ESMO Open Cancer Horizons

ESMO Open—Cancer Horizons and the future of oncology

Christoph C Zielinski

To cite: Zielinski CC. *ESMO Open—Cancer Horizons* and the future of oncology. *ESMO Open* 2015;**1**:e000008. doi:10.1136/esmoopen-2015-000008

► Prepublication history for this paper is available online. To view these files please visit the journal online (http://dx.doi.org/10.1136/esmoopen-2015-000008).

Received 23 November 2015
Accepted 23 November 2015

Department of Medicine I, Comprehensive Cancer Center, Medical University Vienna, Vienna, Austria

Correspondence to
Professor Christoph C Zielinski; christoph.zielinski@meduniwien.ac.at

In recent years we have witnessed an almost complete repositioning of oncology. Our understanding of the basic biology of the disease has evolved,[1] as has our view of cancers that were once considered as a single entity and are now known to be composed of a wide variety of molecular subgroups.[2] In tandem, the landscape of cancer therapy has also changed, with cancer treatment shifting from largely non-specific cytotoxic procedures to sophisticated treatment options targeting selected signal transduction pathways or single driver mutations, facilitating precision therapies and their use in specific, clearly characterised molecular situations.[3] The recent introduction of immunological treatment modalities aimed at modulating and neutralising tumour-induced suppression of immunocompetent cells in the tumour microenvironment is also heralding a potent new approach in the treatment of cancer.[4] The enormous progress in drug development[5] can be attributed to a range of aspects: results from the Cancer Genome Project;[6] expectation of the public for swift access to new efficacious drugs for ever more diversified patient populations; and steps taken by regulatory authorities to make such access possible under the proviso of appropriate evidence supporting postulated mechanisms of action and target selection.[7] This is further complemented by the impressive development pipelines for new and upcoming immuno-oncology treatment modalities, involving the identification of new indications and new receptors which are amenable to therapeutic interventions, and studies to understand the dynamics in treatment responses.[4]

As a consequence of our exponentially increasing knowledge in diagnostics, treatment and available technology, oncology has become an interdisciplinary medical science. This is structurally relevant for individual institutions and is reflected by the establishment of comprehensive cancer centres, uniting diagnostic and clinical disciplines with translational research, basic science and epidemiology.[8] It has also resulted in the establishment of interdisciplinary tumour boards, constructed to provide individual patients with the entire wealth of knowledge of various medical specialties dealing with malignant diseases. This encompasses diagnostics, including the assessment of molecular tumour characteristics; radiological assessments, utilising the vast potential of functional scintigraphy; and the direct clinical input of surgical, radiotherapeutic and medical oncology specialists. This approach also allows input from translational research and provides an opportunity for recruitment of patients into appropriately designed clinical trials of novel therapies.

On the global scale, the burden of cancer as a social challenge has been recognised,[9] but access to innovative and often prohibitively expensive cancer drugs for even high-income countries is a widely discussed and relevant topic.[10] The financial burden that now accompanies many novel cancer agents, an issue which is also relevant for high-income countries, has prompted the European Society for Medical Oncology[11] and the American Society of Clinical Oncology[12] to generate measures for the containment of expenditure on various pharmaceutical products. This has resulted in the first definition of a Magnitude of Clinical Benefit in an ESMO-initiated Scale.[13]

It seems likely that these wide-reaching and varied developments in oncology over the last decade are not only going to last but will probably continue to develop at an increasing pace. Therefore, it can definitely be considered timely for ESMO to launch *ESMO Open—Cancer Horizons*: an open access online-only journal which is presenting its first publications here. While *Annals of Oncology* will continue to be ESMO's flagship journal, *ESMO Open—Cancer Horizons* has been designed to offer a very broad, easily accessible format, facilitating rapid publication of data and direct access to information on important ESMO policies, original publications and both scientific and clinical

hands-on reviews, along with an educational agenda under the ESMO label.

All this has been created with a view to provide the continuously growing global ESMO community with information in an arena of exponential scientific, regulatory and informational growth accompanied by educational needs of unprecedented dimensions. We hope you not only enjoy what ESMO has to offer in these fields, but also actively contribute to *ESMO Open—Cancer Horizons* with papers and reports concerning your research, thoughts and clinical observations. Our hope is that the journal will become your preferred online open access source of innovative information, bearing the ESMO label and corresponding with ESMO's concept: '*Across oncology. Worldwide*'.

Competing interests None declared.

Provenance and peer review Not commissioned; internally peer reviewed.

REFERENCES

1. Hanahan D, Weinberg RA. Hallmerks of cancer: the next generation. *Cell* 2011;144:646–74.
2. http://www.uctv.tv/shows/The-Molecular-Diversity-of-Human-Cancers-16932
3. Buettner R, Wolf J, Thomas RK. Lessons learned from lung cancer genomics: the emerging concept of individualized diagnostics and treatment. *J Clin Oncol* 2013;31:1858–65.
4. https://www.youtube.com/watch?v=_dJxd7n6tCU
5. http://phrma.org/sites/default/files/pdf/oncology-report-2015.pdf
6. http://www.sanger.ac.uk/science/groups/cancer-genome-project
7. https://www.washingtonpost.com/national/health-science/paradigm-change-in-the-development-of-cancer-drugs/2015/06/01/09fcb4c4–086e-11e5-95fd-d580f1c5d44e_story.html
8. http://www.cancer.gov/research/nci-role/cancer-centers
9. Boyle P, Sullivan R, Zielinski C, *et al*. *The state of oncology 2013*. IPRI Scientific Publication. http://www.i-pri.org/oncology2013
10. Sullivan R, Peppercorn J, Sikora K, *et al*. Delivering affordable cancer care in high-income countries. *Lancet Oncol* 2011;12:933–80.
11. Cherny NI, Sullivan R, Dafni U, *et al*. A standardised, generic, validated approach to stratify the magnitude of clinical benefit that can be anticipated from anti-cancer therapies: the European Society for Medical Oncology Magnitude of Clinical Benefit Scale (ESMO-MCBS). *Ann Oncol* 2015;26:1547–73.
12. Schnipper LE, Davidson NE, Wollins DS, *et al*. American Society of Clinical Oncology statement: a conceptual framework to assess the value of cancer treatment options. *J Clin Oncol* 2015;33:2563–77.
13. Tabernero J, ESMO Executive Board. Proven efficacy, equitable access, and adjusted pricing of anti-cancer therapies: no 'sweetheart' solution. *Ann Oncol* 2015;26:1529–31.