

Call for Nominations, 1996 Board of Editors, *Clinical Chemistry*

Nominations are now being solicited for the 1996 Board of Editors of *Clinical Chemistry*. Elections will be held this fall. Board members are elected by the current board to 1-year terms that are renewable for up to 5 years. Send nominations to: Sandy Weaver, Senior Editorial Assistant, *Clinical Chemistry*, 1224 West Main St., Suite 609, Charlottesville, VA 22903. Phone 804-979-7009; fax 804-979-7599.

Committee Formed to Set Standards for Laboratory Automation and Sample Handling

A task force of government, industry, academic, and clinical scientists was formed at the 1994 AACC Annual Meeting to examine pressing issues associated with clinical laboratory automation and sample handling and to set standards for the use of these technologies. The Clinical Testing Automation Standards Steering Committee plans to draft standards for: automated specimen handling, specimen containers and specimen carriers, communications between instruments and computers, mechanical interfaces, error and exception handling, and system status/performance information.

The Steering Committee has met twice—in September 1994 at AACC offices in Washington, DC, and in January 1995 at the offices of Coulter Electronics in Hialeah, FL. An open forum on standardization issues was held at a meeting on automation, artificial intelligence, and robotics (ICAR) in Montreux, Switzerland, on February 9, 1995.

An update on standardization activities will be presented in a public meeting at the AACC Annual Meeting in Anaheim, CA, July 16–20, 1995. The Steering Committee members are Rodney S. Markin, MD, PhD, Chair (University of Ne-

braska Medical Center); Kevin Bennett (Mayo Foundation); Steve Howlett (Coulter Electronics); Georg Hoffman, MD (Boehringer-Mannheim Diagnostics); Gary Kramer, PhD (National Institute of Standards and Technology); Paul Mountain (Autolab Systems); David O'Bryan, PhD (SmithKline Beecham Clinical Laboratories); and Steve Savitz (Becton Dickinson Vacutainer Systems).

For details on the committee, contact Jerry Goldsmith, Vice President, Marketing Programs, AACC (fax 202-887-5093), or Dr. Markin, through the Internet, at <http://www.unmc.edu/robotics.html>.

Clinical Chemistry: The View from Rhodes

"From benchside to bedside" became the theme of a meeting in Rhodes, Greece, last September. This phrase was coined to characterize the opportunity and need for clinical chemists to become more involved in patient management and appropriate utilization of laboratory tests. The meeting provided an inspired "think-tank" environment for a group of clinical laboratorians¹ after the International Enzyme Symposium in Athens.

Attendees from Europe, North America, and Japan reported on the enormous changes taking place in the healthcare delivery systems in their respective countries. Of primary concern was the role and position of clinical chemistry in the revolutionary environment of the 1990s. Topics included (a) whether the field of clinical chemistry in its

present form has a future in healthcare, (b) what changes in the practice of the profession are required to ensure survival and success, and (c) recommendations for action by individuals and organizations to reposition the profession consistent with the new order in healthcare.

The 3-day meeting opened with a survey of the present status of, and 10-year outlook for, clinical chemistry in each of several European and North American countries. The similarities among the countries were remarkable. Changes in the funding of healthcare have led to decreased resources for laboratories, increased competition among hospitals for limited support, increasing hospital consolidations, and decreasing numbers of positions for technologists and doctorate-level clinical chemists. Widespread cost-containment efforts included consolidations of medical discipline-based laboratories (e.g., chemistry and hematology) and increased centralization and automation. Also widespread was a perception that laboratorians of the future (and, indeed, present-day ones in many countries) must be conversant with diverse fields including toxicology, molecular diagnostics, microbiology, hematology, and immunology. Some countries have no legally recognized specialty of "clinical chemistry" (which is included under such headings as "clinical biologist"), whereas in at least one country the field of clinical chemistry includes such areas as hematology. All of the above discussions were equally applicable to clinical chemists, regardless of degree or type of training (e.g., MD or PhD). It was also of interest that the distributions of directors with backgrounds in the medical or physical sciences are similar in the different countries.

Forecasts of technology and testing trends through the year 2005 were also remarkably consistent. The demand for genetic testing was predicted to grow rapidly along

¹ The newly formed Athena Society: E. Diamandis, Canada; C. Bohuon, G. Siest, France; J. S. Büttner, D. Laue, L. Siekmann, Germany; E. Anagnostou-Cacaras, E. Spanos, Greece; F. Salvatore, Italy; K. Okuda, Japan; T. Whitehead, UK; K. O. Ash, D. E. Bruns, L. M. Demers, B. T. Dumas, G. E. Gallwas, J. M. Hicks, J. H. Ladenson, J. M. McDonald, D. O. Rodger-son, M. K. Schwartz, N. W. Tietz, H. Weinert, M. Werner, US.

with the capability to perform the testing. Automation will expand to include sorting, storage, retrieval, and disposal of sample tubes. The role of robotics, highlighted in a videotape presentation of the Osaka City Hospital, will grow. Automation will lead to "consolidation of currently distinct disciplines" as single analytical systems perform tests currently performed in separate laboratories. These high-throughput analyzers will decrease the demand for technologists and foster the trend toward combining laboratory specialties into a wall-less laboratory. In essence, the technology of science has no artificial boundaries, and neither will the evolving clinical laboratory. Laboratorians will be expected to provide increased support for point-of-care testing and testing for preventive medicine, outpatient surgery (and clinic), and home healthcare, as well as to improve the accuracy of laboratory testing at all testing sites and to document success in this effort by proficiency testing.

The future of laboratory medicine and the role of clinical chemistry was characterized by a variety of new scenarios and roles. The general consensus was that there will be fewer positions, less money, and greater expectations for clinical chemists.

"Traditional clinical chemists" with a focus purely on "chemistry" test development, test interferences, and QA/QC/CQI were felt to have no future in the typical health center unless they undergo something of a metamorphosis. Hospital-based clinical chemists will need to possess diversified talents. In one view, they will make unique contributions in health centers in three areas: adaptations to changing technology, dealing with quantitative information, and defining and solving problems at the interface between the medical and administrative domains so as to manage diminishing resources efficiently and prudently. The "new" clinical chemists (or clinical laboratory scien-

tists) must acquire adequate medical knowledge to optimize their contributions to patient care. They will have a core of skills in laboratory-wide automation, laboratory-wide information management, and laboratory-wide QA/QC/CQI, with specialized service areas as subspecialties (see below).

Several emerging service areas were identified (e.g., molecular biology and environmental toxicology), and the importance of alliances with other disciplines was frequently raised: We cannot stand alone in a multidisciplinary environment. The clinical consultant role of clinical chemists can be expected to be greatest in areas with new developments; the "explosion" of knowledge in biology and medicine augurs well for this activity.

Research was described variously as "essential" and "vital." Opportunities for research funding will continue in basic research (e.g., from NIH); in applied clinical research, including outcomes research (e.g., from the diagnostic industry, insurance companies, and government agencies); and in instrument and reagent validations. Attributes of a "survival plan" were presented. [See also K.O. Ash, this column, December 1994 (Vol. 40, pages 2332-3) and January 1995 (Vol. 41, pages 128-30).] Several speakers noted that, in the new environment, healthcare workers are worth only as much as they contribute to patients' welfare and must work out a way to document their value.

As Editor of this journal, I was especially intrigued by a presented list of roles of the "new clinical chemist": (a) as consultant in laboratory-wide automation, information management, and QA/QC/CQI, and (b) offering specialized service in molecular biology, cytogenetics, immunology/HLA-typing, toxicology/TDM, microbiology, point-of-care/physician's office testing, information systems, and (or) management/resource utilization. This journal has, for many years, expanded its scope so that it now includes most, if not all, of these areas. Further

expansion appears necessary to meet the needs of "new" clinical chemists.

The immediate challenge perceived by the Athena Society was to define the value of clinical chemistry to patients' welfare. Along these lines, the similar efforts of American pathologists to define clinical pathology were discussed. All the participants were urged to go back to their national societies to seek definitions of the role of the clinical chemist in their countries and to make widely known the value of clinical chemistry.

Nobel Science on Television

The appeal and importance of medicine, physics, and chemistry will be explored in "The Nobel Legacy," to be televised in the US by PBS on April 21, 28, and May 5. The series honors Nobel Prize-winning achievements and explains their relevance to daily lives. Each hour is hosted by a Nobel laureate: Dr. J. Michael Bishop for medicine, Dr. Leon Lederman for physics, and Dr. Dudley Herschbach for chemistry. Information on each discipline is interpreted with music, art, and drama. The sponsor of the series, Baxter International, recommends consulting local listings for times.

Meetings

New Separation Technologies for the Diagnostic Laboratory, June 14, 1995, Foster City, CA. The cost of \$125 includes lunch and refreshments. Information: California Separation Science Society; phone 510-426-9601 or fax 510-484-3024.

Sixth Annual Frederick Conference on Capillary Electrophoresis, October 23-25, 1995, at Hood College in Frederick, MD. The deadline for abstracts (200 words) is July 14, 1995; abstracts received after that date will be considered for poster presentation. Information: Margaret L. Fanning, Conference Coordinator, PRI, NCI-FCRDC, P.O. Box B, Frederick, MD 21702-1201; phone 301-846-5865; fax 301-846-5866.