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School of Medicine

News & Notes

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New combined prenatal screening improves detection of Down's syndrome

A new combination of screenings is now available that is nearly three times more effective in the prenatal detection of Down's syndrome than standard screening. BUSM's Center for Human Genetics is the only center in Massachusetts and one of only a few centers in the country to offer the combined screening.

"This advance represents a highly significant step in the early detection of serious chromosome defects," says Aubrey Milunsky, M.B.B.Ch., D.Sc., who is the director of BUSM's Center for Human Genetics and a professor of pediatrics, obstetrics and gynecology, pathology and biology.

Although the risk of Down's syndrome increases with maternal age, amniocentesis—which is 100-percent accurate in detecting Down's—is not routinely offered to women under the age of 35, because there is some risk associated with the procedure. Mothers under the age of 35, however, deliver 75 to 80 percent of children born with Down's syndrome.

Currently, blood samples are drawn from all pregnant women at 16 weeks into their pregnancy to screen for the amount of alpha-fetoprotein (AFP)—a fetal protein—in their blood. While this screening may detect various serious chromosome defects, it is successful in identifying only 20 percent of the fetuses affected with Down's.

Combined screening more efficient

The new combined screening for AFP and human chorionic gonadotrophin (HCG)—a hormone made by the placenta—is effective in detecting 50 to 60 percent of the cases of Down's syndrome. The screenings are more efficient in combination because they measure two different functions of the fetus and placenta that are affected by Down's syndrome in different ways. Down's is suspected if the screenings reveal low levels of AFP and high levels of HCG.

If abnormal levels are detected, an ultrasound test is used to more precisely pinpoint the age of the fetus. If the ultrasound shows that the development of the fetus is actually earlier or further along than estimated, the results of the screening are actually normal. If the age of the fetus has been calculated correctly, amniocentesis is then performed immediately to confirm or exclude the presence of Down's syndrome or some other serious chromosome defect.



Pictured at the Board of Visitors luncheon are Dean Aram Chobanian, left, and Steven Baker, chairman of the Board of Visitors. (photo by Jeffrey Dunn)

Academic, scientific presentations highlight recent Board of Visitors meeting

Pediatric AIDS research and projects in environmental health were among the topics presented at the annual meeting of the Board of Visitors. Held in June at the School of Medicine, the day-long meeting also featured a luncheon attended by Board members and BUSM faculty and students.

During the morning session, Board members heard from Kenneth Edelin, M.D., associate dean for students and minority affairs, who outlined the activities and programs in the Office of Students and Minority Affairs. Stephen Pelton, M.D., an associate professor of pediatrics, discussed pediatric AIDS research at BUMC, and David Farb, Ph.D., chairman of the Department of Pharmacology, presented "New Directions in Pharmacology." The business meeting featured reports from Dean Aram Chobanian, Betty Russell, director of media relations, and Steven Baker, chairman of the Board of Visitors.

Following the luncheon, R. Curtis Ellison, M.D., a professor of medicine, presented "Prevention of the Diseases of the 21st Century." "Projects in Environmental Health" was presented by Anthony Robbins, M.D., a professor of public health. In addition, Barbara Gilcrest, M.D., chairperson of the Department of Dermatology, gave an overview of that department's activities.

Proposals to ration health care should not focus on elderly, Levinsky argues

In a recent issue of the *New England Journal of Medicine*, Norman G. Levinsky, M.D., chairman of BUSM's Division of Medicine and director of the Evans Department of Medicine at the University Hospital, questions why the elderly have become the victims of proposals to reduce health-care costs.

"Envision the uproar if it were proposed that expensive but medically useful care for blacks or women be eliminated," writes Levinsky in a June 21 Sounding Board article. He points out that while the idea of withholding health care from the elderly may appear to be equally discriminatory, it is increasingly being suggested.

"Enthusiasm for eliminating lifesaving care for the elderly may derive as much from the attitudes of Americans toward the old as from the real pressures of rising health-care costs," says Levinsky. He also suggests that another reason people may support the concept of rationing health care for the elderly is the concern that physicians are extending life "beyond the persistence of any spark of humanity and against the will of patient and family."

Levinsky points out other considerations: "Should we continue to treat younger patients vigorously, even though their prognosis is worse than that of otherwise healthy elderly persons with pneumonia?"

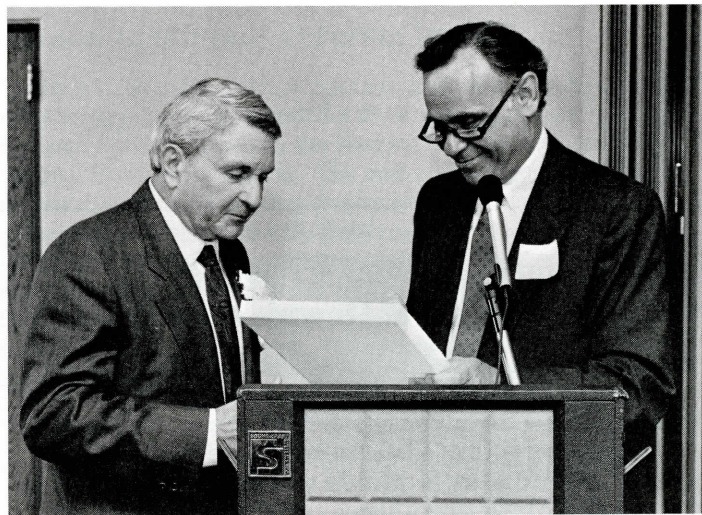
Levinsky offers a way of approaching the difficult issue if rationing ever becomes necessary: health care should be rationed according to its usefulness, not the patient's age.

Fewer deaths from heart disease due to drop in risk factors, study shows

The dramatic decline in deaths related to cardiovascular disease (CVD) over the past 30 years is due primarily to a reduction in such risk factors as smoking, high cholesterol levels and high blood pressure, according to a recent study by researchers at the School of Medicine and the New England Research Institute. This study, published in the *New England Journal of Medicine*, is the first to relate the decline in deaths to a simultaneous improvement in cardiovascular risk factors.

The researchers, led by Pamela Sytkowski, Ph.D., an assistant research professor of medicine, examined the incidence of CVD, CVD deaths and risk factors in 50- to 59-year-old men in the Framingham Heart Study in 1950, 1960 and 1970. The researchers found that men initially free of disease in the 1970 group experienced 19 percent less CVD and 60 percent fewer CVD deaths than men in the 1950 group. The 1970 group had far fewer cigarette smokers, lower cholesterol levels and fewer cases of uncontrolled high blood pressure.

"This study confirms the influence of risk factors on both the rate of disease and the rate of survival," says Sytkowski. "It also shows that the individual can dramatically increase his chances of survival from CVD if he quits smoking, eats less fatty foods and keeps his high blood pressure under control."



Howard Leibowitz, M.D., chairman of the Department of Ophthalmology, right, presents a plaque marking the establishment of an endowed chair in ophthalmology to Judge Sherwood Tarlow. (photo by Gustav Freedman)

BUSM honors recent establishment of endowed chair in ophthalmology

The School of Medicine and the Department of Ophthalmology recently held a reception in honor of the establishment of the Sherwood J. and H. Lorene Tarlow Professorship of Ophthalmology. More than 150 guests attended the event, held in the School's Hiebert Lounge on June 10.

The endowed chair is the result primarily of the generous contribution of the ForSight Foundation, of which Tarlow serves as chairman. Tarlow, a retired Duke's County probate judge, is a patient of Howard Leibowitz, M.D., chairman of the Department of Ophthalmology.

"The Tarlow Professorship guarantees independent financial support for the Department of Ophthalmology," says Leibowitz. "This newly endowed chair will stabilize our programs and ensure continued progress toward our goals."

School of Public Health to study need for off-campus master's degree program

The School of Public Health, with funding from the Massachusetts Area Health Education Center, is conducting a study to assess the demand for an off-campus, part-time master's degree program in public health for southeastern Massachusetts.

SPH researchers will use a survey to reach as many people as possible who may be interested in obtaining a part-time master's degree in public health. In particular, the survey will be targeted to people who work in or are interested in entering the health-care or social-services fields.

According to Jonathon Howland, Ph.D., an assistant professor of public health and coordinator of the survey, the off-campus program will provide a course of study to meet the needs of those people looking for jobs or job advancement and of or-

ganizations seeking qualified personnel. "Many health-care and social-service institutions are reducing their staffs due to budget constraints and therefore are looking for more highly trained administrative personnel," says Howland. "This program should help fill that need."

BUSM begins early admission program for biomedical engineering students

BUSM is now offering a new early admission program for biomedical engineering students at the University's College of Engineering. Known as ENGMEDIC (Engineering/Medical Integrated Curriculum), the program is designed for students looking forward to careers either as biomedical researchers with an engineering perspective or as physicians in specialties in which high-level technical knowledge is essential.

Students will be admitted to ENGMEDIC in their sophomore year, and begin medical courses as juniors. These students will receive an M.S. in biomedical engineering at the end of their senior year and an M.D. when they complete medical school.

ENGMEDIC was designed by Arthur Culbert, Ph.D., associate dean for educational programs, and Carl Franzblau, Ph.D., associate dean for graduate biomedical science studies; Herbert F. Voigt, Ph.D., and Solomon Eisenberg, Sc.D., associate professors of biomedical engineering; and Thomas Kerr, Ph.D., assistant dean of the College of Engineering.

Marcus receives grants to develop conflict resolution and negotiation in health care

Leonard J. Marcus, Ph.D., an adjunct assistant professor of public health, recently was awarded two grants to develop the field of conflict resolution and negotiation for health-care service providers and consumers. Marcus will use the first grant from the W.K. Kellogg Foundation to develop a model program for resolving conflicts in community health-care programs. The second grant, a demonstration project funded by the National Institute for Dispute Resolution, will train experienced health providers and managers in mediation and problem-solving techniques.

Differences in priorities, approach and intervention are common among health-care staff and management policy makers, and it ultimately can block services to the patient, says Marcus. "Using the resources we now have, we can develop a bridge between the fields of conflict resolution and health care and greatly improve health-care programs and the services they provide," he adds.

Marcus has extensive experience with conflict resolution, mediation and training. He has worked with hospital managers, physicians, nurses and policy makers to facilitate the resolution of complex issues. "Many people on the front line of service delivery tell me that they spend a large proportion of their time battling tough conflicts," Marcus says. "If we can help them get beyond those obstacles, it helps them, their institution, and most importantly, their patients."

Medical Center researchers receive NIH grant to study aging, amyloidosis

Investigators from the Department of Biochemistry and Medicine and the Edith Nourse Rogers Memorial (ENRM) Veteran's Hospital at Bedford have been awarded a four-year, \$485,000 research grant from the National Institutes of Health (NIH) to study how aging decreases the body's ability to prevent amyloidosis—an accumulation of proteins between cells that can interfere with the function of vital organs.

The grant was awarded to Jean Sipe, Ph.D., an associate research professor of medicine and biochemistry and the principal investigator of the study, and to Edgar Cathcart, M.D., D.Sc., a professor of medicine, chief-of-staff at ENRM and co-principal investigator of the study. The grant will complement a five-year \$584,207 grant awarded to the same group of researchers in 1987 to study the role of aging and diet on amyloidosis.

BUSM co-hosts Parkinson's symposium for patients and their families

The only annual symposium in New England designed to support and educate people with Parkinson's disease and their families recently was held at the University's George Sherman Union. Sponsored by the School of Medicine and the Massachusetts Chapter of the American Parkinson's Disease Association, the symposium featured scientific, financial and health experts.

Presentations during the symposium addressed such topics as planning for financial security despite limitations caused by the disease; the efficacy of deprenyl, the only drug shown to slow the progression of the disease in newly diagnosed patients; and the role of physical fitness in the total well-being of the Parkinson's patient. In addition, patients and family members were invited to attend workshops on coping emotionally with Parkinson's and on the effects of nutrition and the careful monitoring of medication on the disease's symptoms.

Paper on complications of HIV infection presented at California conference

Cynthia Chase, Ph.D., an instructor in psychiatry and a pediatric neuropsychologist at Boston City Hospital, recently presented a paper at a conference on the neurological and neuropsychological complications of HIV infection, held in Monterey, Calif. The paper, titled "Cognitive and Motor Developments in Infants with Perinatally Acquired HIV Disease," was written by Chase; David Coulter, M.D., an associate professor of pediatrics and neurology; Carol Dillingham, a developmental specialist; and Margaret Cabot, a research assistant. The study was funded by a grant from the National Institutes of Health.

School of Medicine hosts ACS reception

The School of Medicine hosted the recent American Cancer Society's (ACS) Third Annual Awards Reception for the researchers, contributors and friends of ACS. The event, held in the Keefer Auditorium, featured a keynote address by John R. Seffrin, Ph.D., chairman of the American Cancer Society, and the presentation of Massachusetts Research Awards by Anthony J. Piro, M.D., president of the Massachusetts division of the ACS. In addition, Paul Schroy, M.D., an assistant professor of medicine, presented "A Novel System to Study Colorectal Cancer."

Following the presentations, participants were guided on tours through laboratories at the School supported by ACS grants and funds.

Graduate student receives award

Kathleen L. Krenzer, O.D., a graduate student in the Department of Pathology, has been awarded a three-year Individual National Research Service Award by the National Eye Institute and the National Institutes of Health. The award will support Krenzer's immunocytochemical studies on specimens of conjunctival epithelium—obtained directly from patients, using the non-invasive technique of impression cytology. Krenzer developed the technique while working in the laboratory of her advisor, Thomas F. Freddo, O.D., Ph.D., an associate professor of ophthalmology and pathology and director of the Eye Pathology Laboratory.

News & Notes is a publication of the Office of Publication Services. If you have news of interest to the BUSM community, please contact Angela Sullivan, x8482 (638-8482) or write to her at the Office of Publication Services, 80 East Concord Street, Robinson Bldg. 7th Floor, Boston, MA 02118.

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