Editorial

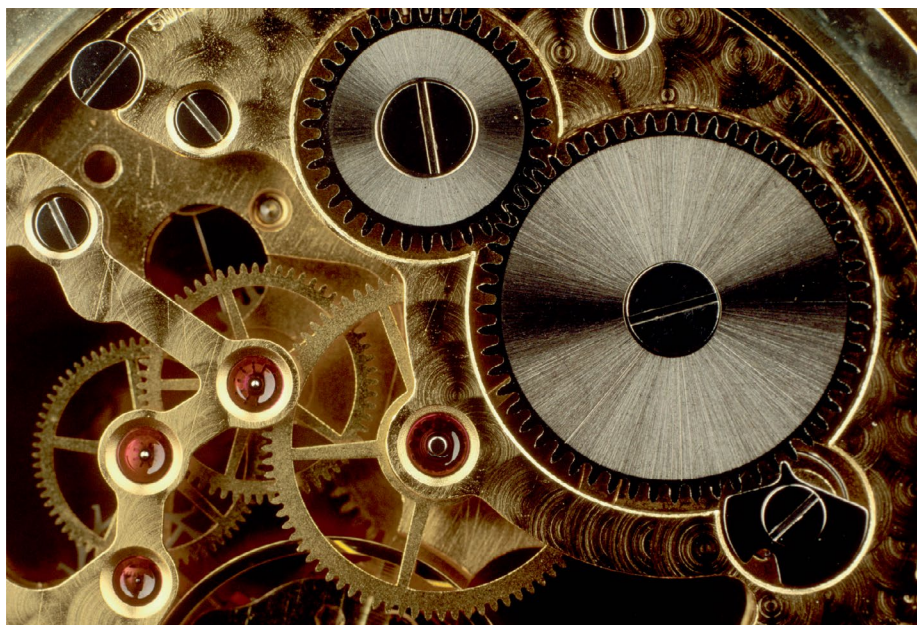# Bidding farewell to 2023!

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We bid farewell to the past year with a set of specially commissioned commentaries, news articles and a selection of highlights from the cancer research literature.

Looking back at the past 12 months brings many disturbing images of crisis and upheaval to mind. From the continued war in Ukraine following its invasion by Russia, to the more recent terrorist attack by Hamas on Israel and the ensuing conflict, to the worsening climate crisis that has engulfed the world, there are many things for global citizens to be concerned about. Many longstanding challenges also continued in the cancer field. Chief among these are the persisting cancer health disparities – a lot of work needs to be done to level these inequities and ensure diversity and inclusion in both cancer care and research. Funding also remains an ever-present worry for many scientists. Among the positive developments on that front this year were the gearing up of the Cancer Moonshot and ARPA-H initiatives in the USA, and the recent agreement for the renewed participation of the UK in the EU's Horizon Europe and Copernicus programs. As far as the science itself is concerned, cancer researchers and clinicians can find great cause for optimism in their rapidly advancing field of work.

As the year draws to a close, we take stock of the key developments in cancer research and oncology in our Focus on 2023 in Review. This dedicated collection brings specially commissioned commentary by experts in the field together with news analyses and highlights from the literature published in *Nature Cancer* and elsewhere.

In a News Feature, Elie Dolgin brings us up to speed with this year's progress in the cancer drug pipeline, discussing regulatory approvals, promising efforts that failed to deliver, and the areas to watch in the year to come. Successful treatment of patients also requires the means to identify those who would benefit from specific therapies. In their Comment article, Adashek et al. suggest that molecular alterations should instead be considered as pan-cancer, tissue-agnostic targets. They argue that regulatory approvals of relevant targeted drugs regardless of tumor tissue of origin could provide access to therapy to a much broader group of patients with cancer, a worthwhile undertaking even considering potential differences in efficacy across tumor types. This is food for thought for the community, given the need to bring more therapeutic options to a wider range of the patient population. On the flipside of this argument, Quezada and colleagues focus on individualized cancer therapies. In their Comment article, they discuss the ways in which prediction of neoantigen immunogenicity can be improved to advance neoantigen-based personalized cancer immunotherapies, an area of high interest in recent times.

The effect of artificial intelligence on oncology could not be overlooked in a year in which the world was taken by storm by the release of several large-language model-based chatbots, spurred by the launch at the end of 2022 of ChatGPT. In their Comment article, Tonon and colleagues discuss the ways in which artificial intelligence could be used to collect primary real-world data from patients, to aid the provision of care within healthcare systems and also contribute to research efforts. Delving into the darker side of our digital world, in his News Feature, Karl Gruber outlines the threat that cyberattacks pose to cancer healthcare organizations and individual patients.

Finally, to get the pulse of the lab environment, we present a Viewpoint compiling the experiences of early-career investigators from diverse backgrounds who are located in different parts of the world. They give us a glimpse of what it meant to start their independent cancer research groups in 2023.

These pieces can be found in the dedicated website of our '2023 in Review' Focus, together with a series of research highlights on papers published in other outlets and a collection of exciting papers published in *Nature Cancer* during the past 12 months. We thank all our authors for their contributions and hope that our readers will find this overview of the past year informative and inspiring.

We wish you a happy 2024, with health and peace for all.