



**Scientific Council  
Fifty-ninth Session**

**SC/59/7**  
10 February 2023

*Lyon, 8–10 February 2023*  
*By web conference*

## **REPORT OF THE SCIENTIFIC COUNCIL ON ITS FIFTY-NINTH SESSION**

### **INTRODUCTION**

1. The Fifty-ninth Session of the Scientific Council (SC) of the International Agency for Research on Cancer (IARC), held remotely, was opened by Dr Manami Inoue (SC Chairperson), at 12:00 (Central European Time) on Wednesday 8 February 2023. She welcomed the participants, including the five new SC members, Drs Jeanette Falck Winther (Denmark), Satish Gopal (USA), Sirpa Heinävaara (Finland), Valery Lemmens (Netherlands) and Ben Spycher (Switzerland).
2. She also welcomed Professor Norbert Ifrah (Chairperson of the Governing Council (GC), France) and Dr Mara Burr (Vice-Chairperson, GC, USA) [*unable to attend*], Dr Bente Mikkelsen (WHO Representative), Dr Sonali Johnson, Union for International Cancer Control (UICC, Observer), Professor Samar Alhomoud (Chair of the IARC Ethics Committee), and Professor Beatrice Fervers (Centre Léon Bérard, Observer)<sup>1</sup>.
3. Apologies for absence were received from Dr Marc Arbyn (Belgium), Professor Kalipso Chalkidou (UK) who cannot attend on 8 and 10 February, Professor Gunilla Enblad (Sweden) who cannot attend on 9 February, Professor Jie He (China) and Professor Sergey Ivanov (Russian Federation) who cannot attend on 8 February.
4. For ease of reference a list of acronyms of IARC Pillars and Branches can be found in [Annex 1](#) at the end of this Report.
5. Due to the remote nature of the session, some presentations were made available in advance of the meeting to devote web conference time to discussion and finalization of the Scientific Council Report.

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<sup>1</sup> Photographs: participants were not asked to sign a consent form. The Secretariat read a statement, at the opening of the session, informing participants of the Group photograph, consisting of several screen shots to be taken during the first break. Participants with their cameras switched on will be 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 screen shots 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.

## DECLARATION OF INTERESTS

6. Declarations were summarized by the Secretariat and available for consultation by SC members. Please refer to [Annex 2](#) at the end of this Report.

## ELECTION OF RAPPORTEUR

7. Dr William Gallagher was elected Rapporteur.

## ADOPTION OF THE AGENDA ([Document SC/59/1](#))

8. The agenda was **adopted**.

## DIRECTOR'S REPORT, INCLUDING:

### MAJOR SCIENTIFIC HIGHLIGHTS

9. The Director's presentation is available from the event management platform ([here](#)) and a list of publications of Agency staff is available from [https://www.iarc.who.int/cards\\_page/iarc-publications/](https://www.iarc.who.int/cards_page/iarc-publications/) (*click on card IARC STAFF JOURNAL ARTICLES*).

10. A video summarizing 2022 was projected.

11. In addition, the Director delivered a presentation.

12. Dr Mikkelsen, on behalf of WHO Director-General, thanked the Director for the strong endorsement she has given to intensify coordination and collaboration between IARC and WHO. This endorsement has been to the mutual benefit of IARC and WHO and for the betterment of cancer prevention and control globally. Dr Mikkelsen indicated that a stronger IARC linked with a stronger WHO offers a better future for cancer prevention and control.

13. A summary of discussions held and questions raised by the SC and answers given by the Director and IARC staff is given below:

- The SC asked how IARC measures its societal impact and how does this information affect its strategic decisions. The Director indicated that, as part of the evaluation of the Medium-Term Strategy, there will be a strong focus on both quantitative and qualitative assessment of impact, while understanding that such analysis can be challenging.
- The Director referred to the one-dose HPV study as a prime example of fast-tracking of research towards impact. The maternal orphan study was also referred to by the Director as having clear sociological impact.
- The SC recommended to continue the communication mechanisms developed by IARC for wider dissemination of research findings for global public health impact, as set out in the Medium-Term Strategy.
- The SC acknowledged strengthened collaboration with the WHO and prioritization of research programmes within IARC towards optimization of public health impact.

- The SC commented on the game-changing work of IARC in relation to assessment of HPV vaccination in low- and middle-income countries (LMICs) and queried the relative level of investment by IARC in LMICs versus high-income countries (HICs) over the coming years.
- The SC commented positively on the great success in terms of acquisition of external funding by IARC investigators; however, it was stressed that this should not be used as an argument to reduce the total regular budget to the Agency.
- The Director acknowledged the increased efforts by IARC researchers to secure external funding, including a conscious focus on securing funding from European Union sources. The Director indicated that a modest request for increased regular budget funding, to keep track with rising operational costs, will be requested in the next biennial budget 2024–2025.
- The SC questioned whether the changes in external funding will lead to a different distribution or use of regular budget funds for certain longer-term activities. The Director indicated that a formula has been created and used to take into consideration the level of external funding when distributing regular budget funding. It was indicated that certain critical activities though, which are not in classically grant-fundable areas, need to receive sufficient regular budget funding for their needs.
- The SC questioned the potential downstream work following on from the childhood leukaemia studies, given their intriguing results. Dr Joachim Schüz, Head ENV Branch, indicated that there are ongoing studies regarding this observation, including those examining clinical and molecular aspects.
- The SC commented positively on the restructuring of IARC in line with the Medium-Term Strategy, particularly in the context of promotion of collaboration and a focus on ‘cancer research that matters’.

14. The Scientific Council congratulated the Director and her staff on the scientific highlights.

#### HIGHLIGHTS FROM THE 64<sup>th</sup> SESSION OF THE GOVERNING COUNCIL (GC)

15. The documents and minutes of the 64<sup>th</sup> GC session are available on the event management platform (<https://events.iarc.who.int/e/gc64>).

16. The SC thanked the Director for the update on the 64<sup>th</sup> GC session.

#### DIRECTOR’S UPDATE FROM THE 58<sup>th</sup> SESSION OF THE SCIENTIFIC COUNCIL

17. The Director mentioned that all items requiring follow-up will be covered in the next three days.

#### BIENNIAL REPORT OF THE IARC ETHICS COMMITTEE (IEC), 2021–2022 ([Document SC/59/2](#))

18. The IEC Chair, Professor Samar Alhomoud, attended the virtual session, as an Observer.

19. The SC noted the Report with satisfaction.

## **DISCUSSION WITH THE DIRECTOR, THE DIRECTOR OF ADMINISTRATION AND FINANCE AND THE SCIENTIFIC COUNCIL ONLY**

20. Slides summarizing different items to be discussed in closed session were projected and presented by the Director and by Dr Tamás Landeszl (Director of Administration and Finance).

21. The SC made the following observations:

- The SC congratulated the Director for the impressive efforts made by IARC in the Equity, Diversity and Inclusion arenas, an aspect that is particularly important for LMICs. The Director acknowledged these positive comments in respect of the work of the Equity and Diversity Advisory Group (EDAG) but indicated that there is significantly more work to be done in this respect. Additional efforts to encourage better gender balance at the leadership level within IARC are underway.
- The SC commented on the importance to ensure a wider perspective of Equity, Diversity and Inclusion to include disparities in terms of minority and ethnic groups.
- The SC suggested a rotational model in terms of branch leadership. The Director indicated that she was favourable to consider and test such a model. A stepwise approach to organizational changes within IARC is currently being undertaken.

## **DIRECTOR'S RESPONSE TO THE REVIEWS OF THE CANCER SURVEILLANCE (CSU) AND ENVIRONMENT AND LIFESTYLE EPIDEMIOLOGY (ENV) BRANCHES HELD AT IARC IN JANUARY 2022**

22. The details of action taken following the review of the Cancer Surveillance (CSU) Branch [[see CSU response here](#)] were discussed.

23. The Director noted with satisfaction the high overall evaluation assigned to both Branches.

24. The SC made the following observations in relation to the Director's response to the CSU Review:

- The SC appreciated the efforts of the CSU Branch to address the recommendations.
- The SC queried the status and managerial aspects of the CSU Branch in respect of health economic research. Dr Freddie Bray and Dr Isabelle Soerjomataram indicated that there is an increased focus on health economic aspects, with an emphasis on using collaborations until a senior scientist covering this area is in place. Dr Bray also referred to planned work with the European Cancer Inequalities Registry, funded via European Union sources.

25. The details of action taken following the review of the Environment and Lifestyle Epidemiology (ENV) Branch [[see ENV response here](#)] were discussed.

26. The SC made the following observations in relation to the Director's response to the ENV Review:

- The SC appreciated the efforts of the ENV Branch to address the recommendations.

- The SC queried how ENV identify research gaps and prioritize these according to where the most difference can be made. Dr Schüz indicated that often affected states contact them first with a specific issue as IARC is considered an impartial party. He also indicated that ENV focuses its efforts on providing added value beyond what is already being done at the national level.
- The SC queried whether ENV collaborates with other branches, such as in the area of prevention. Dr Schüz responded that there is a healthy level of collaboration with other branches. The Director further elaborated by referring to the new teams-based structures which facilitate cross-fertilization of activities.

#### **UPDATE ON THE “NOUVEAU CENTRE” AND ON RESOURCE MOBILIZATION ([Document SC/59/3](#))**

27. Ms Elisabeth Françon-Pompui, Administrative Services Officer and Mr Clément Chauvet, Strategic Engagement and External Relations Officer updated SC on the Nouveau Centre building and on resource mobilization respectively.

28. The Scientific Council made the following observation:

- The SC was impressed by the successful move to the new IARC premises, and wish to congratulate IARC on its highly efficient resource mobilization efforts.

#### **REGULAR UPDATE ON COVID-19 AND CANCER INITIATIVE (IARC-C19) ([Document SC/59/4](#))**

29. Dr Freddie Bray, CSU Branch Head, and Dr Isabelle Soerjomataram, CSU Deputy Branch Head, presented an update on the IARC COVID-19 and Cancer Initiative (IARC-C19), as requested by the Governing Council in May 2022.

30. Three main activities were carried out in 2022, including compiling data on the impact of the COVID-19 pandemic on cancer based on published studies, qualitative assessment of the impact on cancer services, and development of tools to estimate the impact of COVID-19 on major global cancer initiatives. For the first, systematic reviews have been published or ongoing on the impact of the pandemic on risk of COVID-19 among patients with cancer, risk of dying from COVID-19 among patients with cancer, on prevalence of tobacco smoking, and cancer services. Ongoing qualitative assessment is being performed to assess disruptions and mitigations strategies during COVID-19 pandemic in several PS. Finally, an online tool to assess the impact of COVID-19 pandemic on the Global Cervical Cancer Elimination Initiative is being developed, to be launched early 2023.

31. The unprecedented rise in the demand for health services during the pandemic created major capacity constraints with consequent delays in cancer screening, diagnosis, surgery, radiotherapy, and chemotherapy. In many transitioning countries, the pandemic merely exacerbated pre-existing issues of health systems capacity. The longer-term concern is that backlogs of undetected cases with a worsening stage distribution will ultimately lead to an increased excess cancer mortality in future years. Moving forward, the Initiative is evolving to embrace a post-pandemic future that assesses health systems resilience in the face of change. Building on the recent collaborative work on cervical cancer, the global platform being developed will support national cancer planning before, during and after national or international

emergencies, with an initial focus on breast, colorectal and lung cancer. The interactive tool will provide predictions of the future incidence and mortality burden for each of these three cancers that incorporate user-adjustable scenarios that quantify the impact of: i) effective interventions; ii) health systems disruption, and iii) mitigation: recovery and preparedness strategies.

32. The SC made the following observations:

- The SC stressed the importance of this work and congratulated IARC on its progress to date in this area.
- The SC queried how the pandemic period was defined. Dr Bray indicated that a quantitative and qualitative approach was adopted, taking into consideration the specific circumstances relating to the pandemic within individual countries.
- The SC queried whether the impact of different age groups and death due to COVID-19 was taken into consideration. Dr Soerjomataram indicated that it was a challenge to disentangle these aspects given differential reporting of such parameters in studies to date, but it was an aspect that was being further explored.
- The SC queried whether IARC were collaborating with the CISNET group. It was confirmed that IARC was indeed working with this group.
- The SC queried whether IARC was collecting information on socio-economic and HIV status. Dr Soerjomataram indicated that information on socio-economic status was being requested from cancer registries, as well as co-morbidities in general.
- The SC queried how IARC overcame issues relating to GDPR in these studies. It was indicated that these aspects were mostly resolved using a federated approach to data.
- The SC queried how data may be extrapolated from one cancer type to another. Dr Bray indicated that proof-of-principle in specific cancer types was required first.
- The SC queried how this work would benefit LMICs. Dr Bray responded that tools that can predict cancer burden will help when monitoring effectiveness of interventions.
- The SC indicated that haematological and childhood malignancies were not covered in the initial work.

**PRESENTATION OF THE IARC CROSS-CUTTING WORKING GROUP ON CANCER PREVENTION KNOWLEDGE TRANSLATION AND TRANSFER (KTT) AND ITS IARC EVIDENCE SUMMARY BRIEFS (ESB) SERIES ([Document SC/59/5](#))**

33. A video presentation was made available by the KTT WG Chair, Dr Carolina Espina, [here](#).

34. The KTT WG would like to welcome two IARC Scientific Council members for a four-year period as part of its Editorial Board; interest was expressed from:

- Dr Ravi Mehrotra (India)
- Dr Luis Felipe Ribeiro Pinto (Brazil)

35. The SC discussed the Dissemination and Evaluation Strategy that Dr Espina presented during the session.

36. The following feedback was received:

- The SC indicated that the materials created to date were already proven to be quite powerful for communicating with stakeholders.
- The SC queried whether IARC could collaborate with relevant European societies, as well as the European Commission, to help disseminate the briefs. It was indicated that IARC has already more than 5000 contacts to circulate the briefs including non-governmental organizations and policy makers.
- The SC suggested that the briefs should be provided to cancer control websites to increase dissemination. The use of opinion editorials within journals was also recommended.
- The SC suggested that the Participating States receive the briefs in advance, so countries could be aware of and prepare for potential changes in policies.
- The SC queried the strategy to identify topics for the briefs. It was indicated that the main criterion is IARC research findings with greatest public health impact.
- The SC queried how IARC was engaged with the WHO in terms of these communication activities, given the great visibility of the latter. It was indicated that good alignment already occurs with the WHO in respect of the process, but additional focus will be put into this arena.
- The SC suggested to have a coordinated communication strategy with the WHO regarding dissemination of IARC research findings, beyond the briefs.
- The SC queried about potential translation of the briefs into different languages. It was indicated that the briefs are available in English and being translated into French. Further translation into other languages is currently out of scope in relation to IARC activities and would be the responsibility of respective Participating States or other stakeholders.

## SCIENTIFIC COUNCIL RECOMMENDATIONS FOLLOWING FLASH TALKS IN DECEMBER 2022

37. Due to the remote format of this Session, short video presentations of the IARC scientists' flash talks were made available [on the event management platform](#).

38. All Branch Heads and Deputy Branch Heads thanked the SC for their comments/recommendations, which were duly noted and appreciated.

39. General comments and recommendations were as below:

### **General comments**

#### **Overview by Branch Heads**

Excellent presentations, clear and informative slides.

#### **Flash talks**

All presentations were clear and comprehensive, scientists well-prepared.

Work and efforts were highly appreciated.

Diversity of presenters (background, countries) was appreciated.

Parity was observed.

Lack of homogeneity between presentations was highlighted, limiting the impression of a highly connected and cooperative team.

Technical issues were reported (bad quality of recording).

**Quality of work. Alignment with IARC Medium-Term Strategy. Cross-Branch collaboration**  
Impressive work, high scientific quality.

Perfect alignment with the Medium-Term Strategy.

Cross-Branch collaboration and/or international collaboration was outlined.

### Comments and questions

Questions and comments were all addressed well during the session.

Feedback from SC on scientific content will be shared with Branch Heads.

## General recommendations

### Format of flash talks

The SC members recommend more homogeneity in the format of the flash talk presentations. Harmonization of the presentation concept and the layouts of the slides would support the persuasiveness of the show.

### Strategy of presentations

The SC members recommend that the presentation strategy be clearly stated.

### Content of flash talks and posters

The SC members recommend that the flash talks focus on the macrolevel (overview/strategy of the study) and do not go into the details of the scientific work.

A presentation of the scientific work in poster form could complement with more details the general presentation of the study in the flash talks.

## Way forward

40. The Branch Heads will prepare a video, to be uploaded in the INDICO Platform by November 2023, giving an overview of their Branch activities and explaining the reason for the choice of the studies that will be presented during the dedicated in-person poster session in February 2024.

41. The following feedback from the SC was received:

- The SC approved the proposed way to move forward, which is in agreement with the recommendations.
- The SC complemented the use of the revised flash talk structure, as it provides the correct balance between overview and specific detail.
- The SC stressed the importance of flash talks for training of emerging scientists.



## SCIENTIFIC COUNCIL MEMBERSHIP OF THE REVIEW PANEL IN 2024

42. In 2024, the Evidence Synthesis and Classification (ESC) Branch, Head: Dr Ian Cree will be reviewed.
43. Drs Marc Arbyn, Marie-Elise Parent and Luis Felipe Ribeiro Pinto will participate in the ESC Review Panel. It was agreed that Dr Parent would Chair the Review Panel.
44. The external members will be chosen by the Secretariat in consultation with the Chairs of the Review Panels and the SC Chair.
45. The review will take place remotely (five half days) on 22–26 January 2024.

## PROPOSED PROGRAMME AND BUDGET (2024–2025) ([Document SC/59/6](#))

46. Ms Charu Mehta (Administration and Finance Officer) made a presentation, available [here](#).
47. The Proposed Programme and Budget 2024–2025 of €51.12 million reflects the priorities set out in the IARC Medium-Term Strategy 2021–2025 (MTS).
48. The Secretariat will continue to use all available resource streams to deliver the Programme. Notwithstanding the success of the Agency in resource mobilization for scientific activities to-date, significant medium- to long-term risks are entailed by an increasing reliance on extrabudgetary resources, given their uncertain nature.
49. The SC made the following observations:
  - The SC queried the decrease in the regular budget for Objective No. 2, ostensibly due to recent departure of a Group Head. The Secretariat confirmed that the decrease is partially due to the change in a scientist position within the NME Branch. The Director indicated, that following an analysis of budget distribution across Pillars and Branches, there will be a budgetary recalibration within the Agency to accomplish MTS objectives.
  - The SC commented that the same budgetary challenges have arisen in each Review Panel over the last decade, particularly in terms of difficulties posed by stagnating regular budget with unavoidable negative impact on scientific activities.
  - The SC suggested the provision of tailored arguments about the benefits of IARC research that are specific to particular countries and/or regions to better communicate the clear added value of Agency activities relative to national efforts and interests.
  - The SC wishes to stress that the overall proposed regular budget and extrabudgetary resources are critical to the success of the proposed programme.
  - The SC, noting that the Proposed Programme and Budget is consistent with the IARC MTS (2021–2025), recommends that the Governing Council adopts the Proposed Programme and budget (2024–2025).
  - The SC remains deeply concerned about the severe financial constraints faced by IARC.
  - The available budget has experienced zero nominal growth for more than a decade, despite major inflationary pressures faced by all organizations worldwide. This poses an existential threat to the world-leading and highly unique research conducted by the Agency. The constant pressure to produce more with less support is already beginning

to affect staff morale, recruitment and retention of exceptional talent, and research quality. These worrisome trends will only continue if budgetary pressures on the Agency are not mitigated.

- IARC remarkably continues to succeed in carrying out its mission despite these severe constraints, and as access to external funding becomes increasingly difficult. However, this cannot be sustained. IARC is one of the most highly respected and premier cancer research institutions globally whose work is critical to supporting cancer control efforts within countries and at the WHO. To maintain this position, it requires stronger financial support with appropriate adjustment over time to keep pace with increasing costs. There is unequivocal added value created by IARC research relative to national efforts, particularly for LMICs which are often not in a financial position to support such work themselves. The global scale of IARC activities provides a truly unparalleled example of cancer research informing policies and practice related to cancer worldwide.
- A clear opportunity now exists to partially relieve these budgetary pressures through a modest proposed increase in assessed contributions by Participating States to the regular budget. The SC expresses its strongest unqualified support for the Proposed Programme and Budget, along with other current and future actions to improve the financial health of the Agency. Indeed, continued progress against cancer globally depends on such investment.

## **SCIENTIFIC REPORT OF THE NUTRITION AND METABOLISM (NME) BRANCH REVIEW AND DISCUSSION** (Document SC/59/WP2)

50. The Scientific Report of the NME Review was presented by Drs Ulrike Haug and Marie-Elise Parent, Co-Chairs of the Review Panel.

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

52. The Review Panel noted the following concerning the NME Branch:

- Assessment of NME's scientific quality

NME's past performance: **Outstanding**

- Multidisciplinary activities
- Innovative, cutting-edge science
- International leadership
- Outstanding scientists and research personnel
- Exceptional productivity and ability to secure major external funds
- Extensive collaborations within and outside of IARC
- Important evidence for public health and policy
- Extensive research training activities

NME's future plans: **Outstanding**

- Building on their track record, continued excellence in cutting-edge science
- Excellent leadership transition plans have been developed

- Assessment of the relevance of NME's work to the mission of IARC

NME's past performance: **perfect fit**

- Full alignment with IARC's mission and MTS
- Large-scale population-based studies and laboratory research that identifies causal links between nutrition, metabolic dysfunction and cancer
- Important evidence for cancer prevention strategies that have a high potential for impact on public health
- Establishment of dietary guidelines and other public health policies
- Generation of evidence in diverse populations and contribution to research capacity building in LMICs

NME's future plans: **perfect fit**

- Same justifications as for last five years
- The public health relevance of NME's research will become even more important given the increasing obesity and diabetes epidemics, and the need to improve dietary habits worldwide

- Overall recommendations for NME

The Review Panel is immensely impressed by NME's innovative and productive research programmes, the state-of-the-art laboratory facilities and statistical methods, and collaborative and supportive research environment. It strongly supports NME's exceptional molecular and nutrition epidemiologic research integrating metabolomics, hormone measurements and genomics within population studies.

**Scientific Recommendations:**

1. The RP strongly supports NME's continued leadership role in maintaining and upgrading the research infrastructure for population-based studies, especially the centralization of **EPIC data** on diet, lifestyle, and cancer and other disease endpoints as well as sample replenishment for cancer cases where the **biosamples** have been depleted in a timely manner. The RP recommends the continued collection and centralization of repeated measures of diet and lifestyle factors during the long-term follow-up and the use of repeated measures to correct for measurement errors in self-reported and biological variables.
2. The RP strongly supports NME's ongoing projects on **metabolomics and other omics** (proteomics), nutrition, and cancer risk. This line of research is in the early stage and many of the findings are yet to be replicated. Thus, the RP recommends that the Branch carefully consider appropriate study designs, enlarging sample sizes especially for rare cancers, the inclusion of both internal and external replication samples, and application of the state-of-the-art high-dimensional data analytic techniques. The current in-house metabolomics platform has been instrumental for the Branch's research programmes. The RP recommends the Branch to evaluate the long-term sustainability of the in-house metabolomics platform. The metabolomics laboratory is currently extremely well-funded and very well operated. However, in the long run, the Branch needs to explore how to best

fund the acquisition of new equipment and the operation of an in-house metabolomics platform and consider the possibility, in the future, of partnering with outside metabolomics facilities to conduct metabolomics analysis of stored biospecimen. It is important to weigh the pros and cons of maintaining the in-house metabolomics platform vs outsourcing samples to a core facility in terms of costs and scientific values. It is also important to note that this work in-house is funded through external funds and therefore outsourcing would not affect the Agency's regular budget.

3. The RP supports NME's new large-scale initiative on **proteomics** of cancer through collaboration with an industrial partner (Somalogic). The RP encourages the Branch to seek other industrial partners for other biomarker analyses including metabolomics, lipidomics, genomics and epigenetics (complying with IARC's policies around engaging with the private sector).
4. The RP supports NME's leadership role in multiple **international consortia** of diet, metabolomics, and cancer risk (including the NCI cohort consortium; Diet and Cancer Pooling Project at Harvard; COnsortium of METabolomics Studies (COMETS)). These consortia are especially important for the studies of rare cancer endpoints such as early-onset colorectal cancer, liver cancer, and triple negative breast cancer. The RP recommends the Branch to take more leadership roles in individual cancer endpoints and carefully consider sufficient sample sizes and statistical power for multiple omics analyses, gene-diet interactions, MR analyses, and subgroup analyses by age and tumour subtypes.
5. The RP supports NME's current projects on diet, lifestyle, and **cancer survival** in EPIC and other large cohorts. Because few consortia for cancer survivors are existing, the RP recommends the Branch to participate or initiate consortia for cancer survivors, similar to the consortia for cancer incidence.
6. The RP supports the research on **multimorbidity and cardiometabolic comorbidities** and recommends the NME to expand studies by taking advantage of already existing resources and real-world databases elsewhere. The RP recommends that NME carefully consider the complexities of conducting this line of research including reverse causation, influence by treatments, survival bias, and missing data in real-world databases.
7. The RP recommends that NME carefully evaluate whether conducting **lifestyle intervention trials** is a high priority research area for the Branch given the high cost and complexity of conducting these trials especially in the context of cancer prevention. Given the limited financial and professional resources and high burden of the NME research staff, the RP considers this line of research a lower priority compared to other lines of research within the Branch.
8. The RP recommends the NME to integrate the **Precision Nutrition framework** within its ongoing and future projects, in line with the framework that has been embraced by NIH and many academic institutions worldwide. The goals of precision nutrition are to improve dietary assessment methods, develop omics biomarkers for diet and disease risk, and develop computer algorithms for personalized nutrition strategies to improve diet quality and health outcomes.

9. The RP recommends that NME enhance its efforts to conduct **validation studies** of novel dietary indices such as NOVA classifications of processed foods, food diversity, planetary impact of dietary patterns, and various dietary quality indices. The Agency should consider providing pilot grants to support to the validation studies.
10. The RP strongly supports NME's efforts to develop new **statistical methods** for metabolomics data harmonization and multi-omics analyses. More work is needed to improve methods for MR analyses of dietary and lifestyle factors where genetic instruments are relatively weak, mediational analyses of complex biological pathways, measurement error analyses of self-reported diets, and high-dimensional data analyses that integrating diet and lifestyle factors with multi-omics data.
11. NME is to be commended for its work in **LMICs**. Given its independent and impartial authority on carcinogenicity, IARC is uniquely positioned to initiate and conduct research, and contribute to capacity building in these countries. The RP recognizes the challenges in securing funding for large-scale studies in these countries. The case-control studies conducted to date, while being small and subject to biases, can nevertheless provide useful preliminary data which are essential to secure funding for prospective studies. They are also valuable for understanding the logistics for the successful implementation of projects in those areas. Ideally, LMIC-based studies would be coordinated and funded at the Agency level.

#### **Managerial Recommendations:**

1. The RP considers that it is critical that the **senior scientist position** becoming vacant following the departure of Dr Gunter (Branch Head) in January 2023 (or that of Dr Ferrari if he takes on this position after the interim) be maintained through IARC core funding. The search process for hiring a new senior scientist should be initiated in a timely fashion to fill the upcoming vacancy. It is essential that the transition does not result in a net loss of a senior position within NME, whose outstanding leadership relies significantly but not only on its capacity to attract external funding.
2. The RP is deeply concerned about **the loss of 4 professional staff** (including 2 senior scientists) during the review period. To maintain NME's cutting-edge research in the field of nutrition and omics, the RP recommends that IARC maintain the expertise in metabolomics and high-dimensional data analyses to keep the high quality of research in the Branch.
3. **Funding uncertainties** has put a serious strain on Branch personnel. The RP suggests that, if possible, the Agency provides a portion of hard money support (e.g. 10% or more) for the Team leaders or PIs who are spending substantial amount of time writing grants. This is common practice in other leading institutions.
4. The RP recommends that **students and postdoctoral fellows** be given the opportunity to develop abilities in grant writing, mentoring and teaching in preparation for their future careers.
5. The RP encourages NME to maintain **gender diversity** in the leading positions in the Branch.

- Additional observations outside of the NME review from SC members were as follows:
  - The SC commended the NME Branch on their efforts and highly positive review.
  - The SC suggested that there should be a sustained activity in the lifestyle intervention arena.
  - The SC queried how deep in molecular terms does the Branch explore mechanism, particularly relating to the impact of dietary factors on cancer risk. Dr Pietro Ferrari (Acting Branch Head of NME) indicated that some activities in this arena are performed within IARC, but current research is mostly observational in nature and hypothesis-generating.
  - The SC queried potential fragilities in respect of the EPIC study, which is a flagship project within the NME Branch. The Review Panel indicated that the primary issues relate to challenges in terms of GDPR and data sharing, as opposed to fundamental issues with the EPIC study itself.
  - The SC commented that it was critical to have a strong team-based ecosystem, so as to overcome staff fluctuations, with a rotational leadership model being advocated.
  - The SC queried the ability of the NME Branch to conduct studies in LMICs. The Review Panel indicated that the Branch finds it challenging to obtain external funding to conduct such studies and, whenever possible, pilot or feasibility studies could be funded from alternative sources including regular budget.
  - The Review Panel were concerned about potential loss of a senior post within the NME Branch during this key transition period. The SC strongly recommends preservation of funding for this senior post from the regular budget, notwithstanding any requirement for redistribution of budget across the Pillars and Branches, as outlined by the Director.

53. The overall recommendations for the NME Branch were discussed and approved.

54. In response:

- The Director congratulated the personnel of NME for their outstanding performance as reflected in the report, referring specifically to the highly impactful work in relation to dietary factors and cancer risk.
- The Director acknowledged the outgoing Branch Head, Dr Gunter, in regard to his sterling work in leading the NME Branch, and thanked Dr Ferrari and the Deputy Branch Heads for their work in guiding the branch forward.
- The Director also acknowledged the tremendous work of the Review Panel.

55. The Branch and Deputy Branch Heads thanked the Review Panel for their input.

56. The Nutrition and Metabolism (NME) Branch Review Panel Report was formally accepted by the Scientific Council.

## **ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON FOR THE 60<sup>th</sup> SESSION OF THE SCIENTIFIC COUNCIL IN 2024**

57. Dr Manami Inoue was elected Chairperson.
58. Dr Luis Felipe Ribeiro Pinto was elected Vice-Chairperson.

## **DATE OF NEXT SESSION**

59. The 60<sup>th</sup> SC will take place on Wednesday 7, Thursday 8 and Friday 9 February 2024.
60. The ESC Review Panel will take place (remotely) from Monday 22 to Friday 26 January 2024.

## **ADOPTION OF THE SCIENTIFIC COUNCIL REPORT (Document SC/59/7)**

61. The report of the Fifty-ninth Session of the Scientific Council **was adopted**.

## **CLOSURE OF SESSION**

62. The customary expressions of thanks were exchanged.
63. Dr Weiderpass thanked the outgoing 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), Jong Bae Park (Republic of Korea) and Pietro Pichierri (Italy).

**ANNEX 1 – LIST OF ACRONYMS OF IARC PILLARS AND BRANCHES**

<b>ACRONYM</b>	<b>PILLAR / BRANCH</b>
	<b>Pillar I: DATA FOR ACTION</b>
CSU	Cancer Surveillance Branch
	<b>Pillar II: UNDERSTANDING THE CAUSES</b>
GEM	Genomic Epidemiology Branch
NME	Nutrition and Metabolism Branch
	<b>Pillar III: FROM UNDERSTANDING TO PREVENTION</b>
ENV	Environment and Lifestyle Epidemiology Branch
EGM	Epigenomics and Mechanisms Branch
EPR	Early Detection, Prevention and Infections Branch
	<b>Pillar IV: KNOWLEDGE MOBILIZATION</b>
ESC	Evidence Synthesis and Classification Branch
LCB	Learning and Capacity Building Branch
LSB	Laboratory Support, Biobanking and Services
	<b>DIRECTOR'S OFFICE</b>
SSR	<b>SERVICES TO SCIENCE AND RESEARCH</b>



## ANNEX 2 – STATEMENT FOR THE DECLARATION 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 the private sector;
- ✓ Investment interests in the private sector;
- ✓ Intellectual property rights (holding patents applications).

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
Walter Berger	Reports having a commercial interest in P4 Therapeutics in his capacity of co-founder and stakeholder
William Gallagher	Reports holding stocks in OncoAssure Limited in his capacity of co-founder and Director; and holding patent applications US8116551B2 and EP2227774B1, GB0504302D0, FR2784383B1, US7220732B2 and EP1492799B1. Previously held stock in OncoMark Limited.