International Agency for Research on Cancer

World Health Organization

Governing Council **GC/62/4**
Sixty-second Session 07/02/2020

Monday 11 and Tuesday 12 May 2020
To be held by webconference (due to COVID-19 pandemic and travel restrictions)

REPORT OF THE SCIENTIFIC COUNCIL ON ITS FIFTY-SIXTH SESSION

INTRODUCTION

1. The Fifty-sixth Session of the Scientific Council (SC) of the International Agency for Research on Cancer (IARC) was opened by Professor Christine Friedenreich (Chairperson of the Scientific Council), at 09:00 on Wednesday 5 February 2020. She welcomed the participants, including the ten new members of the Scientific Council: Drs Karima Bendahhou (Morocco), Tone Bjørge (Norway), Gunilla Enblad (Sweden), William Gallagher (Ireland), Ulrike Haug (Germany), Sergey Ivanov (Russian Federation), Ravi Mehrotra (India), Péter Nagy (Hungary) [unable to attend], Jong Bae Park (Republic of Korea) and Pietro Pichierri (Italy) [unable to attend].

2. She also welcomed Dr Stephen Robbins (Vice-Chairperson, Governing Council, Canada), Mrs Michèle Boccoz (WHO)[1], Drs Marina Rousseau-Tsangaris and Béatrice Fervers (Observers nominated by the Centre Léon Bérard), and Ms Zuzanna Tittenbrun (UICC Observer)[2].

3. Apologies for absence were received from Drs James Cerhan (SC member, USA), Péter Nagy (SC member, Hungary), Pietro Pichierri (SC member, Italy) and Professor Mads Melbye (Chairperson of the Governing Council, Denmark).

4. For ease of reference a list of acronyms of IARC Sections and Groups can be found in Annex 1 at the end of this Report.

DECLARATION OF INTERESTS

5. Declarations of interests were summarized by the Secretariat and made available for consultation by all SC members during the meeting. Please refer to Annex 2 at the end of this Report.

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[1] Attended the First Stone laying ceremony for the Nouveau Centre

[2] Photographs: participants were not asked to sign a consent form. The Secretariat read a statement, at the opening of the session, informing participants that their presence on the steps for the Group photograph was taken as equivalent to their consent to have their picture displayed on the Governance website, and kept in the IARC archives for future use. This also covers consent for pictures taken during the meeting. Participants were asked to let the Secretariat know formally if they wished not to have their picture published by IARC, at the time of the meeting or in future.

ELECTION OF RAPPORTEUR

6. Further to the suggestion, during the last SC session (SC/55), that the Rapporteur should be someone from the IARC Secretariat, and considering that the IARC Statute does not contradict this suggestion, the Governing Council and Scientific Council Chairs and Vice-Chairs decided that, as from 2020, this role will be held by the IARC Secretariat to allow the Rapporteur a more active participation as SC member.

7. Dr Véronique Chajès, Programme Officer in the Director's Office, was chosen as Rapporteur.

ADOPTION OF THE AGENDA (Document SC/56/1)

8. **The agenda was adopted.**

DIRECTOR'S REPORT INCLUDING:

- *THE IARC BIENNIAL REPORT 2018–2019 (Document SC/56/2)*

9. The Director presented the IARC Biennial Report 2018–2019 and its scientific highlights.

10. The SC congratulated the Director and the Agency on the IARC Biennial Report 2018–2019.

11. The SC asked how IARC's publications are marked and about the plans to increase their dissemination and visibility, including for low- and middle-income countries (LMICs). Current benchmarking activities by IARC of its publications have shown that they are generally published in the highest tier journals. The SC supported the continuation of regular tracking of citations of IARC publications. IARC's preference is to publish through Open Access distribution, whenever possible, notwithstanding the high costs.

12. The SC appreciated the efforts of IARC Communications during the past year to increase awareness of IARC's scientific output and encourages IARC to continue increasing its impact and visibility, through lay-oriented press releases, and by increasing the use of social media.

13. The SC asked how IARC plans to integrate biomarkers in future epidemiological studies. IARC is already conducting large epidemiological studies (e.g. the EPIC Study) integrating data from questionnaires (diet, lifestyle, clinical data), and laboratory markers (genetics, nutritional status). IARC's Sections of Genetics and Nutrition and Metabolism are involved in these activities.

14. The SC inquired about the implications of the EU's General Data Protection Regulation (GDPR) for IARC's work, and potential risks for IARC collaborators. Based on its privileges and immunities IARC is not subject to the GDPR legislation, similarly to all other United Nations entities. IARC continues to seek a sustainable solution while adhering to the UN personal data protection and privacy principles. IARC has extensive experience in handling very large datasets, and continually strives to improve data protection and security measures. A Committee for Information Security and an Information Security Office were established in 2018, and a consulting company engaged in 2019 supported the development of the WHO/IARC Data Protection Policy. A dialogue is ongoing between the United Nations Secretariat and the EU representation in New York to obtain an overall agreement, including an amended 'standard contractual clause' to cover the transfer of scientific data. European scientists have been advocating with the European

Commission (DG JUST) to provide a workable solution for European scientists to continue conducting research (involving the exchange of data) with International Organizations and non-EU countries. Finally, IARC will try to play an important role to assist Participating States who do not have adequate data security to improve their ethical handling and safeguards of their data through training and capacity building.

- ***HIGHLIGHTS FROM THE 61ST SESSION OF THE GOVERNING COUNCIL***

15. The Director informed the SC that the full Minutes of the Governing Council meeting (GC/61/Min.1–4) were available on the IARC Governance website (http://governance.iarc.fr/GC/GC61/index.php).

16. Hungary joined IARC as a new Participating State in May 2019.

17. Turkey wished to withdraw from the Agency and a related resolution was approved. However, the Deputy Minister of Health of Turkey, Professor Emine Alp Mese, informed the Director-General of WHO, Dr Tedros, that Turkey considers a three-year suspension rather than a withdrawal, in a letter dated 28 May 2019. This letter was received at IARC on 1 June 2019, just a few days before the lapse of the six-month period of ending membership. This issue will be further discussed at the next Governing Council session in May 2020.

18. Ten new SC members were elected: Drs Ulrike Haug, Germany; Péter Nagy, Hungary; Ravi Mehrotra, India; William Gallagher, Ireland; Pietro Pichierri, Italy; Karima Bendahhou, Morocco; Tone Bjørge, Norway; Jong Bae Park, Republic of Korea; Sergey Ivanov, Russian Federation; and Gunilla Enblad, Sweden.

19. The Governing Council approved the 2020–2021 budget in the amount of €44 149 793, i.e. at the same level as for 2018–2019.

20. The request for €500 000 for the purchase of scientific equipment and for investment in the HELPER study was approved.

21. Australia, the Netherlands, Sweden and the United Kingdom volunteered to provide funds towards the IARC Core Voluntary Contribution Account (CVCA) established in 2019, which will allow IARC to better deliver on its mandate.

22. The new principles that apply to WHO's normative work and standard setting products also apply to Agency products, particularly those related to quality of data.

23. The SC thanked the Director for presenting the highlights from the 61st Governing Council.

- ***DIRECTOR'S UPDATE FROM THE 55TH SESSION OF THE SCIENTIFIC COUNCIL***

24. An update on the implementation of data protection and data security measures in the context of the EU General Data Protection Regulation (GDPR) since the last Session of the Scientific Council was presented by the Director of Administration of Finance.

25. The SC thanked the Director of Administration and Finance for this update from the 55th Scientific Council.

REQUEST FOR SUPPORT FROM THE GOVERNING COUNCIL SPECIAL FUND (Document SC/56/4) – SCIENTIFIC IT PLATFORM

26. Mr Christopher Jack, Information Security Officer, presented the request for support from the Governing Council Special Fund (GCSF).

27. The proposed project aims to provide the necessary infrastructure to store all of IARC's scientific data safely on a scientific IT platform, consistent with current best practices and regulations such as the EU's General Data Protection Regulation (GDPR), consolidating data centrally to allow efficient and easy access as well as fostering Open Science through data sharing.

28. The Director would like to request that the Governing Council, at its 62nd session in May 2020, provides an allocation of €350 000 from the GCSF for storage servers (€115 000), computer servers (€70 000), network equipment (€25 000), data management and analysis software (€120 000), professional services (€20 000) as well as maintenance of the platform, for a period of four years.

29. The SC acknowledged the need and strongly supported the request for infrastructure for the safe storage of all IARC's scientific data on a scientific IT platform. The SC recommended that the Governing Council approves the allocation of €350 000 from the GCSF for the scientific IT platform.

30. The SC discussed the requirement for adequate human resource capacities to sustain this project and recommended this to be considered during the development of IARC's next MTS.

31. The SC asked how scientists in LMICs can use and access these tools. Stored data – which can be of any kind, but generally genetics and omics data – will be secured and accessible through online platforms in the next phase of this project.

32. In addition, the SC noted that the Director decided – because of updated scientific priorities in the related Section – not to order the equipment requested in May 2018 (i.e. an automated system for plasma phospholipid fatty acid profiling – see Resolution GC/60/R16, for an amount of €115 000), and that the corresponding funds are to be returned to the GCSF.

BIENNIAL REPORT ON IARC EDUCATION AND TRAINING ACTIVITIES (Document SC/56/7)

33. Ms Anouk Berger, Head, Education and Training Group (ETR), presented the Report covering the period 2018–2019.

34. Education and training in cancer research is one of the statutory functions of the Agency. For five decades, IARC's Education and Training programme has made a substantial contribution to the development of capacity building for cancer research in many countries with special emphasis on LMICs, through the training of cancer researchers, in particular in the fields of cancer epidemiology and mechanisms of carcinogenesis.

35. ETR key achievements, as described in document SC/56/7, followed the strategy presented and discussed during the 49th SC session in January 2013 (available on the IARC Governance website, see Document SC/49/7).

36. During the reporting period, ETR continued to organize and successfully run initiatives that both stimulated research on cancer globally and contributed to developing local expertise in cancer epidemiology and prevention, particularly in LMICs.

37. In response to the report and the subsequent discussion, the SC congratulated the Agency and ETR for its activities and new developments, and suggested the areas below for further enhancement:

- While recognizing that onsite courses remain important to develop skills and build networks, the SC recommended, whenever appropriate, to offer online learning (including webinars) to reach a wider audience, contain costs, and decrease the carbon footprint of IARC education/training activities.
- The SC emphasized the need to continue to train scientists, particularly in LMICs. IARC should maintain its capacity to provide excellent training opportunities and ensure that this training includes appropriate consideration of all aspects of research capacity building.
- The SC recommended that IARC continues to monitor and record the outcomes of its education and training activities and requested that IARC considers expanding its competency-based courses and post-activities monitoring (e.g. surveys), while recognizing that these are resource-demanding activities.

38. The SC asked for an update about the WHO Academy. This initiative was launched by the WHO Director-General and the French government. The WHO Academy is being established in Lyon, and it aims to train both WHO staff and health professionals worldwide. Given that IARC has extensive and relevant experience in some activities of WHO, and in the conduct and coordination of training courses, IARC will certainly contribute to relevant activities of the WHO Academy. The WHO Academy, IARC, and the WHO Office in Lyon will form three respective pillars of the new Global Health Hub to be established in the Gerland bio-district of Lyon.

PRESENTATION OF THE OUTLINE OF THE NEW RESOURCE MOBILIZATION STRATEGY TO SUPPLEMENT FUNDS AVAILABLE FOR IARC OPERATIONS AND ACTIVITIES

39. Mr Clément Chauvet, Strategic Engagement and Resource Mobilization Officer, presented this item.

40. The SC recognized that a new resource mobilization strategy is an important step for IARC and strongly supported the new resource mobilization strategy being developed by IARC.

41. The SC enquired about restrictions with regards to working with corporate entities. In line with the relevant WHO policy and regulations (Framework of Engagement with Non-State Actors (FENSA)), exclusion criteria already exist (such as links to the tobacco industry), and IARC must ensure that there is no damage to IARC's reputation. The private sector is not excluded from providing support to IARC and each industry sector will be considered on a case-by-case basis.

42. The SC discussed and supported different mechanisms proposed for increasing funding from donors for IARC. The SC also suggested creating a Resource Mobilization Advisory Group to provide connections with potential donors and alternative sources of funding for IARC. The idea is to create a separate entity to advise the senior leadership of IARC on strategic opportunities for resource mobilization for IARC. The terms of reference and composition of this Advisory Group will need to be developed in consultation with the Director.

DIRECTOR'S RESPONSE TO THE REVIEW OF THE SECTION OF EVIDENCE SYNTHESIS AND CLASSIFICATION (ESC), HELD AT IARC IN JANUARY 2019

43. The details of action taken following the review of the Section of Evidence Synthesis and Classification (ESC) were discussed.

44. The Director noted with satisfaction the positive overall evaluation of the Section and presented the key recommendations and responses.

45. The follow-up actions in response to the ESC review were discussed with the Section and Group Heads, Drs Ian Cree (WHO/IARC Classification of Tumours), Mary Schubauer-Berigan (IARC Monographs) and Béatrice Lauby-Secretan (IARC Handbooks).

46. The SC requested an update regarding the strategic plans of each of the three Groups. WCT and IMO have developed and are developing strategic plans and IHB is refining its plans. Internal and external collaborations have improved, particularly with WHO. The update of the Handbooks preamble this past year was a major milestone. The main issue remains the funding of the ESC Section. The Section has been able to secure funding for the next Handbook on Cervical Cancer Screening. The SC discussed the length of time required to produce the Handbooks and encouraged IHB to continue seeking external funds to permit more rapid publication of the Handbooks. The SC congratulated WCT on their website.

PRESENTATION OF POSTERS BY IARC SCIENTISTS

47. Scientists presented posters with their research to SC members.

48. Remarks/comments/recommendations were provided directly to each poster presenter (e.g. suggestions on what they can do to help strengthen their work).

49. The SC appreciated the opportunity to discuss the research projects with the IARC scientists, particularly the junior scientists, at the poster session.

COMMENTS AND RECOMMENDATIONS ON THE EVALUATION REPORT FROM THE AD HOC ADVISORY GROUP ON THE EVALUATION OF IARC ACTIVITIES VIS-À-VIS ITS MANDATE (Document SC/56/6) + Evaluation Report provided on a password restricted webpage

50. Dr Adèle Green, member of the ad hoc Advisory Group, presented the Report.

51. In May 2018, the Governing Council requested that an evaluation of IARC activities be included into the preparation of the IARC Medium-Term Strategy (MTS) for 2021–2025 (see Resolution GC/60/R11).

52. In May 2019, the Governing Council established an ad hoc Advisory Group (see document GC/61/8 and Resolution GC/61/R7) to conduct the above evaluation, to cover the following six areas:

(a) the alignment of IARC's activities with its mandate, as described in the Statute and the prioritization of different areas;

(b) the collaboration between IARC and other parts of WHO to ensure clear definition of roles and effective cooperation and coordination;

(c) the contribution of multi-disciplinary research to IARC's strategy, including the balance of laboratory equipment in-house and accessed through external collaboration;

(d) the role and infrastructure for the biobank in IARC's research strategy;

(e) mechanisms to ensure the financial sustainability of IARC's research including the laboratory research and biobank; and

(f) approaches to maximize the value and impact of IARC's work.

53. The Advisory Group met several times and was supported in its work by the Evaluation Office of WHO. The evaluation included the review of key documents, as well as interviews and surveys conducted with Governing Council and Scientific Council members and IARC and WHO staff.

54. Following an extensive in-person discussion on 18 and 19 October 2019, the Advisory Group issued ten key recommendations, detailed in its Evaluation Report.

55. The SC made the following comments on the evaluation report to be presented to the Governing Council at its next session in May 2020:

56. The SC Chair noted that the evaluation was very rigorous. The SC appreciated the report and generally agreed with the recommendations. The SC suggested that recommendations #5 and #6[3] be expanded regarding their coverage of needs and options, and proposed specific rewording to be brought to the attention of the Governing Council:

- **Recommendation 5:** "As computational biology needs an increasingly important component of laboratory capacity, IARC should regularly update the SC and the GC on capacity for computational biology in the future".
- **Recommendation 6:** "Given its financial constraints, IARC should intensify its efforts to obtain additional laboratory, computational biology, and other disciplinary expertise through collaboration, Visiting Scientists, secondments from Participating States and other partners, as well as offer opportunities for training in computational biology to junior scientists in the field. The result of these efforts should be incorporated into the aforementioned for balancing its internal and external laboratory facilities or in a separate strategy to be implemented moving forward".

[3] Recommendation 5 from Evaluation Report read: "As bioinformatics needs are an increasingly important component of laboratory capacity, IARC should regularly update the Scientific Council and Governing Council on the computational and data storage needs for bioinformatics into the future."
Recommendation 6 from Evaluation Report read: "Given its financial constraints, IARC should intensify its efforts to obtain additional laboratory, bioinformatics, and other disciplinary expertise through collaboration, Visiting Scientists, and secondments from Participating States and other partners. The result of these efforts should be incorporated into the aforementioned for balancing its internal and external laboratory facilities or in a separate strategy to be implemented moving forward."

57. Relatedly, Beatrix Lahoupe provided an update on the development of IARC's next Medium-Term Strategy (MTS) 2021–2025. As per document GC/61/8, the MTS Working Group GC/SC will be established in May 2020, and will review the first draft of the MTS in September 2020 and provide guidance. The next steps regarding the Evaluation Report are as follows:

- Evaluation findings and recommendations will inform IARC's Medium-Term Strategy.
- Detailed Evaluation Report will be reviewed by the Governing Council in May 2020.
- Detailed Action Plan to be developed in response to the Advisory Group recommendations and subsequent requests from SC and GC.

58. The SC members for the MTS Working Group (WG) will be: Drs Christine Friedenreich, Ravi Mehrotra, Janne Mikael Pitkäniemi and Maria Sibilia. Four subcommittees of the SC have been created to provide advice on the MTS 2021–2025 plan.

59. The Director thanked the IARC internal MTS Working Group and Beatrix Lahoupe for their work on the next MTS.

SCIENTIFIC COUNCIL MEMBERSHIP OF THE SECTION REVIEW PANEL IN 2021

60. The SC discussed the Section to be reviewed in 2021: Section of Genetics (GEN), Head: Dr Paul Brennan.

61. Drs James Cerhan and Jong Bae Park will participate in the GEN Review Panel. It was agreed that Dr Cerhan would Chair the Review Panel.

62. The Review will take place at IARC in the days immediately preceding the 57th Scientific Council session, i.e. will take place at IARC on 8–9 February 2021.

CROSS-CUTTING SCIENTIFIC THEMES: PRESENTATION, CONCLUSIONS AND RECOMMENDATIONS (Document SC/56/5)

Topic #1: Social inequalities and cancer *Lead, Salvatore Vaccarella (CSU)*
The participating Sections/Groups are: CSU, SCR/EDP, ENV

63. Cancer incidence and mortality are not equally distributed across countries and individuals. Within each country, inequalities in income, education, and occupation produce a social gradient in the incidence, survival, and mortality of many cancers, that disproportionally affects the most disadvantaged individuals and social groups.

64. The topic of social inequalities and cancer has started to draw increasingly more attention in the Global Agenda following the release in 2008 of the report of the WHO Commission on Social Determinants of Health. Thereafter, the World Health Assembly (WHA) in 2012 adopted a resolution that endorsed the importance of tackling inequalities in health, with the aim to assist the achievement of the United Nations Sustainable Development Goals, and in 2017 emphasized the importance of cancer prevention and control, with specific reference to the monitoring and reduction of social inequalities in cancer.

65. IARC is a natural environment where to catalyse and coordinate international collaborative networks and partnerships to study phenomena that need to be understood at both local and global level. Social inequalities in cancer is a broad field that touches the scientific interests of different Sections/Groups and that could eventually be expanded and emphasized in some of its components, as well as made more structured and systematic.

66. There were two questions/areas of advice addressed to SC:

a) Given the relatively wider context and the expanding global agenda on social inequalities in health, should IARC expand and have more structured and systematic research activities in the field?

67. The SC strongly supported the continuity of this important research activity. The SC recognized that IARC has a key role in supporting population-based cancer registries in LMICs and that there remains a lack of relevant data for research into social inequalities and cancer disparities. The SC further recognized the need for a structured and coordinated approach to this topic and recommended that relevant IARC Sections be involved in this cross-cutting theme. The SC also noted that this topic is timely and related research is likely to contribute to attaining pertinent Sustainable Development Goals (SDGs). The SC recommended that IARC seek additional resources and partners to continue research on this important topic.

b) Specifically, what kind of research in this field should be actively undertaken/strengthened at the Agency?

68. The SC gave suggestions on how research could be enhanced in IARC's existing activities and concerned IARC staff took note. The SC discussed that the entire continuum of the cancer journey be considered for this research.

69. The SC congratulated the scientists for their work and their presentations.

Topic #2: Health economics in cancer research *Lead, Filip Meheus (CSU)*
The participating Sections/Groups are: CSU, GEP and a participant from WHO/HQ (formerly CSU)

70. Countries at all income levels face considerable challenges in implementing an efficient response to the growing burden of cancer, leading to avoidable and premature deaths, but also threatening health budgets and economies, and causing financial catastrophe and impoverishment for individuals and families.

71. Over the past years, research related to the economics of cancer has been gradually introduced and expanded at the Agency, such as estimating the value of productivity lost due to cancer-related premature mortality in Europe and BRICS countries, and the description of the burden of cancer across social and economic dimensions using the human development index (HDI).

72. This thematic discussion on health economics (1) provided a basic understanding of the role and importance of health economics in cancer prevention and control, (2) related this to the current global context of importance to cancer SDGs, universal health coverage and the World Health Assembly Resolution 70.12, (3) provided an overview of different research areas that were developed over the past years with key interventions from a number of presenters on selected

projects and outputs, and (4) highlighted future areas of work and the further development of health economics at IARC.

73. Specifically, there were two questions/areas of advice addressed to SC:

a) With universal health coverage high on the political agenda, many countries require support and guidance on what cancer control interventions should be implemented and how. What should be the relationship of IARC with countries that request assistance? Should IARC actively engage in providing country support? (e.g. in the development and implementation of national cancer control plans)?

b) Action to improve access to cancer control services and financial risk protection against the costs of cancer care is not only limited to prevention and early detection, but spans across the entire cancer continuum. Should IARC, as the WHO specialized cancer agency, also provide guidance on the latter areas without being involved in research in these areas (e.g. through IARC Scientific Publication Series)?

74. The SC strongly endorsed the new cross-cutting theme on health economics and congratulated the scientists for their work and presentations.

75. The SC suggested that IARC can provide data and expertise and capacity building for LMICs in this area, subject to available resources.

UPDATE ON THE "NOUVEAU CENTRE" AND INVESTMENT CASE (Document SC/56/3)

76. The SC members were invited to join the official laying of the first stone ceremony of the "Nouveau Centre" building in Gerland. An update was presented by Ms Elisabeth Françon Pompui, Administrative Services Officer, on the way to the official event and Mr Clément Chauvet, Strategic Engagement and Resource Mobilization Officer, briefly presented the investment case, which was then discussed further during a working lunch.

77. Due to the difficulty to find funding sources for the new building, at the request of the Governing Council Working Group on Infrastructure, the IARC Secretariat identified the following three different scenarios:

- The *Basic Scenario* would allow IARC activities to be moved to the new building and be run on a downgraded mode;
- The *Standard Scenario* would allow IARC activities to be moved to the new building and be run on a status quo basis; and
- The *Optimal Scenario* stands for a fully operational modern, smart and open building, which would allow IARC to deliver on its full potential, and expand its activities.

Scenarios	Required funding	Secured funding	Potential funding	Unfunded balance
Basic Scenario	€6.4 million	€1.7 million	€1.24 million	€3.5 million
Standard Scenario	€8.9 million	€1.7 million	€1.24 million	€6.0 million
Optimal Scenario	€11.8 million	€1.7 million	€1.4 million*	€8.7 million

*€1.24m from sales of Latarjet plus estimated €0.16m from *sales of current furniture and equipment.*

78. To cover the unfunded balance of €8.7 million in the *Optimal Scenario*, the Secretariat has devised a resource mobilization strategy. It has identified four main categories of potential donors:

- Non-State actors from Lyon and its surroundings, including for-profit entities, corporate and philanthropic foundations as well as local key influencers/major donors;
- Corporate entities willing to provide in-kind contributions to the "Nouveau Centre";
- Ultra-High Net Worth Individuals (UHNWI); and
- Existing Participating States.

79. The Secretariat also worked closely with the French authorities and obtained an official confirmation from the "French Ministère de l'Action et des Comptes publics" on the following, which are beneficial for IARC fundraising activities:

- IARC is officially recognized as a public interest entity in France.
- IARC is officially entitled to receive donations which are tax-deductible from individuals as well as other legal entities, as per the conditions set forth in the relevant articles of the French "Code Général des Impôts" (CGI).

80. Most of the required funding corresponds to the purchase of physical equipment for the "Nouveau Centre". Global corporations could be interested in providing equipment free to IARC, as an in-kind contribution for the "Nouveau Centre". This furniture would include that needed for the laboratories, the restaurant, the IT equipment for the conference rooms and the auditorium. It is worth noting that, due to IARC's recognition as a public interest entity, corporations based in France will benefit from tax reductions through such donations. To avoid any potential conflict of interest, IARC is now exploring the possibility of launching an expression of interest by mid-2020.

81. SC members could help, jointly with the IARC team, in reaching out to their respective governments and in advocating for investment in the "Nouveau Centre".

82. The SC thanked the Resource Mobilization Officer for his presentation and supported the suggestions that had been made.

83. The SC suggested that IARC investigate the opportunity for Green Lab accreditation for the "Nouveau Centre".

SCIENTIFIC REPORT OF THE SECTION OF INFECTIONS (INF) REVIEW AND DISCUSSION (Document SC/56/WP7)

84. The Scientific Report of the INF Review was presented by Dr Maria Sibilia on behalf of herself and Dr Jacqueline Clavel who were the Co-Chairs of the Review Panel.

85. The external advisors and SC members of the Review Panel were thanked for their valuable contributions.

The Review Panel noted the following concerning the INF Section:

- *EVALUATION OF INF*

The **past performance** and **future plans** were scored independently for **quality** and **relevance**, as follows:

Infections and Cancer Biology Group (ICB) – Head, Dr Massimo Tommasino

- *EVALUATION OF ICB*

ICB's past performance: Outstanding

ICB's future plans: Outstanding

Assessment of the relevance of ICB's work to the mission of IARC

ICB's past performance: Perfect fit

ICB's future plans: Perfect fit

Infections and Epidemiology Group (ICE) – Head, Dr Gary Clifford

- *EVALUATION OF ICE*

ICE's past performance: Outstanding

ICE's future plans: Outstanding

Assessment of the relevance of ICE's work to the mission of IARC

ICE's past performance: Perfect fit

ICE's future plans: Perfect fit

- *EVALUATION OF INF*

INF's past performance: Outstanding

INF's future plans: Outstanding

Assessment of the relevance of INF's work to the mission of IARC

INF's past performance: Perfect fit

INF's future plans: Perfect fit

- **ASSESSMENT OF ICB'S SCIENTIFIC QUALITY**

  o Dr Tommasino is a worldwide leader in both mechanistic studies of beta HPVs as well as the development and application of laboratory methods for the detection of pathogens in human cancers in epidemiologic studies. The leadership of IARC is strongly encouraged to identify and recruit a suitable international leader in molecular mechanisms in pathogen-associated malignancies interested in collaborating with epidemiologists, who can replace Dr Tommasino, when he retires, to assure the smooth succession and continue the success of ICB.

- **OVERALL RECOMMENDATIONS FOR ICB**

  o Overall, the Review Panel supports ICB at the **highest level**.

  o Furthermore, the Review Panel strongly endorsed the recruitment of a mechanistic scientist to succeed Dr Tommasino and recommended initiating such a recruitment to allow for a smooth transition and to ensure that the highly motivated spirit present within the INF Section and the ICB Group not be lost.

  o The Review Panel recommended that IARC partners with the "Structure Fédérative de Recherche (SFR) Santé Lyon-Est", which is a Core Research Platform that provides access to high-technology shared services like FACS, imaging, MS, NGS, and animal facilities. Access to these technologies is essential to ICB and will, in the long run, provide significant cost savings to IARC. The last recommendation is that ICB is provided a skilled bioinformatician.

86. The overall recommendations for ICB were discussed and approved.

- **ASSESSMENT OF ICE'S SCIENTIFIC QUALITY**

  o ICE is one of the most successful units at IARC. Despite key personnel losses via attrition in the last few years (i.e. Drs Franceschi, Vaccarella, Plummer) the remaining four scientists and their associated staff and visiting scholars were able to sustain an impressive research programme of global impact. Their collaborative links with their close colleagues at ICB, as well as with others in CSU permitted them to sustain a robust research programme with unequivocal international impact. ICE staff scientists also sit in a variety of intramural, national and international committees with scholarly or public health missions. As is common also with other roles that the IARC plays, ICE has been a central hub for multicentre collaborations of data and biospecimen sharing to address questions of etiologic interest or to test cancer control interventions.

  o Because infection-related cancers are disproportionately more frequent in LMICs, ICE's portfolio of activities benefits these regions directly by providing expertise and oversight to local work on controlling infections that lead to cancer via improved diagnostics, immunization and screening. In addition to this direct benefit, ICE's work provides capacity building and knowledge transfer to technical personnel in the countries targeted for cooperation.

- **OVERALL RECOMMENDATIONS FOR ICE**

  o Overall, the Review Panel supported ICE at the **highest level.**

  o Furthermore, the Review Panel strongly endorsed the restoration of the original number of professional (P) positions to maintain a critical core of investigators in this important area and allow retention and promotion. The transition to new ICE leadership with Dr Gary Clifford has gone well. Dr Clifford is a strong and caring leader and the Group is harmonious and functions well.

OVERALL RECOMMENDATIONS FOR INF

o There is a strong consensus that INF is an essential component fostering the mission of IARC. Both ICB and ICE are very strong on their own and there is added value in the synergy between the Groups. The Review Panel supported INF at the **highest level**.

o The Review Panel unanimously agreed that having internationally renowned mechanistic research within IARC is essential to its overall mission of understanding the causes of cancer, and thereby defining the means of preventing and/or treating cancer. Having expertise in mechanistic research as well as epidemiological research within IARC greatly facilitates IARC's own ability to evaluate the knowledge gained from epidemiological studies, and to assess potential new causes of cancer.

o The Review Panel strongly recommended that IARC pursues replacement of Dr Tommasino with an internationally renowned scientist pursuing mechanistic studies on pathogen-associated cancers. They recommended that this effort be initiated as soon as possible to allow for a smooth transition in leadership within INF. The Review Panel also strongly recommended replenishing the faculty of ICE to its original level to maintain a vibrant core of epidemiological investigators. Enhancing the bioinformatic support of ICB activity would be highly beneficial.

o The Review Panel supported consideration of synergies between INF and other investigators in IARC with overlapping activities.

o The Review Panel endorsed the expressed desire of trainees and staff for continued career mentorship and professional development.

87. The overall recommendations for the INF Section were discussed and approved.

88. In response, the Director mentioned:

- In the next MTS (2021–2025), consideration will be given to creating some core support/facilities across Groups to address the needs identified in this review for additional computing biology support.

89. The Section and Group Heads thanked the Review Panel for their input.

90. The Section of Infections (INF) Review Panel Report was formally accepted by SC.

SCIENTIFIC REPORT OF THE SECTION OF MECHANISMS OF CARCINOGENESIS (MCA) REVIEW AND DISCUSSION (Document SC/56/WP8)

91. The Scientific Report of the MCA Review was presented by Dr Pilar Sánchez Gómez, Chair of the Review Panel.

92. The external advisors and Dr João Viola, SC member of the Review Panel, were thanked for their valuable contributions.

The Review Panel noted the following concerning the MCA Section:

- *EVALUATION OF MCA*

The **past performance** and **future plans** were scored independently for **quality** and **relevance**, as follows:

Epigenetics Group (EGE) – Head, Dr Zdenko Herceg

- *EVALUATION OF EGE*

  EGE's past performance: Outstanding/Forefront

  EGE's future plans: Outstanding/Forefront

  Assessment of the relevance of EGE's work to the mission of IARC

  EGE's past performance: Perfect fit

  EGE's future plans: Perfect fit

- **Molecular Mechanisms and Biomarkers Group (MMB) – Head, Dr Jiri Zavadil**

- *EVALUATION OF MMB*

  MMB's past performance: Outstanding/Forefront

  MMB's future plans: Outstanding/Forefront

  Assessment of the relevance of MMB's work to the mission of IARC

  MMB's past performance: Perfect fit

  MMB's future plans: Perfect fit

- *EVALUATION OF MCA*

  MCA's past performance: Outstanding/Forefront

  MCA's future plans: Outstanding/Forefront

  Assessment of the relevance of MCA's work to the mission of IARC

  MCA's past performance: Perfect fit

  MCA's future plans: Perfect fit

- **ASSESSMENT OF EGE'S SCIENTIFIC QUALITY**

  o The primary objective of IARC is to promote international collaboration in cancer research. It is quite clear that EGE is a leader in promoting international collaboration given the number of funded studies and their strong publication portfolio that highlighted their work around the world.

  o The Agency focuses on causes and prevention of cancer. EGE's research is directly related to understanding how the broad environment is tied to cancer risk, and a role for the epigenome in this process. Their current activities include intervention studies supporting IARC's mission.

  o EGE's studies are multidisciplinary and extensive collaborations have been developed with laboratory scientists, epidemiologists, bioinformaticians, and biostatisticians in other IARC Groups and Sections, in adherence with IARC's guiding principles and values. EGE works closely with IARC scientists and epidemiologists on a number of different projects, as demonstrated in the past five years by many papers co-authored by EGE in collaboration with other IARC Groups (26 original publications). They are also implicated in IARC activities within the Central Data Repository and the International Biospecimen Coordinating Centre.

  o IARC focuses on education and training. EGE exemplifies this in their training of postdoctoral students, PhD students and Master's students, as well as their active participation as university lecturers.

- **OVERALL RECOMMENDATIONS FOR EGE**

  o EGE is an outstanding multidisciplinary team with strong and complementary expertise and tools. Their molecular epidemiologic work is trendsetting in the field of epigenetics/epigenomics.

  o The Review Panel recommended that EGE maintain their leadership role in large international consortia such as the EpiEARLY study.

  o The Review Panel was very enthusiastic about the EpiDRIVERS+ project as it will permit discovery of causal links between risk factors and cancer etiology. Moreover, this programme allows a synergy with the MMB Group in the Section.

  o The Review Panel commended EGE for their focus on interventions in the EpiMARKS+/EpiTRIALs.

- **ASSESSMENT OF MMB'S SCIENTIFIC QUALITY**

  o MMB conducts molecular research in two key areas relevant to IARC's mission. Importantly, it elucidates mechanisms of cancer formation associated with exposure to cancer risk agents, thus contributing to the understanding of cancer causes (Objective 2). Indeed, the Review Panel noted examples of MMB research that addressed Objective 2.2.1, "Advance understanding of biological and cellular pathways underlying carcinogenesis," Objective 2.1.2, "Advance understanding of the role of environmental, occupational and iatrogenic factors," and Objective 2.1.3, "Advance understanding of the role of dietary, metabolic and lifestyle factors", because they investigated effects of dietary aristolochic acid, acrylamide, ochratoxin, and lifestyle. MMB's work on acrylamide, glycidamide, and cobalt (Project A) are examples of MMB research that supports IARC Monographs (Objective 2.3.1). Further, MMB investigators participated in revision of the Monograph Preamble and in setting priorities for the Monograph evaluations to take place over the next five years. Project D on breast cancer represents progress in the area of Objective 2.2.2, "Apply biomarkers to studies of cancer causes and molecular genetic classification of tumours."

- MMB also develops bioinformatic resources such as the MutSpec toolbox for Galaxy, an example of research that increased the "capacity for cancer research," and served to "develop and maintain research platforms and laboratory and computing services." In the context of analysing "omics" data, MMB has developed experimental (e.g. BBCE) and bioinformatic methods (e.g. MutSpec Toolbox) to address the objective of "improving and implement laboratory methods".
- MMB makes a significant contribution to IARC's training programmes: one visiting scientist, 6 postdoctoral fellows, 8 PhD students, 7 master's students and 6 trainees. Moreover, Dr Olivier has delivered training courses in areas of needed core competency for the Agency (e.g. Galaxy: Introduction to Galaxy and Galaxy: DNA Methylome Analyses). IARC focuses on education and training. MMB exemplifies this in their training of postdoctoral students, PhD students and Master's students, as well as their active participation as university lecturers.

- **OVERALL RECOMMENDATIONS FOR MMB**
  - MMB personnel are amongst the highest echelon of investigators studying chemical carcinogenesis, as are their collaborators.
  - MMB's MutSpec work is of high international calibre and represents major contributions in the field of mutation spectrum analysis in cancers.
  - The Review Panel was highly supportive of the planned investigations of the interactions between mutational and epigenetic events.
- *OVERALL RECOMMENDATIONS FOR MCA*
  - The Review Panel was unanimous in its opinion that the MCA Section is essential to the mission of IARC to establish the causes of cancer.
  - The MCA leaders are internationally-recognized for their research and have established many worldwide collaborations and are fulfilling the essential mission of training the next generation of cancer researchers with an emphasis on LMICs.
  - The MCA Section provides leadership and key mechanistic data for the Monograph programme and continues to shape the bioinformatics foundation of the Agency.
  - There is an extraordinary opportunity for advancement in the field of carcinogenesis through the synergies of the MCA Groups.

93. The overall recommendations for the MCA Section were discussed and the need for prioritization of research projects in the future emphasized. The recommendations from the Review Panel were approved.

94. The Section and Group Heads thanked the Review Panel for their input.

95. The Section of Mechanisms of Carcinogenesis (MCA) Review Panel Report was formally accepted by the SC.

ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON FOR THE 57TH SESSION OF THE SCIENTIFIC COUNCIL IN 2021

96. Dr Christine Friedenreich was elected Chairperson.

97. Dr Janne Mikael Pitkäniemi was elected Vice-Chairperson.

DATE OF NEXT SESSION

98. The 57th SC will take place on Wednesday 10, Thursday 11 and Friday 12 February 2021.

99. The GEN Review Panel will take place on Monday 8 and Tuesday 9 February 2021.

ADOPTION OF THE SCIENTIFIC COUNCIL REPORT (Document SC/56/8)

100. **The report of the Fifty-sixth Session of the Scientific Council was adopted.**

CLOSURE OF THE SESSION

101. The customary expressions of thanks were exchanged.

102. Dr Weiderpass thanked the outgoing members of the Scientific Council, Drs Adele Green (Australia), Roberto Salgado (Belgium), Atsushi Ochiai (Japan), Pilar Sánchez Gómez (Spain) and Simon Tavaré (UK).

ANNEX 1 – LIST OF ACRONYMS OF IARC SECTIONS AND GROUPS

ACRONYM	SECTION / GROUP	SECTION / GROUP HEAD
CSU	**Section of CANCER SURVEILLANCE**	Dr F. Bray Deputy: Dr I. Soerjomataram
EDP	**Section of EARLY DETECTION AND PREVENTION**	**Dr J. Schüz (Acting)**
PRI	Prevention and Implementation Group	Dr M. Almonte
SCR	Screening Group	Dr P. Basu
ENV	**Section of ENVIRONMENT AND RADIATION**	**Dr J. Schüz** Deputy: Dr V. McCormack
ESC	**Section of EVIDENCE SYNTHESIS AND CLASSIFICATION**	**Dr I. Cree**
IHB	IARC Handbooks Group	Dr B. Lauby-Secretan
IMO	IARC Monographs Group	Dr M. Schubauer-Berigan (Acting)
WCT	WHO/IARC Classification of Tumours Group	Dr I. Cree
GEN	**Section of GENETICS**	**Dr P. Brennan**
GCS	Genetic Cancer Susceptibility Group	Dr J. McKay
GEP	Genetic Epidemiology Group	Dr P. Brennan
INF	**Section of INFECTIONS**	**Dr M. Tommasino**
ICB	Infections and Cancer Biology Group	Dr M. Tommasino
ICE	Infections and Cancer Epidemiology Group	Dr G. Clifford
MCA	**Section of MECHANISMS OF CARCINOGENESIS**	**Dr Z. Herceg**
EGE	Epigenetics Group	Dr Z. Herceg
MMB	Molecular Mechanisms and Biomarkers Group	Dr J. Zavadil
NME	**Section of NUTRITION AND METABOLISM**	**Dr M. Gunter**
BMA	Biomarkers Group	Dr A. Scalbert
NEP	Nutritional Epidemiology Group	Dr M. Gunter
NMB	Nutritional Methodology and Biostatistics	Dr P. Ferrari
DIR	**Office of the Director**	**Dr E. Weiderpass (Director)**
COM	Communications Group	Dr N. Gaudin
ETR	Education and Training Group	Ms A. Berger
LSB	Laboratory Services and Biobank Group	Dr Z. Kozlakidis
RMO	Resource Mobilization and Management	Dr O. Kelm
	Strategic Engagement and Resource Mobilization	Mr C. Chauvet
SSR	**Section of Support to Research**	**Dr T. Landesz (DAF)**
ASO	Administrative Services Office	Ms E. Françon
BFO	Budget and Finance Office	Ms A. Santhiprechachit
HRO	Human Resources Office	Mr D. Kavanagh
ITS	Information Technology Services	Mr F. Lozano

ANNEX 2 – DECLARATIONS OF INTERESTS

Declarations of interest were provided by all Scientific Council members.

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

- ✓ Research support from pharmaceutical industry;
- ✓ Consulting for a commercial entity;
- ✓ Holding patents applications.

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 significant 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	Disclosure statement
Salha Bujassoum Al Bader	Reports that her Unit at Hamad Medical Corporation benefits from research funding from Merck and Dohme
James Robert Cerhan	Reports having received personal consultancy fees in his capacity of member of Janssen Pharmaceutical's Scientific Advisory and Steering Committees, and reports that his unit at Mayo Clinic benefits from research funding from NanoString Technologies and Celgene
Gunilla Enblad	Reports that her Unit at Uppsala University benefitted from consultancy fees from Gilead and Roche, in her capacity of former Advisory Group member, and benefited from consultancy fees from Celgene, GE, and Jansen
William Gallagher	Reports holding stocks in OncoMark Ltd in his capacity of chief scientific officer, receiving personal consultancy fees from Carrick Therapeutics, and holding patents applications US8116551B2, GB0504302D0, US7220732B2 and EP1492799B1, FR2784383B1.
Pilar Sánchez Gómez	Reports that her Unit at Instituto de Salud Carlos III benefits from research funding from Catalysis, IDP Pharma, and Pfizer
Simon Tavaré	Reports receiving personal consultancy fees from Kallyope Inc. and Ipsen in his capacity of Scientific Advisory Board member