Molecular Diagnosis—A Quarterly Publication


This review covers the first three issues of a new journal, Molecular Diagnosis, that is designed to provide a broad perspective on the clinical application of molecular biology to genetics, infectious diseases, and oncology and to present and discuss standards of clinical practice as they evolve with respect to these fields. The focus is intended to be the application of molecular diagnostics in patient care; thus, the target readership consists of pathologists, geneticists, oncologists, and infectious disease specialists. The journal includes editorials, research articles, reviews, and a section at the back of each issue titled “Clinical News Update,” which covers current issues of interest to those in the field, as well as meeting notices and position and certification announcements.

The diverse contents of the first three issues convincingly attest to the unique niche occupied by this journal, which admirably attempts to bridge the gap between the molecular biological research laboratory and practicing clinicians seeking to include such state-of-the-art technologies in the care of their patients. Typical themes of the research articles include (1) new methods for molecular diagnosis of infections, neoplasms, or genetic disease; (2) reports of new genetic markers of diseases, with accompanying methodology for detection; (3) improvements of existing molecular diagnostic methods; and (4) evaluation of the clinical utility of existing molecular diagnostic methods.

Of particular interest are the editorials and forums, although the distinction between these two categories is not clear. The editors have presented a bold array of topics in these forums, which include such controversial and political issues as patients’ rights to privacy when archival samples are used for genetic research, a proposal for a surcharge on the profits of managed care organizations to benefit clinical and basic scientific research, and ethical issues related to xenotransplantation. In contrast to these stimulating forums was an unimpressive and rambling editorial intended to introduce an issue devoted entirely to topics concerning xenotransplantation.

The strengths of the journal include several excellent review articles that serve well as comprehensive introductions for clinicians to new areas of molecular diagnosis. Examples include reviews on topographic genotyping, a system of molecular analysis of solid tumors designed to correlate microscopic changes with specific forms of gene damage; molecular diagnostics for children with acute lymphoblastic leukemia; and an overview of the new microchip-based technologies for molecular diagnosis of genetic diseases. The reviews include introductions and conclusions that clearly indicate the relevance to clinical practice, and the methods and results sections include numerous well-designed figures, many of which are in color.

In addition, the Clinical News Update section of the journal should prove very useful, with such informative pieces as updates on the U.S. Food and Drug Administration’s proposal for regulation of analyte-specific reagents, the proposed new procedural terminology codes for molecular diagnostics, and the physician-office laboratory exemption from the Clinical Laboratory Improvement Act of the 1988 budget reconciliation bill.

The principal weakness of the journal is that it may fail in its mission to reach any but the most research-oriented clinicians, since the level of the original research articles is necessarily highly advanced, requiring a strong background in basic molecular biology for comprehension. It would be helpful for the editors to provide a brief introduction to each research article explaining its particular clinical significance and to include a brief lay explanation of the technology and the stage at which it can be used in the clinical laboratory.

Overall, the journal represents an outstanding new contribution that undoubtedly will occupy its own niche among an oversaturation of new journals that fail to do so. The editors have successfully organized a diverse and complex collection of reports on advanced molecular technologies that have important clinical applications in the treatment of patients with certain diseases. As such, the journal should find an appreciative audience among clinicians who also perform laboratory research in the field of molecular diagnostics and among molecular biologists working in areas with potential for clinical application to the diagnosis of disease.

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Urinary Tract Infections: Detection, Prevention, and Management

By Calvin M. Kunin. 5th ed. Baltimore: Williams & Wilkins. 432 pp., illustrated. $49.

Specialists in infectious diseases have often considered the subject of urinary tract infections to be bromidic and steeped in controversy, and thus only a few brave souls have elected to write texts on this topic. Dr. Kunin has repeatedly accepted the challenge to author such a book (this text is the fifth edition), and once again he has admirably succeeded. Written in a relaxed style, the text is interspersed with examples of the author’s sense of humor and interesting patient vignettes, and Dr. Kunin has crammed a considerable amount of useful theoretical and practical information into a highly compact text. The book is enriched by helpful tables of “key points” that summarize and highlight important concepts, and it is enhanced by an abundance of contemporary references.

The book focuses on the pathogenesis, diagnosis, classification, and management of urinary tract infections and provides a review of additional themes including the dysuria syndromes and infections in specific hosts (such as children, pregnant patients, diabetics, the elderly, HIV-infected patients, and renal transplant recipients); there is also a thorough critique of catheter care. In addition, the reader will be able to readily access information that pertains to microbiology, pathology, imaging techniques, and localization techniques. Indications for antimicrobial prophylaxis are also described.