

New leadership for the European Cancer Prevention Organization

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European Journal of Cancer Prevention 2023, 32:99–102

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Received 19 December 2022 Accepted 19 December 2022.

Recently, the European Cancer Prevention Organization (ECP) (www.ecpo.org) celebrated 40 years of cancer research together with 30 years of the European Journal of Cancer Prevention (EJCP) (European Journal of Cancer Prevention (www.com)). Forty years of balancing on a rough sea of medical and technical revolutions. When Michael Hill, together with distinguished researchers and clinicians at that time in 1982, designed the fundamentals of a European force to combat cancer (Asvall *et al.*, 1974), he had no idea what was coming to the young organization (European Organization for Cooperation on Cancer Prevention Studies-International Union of Nutritional Sciences, 1986).

It was the time of bovine spongiform encephalopathy that stirred the medical world with disbelief and unprecedented issues on top of other defies. Surgery for cancer was still extremely mutilating and mostly done in academically restricted surgical units. Chemotherapy is deadly toxic, and radiotherapy was calculated on a piece of paper. Everybody feared the disease with a sense of peerless fatality. Only a few survived. Clearly, hope was given to prevention and ECP filled that gap in a timely manner (Hill, 1993).

Primary prevention, however, needed knowledge: how the disease could develop, grow, and destroy the human body. New disciplines, such as epidemiology and statistics, were needed and developed. During all these decennia, some universities and institutes have excelled in epidemiology of cancer as is the case for example in the Negri Institute in Milan where Prof. Carlo La Vecchia has published a number of high-quality papers (Lawler *et al.*, 2022) many of which appeared in the EJCP (Pizzato *et al.*, 2021). In his mainstream, other centers followed and, gradually, relationships were discovered. Some of them are causal.

There was growing understanding that a united Europe could serve as a laboratory to study the causes of cancer. And, together with research in the USA, scientists rapidly became convinced that cancer is indeed a preventable disease. From year to year, new evidence fuelled the perception that some frequent cancers, such as cancer from liver, stomach, and uterine cervix were declining as a

result of better living conditions. They were governmental projects that resulted in new lifestyles, better hygiene, and food. Medical research could only observe the beneficial impacts on fatal diseases.

Unfortunately, some cancers were rising at the same time. A notorious killer, lung cancer, reached pandemic proportions. Other cancers, like breast cancer and gastrointestinal cancer, showed more complex behaviours. But the research mind was set as follows: most cancers are preventable and, by the absence of comfortable and effective treatments, the only affordable way to combat the disease (Simonato *et al.*, 1998).

Convergence of knowledge and medtechnical evolutions in medicine since 1980 gave new hope to patients and their families. Improvements in radiodiagnostic skills, more specialized organ-sparing surgery, and precision radiotherapy led to a more acceptable conservational therapy without declining efficacy. New chemotherapy agents exhibited less toxicity. And where surgery became less aggressive, chemotherapy in high doses looked promising.

Innovative treatments entered the clinic as a result of major progress in molecular biology. Knowing the biochemical derangements of cancer cells provided a resourceful approach of designing more specific, less toxic, and more effective therapies. Targeting the diseased metabolic step was the start of personalized oncology. During the last 10 years, a new promise came from the launch of immunotherapies. It is expected that novel developments blossom at an increasing pace as progress is seen in different converging medical disciplines.

It is to be recognized that the pharmaceutical and medical device industry played a major role in these recent developments. Companies generated major investments that never could be offered by governments to university laboratories. Each key milestone, in diagnostic and therapeutic progress, created hope to combat the disease more effectively and more patient-friendly, with potential to increase survival rates and cure. At every breakthrough, attention was given to the consequences for diagnosis and treatment, and the quality of life for the patient. After

each breakthrough, the magic bullet and holy grail publications followed (Jiang *et al.*, 2022).

And less priority was given to prevention after each new anticancer step. True, the first years of attempts to implement knowledge about cancer prevention were not highly successful. The implementation of measures, based on obvious causal relationships such as smoking and cancer, was poorly accepted by the population. Why should we give up our enjoyable lifestyle if we can cure the disease with less cumbersome therapies? Why should we stop smoking if cancer treatment is perceived as a minimal challenge? Why should I change my (young) life for a small risk of cancer later, in about 20 years?

Major advances continued for local ablative treatments with innovative technologies such as hyperthermia, microwave, cryotherapy, and electric fields. Cancers that have been irradiated before suddenly had other local control options. And local control, sometimes, was interpreted as a cure. Later came the robots, and the newer treatments could be combined in various ways. Each time a new treatment modality was promoted, hope for more cures was fuelled. And a feeling that cancer is curable in most situations became the message in media, and was very much absorbed by policymakers and populations (Chovanec and Cheng, 2022).

The reality, however, is different. While there is a rise in the 5-year survival rates for nearly all cancers, cure rates for metastatic disease have barely increased. Treatments are getting more complex so that cost-effective centralization in larger specialized centers is necessary, as it was the case in the 70s. Newer cytostatics, targeted therapies, and immunotherapies are becoming extremely complex and unaffordable for patients and healthcare providers. The short lifetime of a rapidly progressing cancer strongly reduces available treatment options to only a few of them. Affordability and making the best immediate choices are now the real challenges.

It is claimed that the use of biomolecular selection of patients and treatments will further increase the cure rate and decrease side effects for nonresponders. Looking more carefully at the published data, the only evidence of cancer cure improvement comes from better early detection and consequently from a shift toward patients with a better prognosis. Patients with small cancers always have a better chance of cure. This provides evidence that secondary cancer prevention, early detection, and screening are the most effective and affordable approaches (La Vecchia *et al.*, 2022). This statement was already published in the 80s and still remains the cornerstone of the fight against the disease.

One of the most notable achievements of ECP is that, during all these diagnostic and therapeutic advances, prevention, either primary or secondary, never has lost attention. Support to registration, epidemiology, and statistics

has been continuously embraced. And younger scientists were encouraged to find their way in cancer prevention through travel grants. The industry was invited to join preventive measures and sometimes attention was given to the early detection of cancer by improvements of radiological equipment, tissue acquisition, and endoscopy. And by the help of governments, some of these approaches were implemented in population cancer screening programs. The EJCP invigorated these advances closely by publishing the evidence and concentrating on those papers that could demonstrate the ability of progress in prevention; either in understanding the disease or implementation of innovative strategies.

In most recent years, selection of individuals, based on perceived cancer risk, has formed the basis of a more personalized approach of early cancer detection. Germline mutation analyses are extremely helpful in selecting populations but also environmental issues have been addressed. It is interesting to note that, while assessment of germline mutations is powerful and needed, not only 10% of the patients have an inheritable cancer. Attempts to find molecular markers, other than germline mutations, that predict cancer risk are being investigated but progress is slow and implementation is a source of intensive debate. Working conditions that cause cancer, such as asbestosis and anthracosilicosis for example, need appropriate surveillance and, where possible, elimination of exposure.

Interestingly, also is the observation that, with the introduction of biomolecular guidance for systemic treatments, tumors from various organs look more alike. Once the same mutation, treatment looks more alike. This is the opposite to prevention, where cancer causes are rather specific for each organ. Where molecular biology is crucial in oncology, there is still a long way to go to implement molecular markers for prevention. Presumably, molecular and genomic alterations develop gradually as the preclinical carcinogenic process continues. Where oncology is a genomic discipline, prevention is not. Further research on premalignant markers in 'normal tissues' might shed another light on this interesting topic (Janssens *et al.*, 2018).

Much effort has been put to primary prevention: either in lifestyle change or avoidance of toxic substances. Nutrition is by large the most important source of research and creates an important tool that can be easily practiced by every individual. Nutritional information programs are now implemented globally but adherence is still difficult. Food hygiene, preservation, salt, and fast carbohydrate drinks are themes, sometimes hard to accept. Obesity is increasing, especially in children, and has become one of the highest risk factors for many cancers. However, care needs to be taken to avoid malicious nutritional supplement offering companies to fill in this gap. The smoking story has learned us that it is not enough to identify the cause and to advise dropping unhealthy lifestyles. More

Fig. 1



Prof. Giovanni Corso, newly elected president of the European Cancer Prevention Organization and Editor-in-Chief of the European Journal of Cancer Prevention.

emphasis and knowledge are needed in behavioral social sciences.

And at the end of 2022, ECP and EJCP will take another next step to be prepared for the future. New leadership has been carefully prepared during the last 3 years. And the choice has been given to Prof. Giovanni Corso, born on 15 June 1977, and a distinguished surgical oncologist in the European Institute of Oncology in Milan. He combines clinical activity, medical teaching, and scientific research at the highest levels.

From his clinical activity, he and his colleagues have developed a genuine interest in cancer prevention and recognize that, at least partially, cancer prevention is the future for oncology. In 2012, he received his PhD cum laude in molecular biology, and since then, he has been combining clinical oncology with a sound biomolecular basis. As a result, Prof. Corso authored over 150 peer-reviewed international publications and is visiting professor at world-leading research institutes. Not unexpectedly,

he received several eminent awards from National and International organizations. Above all, he is surrounded by a team of prominent young clinical investigators that cover many areas in cancer prevention.

Since 5 years, he and his team are enthusiastic members of ECP and active associate editors in the EJCP. He organized ECP conferences in Milan and participated, together with his team international preventive meetings. The editorial work has been extraordinary and noticed by many senior reviewers. During 2022, he was appointed senior editor and already has enlarged significantly the editorial office. For all this expertise, work, and collegiality, Prof. Giovanni Corso (Figure 1) was nominated to lead ECP and the Journal in the next decennia.

On behalf of founding members of ECP, board members, and editorial office of the European Journal of Cancer Prevention, it is my privilege to welcome Prof. Corso as our new, unanimously elected, President and Editor-in-Chief. I know that this new leadership is not just 'a walk

in the park'. Many enticing challenges are on the horizon in the near future such as stimulating global projects in primary and secondary prevention for almost all types of cancer, working on relationships with other international cancer societies, emphasis on the central and most specific role of the EJCP, and last but not least, continuing on the enjoyable relationships between ECP members. I am convinced that Prof. Corso has all the talents that are needed to address all possible issues that can strike ECP. It is our duty, as members of ECP or all that find cancer prevention important, to support the new leader.

For ECP,

Jaak Ph. Janssens MD, PhD

Former President of ECP

Former Editor of EJCP

Acknowledgements

Conflicts of interest

There are no conflicts of interest.

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