

## EDUCATION AND TRAINING GROUP (ETR)

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As a core function of the Agency, IARC's education and training programme has made a substantial contribution to the development of human resources for cancer research worldwide and has also helped to widen the Agency's network of collaborators.

Key achievements of IARC's education and training programme during 2020–2021 are presented here. Whereas the Education and Training Group (ETR) coordinates the Agency's activities in these areas, many initiatives are led by the research Groups.

With the start of the new IARC Medium-Term Strategy 2021–2025 and the new organizational structure as of 1 January 2021, ETR was renamed as the Learning and Capacity-Building Branch.

### RESEARCH TRAINING AND FELLOWSHIP PROGRAMME

The programme offers researchers at different stages of their career (collectively referred to as Early Career and Visiting Scientists) opportunities to receive training at IARC by participating in collaborative research projects. These Early

Career and Visiting Scientists are supported either by project funds from IARC Groups or by IARC Fellowships. A total of 254 Early Career and Visiting Scientists from 58 different countries worked at IARC during the biennium. This represents a 13.9% decrease compared with the previous biennium, which is directly related to reduced mobility resulting from the travel restrictions imposed during the COVID-19 pandemic.

The internal programme of generic skills courses, jointly managed by ETR and the Human Resources Office, offered 30 courses to Early Career and Visiting Scientists in 2020–2021 (Table 1), which were attended by more than 200 people. Because of the COVID-19 pandemic, the courses offered were reduced to high-priority events and were held online. In addition, Early Career and Visiting Scientists accessed 97 learning resources from the WHO ilearn learning platform. An IARC Mentoring Programme was developed with a group of volunteers from across the Agency as part of the IARC Quality of Work Life initiative (Figure 1).

ETR continued to work closely with the Early Career Scientists Association (ECSA). Among other activities, ECSA successfully held online events, including a Career Day, featuring a career panel and a seminar on working efficiently from home, and a Scientific Week, enabling the presentation of work to peers from IARC, the Cancéropôle Lyon Auvergne Rhône-Alpes, the United States National Cancer Institute, and the German Cancer Research Center.

#### POSTDOCTORAL FELLOWSHIPS

The Agency awarded seven IARC Postdoctoral Fellowships to candidates from low- and middle-income countries (LMICs) for projects in line with IARC's emerging priorities or on the relationship between cancer and COVID-19. In addition, as part of efforts to identify complementary sources of funding for the programme, negotiations with Children with Cancer UK led to a call for IARC Postdoctoral Fellowships for scientists wishing to carry out research on paediatric cancers or cancer in teenagers and young adults. Two such fellowships were awarded.

Three return grants were awarded, to assist former IARC Postdoctoral Fellows in the establishment of research activities in their home countries.

**Table 1. Generic courses for Early Career Scientists, 2020 and 2021**

Research skill development	Writing skills
Multivariate analysis for -omics data integration: principles and applications Tidyverse fundamentals with R	Copyright issues (twice) Effective scientific posters Publications catch-all/catch-up Publishing in scientific journals PubMed workshop: search efficiently Systematic reviews search methodology
IT skills	Communication skills
Electronic Laboratory Notebook REDCap for data collection REDCap for surveys	Effective interpersonal communication techniques (four times) Social media
Career management and development	Leadership and management
Career Compass webinar Career Compass follow-up webinar Confident career conversations Creating and maintaining high performance Giving and receiving feedback (twice) Motivation and focus (twice)	Efficient communication between team member and supervisor: being on the same page Research leadership training course (twice) Task management Teamwork and collaboration

**Figure 1. Flyer to promote the concept of the IARC Mentoring Programme. © IARC.**



Figure 2. Cancer Screening in Five Continents (CanScreen5) Train the Trainers live session. © IARC.



### SHORT-TERM FELLOWSHIPS

In collaboration with the Union for International Cancer Control (UICC), the UICC-IARC Development Fellowship enables a selected number of IARC Summer School participants from LMICs to visit IARC for a period of 1 month for further training and collaboration. Seven UICC-IARC Development Fellowships were awarded.

### COURSES PROGRAMME

The courses programme is designed to enhance the capacity of the global research community, in particular in LMICs, through lifelong learning in the areas of the Agency's expertise.

### LEARNING EVENTS

The Agency organized 37 courses or webinars targeting researchers and health professionals from many countries, in particular LMICs (Table 2). Because of the COVID-19 pandemic, courses were offered online, were redesigned to combine live sessions with facilitated self-learning, and lasted from a period of a few days, for example the

cancer staging course, to several months, for example the IARC Summer School 2021, the ChildGICR Masterclass, and the Cancer Screening in Five Continents (CanScreen5) Train the Trainers course (Figure 2). More than 2700 scientists and health professionals benefited from these learning events during the biennium.

### SELF-LEARNING RESOURCES

As a key complement to live events, IARC continued to produce self-learning resources. A new self-paced learning programme on cancer screening and early diagnosis was launched in the framework of the CanScreen5 project. This resource was translated into Russian and will soon be available in Spanish (<https://learning.iarc.fr/edp/resources/pgm-cancer-screening/>).

As part of the Cancer Prevention Europe consortium, self-learning modules on the fourth edition of the European Code Against Cancer were produced and were translated into French, Hungarian, Polish, and Spanish (<https://learning.iarc.fr/edp/cpe/>) (Figure 3).

### LEARNING PORTAL

Launched in 2019, the IARC Learning portal (<https://learning.iarc.fr>) enables access to several thematic learning platforms (Biobanking, Cancer Prevention and Early Detection, and *World Cancer Report* Updates). It also provides access to IARC WebTV, including the IARC Summer School video channel, as well as to the websites of other IARC-led projects with learning materials on cancer surveillance and on the exposome (the Human Exposome Assessment Platform). The IARC Learning portal continues to attract an increasing audience. Since November 2019, 1554 people (1423 during 2020–2021) have created an account on the portal to freely access learning resources.

**Table 2. Learning events, 2020 and 2021**

<b>Course title</b>	<b>Location</b>	<b>Number of participants</b>	<b>External collaborations</b>
<b><i>Cancer surveillance</i></b>			
Cancer registration: basic principles and methods for the Organisation of Eastern Caribbean States (OECS)	Online	46	IARC Caribbean Hub for Cancer Registration – Martinique Cancer Registry – OECS Health Unit Joint Virtual Caribbean Course
GICR Childhood cancer	Online	25	St. Jude Children's Research Hospital
GICR-WHO EMRO Basic cancer registration course	Online	45	WHO Regional Office for the Eastern Mediterranean
GICR-WHO EMRO Data quality course	Online	20	WHO Regional Office for the Eastern Mediterranean
GICR Staging and Essential TNM course	Online	15	Union for International Cancer Control (UICC)
IARC-National Cancer Center Korea Joint Summer School on Cancer Registration: Principles and Methods	Online	32	GICR, National Cancer Center of the Republic of Korea and its Graduate School of Cancer Science and Policy (NCC-GCSP)
<b><i>Cancer prevention and early detection</i></b>			
CanScreen5 – Train the Trainers – African region	Online	32	American Cancer Society (ACS), Medical Research Council (United Kingdom)
CanScreen5 – Train the Trainers – Pan American Health Organization – Community of Caribbean and Latin American States (CELAC) countries (3 sessions)	Online	79	American Cancer Society (ACS), Centre for Global Health Inequalities Research (CHAIN) of Norway
IARC-Centre Léon Bérard Série d'échanges – Bouger contre le cancer (in French)	Online	220	Centre Léon Bérard, Lyon, France
IARC-Centre Léon Bérard Série d'échanges – Mieux manger pour ma santé (in French)	Online	121	Centre Léon Bérard, Lyon, France
IARC Summer School: Implementing Cancer Prevention and Early Detection	Online	34	Union for International Cancer Control (UICC)
Precision oncology	Online	40	European Scientific Institute, University of Grenoble
Prevention and screening to control chronic diseases: an illustration with cancer – Master of Public Health: Epidemiology of Chronic Diseases	Online	15	French National School of Public Health
Projet Care4Afrique – Benin – IVA et thermo-coagulation (in French)	Online	17	
Running 8-HPV type OncoE6/E7 Cervical Test for ESTAMPA (2 series)	Online	8	
Stakeholder analysis of barriers to cancer screening	Online	25	Pan American Health Organization
The contribution of the Innovative Partnership for Action Against Cancer (iPAAC) Joint Action to building capacity for cancer prevention	Online	87	Cancer Society of Finland, Association of European Cancer Leagues
<i>World Cancer Report</i> webinar series – HPV vaccination	Online	288	European Society for Medical Oncology (ESMO)
<i>World Cancer Report</i> webinar series – Obesity and cancer	Online	351	European Society for Medical Oncology (ESMO)
<i>World Cancer Report</i> webinar series – Social inequalities and cancer	Online	282	European Society for Medical Oncology (ESMO)
<i>World Cancer Report</i> webinar series – COVID-19 and cancer screening	Online	391	European Society for Medical Oncology (ESMO)

**Table 2. Learning events, 2020 and 2021 (continued)**

Course title	Location	Number of participants	External collaborations
<i>World Cancer Report</i> webinar series – Challenges and opportunities for primary cancer prevention	Online	261	European Society for Medical Oncology (ESMO)
<b>Cancer research infrastructure and methods</b>			
Biobank ethics and governance, for BCNet members (2 webinars)	Online	27	National Cancer Institute (NCI) Center for Global Health (CGH)
Human exposome “Bring your own data workshop” for HEAP consortium	Online	20	Human Exposome Assessment Platform (HEAP) consortium members
IARC Summer School: Introduction to Cancer Epidemiology	Online	39	Union for International Cancer Control (UICC)
Multivariate analysis for -omics data integration: principles and applications	IARC, Lyon	30	Swiss Institute of Biostatistics
Safe handling of biological samples, for BCNet members (4 webinars)	Online	55	National Cancer Institute (NCI) Center for Global Health (CGH)
Scientific writing for peer-reviewed publications, for scientists from African and Latin American countries	Online	16	
UiT Winter School on Cancer Epidemiology	Norway and online	43 + 40	The Arctic University of Norway (UiT)
<b>Leadership and management</b>			
Research Leadership Training Programme (2 series)	Online	15	Mobilize Strategy Consulting

**Figure 3. Self-paced e-learning module for the European Code Against Cancer, fourth edition. © IARC.**



As part of the IARC Learning portal, and with the support of and in collaboration with the European Society for Medical Oncology (ESMO), IARC launched the *World Cancer Report Updates* learning platform (<https://learning.iarc.fr/wcr/>) (Figure 4). This provides learning resources and opportunities related to selected content from the 2020 *World Cancer Report*, as well as on developments in cancer research for cancer prevention. Five live webinars provided the opportunity to 2008 researchers and health professionals from 140 countries to interact with international experts. Four e-learning modules were created from the webinar recordings, including short video teasers, quizzes,

questions and answers, and certificates of completion.

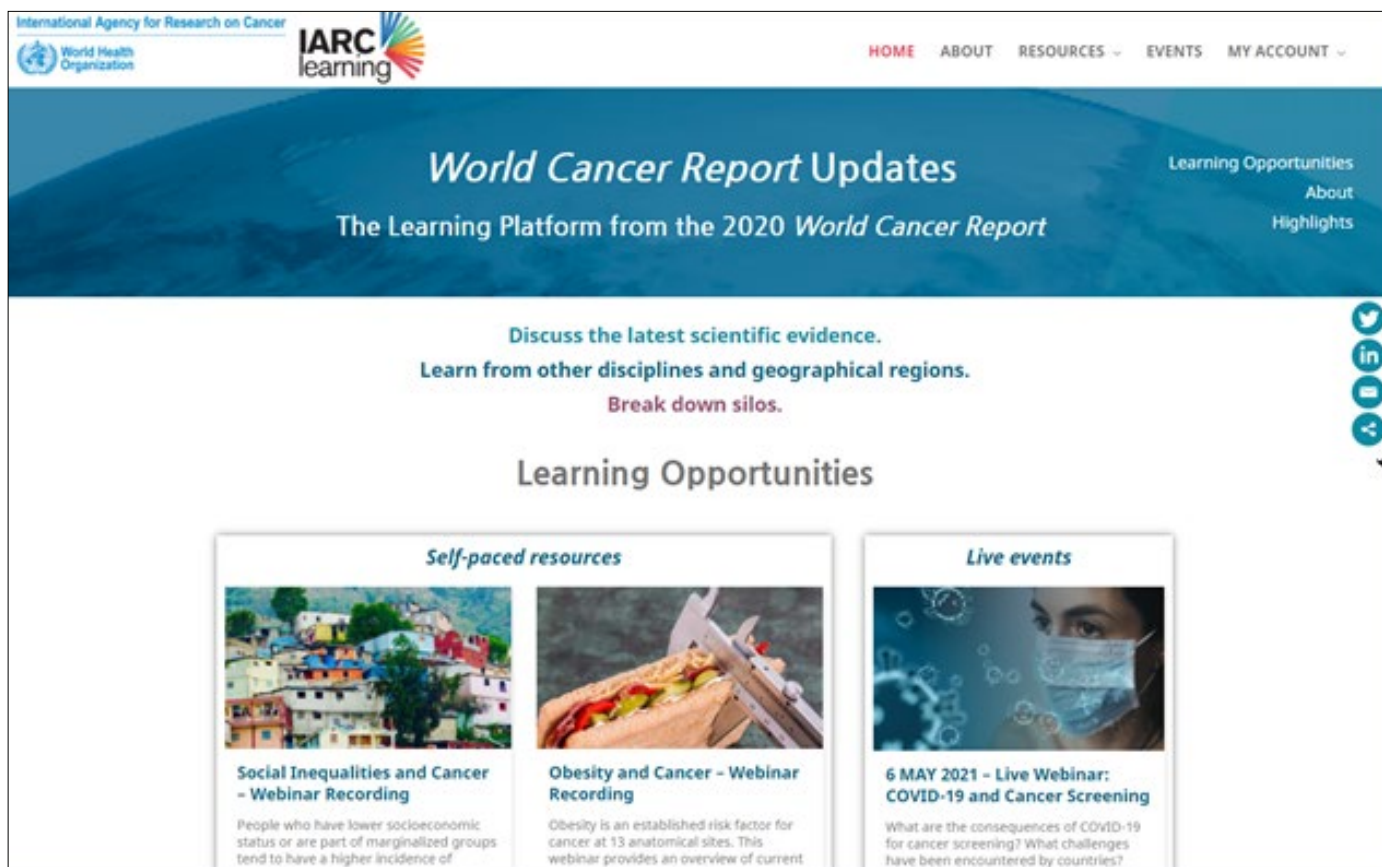
#### KEY PARTNERSHIPS

Relationships between IARC and academic institutions continued to be strengthened during the 2020–2021 biennium. For example, an agreement was reached with the Italian Istituto Superiore di Sanità for the joint supervision and hosting of three PhD students. IARC was also invited to partner with the German Cancer Research Center for the development of a Cancer Prevention Graduate School. In addition, ETR collaborated with the Karolinska

Institutet and other European institutions in the Human Exposome Assessment Platform consortium, funded by the European Union.

IARC has been involved in the development of the WHO Academy at several levels. As well as contributing to governance and infrastructure aspects, two IARC learning programmes were selected as part of the development of the first courses of the Academy: the Comprehensive Learning Programme on Screening, Diagnosis, and Management of Cervical Precancer; and the Managing Infrastructure for Medical Research Learning Programme.

Figure 4. The *World Cancer Report Updates* learning platform. © IARC.



## IARC SUMMER SCHOOL IN CANCER EPIDEMIOLOGY 2021

The IARC Summer School in Cancer Epidemiology aims to improve the methodological and practical skills of cancer researchers and health professionals. Because of the COVID-19 pandemic, the 2021 course was redesigned and conducted entirely online, while maintaining the features that make the course unique: the fostering of international collaboration, the provision of multiple opportunities for interaction, and the delivery of high-quality multidisciplinary lectures and practical activities to facilitate the learning process of participants.

Two modules were offered: Introduction to Cancer Epidemiology, and Implementing Cancer Prevention and Early Detection. A blended learning approach was adopted for both modules, including 4 weeks of self-paced activities (recorded lectures and assignments, punctuated by two or three live sessions and networking events), followed by 2 weeks of daily live sessions and group work activities. A total of 73 cancer researchers and health professionals from more than 45 countries (the vast majority of which were LMICs) participated in the two modules.

All the resources used to deliver the 2021 Summer School are available from the IARC Learning portal (<https://learning.iarc.fr>).

Participants were invited to report their impressions and experience of the 2021 Summer School. The recorded testimonials perfectly illustrate the spirit of the IARC Summer School: the shared learning, sharing of experiences, and the international networking for cancer prevention across countries. The feedback from participants and the assessment of the course directors will be taken into consideration in the design of future IARC Summer Schools and other similar events, to ensure that, when on-site events are again permitted, potential on-site components of courses will be even more focused on the practical and networking aspects.

IARC tweet with IARC Summer School 2021 participants. © IARC.

