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BUSM News and Notes

1991-03

BUSM News & Notes: March 1991

no. 145

<https://hdl.handle.net/2144/20944>

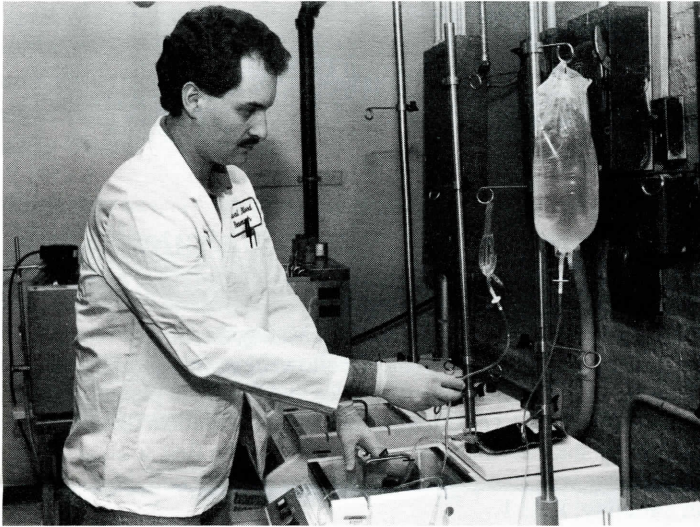
Boston University



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School of Medicine

News & Notes

March 1991
Issue #145



Alan Gray, supervisor of blood processing at the School's Naval Blood Research Laboratory, washes red blood cells with the Haemonetics 115 cell washer. Researchers at the NBRL are refining the technique to try to extend the shelf life of red blood cells after they have been frozen and washed. (photo by David Keough, EMSC)

NBRL helps military stockpile world's largest supply of red blood cells

As part of the Naval Blood Research Laboratory's effort to help the U.S. military produce the world's largest stockpile of blood, NBRL researchers continue to refine the process of freezing and washing red blood cells. Pioneering research conducted at the NBRL proved that red blood cells could be stored safely up to 21 years. Previously, the shelf life of frozen red blood cells was limited to three years.

The current technique to freeze and preserve red blood cells was developed in 1980 by NBRL Director C. Robert Valeri, M.D., a professor of medicine at the School and a retired captain in the U.S. Navy. The process involves collecting whole blood in an 800 ml primary bag and then placing it in a centrifuge that spins the blood and separates it into its components. After storage for up to six days, the red blood cells are treated with the cryoprotectant and glycerol, stored in cardboard boxes and frozen at -80°C . When the red cells are needed, they are thawed, then washed in the Haemonetics 115 cell washer to remove the glycerol.

The stockpiling effort, which began last year and will take several years to complete, will provide military hospitals with more than 200,000 units of type O frozen red blood cells to treat

casualties in the event of war. Currently, approximately 40,000 units have been frozen and stored at a variety of locations.

NBRL researchers also developed a technique to help the military preserve approximately half of its refrigerated blood supply rather than discarding it at the end of its shelf life. The military sends type O blood back to the NBRL just prior to the end of its shelf life; the researchers then add a mixture of pyruvate, inosine, phosphate and adenine to the old blood. This technique restores the blood to the potency of week-old blood. This blood is then frozen and stored until needed.

Recently, the NBRL sent frozen red blood cells to the Persian Gulf to supplement the Allied forces' supply of liquid red cells. The NBRL also has been teaching active duty and reserve personnel the procedures necessary to thaw and wash the red blood cells prior to transfusion.

Robins receives grant supporting study of HDL cholesterol and heart disease

Sander J. Robins, M.D., an associate professor of medicine at the School and the director of Lipid Metabolism and the Atherosclerosis Clinic at the Boston Veterans Administration (VA) Medical Center, has received funding from the VA and Parke-Davis Pharmaceutical Company to study the relationship between high-density lipoprotein (HDL) cholesterol levels and the incidence of heart disease. Specifically, Robins and his colleagues will study whether treatment to increase HDL-cholesterol—known to protect against atherosclerosis—will decrease the incidence of heart attacks and deaths due to coronary heart disease. The researchers will receive a total of \$1.8 million each year for the next seven years to conduct the study.

Previous studies have indicated that a low HDL-cholesterol level may be a greater risk factor for the development of coronary heart disease than a high total cholesterol level or a high low-density lipoprotein (LDL) cholesterol. The researchers will investigate whether the drug gemfibrozil, which is expected to raise HDL-cholesterol levels without significantly affecting other cholesterol, will decrease the rate of heart disease.

The researchers will study 2,500 men with pre-existing heart disease who have a low HDL-cholesterol level as their only cholesterol abnormality. Participants will be treated with gemfibrozil or a placebo. The researchers will track the study participants, noting any development of new coronary events over the next five to seven years.

School of Medicine loses two distinguished faculty members—Elia and Emerson

The School of Medicine recently lost two professors emeriti: Andrew Dimitri Elia, M.D., and Charles P. Emerson, M.D.



Elia—graduated from BUSM in 1935

Elia, a former professor of obstetrics and gynecology, died of emphysema on Sunday, Feb. 5, at his home in Wellesley Hills. He was 84 years old.

After graduating from the School of Medicine in 1935, Elia practiced obstetrics at the Massachusetts Memorial Hospital, now the University Hospital, and the Boston Lying-In

Hospital, which is now part of Brigham and Women's Hospital. During World War II, he served in the Navy as the ship's doctor aboard the *U.S.S. Salinas*. Reportedly, Elia was the model for the doctor in the stage and film versions of "Mister Roberts." In the film version, the role of the doctor was played by William Powell.

Surviving are his daughter, Dorothy E. Howells of Wellesley; a son, Philip R. of South Natick; two sisters; and six granddaughters.

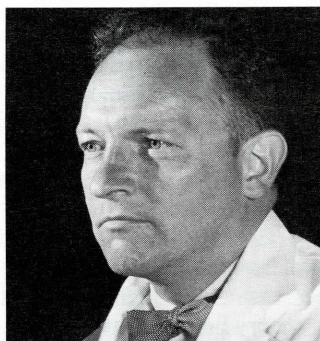
Emerson—brought the NBRL to Medical Center

Emerson, a former professor of medicine, died of a heart attack on Wednesday, Jan. 23, at his home in Wellesley. He was 78 years old.

During World War II, Emerson served as a lieutenant colonel in the Army Medical Corps with the 5th General Hospital in England and France. He received a Bronze Star for developing a more efficient technique of administering transfusions to wounded soldiers on the battlefield.

In 1947, Emerson came to the Medical Center as an assistant professor of medicine and as director of the blood bank. Emerson, who also served as chief of hematology at the University Hospital, was responsible for bringing the Naval Blood Research Laboratory to the Medical Center. He and his colleagues were the first to develop techniques to measure blood volumes and red cell survival using radioactive isotopes. His studies led to the development of techniques to improve blood storage.

He leaves his wife, Annette (Bryant); three sons, Charles P. Jr. of Charlottesville, Va., James B. of Melrose and Robert M. of New York; two daughters, Annette W. of Dorchester and Janet P. of Wellesley; a sister; and three grandchildren.



Leibowitz named first recipient of endowed chair in ophthalmology

Howard M. Leibowitz, M.D., chairman and professor of the Department of Ophthalmology, recently was named the recipient of the newly endowed Sherwood J. and H. Lorene Tarlow Professorship of Ophthalmology at the School of Medicine. The endowed chair was made possible by a generous contribution from the ForSight Foundation, founded by Judge Tarlow, a retired Duke's County probate judge, and his wife.

Leibowitz is a member of numerous professional societies, including the American Academy of Ophthalmology, the Association of University Professors of Ophthalmology, the Association for Research in Vision and Ophthalmology, and the New England Ophthalmology Society.

Seminar series on admissions strategies and financial planning to be held at BUSM

BUSM's Office of Student Financial Management will host a seminar by the National Medical Fellowships, Inc. (NMF), on medical-school admissions strategies and financial planning, according to Charles Terrell, associate dean for student affairs and director of student financial management. The first session of the seminar will take place on Saturday, April 6, and the second on Saturday, June 1.

The seminar is the seventh in a series of 12 that NMF is sponsoring for minority premedical students across the country over a three-year period ending in August 1991. The purpose of this program is to increase opportunities for minority and economically disadvantaged students to gain access to medical education and careers. The program is designed to build confidence through effective premedical counseling techniques and gives the students an opportunity to learn sound application strategies and effective financial management skills.

The goal of the first session is to provide the students with competitive medical-school admission strategies and to enhance acceptance probabilities. The goal of the second session is to acquaint the students with planning and management techniques intended to resolve medical school financial complexities and minimize educational debt accumulation.

Oral drug to prolong erections found; may help mildly impotent men

For the first time, an oral drug has been found to prolong erections in healthy men, a finding which researchers suggest may lead to therapies to help mildly impotent men. The study, published in the January issue of the *Journal of Urology*, was conducted by researchers at the School of Medicine in collaboration with researchers at the Eastern Virginia Medical School.

The researchers demonstrated that trazadone—a trazolopyridine derivative with alpha-blocking properties prescribed as an antidepressant—causes potent men to achieve a

prolonged erection by apparently blocking sympathetic adrenergic nerves normally responsible for terminating an erection.

At Eastern Virginia Medical School, the researchers evaluated how the drug affects normal sleep-related erections in six healthy volunteers. They found that trazadone significantly increased the sleep-related erection activity compared to those volunteers who received another antidepressant or a placebo.

The BUSM researchers, led by Inigo Saenz de Tejada, M.D., an assistant professor of urology and research director of urology at BUSM, studied the drug's effect on penile tissue. They demonstrated that trazadone, at concentrations reached by taking a standard 100 mg tablet, had the ability to impair the smooth muscle contractions responsible for terminating an erection.

"Trazadone may help men who have difficulty sustaining a spontaneous erection without excessive stimulation," said Irwin Goldstein, M.D., a professor of urology at the School, the co-director of the New England Male Reproductive Center at the University Hospital, and the senior author of the study. The next step for the researchers is to study the drug's effectiveness on impotent men.

ACS research grants available; application deadline is April 1

The Hubert H. Humphrey Cancer Research Center has been awarded an Institutional Grant from the National Chapter of the American Cancer Society to encourage young investigators (junior faculty) to carry out cancer-related research. The primary purpose of the grant is to serve as "seed" money to permit initiation of promising new projects or novel ideas, that will serve as a basis for future grant applications from other programs. The awards will vary according to the needs of the investigator and should not exceed \$6,000. The majority of allocations will be made to persons who have not received prior grant support.

Applications will be awarded on a competitive basis and evaluated according to criteria described in the application forms. Application forms are available from the Cancer Research Center office, Silvio O. Conte Medical Research Center room 701 (K-701); 638-4173 (x4173).

The deadline for applications is April 1, 1991.

Peters to receive Krieg Cortical Kudos Cortical Discoverer Award, April 21

Alan Peters, Ph.D., chairman and professor of the Department of Anatomy and Neurobiology, recently was selected as the 1991 recipient of the Krieg Cortical Kudos Cortical Discoverer Award, the Cajal Club's highest honor for excellence in research. Peters will accept the award at the April 21 meeting of the Cajal Club in Chicago, Ill.

The Krieg Cortical Kudos were established by Wendell J.S. Kreig, a distinguished neuroanatomist and pioneer in research on



Ten Massachusetts students awarded American Cancer Society Fuller Fellowships were honored at a reception on Jan. 3. Pictured at the reception were Gail Sonenshein, Ph.D., fourth from left, an associate professor of biochemistry at BUSM, who directed the research of award-recipient Lara Madison, center, a resident of Acton and a student at Texas A & M University. Madison's research focused on searching for specific regulatory elements within cells that are found in both normal and malignant human tissue. By isolating a certain protein, she identified cell characteristics that will facilitate future research. Also attending the reception were, from left, Hughes J.-P. Ryser, M.D., chairman of the Fuller Fellowship Selection committee and a professor of pathology, pharmacology and experimental therapeutics at BUSM, and Madison's parents, Priscilla and Henry Madison. (photo courtesy of the American Cancer Society News Service)

the cerebral cortex and its connections, and the founder of the Cajal Club. The Cajal Club is a private organization associated with the American Association of Anatomists.

Ellison receives grant to continue Framingham Children's Study

R. Curtis Ellison, M.D., chief of the Section of Preventive Medicine and Epidemiology and a professor of medicine, recently received a \$950,000, five-year grant from the National Heart, Lung and Blood Institute to continue with the Framingham Children's Study. This study is a longitudinal study of the grandchildren and great-grandchildren of the original participants in the Framingham Heart Study.

Ellison is studying factors that determine the eating and exercise habits among young people. He plans to use data from this study to develop preventive approaches that can be started in early childhood and will lead to a lower risk of heart disease later in life.

Upcoming CME courses

The following is a list of upcoming courses sponsored by the Department of Continuing Medical Education:

A program on "**Controversies in Internal Medicine**" will take place on May 6 through May 10 at the Mariner's Inn on Hilton Head, S.C. Selected topics to be discussed include infectious disease, rheumatology, endocrinology and hematology.

A course titled "**Pediatric Emergencies: Trauma/Ingestion/Infection**" will be held from May 16 through May 18 at the

Colonnade Hotel in Boston. This course will give participants an in-depth exposure to pediatric emergency medicine, with emphasis on pediatric trauma. Lectures will focus on current controversies and therapeutic options.

For further information, contact the Department of Continuing Medical Education, 80 E. Concord St., Boston, MA 02118, or call (617) 638-4605 (x4605).

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 7 (B-7), Boston, MA 02118.

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News & Notes

Reader Survey

News & Notes was established in May 1976 as a means of informing Medical Campus faculty and staff of research activities and events at the School of Medicine. The editors of *News & Notes* need to know whether in your opinion the newsletter reaches its goal, and how you think it could serve you better. Please take a moment to respond to the questions asked below, then fold the questionnaire so that the address shows on the reverse side and drop it into interdepartmental mail. Thank you for your cooperation.

Please rate your responses on a scale of 1 to 5—with 1 being “poor” and 5 being “outstanding.”

Presentation

Appearance 1 2 3 4 5
 Layout 1 2 3 4 5
 Use of photos 1 2 3 4 5

Comments: _____

Content

Quality of writing . . . 1 2 3 4 5
 Ability to communicate
 complex ideas,
 information 1 2 3 4 5
 Ability to hold
 reader interest 1 2 3 4 5
 Accuracy of
 information 1 2 3 4 5
 Relevance of articles . . 1 2 3 4 5

Comments: _____

Final information

Overall effectiveness
of publication 1 2 3 4 5

What would you like to see more of/less of in the publication? _____

What is your role at the School of Medicine? _____

General comments: _____

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