Special Report

Molecular Genetic Pathology

Coming of Age in the Molecular World

Peter H. Byers

From the Departments of Pathology and Medicine, University of Washington, Seattle, Washington

At its March 1999 meeting, the Assembly of the American Board of Medical Specialties (ABMS) approved the application of the American Board of Medical Genetics (ABMG) and the American Board of Pathology (ABP) to create a joint subspecialty certification in Molecular Genetic Pathology (MGP). Approval marks the culmination of a 4-year process designed to improve the quality of training for physicians, to standardize the training curriculum, and to assure the highest quality of medical care in this rapidly expanding and central field of medicine.

MGP is the subspecialty of Medical Genetics and Pathology in which the principles, theory, and technologies of molecular biology and molecular genetics are used to make or confirm clinical diagnoses of mendelian genetic disorders, disorders of human development, infectious diseases, and malignancies, to assess the natural history of those disorders, and to provide the primary physician with information with which to provide optimal care for individuals affected with these disorders. The basic technologies of rapid genetic analysis central to molecular biology emerged a little more than two decades ago, and the application of these tools to clinical diagnosis has mushroomed in the last decade. This rapid growth of applications and of prospects for new approaches to molecular diagnosis led the leaders of the ABMG and ABP boards to develop joint certification in this area.

Now that the ABMS has approved the structure, the road to the creation of training programs and certifying examinations can be short. The joint ABP/ABMG Residency Review Committee was appointed and met in April 1999 to draft program requirements and the application forms. These were submitted to the full RRCs and to the Board offices during the summer of 1999. If approved by the Board of Directors of ABMG and the Trustees of ABP at their Fall 1999 meetings, the documents will be submitted to the Accreditation Council for Graduate Medical Education (ACGME) for a vote in February 2000. When the program requirements have been established, appli-

cations from prospective training programs could be received; the first approval for a training program is expected shortly after June 2000. Approval is expected to lead to entry of the first trainee as early as July 2001. These target dates could change if issues arise with respect to the application, although this is not expected.

The MGP training programs are to be equal and joint functions of the Departments of Medical/Human Genetics (or equivalent) and Pathology in the institutions that house them. Applicants to the training program, which will be of 1 year's duration, must possess the M. D. or D. O. degree, have been certified by their respective Board, and have a valid unrestricted current license to practice medicine or osteopathy in a state of the United States or in Canada. Certification will depend on completion of a logbook of at least 150 cases completed during the residency period and not from archival sources, confirmation of successful completion of the training program by that program's director, three letters of recommendation from individuals certified in the subspecialty or in the specialty of either sponsoring Board, and successful passage of a written or computer-based examination created by members of the examination committee and administered in a secure setting. For the first 5 years of the subspecialty, board-certified Pathologists and Medical Geneticists with 2 or more years of experience in molecular genetic pathology may be eligible for an experience-based route to certification, which will differ only in that they will not be required to complete the training program.

A joint examination committee, consisting of members of both Boards with experience in molecular genetic diagnostic testing, is assembling a catalog of questions appropriate for the examination. Current plans call for this examination to be administered electronically through the facilities of ABP. After the training program requirements

Accepted for publication July 19, 1999.

Address reprint requests to Peter H. Byers, M. D., Departments of Pathology and Medicine, University of Washington, Seattle, Washington 98195-0001. E-mail: pbyers@u.washington.edu.

and curriculum have been approved by ACGME, the examinations can be constructed. Examinations should be available at about the time training programs open, so that individuals credentialed by experience to take the examination may do so. The frequency with which examinations will be administered remains to be established and will probably depend on the number of MGP program graduates after the first 2 to 3 cycles.

The draft description of the training program requirements will be available shortly from both Boards. Requests for these draft documents should be directed to The American Board of Medical Genetics (fax: 301-571-1895) or The American Board of Pathology (telephone: 813-289-5279). It is appropriate for training faculty in candidate institutions to plan for the creation of programs in Molecular Genetic Pathology and for their financing.

Editor's Note:

Dr. Byers is both a pathologist and a medical geneticist. He was Editor-in-Chief of the American Journal of Human Genetics and is a past president of the American Board of Medical Genetics. He was a member of the team of geneticists and pathologists who set up the guidelines for the program in Molecular Genetic Pathology. Publication of Dr. Byers' report is timely as several Pathology Departments around the country are considering the establishment of this new training program. A new companion to The American Journal of Pathology, The Journal of Molecular Diagnostics, will cover the area of molecular genetic pathology applied to diagnosis. The first issue of The Journal of Molecular Diagnostics will be published in November 1999.