Horizons in Medicine 24: Molecules, mechanisms and medicines

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For the practising physician, often inundated with clinical responsibilities and associated activities, keeping pace with the latest medical advances can be challenging. Extracting the pertinent, translationally relevant information from the deluge of biomedical research data in addition can be almost impossible. Each year, to facilitate this process, the Royal College of Physicians hosts the Advanced Medicine Conference (AMC), which is designed to provide a panoramic view of the latest and most exciting scientific developments that inform disease mechanisms and therapeutic options across the full range of practical specialties.

In 2012, the AMC was graced by a remarkable assembly of clinician scientists from leading centres throughout the UK, selected on the basis of research excellence to deliver state-of-the-art updates in their chosen fields of endeavour. The compilation of articles published in Horizons in Medicine, a supplement to Clinical Medicine, portrays the flavour and diversity of the event. From global plagues of our time, such as cancer and diabetes, to rare but equally devastating afflictions, such as inborn errors of metabolism, a series of eloquent expositions over a period of four days provided an integrated synthesis of fundamental principles, new findings and imminent prospects spanning an array of topics. The core theme was omnipresent, highlighting scientific methodology as the rational cornerstone of medical progress. Also evident was the pervasive influence of genetics and immunology, which continue to illuminate our understanding of pathological processes irrespective of conventional system boundaries. Perhaps the most notable characteristic, however, was the conspicuous talent, dedication and professionalism of the invited speakers, whose enthusiastic participation ensured a unique and stimulating experience to match the occasion.

The AMC offers an annual retreat from our daily practice, a forum for cross-disciplinary interactions in a collegiate atmosphere and an opportunity to marvel at the intricacies of biology and medicine. More fundamentally, it serves to showcase the astonishing accomplishments of national bench-to-bedside research efforts, thereby promoting academic medicine as the key to more effective healthcare for future generations. It is this tradition that is celebrated in the following pages. From molecules to mechanisms to medicines, the scientific approach once again takes centre stage, guiding the physician’s art and unveiling fresh horizons in humankind’s enduring battle against disease.

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