chairs of the Review Panels and the Chair of the Scientific Council.

40. In view of the discussions held earlier, the next Review Panels will take place at the time of the next Scientific Council meeting.

PROPOSED PROGRAMME (2012–2015) AND BUDGET (2012–2013) (document SC/47/6)

41. The Director introduced this item and Mr Philip Knoche (Administration and Finance Officer) presented further details of the document.

42. The present Proposed Programme and Budget reflects the priorities set out in the IARC Medium-Term Strategy and Implementation Plan for 2010–2014 and approved by the Governing Council (see document GC/52/6 and Resolution GC/52/R4).

43. Overall the statutory costs of the Agency have increased from the previous biennium by 11.44%. These increases relate to staff costs and are, in major part, beyond the control of the Agency. In times of global financial constraint, the Agency proposes to finance these additional costs by a combination of a reduction in programmed activities (-6.57%: €2.5m) and an increase in regular budget (+4.87%: €1.8m). The Agency's administration costs have been proportionally reduced compared to 2010–2011 and the costs related to Governing bodies are also slightly reduced in order to protect the Scientific Programme. The Director has also sought to protect the Scientific Programme by assigning resources from the Director's Office to the Sections and Groups.

44. The Agency will seek to further compensate for the reduced regular budget financing by a number of measures including: attracting new Participating States, increased voluntary contributions from existing Participating States and additional extrabudgetary sources, including cost recovery from grants of some regular budget costs.

45. The budget proposed for 2012–2013 is €39 758 435 compared to €37 911 000 in 2010–2011.

46. 30–40% of additional funding is obtained from external sources (ca €10m), which supplements the final budget.

47. Salary costs are outside the Agency's control. This has resulted in increased staff costs of €4.3m this year (pension adjustments, health insurance, etc.).

48. Each additional P2 junior scientist adds 0.5% to the Agency's budget.

49. The process of preparing Project Abstract Sheets and their review by the Director were presented. The Director is allowed to transfer up to 15% between the three Appropriation Sections of the budget. In response to questions from the Scientific Council, the process of balancing the Agency's portfolio across Sections was explained by the Director.

50. The Scientific Council made the following observations:

- The question was raised as to the likelihood that externally determined salary costs will continue to increase, particularly over the next three years. The Secretariat explained that it is difficult for the Agency to predict this with absolute precision. Unexpected increases may regrettably have to be managed by a reduction in the Scientific Programme.
- Scientific Council members commented that this funding model might make it difficult for the Director to sustain the IARC Programme. The Scientific Council wished to bring this risk to the attention of the Governing Council.
- The factors underlying the relative balance of funding between different Sections were discussed. The role of the Scientific Council in commenting on the balance of the portfolio was raised. Assessing whether there is "high level" consistency between the Agency's approved Scientific Strategy and the proposed Section budgets might be considered in more detail by the Scientific Council at future meetings. It was proposed that future Scientific Council meetings might involve rather more discussion of science, with the routine business of making recommendations to the Governing Council taking up less of the Agenda. There was general support for a move in this direction at future meetings.
- The Scientific Council noted that some Sections are intrinsically more able to attract external funds from the limited range of funding bodies that are prepared to support the Agency. The Agency pays particular attention to issues of overhead cost recovery on external awards. Core costs are now included on grant applications wherever possible. The policy is that, as far as possible, funds obtained as a result are redirected to the Sections that obtained them.

51. The Chairman congratulated the Director and his staff on the increased professionalism now apparent in the budget setting process.

52. After extensive discussion, the Scientific Council recommended that the Governing Council adopt the Proposed Programme (2012–2015) and budget (2012–2013).

FEEDBACK ON KEY PERFORMANCE INDICATORS (KPIs) FOR THE AGENCY (document SC/47/7)

53. At its last session, the Governing Council acknowledged the concerns expressed by the Scientific Council on the appropriateness and limitations of the use of KPIs to assess the performance of an organization such as IARC, in particular, the difficulty in selecting indicators that fully reflect the breadth of its activities, or its unique mission of promoting research in low- and medium-resource countries.

54. Whilst taking into account the comments of the Scientific Council, the Governing Council had felt that KPIs were useful in order to monitor the progress made towards key institutional objectives.

55. The Secretariat suggested the inclusion in the written Director's Report to the Governing Council of a standard set of KPIs, in respect of:

- analysis of scientific publications and their ranking;
- information dissemination and publishing, including the volume of and revenue from sales of publications;
- extrabudgetary funding secured and the proportion this represented in relation to the Regular Budget;
- Education and Training, including the number of courses and participants, the number of fellows and the proportion from low- and medium-resource countries.

56. These data will be presented over a rolling four-year period to allow the Governing Council to monitor progress and evaluate trends in activity and performance over time.

57. In addition, the measures will be further developed and refined through regular consultation with the Governing and Scientific Councils and will initially include two additional indicators which represent important components of the IARC Medium-Term Strategy:

- access to IARC's online publications and resources – measurement of the access and downloads from the Agency's websites as an additional indicator of the Agency's impact as a source of information and resource for the wider scientific community; the specific web-metrics data to be collected are still being considered but would include monitoring the use of the main IARC website as well as of the associated minisites and databases: the software to monitor this activity is currently being tested;
- assessment of the scale of external collaborations – the precise way to measure this role of the Agency needs consideration but could include an assessment of participation in and coordination of multicentre studies, in particular collaborations with scientists in low- and medium-resource countries; a key question is whether reliable data can be collected without making excessive demands on scientists and support staff.

58. The Scientific Council noted that, although the choice of "Google Analytics" was mentioned in paragraph 8 of document SC/47/7, other web analytical tools to monitor access to IARC's online publications and resources were currently being tested.

59. The Director presented preliminary data on IARC scientific publications over recent years. Revenues from sales of publications through WHO Press were also presented and the factors that impact on these sales figures. Voluntary Contributions over the last five years were detailed, as were the numbers of fellowships and courses held. In the future, measures of research collaborations will be developed along with assessment of online access to IARC

resources. Whilst this is still “work in progress” for IARC, all the parameters presented seem to be moving in a positive direction. This presumably reflects changes at IARC since the arrival of the new Director.

60. The Scientific Council made the following comments on the current scope and planned expansion of KPIs: the measures were generally welcomed. The need for KPIs that differ from standard bibliometrics was stressed, to reflect the fact that IARC’s mission is somewhat different to that of most other research institutes. A specific request was that IARC should measure its success in catalysing effective cancer registration in low- and middle-income countries. This objective has previously been supported by the Governing Council. The role of IARC in building capacity in cancer registration worldwide was also emphasized. Eventually, it would be highly desirable to develop a KPI to assess implementation of measures identified by IARC as beneficial in developing countries.

61. The question was raised as to whether IARC can learn from any KPIs used by other WHO Units. This will be explored by the Director.

62. The Scientific Council again stressed the vital role of the peer review process at IARC in monitoring many of the factors that underpin the IARC KPIs. A balance must be maintained and peer review remains critically important in assessing IARC scientific performance.

63. After extensive discussion, the Scientific Council recommended that the Governing Council approve the two additional indicators to complement the standard set of IARC KPIs.

FEEDBACK ON THE OPERATION OF THE BIOBANK ACTIVITIES (document SC/47/8)

64. Dr Maimuna Mendy, Head, Laboratory Services and Biobank Group (LSB) was unable to present this item due to a bereavement. Dr Hainaut made the presentation in her unavoidable absence.

65. LSB activities include the provision of generic laboratory support services (technical management of health and safety, provision of glassware services, maintenance of supplies of basic laboratory items and supervision of equipment maintenance) and of biobanking services for IARC and externally funded projects.

66. To address the growing complexity and workload of biobanking operations, a new biobank structure was put in place in 2009, supported by the creation of a Laboratory Manager position (P2 scientist) and a Biobank Steering Committee (BSC). This complemented the Laboratory Steering Committee (LSC) which provides an opportunity for all laboratory Groups at the Agency to contribute to the running of the Agency’s laboratories, including establishing priorities for equipment acquisition.

67. In order to maximize the potential of the biobank and to create new opportunities, a web site will be launched describing the resources and facilities available. It will contain a catalogue of the collections and information on laboratory facilities including relevant Standard Operating Procedures (SOPs). It will also describe the mechanism to access IARC’s collections and will help scientists of the Agency’s collaborative networks to identify potential new collaborations in order to make the best use of the specimens stored at IARC.

68. Dr Mendy has already reviewed the basis for cost recovery to support the biobank and work will continue to refine this approach: existing cost for access to samples and sample preparation will be further revised and costing for additional activities such as archiving of new sample collections will be introduced.

69. SOPs are being developed, for use by principal investigators to budget grant applications accurately.

70. A review of maintenance and service contracts for major equipment will be conducted with the aim of developing a replacement plan for essential shared equipment. In the plan, a review of the function and performance of equipment over five years old will be carried out with the aim of replacing ageing equipment one to two years before it becomes obsolete. The plan will also include the upgrading of critical equipment.

71. Due to its leading role in molecular epidemiology and its strong international visibility, IARC is strongly involved in developing recommendations, standards and publications aimed at developing international biobanking practice. IARC is also providing expertise and advice to the development of national biobanking programmes (e.g. the recent Irish National Biobanking project). This activity will continue to be developed through in-house expertise and participation in key external committees and organizations.

72. The importance of the activities described in Dr Hainaut's presentation was noted by the Scientific Council. Biobank facilities are critical to most Sections at IARC. The management and committee structures now in place to coordinate this critical (and growing) aspect of the Agency's operations provide reassurance that activities are conducted in accordance with the best available standards. The in-house SAMI software package for management of the collections (of millions of samples requiring different storage conditions) was described. Governance arrangements for access to IARC (and EPIC) samples were explained.

73. The Scientific Council raised several issues to which Dr Hainaut replied as outlined below.

74. Further explanation of ways in which external investigators can access the IARC web site to assess the existence of samples that might allow collaborative studies was provided. The scientific and ethics frameworks for access to the IARC (and EPIC) Biobanks were explained. Mechanisms for complete anonymization of specimens in the Agency were described. Clinical information concerning specimens is retained by collaborating clinicians and not kept by IARC. IARC should, in principle, hold copies of the informed consents for the specimens it stores. These are not available for all historical collections, but this is planned for all future collections.

75. Specific questions about international regulations relating to movements of specimens between jurisdictions were explained. The issue of historical collections and the additional ethics questions they raise were discussed. Making datasets available for secondary investigation by external investigators was raised. At present, there are no plans to make third-party data available through IARC.

76. The policy of maintaining the collections "in duplicate" at multiple sites, to avoid "disaster" losses, was explained. The system in place has not failed so far.

77. The role of IARC in acting as an international custodian for historical collections was raised. The Scientific Council was supportive in principle of IARC playing a leading role in such long-term curation activity.

78. The rules concerning interactions with commercial organizations were explained. IARC has no current contracts with any commercial organization, but in principle there is nothing to prevent such interactions as long as standard WHO regulations are followed and the correct patient consents have been obtained.

79. The Scientific Council recommended that the Governing Council approve the proposed directions for the Biobank activities.

DISCUSSION ON THE BIOSTATISTICS GROUP (BST) ACTIVITIES AT IARC (document SC/47/9)

80. Dr Graham Byrnes, Head, Biostatistics Group (BST) presented this item.

81. Biostatistics is an essential contributor to cancer research, both laboratory-based and epidemiological. There are three principal aspects to biostatistics envisaged in the context of cancer research at the Agency:

- Development of methodology to enable adequate analysis of new types of data, or to optimize the analysis of traditional forms;
- Provision of statistical expertise to ensure the correct application of existing techniques of analysis and appropriate interpretation of the results;
- Education to maintain and improve the level of statistical understanding among all research staff at IARC.

82. There are a significant number of IARC professional staff members with high levels of statistical training. All IARC epidemiological groups currently have a statistician as an embedded member.

83. In November 2010 the Agency invited an ad hoc Advisory Group on Biostatistics (AGB) to consider the current activities and to advise the Director on the future development of the discipline at IARC.

84. The advice of the AGB and further internal discussion are summarized briefly below (Paras 84 to 92).

85. In order to encourage and support the conduct of appropriate methodological research by statisticians, their partial role in BST should be formally recognized as being 20% of their time. This time would be available to devote to methodological developments stimulated by problems encountered in their subject-specific work, but also through discussion with other IARC statisticians. It would also enable the senior statisticians to provide mentoring of more junior statistical staff across the Agency within the BST proportion of their time.

86. Statistical methodological research output will continue to be evaluated within the existing quinquennial review process within Sections. However, peer-review committees should include a member with specific expertise in applied statistics and a familiarity with the constraints imposed by an applied research setting. Independent quinquennial peer reviews for BST were not

considered appropriate as this could imply that some staff would be subject to double review and the methodological research would risk being considered out of context.

87. Consideration should also be given to inclusion of statistical expertise on the IARC post-doctoral Fellowships Selection Committee to ensure that applicants in this discipline are professionally reviewed. In addition, it is important that biostatistics should be represented on selection committees for fellowships at all levels.

88. The Head of BST should continue to be consulted on the development of post descriptions for all statistician posts across the Agency and be included on interview panels where statisticians are recruited.

89. A more structured approach to ensure all research Groups at IARC have access to statistical advice will be developed.

90. In the shorter term, statistical needs of Groups currently without expertise should be provided by a combination of:

- Training and mentoring of junior staff. There is potential for conflict between the advice of the statistical mentor and the Group or Section Head, but this is best managed by creating a climate of goodwill through the experience of successful collaborations;
- A centrally funded statistical reference service. This would need to be funded by a mechanism which does not penalize those Groups who have already invested in statistical expertise. In addition, the career development of anyone occupying such a "service" post would necessitate an element of research focus.

91. In the longer term, all research Sections and/or Groups at IARC will be encouraged to hire a professional statistician (full or half-time), or to share such a post with another Group/Section, to increase statistical resources and expertise.

92. An important aspect of education, mentoring and professional development at all levels is through interaction with external experts in statistics, biometry and bioinformatics. This can develop through collaboration on joint projects, but would also benefit from bringing visitors to IARC to work on specific areas. It is envisaged that these visits could range from senior statisticians to doctoral students, for periods ranging from a few days to several months. A budget to fund such visits would be required.

93. In order to provide more visibility to BST, one possibility is to assign the Group to the Director's Office, in analogous fashion to the Laboratory Services and Biobank Group, recognizing that its remit is Agency-wide rather than specific to the hosting Section (currently GEN). The Head of BST would continue to report to the Head of GEN as first-level supervisor for specific GEN-related activities but to the Director, as second-level supervisor, for the BST Group activities. This structure should better allow for statistical co-supervision of junior scientists. The AGB also set out a number of other organizational structures that might be considered for the management of BST activities. The Scientific Council was invited to comment on these various options.

94. Dr Graham Byrnes reported that all the recommendations of the Advisory Group could not be implemented for practical and financial reasons.

95. The Scientific Council made the following observations:

- IARC's historical world-leading biostatistical role was noted. It was felt that the present day situation might require different management structures. The key question is: do the different IARC Sections/Groups currently feel they have access to adequate statistical support? The Scientific Council would like reassurance on this question. The important role that could be played by external visitors on an ad hoc basis in this area was recognized.
- The Scientific Council concluded that the "matrix management" approach that the Director is adopting was a pragmatic way forward. The Scientific Council would like to monitor how well this system works in practice. The importance of Biostatistics as a discipline in its own right at IARC should be kept in mind. If there is no leading methodological work at IARC, it may prove more difficult to attract external visitors of the right calibre to IARC. However, this will be balanced by the attractiveness of the quality of the data available at IARC.
- Given that there is currently interest from several leading international scientists, including biostatisticians, in visiting IARC, the Director asked for the Scientific Council support of a one-off request to the Governing Council for funds to enable this to go ahead in the short term. The Scientific Council was broadly in agreement with this request (supported by arguments to the Governing Council of appropriate KPIs to demonstrate the impact of such a scheme). Sabbatical visits might be attractive to IARC on financial grounds. The issue of how individual Sections might identify specific visitors to be invited was discussed. This would need to be based on the strength of the scientific case.
- The differences between the disciplines of Biostatistics and Bioinformatics were discussed. Both remain critical to IARC's mission and will require individual investment as well as coordination.

96. The Scientific Council noted the currently proposed direction for IARC Biostatistics activities. However, the Scientific Council wishes to be kept informed of how successful the matrix system proves to be in practice, and recommends that further consideration be given at the next Scientific Council meeting to appointing a full time senior statistician, external to the Group structure.

PROPOSAL REGARDING RENEWAL OF SCIENTIFIC COUNCIL MEMBERS AND LENGTH OF MEMBERSHIP (document SC/47/10)

97. After the 46th Scientific Council in January 2010, the Outgoing Chair (Dr Harry Comber, Ireland) expressed some concern about the fact that the mandate of eight of the 21 members of the Scientific Council would come to an end in 2011, which may have consequences for continuity.

98. Altering the length of membership of some Scientific Council members would require a change in the IARC Statute and consideration of related issues, including the method for deciding how many and which newly elected member(s) of the Scientific Council would have a term of office of less than four years, and the duration of that term of office.

99. The above points were discussed in some detail during a teleconference with the Director and the Governing and Scientific Council Chairs and Vice-Chairs which was held in September 2010. As a consequence the Secretariat suggested leaving the situation as it is for 2011 and to seek the advice of the Scientific Council concerning a proposal to amend the Statute to allow for a more even turnover of Scientific Council members with less time constraints. No change is therefore proposed at this time concerning the departure of eight members from the Scientific Council in 2011.

100. The view of WHO Legal Counsel (LEG) was that changing the Statute might not be justified given that the remaining number of members (minimum 13 of 21) remains relatively high and that the proposed amendment introduces an undesirable element of uncertainty into the election of Scientific Council members with variable terms of office.

101. The Scientific Council made the following observation:

- The primary concern remains the balance of skills available on the Scientific Council. This will continue to be a consideration when Participating States are asked to identify potential new members on the Scientific Council.

102. The Scientific Council recommended that no change currently be made to the process of appointing and replacing Scientific Council members.

BIENNIAL REPORT OF THE IARC INSTITUTIONAL REVIEW BOARD (IRB), 2009–2010 (document SC/47/11)

103. The Scientific Council noted that a decision was made, in September 2010, to change the name of the Committee from IRB to IARC Ethics Committee to better reflect the work carried out.

104. Dr Martyn Plummer, member of the IEC presented this item.

105. The constitutions of the former IRB and the Ethics Review Committee (ERC) were described. They have been replaced by the IARC Ethics Committee (IEC) and Ethics Advisory Group (EAV). The membership and roles of the new committee were explained.

106. IEC approval is always conditional on local centre ethical approval. IEC approves any proposed new use of previously collected samples. Applications involve completion of an IEC questionnaire, provision of a study protocol and ideally evidence of third-party, independent scientific peer-review. This reflects the fact that the role of the IEC is not to judge scientific excellence. The system will increasingly move to an electronic format to reflect its growing international activities.

107. Historically, IRB and latterly IEC have approved the great majority of applications submitted to them. Clarification or modification of proposals has sometimes been requested.

108. The Scientific Council noted the Report and the quality of ethics review at IARC with satisfaction.

ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON FOR THE 48TH SESSION OF THE SCIENTIFIC COUNCIL IN 2012

109. Dr Ian Frazer was elected Chairperson.

110. Dr Mads Melbye was elected Vice-Chairperson.

DATE OF NEXT SESSION

111. As Reviews are to be merged with the Scientific Council, the dates of the CIN and ENV Reviews will be 30–31 January 2012 and the 48th Session of IARC Scientific Council will be held on 1–3 February 2012.

ADOPTION OF THE SCIENTIFIC COUNCIL REPORT (Document SC/47/12)

112. **The report of the Forty-seventh Session of the Scientific Council was adopted.**

CLOSURE OF SESSION

113. The customary expressions of thanks were exchanged.

114. Dr Wild thanked the outgoing members of the Scientific Council, Drs Bang (Republic of Korea), Blettner (Germany), Comber (Ireland), Forni (Italy), Grönberg (Sweden), Rivedal (Norway), Shanta (India) and Zaridze (Russian Federation).

ANNEX

STATEMENT FOR THE DECLARATION OF INTERESTS

Declarations of interest were provided by all Scientific Council members.

Interests were declared by a minority of Council members and include:

- ✓ Research funding from and consultancy for commercial entities;
- ✓ Provision of legal expert opinion;
- ✓ Commercial interest in private companies.

The list of declared interests was made available upon request, from the Chair and the Vice-Chair, for consultation during the meeting.

Upon review by the Secretariat none of the declared interests were considered to represent a potential or clear conflict of interest with respect to the content of the meeting.

The individuals reporting interests were asked to check the contents of the table below, which they all subsequently approved.

Scientific Council member	Declared interest(s)
Maria Blettner	Expert opinion/ testimony for a commercial entity (Frankfurt Airport) Statistical consulting for clinical trials or epidemiological studies (AstraZeneca, Astella, LA-Ser)
Marina Pollán Santamaria	Partial support to the Research Project: "Determinants of Breast Density in Spanish women attending screening programs (DDM-Spain)", (AstraZeneca) Total support to the Research Project: "Validation of the Gail Model for Predicting Individual Breast Cancer Risk in Spain", (Eli-Lilly) Advisory work and participation in seminars on the topic: "Insulin & cancer", (Novonordisk) Conference entitled "The Situation of Cancer in Spain" (as part of a course that takes place every two years), (AstraZeneca)
Martyn Smith	Consulting in litigation + expert opinion + testimony in courts and written reports for various law firms in the USA and the US EPA + payment for travel to industry meeting (American Chemistry Council)
Giulio Superti-Furga	Consulting for and current investment in commercial entities