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Artificial Intelligence in Oncology: Launching a New Academic Conversation for a New Era of Cancer Care

Editorial for the Inaugural Issue of Annals of Comprehensive Oncology and Biomedical Sciences

The Launch of a New Journal

With great pride and a deep sense of responsibility, we launch the inaugural issue of Annals of Comprehensive Oncology and Biomedical Sciences. This journal is envisioned as more than a repository of scientific articles; it is a platform for dialogue, discovery, reflection, and responsible progress in oncology and biomedical sciences. Through this first issue, we warmly welcome our readers, authors, reviewers, researchers, clinicians, academicians, students, and all members of the biomedical community who believe that science must ultimately serve humanity.

As the first editorial message by the Editor-in-Chief, I in collaboration with editorial staff would like to imbibe the values that will guide this journal: scientific rigor, clinical relevance, ethical clarity, interdisciplinary collaboration, and patient-centered innovation. It is also an invitation to participate in a shared academic space where oncology is not viewed in isolation, but as a comprehensive discipline connected to molecular biology, imaging, pathology, genetics, public health, ethics, technology, and society.

The launch of this journal comes as a defining moment in cancer care. Oncology today is undergoing a profound transformation. We are moving from generalized treatment to molecularly guided personalized care, from delayed diagnosis to early detection, and from isolated clinical decision-making to data-supported precision medicine. Among the forces accelerating this transformation, artificial intelligence has emerged as one of the most powerful and debated tool. As cancer continues to be one of the leading non-communicable disease with close to 20 million new cases of cancer in the year 2022 across the world, we need technological advances in the form of AI to overcome the burden (1). For example Deep learning systems have demonstrated strong performance in mammographic breast cancer screening and may help reduce false positives, false negatives, and radiologist workload (2). AI may also help predict microsatellite instability and genetic mutations from routine hematoxylin and eosin slides (3, 4).

AI is not merely a technological development, it is a symbol of a larger shift in medicine. It aids us in every aspect of oncology from diagnostic challenges, predicting outcomes, risk stratification, selecting therapies with individualized approach to complete care. We emphasize that ethical reflection must accompany innovation, same with AI. AI in oncology is an appropriate theme for this first editorial because it reflects both the promise and responsibility of modern medicine. It reminds us that the future of oncology will be shaped not only by what technology can do, but by what we choose to do with it.

As oncological paradigms are changing rapidly in present era, we plan to acknowledge this oncological revolution with the latest research along with constraints faced in day to day practice and convey globally with the support of this journal. The scope of this journal spans from evolving standards of care in medical, surgical, radiation and molecular oncology to the survivorship issues, practical clinical approach and relevant policies and will help transform cancer care in a positive manner.

Original, innovative and time directed scientific research will help oncology community to move forward towards the betterment of patients. We have made the submission process very simple through journal website and plan to review fast so that vital findings are available to oncology community as quickly as possible. Publication process is simple and fast, thus giving an incredible opportunity to researchers.

The word comprehensive in the journal's title is intentional. Cancer care cannot be reduced to chemotherapy, surgery, radiation, or molecular testing alone. It involves prevention, early diagnosis, biology, technology, communication, rehabilitation, survivorship, palliation, ethics, policy, and public health. Similarly, biomedical sciences must not remain disconnected from patient care. Laboratory discovery must speak to clinical reality, and clinical experience must guide research questions.

As we begin this journey, we invite contributors from oncology, pathology, radiology, surgery, radiation oncology, medical oncology, palliative medicine, molecular biology, pharmacology, public health, bioethics, biomedical engineering, data science, and allied health disciplines. We especially encourage young researchers and early-career clinicians to participate. A journal grows not only through established voices, but also through emerging questions.

The inaugural issue of this journal marks the beginning of an academic commitment to publish work that advances knowledge, improves care, respect patients, and encourages thoughtful innovation. The journal supports research that reaches from bench to bedside, from data to decision, and from innovation to human benefit. We are excited to play the crucial role in future of oncology with intelligence, integrity, humility, and hope.

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