

## A look back at 2025

 Check for updates

As we do every December, we revisit the highs and lows of the past year in a dedicated Focus issue of commissioned comment, news and highlights from the primary research literature.

**W**ith 2025 drawing to a close, we look back at some of the themes that shaped this year in cancer research and oncology in our [Focus on 2025 in Review](#). Leaders in the cancer research and oncology field share their thoughts through specially commissioned commentary, complemented by news pieces and an editorial selection of primary research papers published in *Nature Cancer* and elsewhere.

In her [News Feature](#), Melanie Senior takes stock of the drug-development pipeline, shining a spotlight on the key successes and setbacks of 2025. In a [separate piece](#), she focuses on the radioligand therapy pipeline that continues to build through asset development and investment interest.

On the targeted therapy front, KRAS-targeted therapies continue to dominate, as Sandra Misale notes in a [Clinical Outlook](#), highlighting the preclinical development of new inhibitors and the clinical advancement of pioneering, and now established, inhibitors to late-phase trials and regulatory approvals. Ballard et al. emphasize the importance of rational drug design and clinical biomarker-based approaches in precision therapy in their [Clinical Outlook](#) on recent regulatory approvals in the EGFR-targeted therapy arena, including approval of an antibody–drug conjugate, for various subtypes of non–small-cell lung cancer.

In the field of immunotherapy, Routy et al. [discuss](#) the emerging role of antibiotic-related



dysbiosis in influencing the response to immune checkpoint inhibitors, going over preclinical work to gain insight into the phenomenon, and strategies for evaluating and addressing it in the clinic.

Challenges to clinical implementation for the booming field of foundation models is the [focus](#) of Eils and co-authors. They stress the need for collaborative action of data scientists, patients and clinicians to capture and apply the complexity of real-world oncology data and patient needs.

Shifting to the preclinical space, Monje and Winkler [discuss](#) 2025 as a milestone year for the emergent field of cancer neuroscience and look to what the future may hold as research in this area continues to flourish.

We also consider the tectonic changes that have been taking place in global science this year, including the impact of the new administration on [US science](#), and China's exciting ascent to the top spot of cancer research

output (*Nature* **640**, S65; 2025). Where does this position European research, [ask](#) Bernards and coauthors, as they provide a strategic roadmap to rejuvenate cancer research in Europe. Focusing on nurturing talent, Rathmell and Shevde [offer](#) a rallying cry to flip traditional hierarchical views of academia and put early-career researchers at the forefront, empowering them to carve out fulfilling careers in the academic ecosystem.

We too wrap up our Focus by giving the spotlight to early-career investigators who set on their independent research paths in 2025. They share their setbacks, successes and hopes for the future in a [joint Viewpoint](#).

As we look forward to 2026, we thank our authors for their contributions and hope that our readers will appreciate this overview of the past year with its sobering and inspiring overtones.

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