



**Governing Council
Sixty-seventh Session**

GC/68/Min.4-Annex
28 May 2026

27–28 May 2026
Hybrid format

MINUTES OF THE FOURTH MEETING - ANNEX
IARC, Lyon and web conference

Thursday, 28 May 2026, at 11:20 Central European Summer Time (CEST)
Chairperson: Professor Dorothy KEEFE (Australia)
Secretary: Dr Elisabete WEIDERPASS, Director, IARC

CONTENTS

	Page
1. Introduction	2
2. Roundtable 1: artificial intelligence	2
3. Roundtable 2: early-onset colorectal cancer	5
4. Roundtable 3: lung cancer prevention and control	7
5. Roundtable 4: planetary health	9

ANNEX. ROUNDTABLE DISCUSSIONS: “CO-CREATING THE FUTURE OF CANCER RESEARCH”: Item 18 of the Agenda

Introduction

Governing Council members met in two roundtable groups to consider the following themes: artificial intelligence; early-onset colorectal cancer; lung cancer prevention and control; and planetary health. The discussions in the roundtable sessions are summarized below.

Roundtable 1: artificial intelligence

Date: 28 May 2026

Track 2: 11:20–12:15

Lead scientists: Dr Partha Basu and Dr Eric Lucas (IARC Early Detection, Prevention, and Infections Branch)

Overview

The roundtable focused on the role of artificial intelligence (AI) in cancer prevention, screening, diagnosis and care pathways, with particular attention being paid to cervical cancer screening and triage. IARC scientists presented ongoing work on AI-supported visual assessment for human papillomavirus (HPV)-positive women, including the development and validation of an image-capture device and AI model designed for use in field settings. The discussion also touched on broader applications of AI in mammography, pathology, liquid biopsy, ultrasound and other areas of cancer control. Participants welcomed the potential of AI to strengthen cancer screening and diagnostic pathways, particularly where image interpretation, triage, or decision support could improve quality, efficiency, and access. The discussion emphasized that AI should be considered as part of a broader clinical and public health workflow.

A central theme was the need to ensure that AI tools were robust, transparent and relevant across diverse populations and health systems. IARC scientists highlighted lessons from cervical cancer AI research, including the importance of geographical and device-level heterogeneity, quality-assured datasets, model calibration and real-world validation before implementation.

Ethical, legal, and regulatory questions were also central to the discussion. Participants raised concerns about accountability, patient rights, over-reliance on AI, explainability, trust and the need to preserve human expertise. IARC scientists emphasized that AI should support, not replace, trained health professionals, and that legal and ethical frameworks must evolve alongside the technology.

Perspectives from countries

- Brazil raised the issue of diversity within large countries, noting that national-level categories might mask substantial regional variation in population characteristics and HPV subtype distribution. IARC scientists agreed that geographical heterogeneity was a major challenge for AI models and explained that models developed in one setting could not simply be transferred without validation or calibration. They noted that relatively small but high-quality local datasets might help recalibrate models, while larger multicountry collaborations were needed to build globally relevant tools. IARC scientists also clarified that HPV genotyping data were

being incorporated into risk modelling, including information on HPV 16, 18, 45 and other risk groups.

- The **Republic of Korea** asked how AI model sensitivity and specificity were assessed, and whether AI-supported visual assessment could eventually replace cytology or other existing triage methods. IARC scientists explained that histopathology remained the gold standard in their studies, allowing comparison of AI performance with colposcopy and other clinical assessments. They emphasized that HPV testing remained the preferred primary screening test, but AI could play an important role in triage, particularly where cytology was subjective, variable or difficult to sustain. They also underlined that AI should fit into workflows where trained health professionals retained final responsibility and could override or seek consultation when needed.
- **France** emphasized that the main challenge might lie at the legal and regulatory level rather than in the technical performance of AI itself. France noted that AI could improve access to care and help specialists focus on complex diagnosis and treatment, but that responsibility in the event of error must be clearly addressed. IARC scientists agreed and explained that legal and ethical issues were being actively considered, including discussions with regulatory experts and plans to review existing frameworks relevant to AI in cancer screening.
- The **United States of America** raised concerns about the long-term implications of AI use for professional training and clinical judgement. The point was made that AI might improve performance in the short term, but could also lead to reduced human expertise if health professionals became overly dependent on automated outputs. IARC scientists acknowledged that risk and stressed that AI should not become the final decision-maker. Training, human oversight and the ability to question or override AI outputs must remain central to implementation.
- **Belgium** framed AI use in cancer screening as a human-rights and patient-rights issue, particularly regarding accountability and responsibility when errors occurred. Belgium asked whether IARC's work took into account broader work by organizations such as the Council of Europe and the Organisation for Economic Co-operation and Development on AI in health care. IARC scientists responded that they were beginning work on a cancer-specific ethical and legal framework for AI, building on existing WHO guidance and wider international work, with planned collaboration including legal and ethics expertise.
- **China** asked how IARC positioned the tool from a regulatory perspective: as AI-assisted screening or AI-assisted diagnosis, noting that those categories had different implications for required sensitivity and specificity. IARC scientists clarified that the tool was intended for triage or diagnostic support among HPV-positive women, not as a replacement for HPV testing as the primary screening test. They emphasized that high specificity was particularly important in that context to reduce unnecessary referrals or treatment.
- **Japan** asked whether the AI system could distinguish clinically relevant categories, such as lesions requiring excision versus those suitable for observation, and whether AI could detect HPV infection itself. IARC scientists explained that the model was being trained to distinguish

normal or low-grade lesions, high-grade precancers and cancers, with the goal of supporting treatment decisions such as ablation, excision or referral. They also noted complementary work using spectroscopy and AI to detect HPV infection from urine samples, as part of broader efforts to expand AI-supported cancer prevention tools.

Potential areas for future IARC contribution

- Supporting independent evaluation and validation of AI tools for cancer screening, triage and diagnosis.
- Building diverse, quality-assured international datasets to reduce bias and improve model generalizability.
- Advancing research on model calibration across countries, regions, devices and populations.
- Developing cancer-specific ethical, legal and regulatory frameworks for AI use in screening and care pathways.
- Assessing how AI can be integrated into real-world workflows while preserving human oversight, accountability and professional expertise.
- Exploring AI-supported tools for other cancer sites, including breast cancer and lung cancer, pathology and multicancer early detection.
- Supporting countries in identifying where AI can add value without increasing inequities or creating unsustainable implementation burdens.

Roundtable 2: early-onset colorectal cancer

Date: 28 May 2026

Track 1: 9:55–10:50

Lead scientists: Dr Freddie Bray (IARC Cancer Surveillance Branch), Dr Paul Brennan (IARC Genomic Epidemiology Branch) and Dr Pietro Ferrari (IARC Nutrition and Metabolism Branch)

Overview

The roundtable focused on the growing incidence of colorectal cancer among younger adults, a trend observed in many countries and identified as an important research priority in the IARC Medium-Term Strategy (MTS) 2026–2030. IARC scientists presented recent epidemiological and molecular research exploring potential drivers of that increase, including metabolic factors, obesity and emerging evidence linking early-life microbiome exposures and bacterial mutational signatures to colorectal cancer risk.

Participants agreed that the increase in early-onset colorectal cancer represented a significant and still poorly understood phenomenon requiring further international research. While obesity, metabolic dysfunction, dietary changes and alcohol consumption were recognized as important contributors, several participants noted that those factors alone might not fully explain the magnitude and rapidity of the observed increases.

Considerable interest was generated by IARC's ongoing work investigating mutational signatures associated with specific gut bacteria, particularly colibactin-producing *Escherichia coli*. The discussion explored the possibility that changes in early-life exposures, microbiome composition, birth practices, antibiotic use or other childhood factors might contribute to increased cancer risk decades later. Participants highlighted the importance of integrating molecular epidemiology, microbiome research, metabolomics and traditional cohort studies to better understand these mechanisms.

The discussion also underscored the importance of adopting a life-course perspective, including research on childhood and early-life determinants of cancer risk. Several participants emphasized that understanding why risk was increasing among younger generations might require looking well beyond traditional adult risk factors.

Perspectives from countries

- **Brazil** highlighted ongoing research on obesity, lipid metabolism, inflammation and colorectal cancer development, including work on lipid droplets as potential markers of inflammatory pathways. IARC scientists noted that that research fitted well with a possible “initiation–promotion” model, where early mutational events might interact with later metabolic or inflammatory processes. They expressed interest in further collaboration, particularly given existing cohorts and shared research interests.
- The **Republic of Korea** noted that early-onset colorectal cancer rates had risen rapidly in the country, possibly alongside dietary and lifestyle changes, including increased intake of meat and processed foods. The speaker also raised the potential value of metabolomics and microbiome studies, while noting the lack of standardization in microbiome data. IARC

scientists responded that East Asia was a particularly important region for further study, especially as high levels of colibactin-related mutational signatures had been observed in Japan, and emphasized the value of generating comparable data from the Republic of Korea.

- **Norway** raised questions about sex differences, childhood obesity, birth characteristics and the potential value of long-standing national birth registries to explore early-life determinants of risk. IARC scientists noted that younger men and women appeared to have more similar colorectal cancer rates to older age groups, suggesting that early-onset disease might have distinct features. They also welcomed the potential value of registry-based data for investigating pregnancy, birth and early-childhood factors.
- **Belgium** asked whether colibactin-related mutational processes could affect tissues beyond the colorectum. IARC scientists explained that, based on current whole-genome sequencing evidence, the colibactin mutational signature appeared to be highly specific to colorectal tissue, with very limited evidence of similar signatures in other cancer sites.
- **France** raised the possibility that changes in medical practices over recent decades (such as antibiotic use, diagnostic imaging and changes in the management of childhood conditions) might have contributed to shifts in risk. IARC scientists agreed that unintended consequences of medical interventions were important to consider, particularly in relation to antibiotics, birth practices and early-life exposures, and suggested that pharmaco-epidemiological approaches could help test some of those hypotheses.
- **China** asked about the implications of rising early-onset colorectal cancer incidence for cancer control, including whether large-scale screening should be considered and which populations should be prioritized. IARC scientists emphasized that more evidence was needed before drawing conclusions, but noted that, if early-life mutational burden proved to be an important driver, it could have major implications for future risk stratification and targeted screening of younger high-risk individuals.

Potential areas for future IARC contribution

- Expanding international studies investigating early-onset colorectal cancer trends and their determinants across diverse populations.
- Integrating epidemiology, molecular pathology, microbiome research, metabolomics and mutational signature analyses to better understand disease mechanisms.
- Investigating the role of early-life exposures, including childhood microbiome development, birth practices, antibiotic use and metabolic health.
- Strengthening collaborations with existing cohorts, registries and biobanks to support life-course research.
- Assessing the implications of emerging evidence for future screening and risk-stratification strategies.
- Facilitating international collaboration to compare patterns across countries and better understand geographical differences in incidence trends.

Roundtable3: lung cancer prevention and control

Date: 28 May 2026

Track 2: 11:20–12:15

Lead scientists: Dr Hilary Robbins and Dr Mattias Johansson (IARC Early Detection, Prevention and Infections Branch)

With contributions from: Dr André Carvalho (IARC Early Detection, Prevention and Infections Branch), Dr Béatrice Lauby-Secretan (IARC Evidence Synthesis and Classification Branch), Dr Mahdi Sheikh (IARC Early Detection, Prevention and Infections Branch), and Dr Xiaoshuang Feng (IARC Early Detection, Prevention and Infections Branch)

Link to the video: <https://www.youtube.com/watch?v=NSvAFoI35E>

Overview

The roundtable focused on lung cancer prevention, screening and early detection, with particular attention being paid to tobacco control, implementation of lung cancer screening, the IARC Handbooks evaluation of lung cancer screening and emerging approaches to risk prediction and biomarker-based screening. IARC scientists briefly presented ongoing work across the Agency, including tobacco-related research, implementation studies, evidence synthesis and the Lung Cancer Cohort Consortium.

Participants recognized lung cancer as a major public health priority and emphasized the need for evidence that could support both prevention activities and programme design. The discussion highlighted that lung cancer prevention could not be separated from tobacco control, but also that many countries were increasingly concerned about lung cancer among people who had never smoked, particularly women and younger adults in some settings. A central theme was the need to better define who should be offered lung cancer screening. IARC scientists emphasized that low-dose computed tomography (CT) screening was currently the evidence-based tool for people at high risk, especially those with a substantial smoking history, but that important questions remained around how to identify other high-risk groups, including never-smokers and individuals with occupational exposures.

Several participants raised questions about implementation, including programme eligibility, recruitment, CT capacity, treatment pathways, cost-effectiveness, data systems, performance indicators and overdiagnosis. IARC scientists stressed that screening pilots should be designed from the outset with scale-up in mind, as sustainable implementation required health-system planning, registry infrastructure, quality assurance and timely access to diagnosis and treatment.

Perspectives from countries

- **Qatar** raised the issue of lung cancer among people who have never smoked, particularly women and among young expatriate workers potentially exposed to occupational risks. IARC scientists responded that it was an important area of ongoing research. They noted that the Lung Cancer Cohort Consortium was being used to study lung cancer among never-smokers and that new biomarker studies were being developed to identify high-risk individuals without

a smoking history. IARC scientists also highlighted new work integrating occupational exposure information into lung cancer risk assessment.

- **China** emphasized that lung cancer was the leading cause of cancer mortality in that country and, similar to Qatar, noted increasing concern about lung cancer among women and never-smokers. China raised three major challenges: whether screening should expand beyond traditionally high-risk populations, the cost of screening and the risks of overdiagnosis and overtreatment. IARC scientists advised that any expansion of screening eligibility should remain focused on people at sufficiently high risk and that better risk models and biomarkers were needed before broadening eligibility to lower-risk groups. They also noted that overdiagnosis might be linked both to screening lower-risk populations and to nodule management practices, underlining the need for more evidence and careful programme design.
- **Australia** shared experience from its national lung cancer screening programme, launched in July 2025 and highlighted ongoing questions about evaluation, eligibility criteria, additional risk factors, data collection, occupational exposures, biomarkers, vaping and e-cigarettes and overdiagnosis. IARC scientists noted that work undertaken for the European Commission had identified performance indicators for cancer screening programmes, including lung cancer and offered to share those materials to support Australia's monitoring and evaluation work.
- **Brazil** noted that lung cancer screening was not yet implemented nationally and raised the challenge of assessing its value in a large public health system serving a very large population. Brazil asked about the real benefits of lung cancer screening for public health systems and governments. IARC scientists responded that evidence from lung cancer and colorectal cancer screening increasingly pointed to cost-saving potential over time, while acknowledging the need for substantial upfront investment in infrastructure, workforce, diagnostic capacity and treatment pathways. They emphasized that the benefits included both cost avoidance and lives saved by detecting cancers at earlier, curable stages.
- The **Kingdom of the Netherlands** reported that its Health Council had recently advised against immediate implementation of lung cancer screening and that further work was ongoing to clarify what would be needed before implementation. The Netherlands also highlighted vaping as a major policy concern and expressed interest in sharing experience on measures such as flavour bans.

Potential areas for future IARC contribution

- Supporting countries in assessing whether, when and how lung cancer screening could be introduced or expanded.
- Providing independent evidence on eligibility criteria, risk prediction models, biomarkers and approaches for identifying high-risk groups.
- Advancing research on lung cancer among never-smokers, including women and populations with occupational exposures.

- Supporting implementation research on low-dose CT screening, including recruitment, retention, CT capacity, referral pathways, treatment access and quality assurance.
- Sharing performance indicators and evaluation frameworks to support monitoring of lung cancer screening programmes.
- Strengthening evidence on smoking cessation interventions across the cancer control continuum, including within screening programmes and after cancer diagnosis.
- Continuing to assess emerging issues such as vaping and e-cigarettes in relation to lung cancer prevention.
- Providing independent evidence synthesis and evaluations through the IARC Handbooks and other knowledge products to guide policy and programme decisions.

Roundtable 4: planetary health

Date: 28 May 2026

Track 1: 9:55–10:50

Lead scientists: Dr Joachim Schüz and Dr Milena Foerster, IARC Environment and Lifestyle Epidemiology Branch

Overview

The roundtable explored the growing links between planetary health and cancer prevention, including climate change, air pollution, environmental contaminants, radiation and broader environmental determinants of cancer. IARC scientists briefly presented ongoing work, highlighting opportunities for IARC to contribute through evidence synthesis, exposome research, cohort studies and independent scientific assessment.

Participants widely welcomed the inclusion of planetary health as a strategic priority within the MTS 2026–2030 and agreed that environmental change was increasingly affecting health outcomes, including cancer risks. Several members emphasized the need for stronger evidence to support policy and investment decisions. While the links between climate change, environmental exposures, and health were increasingly recognized, countries noted that more quantitative data were needed to demonstrate the long-term impacts on cancer burden and to support national decision-making.

A recurring theme was the importance of understanding co-benefits. Participants highlighted that measures addressing climate change, air pollution, transport systems, urban planning or food systems might contribute simultaneously to cancer prevention and to broader public health gains. Better quantification of these co-benefits was seen as an important area for future research.

The discussion also underscored the complexity of environmental exposures and the need to move beyond single-risk-factor approaches. Participants expressed interest in exposome research and life-course approaches capable of capturing interactions between environmental, occupational, behavioural and biological determinants of cancer.

Perspectives from countries

- **Switzerland** welcomed the focus on planetary health and highlighted national work on heatwave vulnerability mapping and projections of heat-related mortality. Switzerland emphasized that stronger data on environmental exposures and health impacts were needed to support political and budgetary decisions, particularly in Parliament. IARC scientists agreed on the importance of generating robust exposure and health impact data, while noting that IARC's added value lay in providing independent scientific evidence and helping to quantify links between environmental change and cancer risk. They also acknowledged the importance of building synergies with ongoing WHO regional work.
- The **Kingdom of the Netherlands** welcomed the One Health framing and noted growing political attention to climate and health, including recent national work assessing the health impacts of climate change. The speaker asked specifically whether IARC could support evidence generation on the long-term effects of climate-related changes in air quality on lung cancer burden. IARC scientists responded that that was precisely where status quo assessments, exposure modelling and exposome research could be useful. They emphasized that future cancer impacts depended heavily on assumptions about changing exposures and behaviours, and that better modelling of realistic scenarios was needed to estimate long-term risks.
- **Japan** emphasized that climate change, industrial pollution and other planetary health challenges affected many diseases beyond cancer, and that research and policy responses should look beyond cancer prevention alone. IARC scientists agreed that planetary health must be addressed through a broader health lens, while noting that IARC's specific contribution was to provide the cancer-related evidence needed within wider multisectoral assessments and policy discussions.
- **Qatar** highlighted national interest in environmental determinants of cancer and raised questions on radiation exposure, including medical imaging, radiotherapy, nuclear incidents and public concerns around radiation-related cancer risks. IARC scientists responded by stressing the need for balanced, evidence-based risk communication. They noted that radiation exposure was often surrounded by misconceptions, and that IARC could contribute by clarifying actual cancer risks, distinguishing necessary medical exposures from avoidable ones, and providing independent scientific guidance.
- **France** raised questions on how IARC prioritized environmental carcinogens, including pesticides and cadmium, and asked how the IARC Monographs related to planetary health research needs. IARC scientists clarified the distinction between hazard identification and risk assessment: the Monographs identified whether an agent was carcinogenic, while additional exposure data and modelling were needed to estimate cancer burden and inform policy. They noted that many pesticides remained in "probable" or "possible" categories, indicating important research gaps, and highlighted emerging concerns such as microplastics and persistent exposures to banned substances.

- **Additional discussion** focused on pesticides, environmental accumulation and the long-term persistence of hazardous exposures. Participants noted that regulatory action did not immediately eliminate exposure, as substances such as dichlorodiphenyltrichloroethane or asbestos might remain in homes, soils, buildings or supply chains long after restrictions were introduced. IARC scientists emphasized the importance of human biomonitoring, local exposure assessment and better risk communication, particularly because environmental measurements did not always correspond directly with human uptake and individual behaviour could strongly shape exposure.

Potential areas for future IARC contribution

- Providing independent scientific assessments and authoritative evidence on the links between planetary health and cancer.
- Expanding research on climate-related exposures, including air pollution, heat, ultraviolet radiation, environmental contaminants and emerging concerns such as microplastics.
- Strengthening exposome and biomonitoring research to better characterize real-world human exposures.
- Quantifying the cancer-related co-benefits of climate and environmental policies.
- Supporting evidence-based communication on environmental cancer risks, particularly where scientific uncertainty or misinformation existed.
- Leveraging existing IARC cohorts, biobanks and international research networks to address planetary health questions.