

IN THIS ISSUE

Our genetic legacy

see page 862

At present, it is accurate to declare that there are thousands of genetic providers involved in modern health care. However, not very long ago, the number of us was quite small. Whence those early few? Is it worth knowing their stories? And would we rather hear it from each of them or wait to read about them and their legacies in a journal section titled “In Memoriam?” *Genetics in Medicine* has opted for the former, providing a venue titled “Genetic Legacy,” wherein those involved in clinical genetics are invited to provide a vignette about themselves. The point is to share how the person became interested in medical genetics, how he or she got started and made progress, and, finally, how he or she interprets their own story and finds its relevance for the future.

The premise is that where we are going reflects both where we have been and how those who got us here see the future. Hopefully, these vignettes will encourage incipient geneticists to take the plunge and will provide inspiration to those who have already taken their first steps. Ultimately, of course, it is the newbies whose efforts will have the most direct impact on our future, but sharing the past in the present—realizing the genetic legacy in the instant—is likely to have a wholesome indirect influence as well. Starting us off in a manner that epitomizes the evolution of

First meeting of the ACMG Board of Directors, 14 September 1991, Lowes Hotel, Santa Monica, CA. Top row (left to right): Stephen Goodman, Patricia Murphy, Michael Watson, Lynn Fleisher, Michael Kaback, Rodney Howell, Robert Greenstein, James Hanson, and Kurt Hirschhorn. Center row: Jessica Davis, Maimon Cohen, David Rimoin, and Elaine Strauss. Front row: Sherman Elias, Laird Jackson, Arthur Beaudet, and Reed Pyeritz.



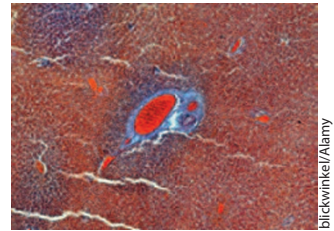
health care–directed genetics, Judith Benkendorf shares her transition from ninth-grade awe to formulating the “counselome.”
—*Vincent M. Riccardi, History Editor*

New: ACMG guidelines for management of GSD I

see <http://www.nature.com/gim/journal/v16/n11/full/gim2014128a.html>

With this issue, the American College of Medical Genetics and Genomics offers the first published guidelines (available online only) for management of glycogen storage disease type I (GSD I), a group of rare diseases characterized by excessive accumulation of glycogen in the liver, kidney, and intestinal mucosa. GSD I is caused by either deficient activity of the glucose 6-phosphatase enzyme (GSD Ia) or a deficiency in the microsomal transport proteins for glucose 6-phosphate (GSD Ib). Patients with GSD I have a wide spectrum of clinical manifestations, including hepatomegaly, hypoglycemia, lactic acidemia, hyperlipidemia, hyperuricemia, and growth retardation. Individuals with GSD Ia typically have symptoms related to hypoglycemia, beginning in infancy. Developed by a team of experts in diagnosis and management of GSD I, the guidelines specifically address evaluation and diagnosis across multiple organ systems. The research team presents considerations for differential diagnosis stemming from presenting features and diagnostic algorithms. Also addressed are nutritional and medical management, including care coordination, genetic counseling, hepatic and renal transplantation, and prenatal diagnosis. The guideline is designed to allow health-care providers to recognize all forms of GSD I, to expedite diagnosis, and to minimize adverse events due to delayed diagnosis and inappropriate management. It also identifies gaps in scientific knowledge and suggests future studies.

—*Michael S. Watson, Corresponding Author*



NEWS BRIEFS

Lasker award winner shines spotlight on breast cancer gene testing



In a bold move, Mary-Claire King, discoverer of the first gene identified as predisposing women to breast cancer, *BRCA1*, issued a public call for

expanding breast cancer gene screening beyond the narrow group now considered at risk. King, currently at the University of Washington, Seattle, was awarded the 2014 Lasker Foundation award for her achievements in biomedical research. She seized the moment to suggest that population-wide screening in the United States could result in identifying more than a quarter million women at risk. In an opinion piece published in *JAMA* [2014;312(11):1091–1092] in conjunction with her award, King drew attention to

a population-based study in which she and an Israeli research team screened an Ashkenazi Jewish population and found that the risks of breast and ovarian cancer for *BRCA1* and *BRCA2* mutation carriers identified through screening were as high as those identified through family history. “Women do not benefit by practices that ‘protect’ them from information regarding their own health,” King wrote in her editorial. “They should have the choice to learn if they carry an actionable mutation in *BRCA1* or *BRCA2*.” Any change in the

NEWS BRIEFS *(continued)*

screening recommendations of current guidelines—which advise that women be screened only if they have already had a diagnosis of cancer or a family history of breast and ovarian cancer—would result in a dramatic expansion of the need for counseling and education on risk.

—Karyn Hede, News Editor

Laboratory-developed tests face FDA scrutiny

In late July 2014, the US Food and Drug Administration (FDA) signaled that it is readying a regulatory framework that would cover laboratory-developed tests (LDTs), a category of testing that has escaped the more stringent standards that apply to many commercial medical tests. While announcing 60 days' notice for the proposed new rules, the FDA explained that the rise of genomic testing, as well as the commercial marketing of such tests, prompted the agency to act. It is estimated that more than 10,000 such tests



are currently being marketed and sold, some in direct competition with tests that have undergone rigorous clinical testing. According to FDA Commissioner Margaret A. Hamburg, "Inaccurate test results could cause patients to seek unnecessary treatment, or delay and sometimes forgo treatment altogether. Today's action demonstrates the agency's commitment to personalized medicine, which depends

on accurate and reliable tests to get the right treatment to the right patient." However, the announcement has not been popular with many organizations, including a group of 23 academic labs that sent a letter to the Obama administration in July in an effort to stave off regulatory changes. They argue that LDTs constitute testing services, not devices, and should not be regulated as such. Furthermore, they maintain that FDA regulation would stifle innovation. The regulatory change also faces opposition within Congress, as FDA officials were called to testify in September before a congressional committee skeptical of its regulatory authority. The FDA responded that the new requirements would not apply to tests for rare diseases or those that have no equivalent falling under current FDA scrutiny. But the agency is expected to propose that tests competing with FDA-approved tests will be required to submit data proving validity under the anticipated new rules.

—Karyn Hede, News Editor

Genetics in Medicine | Mission Statement

Genetics in Medicine is a monthly journal committed to the timely publication of:

- Original reports which enhance the knowledge and practice of medical genetics
- Strategies and innovative approaches to the education of medical providers at all levels in the realm of genetics

As the official journal of the American College of Medical Genetics and Genomics (ACMG), the journal will:

- Provide a forum for discussion, debate and innovation concerning the changing and expanding role of medical genetics within the broader context of medicine
- Fulfill our responsibility to the College membership through the publication of guidelines, policy statements and other information that enhances the practice and understanding of medical genetics

Finally, as genetics becomes increasingly important in the wider medical arena, we will be an accessible and authoritative resource for the dissemination of medical genetic knowledge to providers outside of the genetics community through appropriate reviews, discussions, recommendations and guidelines.