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Scoring a High Note in Medicine

Many classmates remember Phillip Pearl, ’84, for leading the follies band during medical school. And while he held a teaching appointment in the music department at George Washington University, Pearl’s mark in medicine is the one for which he’ll be most remembered. He is currently the William G. Lennox Professor and Chair of Neurology at Harvard Medical School, and director of the division of epilepsy and clinical neurophysiology at Boston Children’s Hospital.

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discovery is in our blood. Since our inception in 1807, our students, faculty and leaders have made numerous advances that have dramatically and measurably impacted and improved people’s lives. Our research has not just been “theoretical science,” but has always had a patient-centered focus. For example, in the first half of the nineteenth century, former Maryland dean, Nathan Smith, MD, invented the splint for leg fractures. In 1900, James Wright, class of 1892, further devised a stain, now called “Wright’s stain,” that is used to differentiate blood cells. J. Whitridge Williams, class of 1888, pioneered investigations into obstetric complications and first published a textbook (in 1933) which would become one of the leading obstetrics reference texts used by medical students and practitioners today. In 1941, Theodore Woodward, class of 1938, showed that one dose of typhus vaccine was protective against the disease. John C. Krausz, Jr., PhD, head of the department of pharmacology from 1932 to 1965, revolutionized the world-wide practice of anesthesiology.

As time has progressed, the pace of our discoveries has accelerated, and we have been much more purposeful in conducting research that will directly lead to new treatments, therapies or approaches for fighting diseases and chronic conditions. Myron Levine, MD (profiled in this issue) and James Kaper, PhD, developed and tested the first live oral cholera vaccine in 1994. That same year the first aromatase inhibitors to treat breast cancer, now the standard therapy to treat post-menopausal breast cancer, were developed by Angela Brodie, PhD, distinguished professor of pharmacology, who is on the verge of another breakthrough in prostate cancer treatment. In 2012, Stephen Bartlett, MD, and Rolf Barth, MD, led the team who completed the most extensive fetal-to-transplant to date. Last year, an advisory committee for the U.S. Food and Drug Administration gave the “green light” to continue development of a drug to treat radiation exposure from a nuclear meltdown or terrorist attack, based on research conducted by Ann Farsee, MA, MS, and Thomas MacVittie, PhD.

To further our mission of discovery-based medicine, which has rapidly become the school’s raison d’etre, we have configured the academic units conducting basic, translational and clinical research to have multiple and intertwined roles. Currently, we have almost the same number of institutes, organized research centers, and programs as we do departments, and it is not by chance that we are organized in this way.

To achieve our mission of discovery-based medicine, we have implemented a series of initiatives to promote, support and emphasize discovery and innovation that will impact our patients, our students and our trainees. The accelerating innovation and discovery in medicine initiative (ACCEL-Med) is just one example. ACCEL-Med is a structured, potent and aggressive framework for research.

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**Schmaljohn at Forefront of Ebola Vaccine Development**

Alan Schmaljohn, PhD, professor of microbiology and immunology at Maryland spent decades studying the Ebola virus as chief in the viral pathogenesis and immunology branch with the U.S. Army Medical Research Institute of Infectious Diseases. He is a lead figure in Maryland’s partnership with the Department of Defense contract recipient Paragon Bioservices in the manufacture of an Ebola virus vaccine for initial safety testing in humans.

“Several vaccine candidates for Ebolavirus are proceeding through initial manufacture toward safety testing in human volunteers,” Schmaljohn says. “Different vaccine candidates are based upon different ‘platforms’ in which selected viral proteins may be made ‘in the test tube’ and purified for injection, or may be added genetically as passengers of a different variety of virus that is weakened. Only human trials will provide the final answers as to which vaccines are best on the basis of many criteria, foremost being safety and efficacy,” he adds.

Schmaljohn was originally one of the leaders in determining what kinds of immune responses are required for protection against viruses like Ebola, and he was part of the team that first identified antibodies capable of protecting certain animals from Ebolavirus.

“Subsequently,” he adds, “three of these antibodies have been developed as a candidate mixture for human therapy against Ebolavirus, which is apparently true for an American who was infected with Ebolavirus during the current outbreak.”

However, he cautions that many scientific questions remain unanswered.

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**New Microbes Linked to Severe Diarrhea**

In a finding that may one day help control a major cause of death among children in developing countries, a team of researchers from Maryland and the University of Maryland, College Park has identified microorganisms that may trigger diarrheal disease and others that may protect against it. These microbes were not widely linked to the condition previously.

“We were able to identify interactions between microbiota that were not previously observed, and we think that some of those interactions may actually help prevent the onset of severe diarrhea,” says O. Collin Stine, PhD, professor of epidemiology and public health at the medical school.

A much better understanding of these interactions is important, Stine adds, as they could lead to possible dietary interventions. Moderate to severe diarrhea (MSD) is a major cause of childhood mortality in developing countries and ranks as one of the top four causes of death among young children in sub-Saharan Africa and South Asia.

Stine and Mihai Pop, associate professor of computer science at the University of Maryland, College Park led the six-year project funded by $10.1 million from the Bill & Melinda Gates Foundation. The research results were published in the journal Genome Biology.

The researchers used high-throughput 16S rRNA genomic sequencing to examine both “good” and “bad” microbiota in samples taken from 992 children in Bangladesh, Gambia, Kenya and Mali under the age of five who were suffering from MSD. They identified statistically significant disease associations with several organisms already implicated in diarrheal disease, such as members of the Escherichia/Shigella genus and Campylobacter jejuni. They also found that organisms not widely believed to cause the disease, including Streptococcus and Granulicatella, correlated with the condition in their study. In addition, the study revealed that Prevotella genus and Lactobacillus ruminis may play a protective role against diarrhea.

In addition to the Gates Foundation, the study was also supported partly by the National Institutes of Health, the National Science Foundation and The Wellcome Trust.

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Ronald J. Taylor, MD, Class of 1973

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Infections...Inflammation...Immunity...

Innovation: How Maryland Research Will Revolutionize Medicine

Medicine requires a solid foundation in basic and translational research science. Without microbiologists studying the components of bacteria, viruses and parasites, we would not fully appreciate the world of microbes. Without immunologists studying the nuances and intricacies of our innate and adaptive immunity, we would not have life-saving vaccines. In this issue devoted to research, we celebrate some of the basic, translational and clinical research at Maryland devoted to understanding, treating, preventing and eradicating infectious and chronic diseases.

The Virus Hunters and Vaccinologists
Christopher Plowe, MD, MPH
Professor, Department of Medicine
Leader, Malaria Group
Associate Director for Research Training, Center for Vaccine Development
Investigator, Howard Hughes Medical Institute

Malaria is a preventable mosquito-borne parasitic disease that affects over 200 million people worldwide, and killed an estimated 627,000 people in 2012. Plowe, leader of the Malaria group in the school’s center for vaccine development, and his research team are working to reduce the health burden malaria presents for people in some of the poorest countries. His group studies drug-resistant malaria and is developing a vaccine for the disease. The research has taken Plowe from his laboratory in Baltimore to field sites in Southeast Asia and Sub-Saharan Africa. Caring for and collecting samples from infected patients, the laboratory team has analyzed the parasites and gained a greater appreciation for the genetic diversity of the microorganism. The diversity of Plasmodium has prevented investigators from developing a successful and broadly-acting vaccine, and has allowed the parasite to develop resistance to current treatments. However, teaming up with genomics and proteomics experts, Plowe’s group has developed assays that can look at thousands of malaria genes and at human antibody responses to hundreds of malaria proteins at once. Using information from these new studies may help the Plowe research group to track drug resistance and to develop better vaccines against the parasite.
Decades ago, this approach was successfully used to protect neonates against tetanus toxoid, acquired due to subclinical umbilical cord cutting and care. Bolstered by this success, the Bill & Melinda Gates Foundation sponsored large-scale, randomized controlled field trials to assess the effectiveness of immunizing third-trimester pregnant women with influenza vaccine to protect infants up to six months old. Recently in Mali, a sister institution to the school’s center for vaccine development (CVD), which is overseen by Levine, completed a large-scale, randomized controlled trial immunizing 4,192 third-trimester pregnant women against influenza. Preliminary results revealed that maternal immunization prevents confirmed influenza in young infants. These positive results are stimulating global interest to assess the role of maternal immunization in protecting infants against other infections such as pertussis and Respiratory Syncytial Virus disease. (See profile on page 18)

Karen L. Kotloff, MD Professor, Departments of Medicine and Pediatrics Head of Infectious Disease and Tropical Pediatrics Associate Director of Clinical Studies, Center for Vaccine Development

Kotloff, a pediatrician with a long-term interest in global health and infectious diseases, is a key clinical investigator at the CVD and department of pediatrics. Kotloff has had the opportunity to make a major impact on two significant public health issues: enteric (diarrheal) diseases in developing countries, and pandemic influenza outbreaks. Kotloff served as the clinical and epidemiologic study lead for the Global Enterics Multi-Center Study (GEMS), funded by the Bill and Melinda Gates Foundation. GEMS was an intensive study of diarrheal diseases among children from seven developing countries in South Asia and Sub-Saharan Africa. Through GEMS, Kotloff and her collaborators gained greater insight into the different enteric pathogens infecting children, and their impact on child health and survival in developing countries. Kotloff also heads the University of Maryland Vaccine and Treatment Evaluation Unit (VTEU), one of nine such units supported by the National Institutes of Health (NIH). Kotloff and the VTEU investigators test many vaccines of public health interest, including the 2009 pandemic H1N1 influenza vaccine, as well as the H7N9 influenza vaccine in 2013. Under Kotloff’s leadership, the Maryland VTEU received another 10 years of funding from the NIH last year.

Aaron R. Rapoport, MD Gary Jordan Professor in Medical Oncology Professor, Department of Medicine Director of Lymphoma Gene Medicine, Marlene and Stewart Greenebaum Cancer Center

Blood and bone marrow cancers, such as chronic myelogenous leukemia (CML) and myeloma, are typically treated with chemotherapy followed by a stem cell transplant. However, the risk of relapse or secondary infection is high because patients’ immune systems are suppressed during treatment. Using an approach pioneered by Dr. Carl June at the Perelman School of Medicine at the University of Pennsylvania, Rapoport takes patients’ own immune cells, activates and expands the cells in the laboratory, and then gives the cells back to the patients to restore immune function. In collaboration with June, Rapoport’s team used this technique to treat four patients with CML, one of whom is in remission more than 15 years after the initial procedure. They also have tested this procedure in approximately 150 patients with myeloma, and have completed four clinical trials and are in the midst of conducting a fifth. Through this work, Rapoport and his colleagues have learned how to rebuild immune function after autologous stem cell transplantation. Recently, they have begun to genetically modify the immune cells to “redirect” them against the patient’s own myeloma tumor cells.

Scott E. Strome, MD Chairman and Professor, Department of Orthopaedic Surgery Director, Institute of Human Virology

In the 30 years since Gallo and his research team discovered interleukin-2, a factor that promotes the growth of T cells and was essential to his subsequent discovery of human retroviruses, and co-discovered human immunodeficiency virus (HIV), much has been learned about HIV, how to screen for it and how to control it. Gallo, who directs the school’s institute of human virology and Gallo, a virologist with a long-standing interest in global health and infectious diseases, is a key clinical investigator at the CVD and department of pediatrics. Kotloff has had the opportunity to make a major impact on two significant public health issues: enteric (diarrheal) diseases in developing countries, and pandemic influenza outbreaks. Kotloff served as the clinical and epidemiologic study lead for the Global Enterics Multi-Center Study (GEMS), funded by the Bill and Melinda Gates Foundation. GEMS was an intensive study of diarrheal diseases among children from seven developing countries in South Asia and Sub-Saharan Africa. Through GEMS, Kotloff and her collaborators gained greater insight into the different enteric pathogens infecting children, and their impact on child health and survival in developing countries. Kotloff also heads the University of Maryland Vaccine and Treatment Evaluation Unit (VTEU), one of nine such units supported by the National Institutes of Health (NIH). Kotloff and the VTEU investigators test many vaccines of public health interest, including the 2009 pandemic H1N1 influenza vaccine, as well as the H7N9 influenza vaccine in 2013. Under Kotloff’s leadership, the Maryland VTEU received another 10 years of funding from the NIH last year.

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The Investigators of Inflammation

Stefanie N. Vogel, PhD
Professor, Department of Microbiology and Immunology

Vogel’s laboratory focuses on the earliest host-pathogen interactions that occur during viral and bacterial infections. They are interested in how these interactions transmit cellular signals to macrophages, a type of white blood cell. The Vogel laboratory also works to identify ways to interfere with the development of inflammatory immune responses, mediated by a class of signaling molecules known as Toll-like receptors (TLRs), which may cause damage to the host. Recently, they have begun high-throughput studies exploring whether drugs developed to treat one disease could be repurposed to intervene in other inflammatory diseases. For example, based on their experiments that implicated TLR4 in influenza, the research team used a TLR4 antagonist, Eritoran, to block acute lung injury or lethality in two rodent models of influenza infection. Eritoran was originally developed to treat sepsis, but failed in Phase III clinical trials. However, Dr. Vogel and her collaborators have discovered a potential new purpose for this drug. Additionally, through their studies of specific macrophage signaling pathways involved in Respiratory Syncytial Virus (RSV), the Vogel research team identified two FDA-approved drugs that may drive the development of a subset of macrophages that resolve inflammation and lung injury caused by RSV.

Achsa D. Keegan, PhD
Professor, Department of Microbiology and Immunology

Keegan has a familial connection to the medical school and University of Maryland—both her grandfathers are Maryland graduates, one from the medical school (Benjamin Henry Dorsey, class of 1901), and the other from College Park. When her previous research laboratory had to co-found the Global Virus Network, has made significant contributions to understanding all human retroviruses, and his work has dramatically reduced the worldwide burden of HIV/AIDS. However, a vaccine that can stop HIV transmission has remained elusive. There are many reasons why attempts to develop an HIV vaccine have been unsuccessful. One is that HIV “lives” in the immune system using active and functional T cells to subvert. Because vaccines induce a protective antibody response, which also depends on activated T cells, any anti-HIV antibodies produced in response to a vaccine also increase the amount of virus-infected T cells. The research team of Gallo and Drs. George Lewis and Anthony DeRosa, who is working on solving this challenging dilemma and is currently working to develop a vaccine candidate. Gallo also is part of the HIV Cure group, dedicated to unraveling mechanisms which could eradicate functional HIV activity from the human body. See profile on page 18

The Investigators of Inflammation

Stefanie N. Vogel, PhD
Professor, Department of Microbiology and Immunology

Vogel’s laboratory focuses on the earliest host-pathogen interactions that occur during viral and bacterial infections. They are interested in how these interactions move, she gladly came to the medical school and was among the first of the researchers located in the Biopark in the center for vascular and inflammatory diseases. An immunologist, Keegan is interested in Type II inflammation, the type of immune response elicited by parasite infections or by allergens, such as pet dander or food, and is characterized by the accumulation of eosinophils and the release of chemokines that attract eosinophils to the site of infection. Keegan’s research team examines how IL-4 and IL-13 control the responses of macrophages and eosinophils to house dust mite, a common household allergen. Her group found that IL-4-activated macrophages enhance eosinophilic inflammation by a process dependent on the transcription factors STAT6 and Egr2 and modulated by the adaptor protein insulin receptor substrate 2. Targeting these pathways may alleviate allergic asthma symptoms.

Terez Shea-Donohue, PhD
Professor, Department of Radiation Oncology

Humans have coexisted with enteric pathogens—bacteria, viruses, and other parasites—for thousands of years. The importance of the microbiota of the gastrointestinal (GI) tract is underscored by observations that an imbalance or absence of certain populations of microorganisms can affect human health. Improvements in sanitation and hygiene in the past five decades have resulted in a decline in infection of the GI tract by parasitic nematodes, round worms that colonize both the small and large intestine. Research conducted by Shea-Donohue and her colleagues, Aiping Zhao, MD, focuses on the mechanisms by which immune responses triggered by nematode infections can benefit human health. People infected with nematodes produce cell signaling molecules that reduce inflammation in the GI tract and counteract the immune responses typically elicited by diseases such as diabetes, inflammatory bowel disease (IBD), obesity, and multiple sclerosis. Shea-Donohue and Zhao have observed that nematode infection after intestinal function and protect against experimental models of inflammatory bowel disease, diabetes, and obesity. They are currently identifying and characterizing both the biological disease in people with diabetes, particularly as this pertains to the risk of heart attacks and strokes. Based on clinical studies of people with type 1 and type 2 diabetes, as well as non-diabetics, the Davis laboratory hypothesizes that inflammation causes adverse vascular biologic conditions, disrupts endothelial cell and large vessel function, and leads to heart attacks and strokes. They have observed that very high glucose as well as low glucose cause acute inflammation and significant arterial dysfunction in people with diabetes. Most surprisingly, the Davis research team has found that low blood glucose causes greater inflammation and significantly increases a patient’s risk for a heart attack, compared with high blood glucose. Additionally, they have discovered that, in the presence of very high glucose, insulin seems to play an anti-inflammatory role in people with diabetes. Insulin has been thought to cause vascular inflammation, but findings from the Davis laboratory suggest that insulin may modulate inflammation, and that glucose, especially low blood glucose, could be a major cause of inflammation.
A Fever of a Very Alarming Nature

By Mary Ellen Leuver

An epidemic of yellow fever closed the federal government of the United States in the nation’s capital of Philadelphia from September to November 1793. It was the first time yellow fever had come to Philadelphia in a generation. By the end of the four-month outbreak, 13 percent of the 45,000 Philadelphians had died while another 20,000 fled in panic, taking refuge in the countryside or in other eastern seaboard towns.

Despite Philadelphia’s prominence as the center of American medical inquiry, in a matter of weeks the nation’s second-largest city (at the time) was largely abandoned due to the appearance of a disease whose causes were passionately debated but frustratingly unknown. As medical historian J.H. Powell described the accounts of those living through the epidemic, “in the continual failure of the doctors, even the bravest men lost hope.”

In the fall of 1793, for the first time in American history, a government body appealed to a medical organization to ask for guidance as a “fever of a very alarming nature” swept the city. While 18th-century medicine still largely relied on the therapeutic armamentarium of nature, the city was still struggling to understand, cure, and control. Diseases do not live solely in the host or in medical laboratories, they are also social phenomena whose impact can change the course of history.

Accounts of the breakdown of social ties abounded in diaries, letters, and the only city newspaper that continued to print. One recent immigrant, neighbors unwilling to enter her house where her husband lay buried, dead of fever. Paragons of bravery in the Revolutionary War, like Captain Sharp and Commodore Barry, retired to their country homes, permitting no one to approach on pain of being shot from a distance, including their own family members. Sickenings scenes of death were encountered on streets, as servants and boarders were turned out in the midst of illness, left to die in gutters or alleys. Social breakdown in the face of medical uncertainty caused bedlam in 1793, but one erroneous belief produced some of the most heroic figures of the epidemic. Noting that people of African descent seemed immune to the fever, Philadelphia’s mayor called upon the beleaguered black community—too poor to escape the dying city—to take ill or died in their homes. Within two weeks, it was obvious that black community members were as susceptible as whites to the fever, yet the African Society’s efforts continued unfailingly, bringing order and organized care to the city.

In Powell’s words, during the epidemic “panic was as contagious as sickness, as revolting as the black vomit, as formidable as death itself.” As yellow fever began to spread beyond the borders of Philadelphia on the heels of refugees, it was clear that no city in the United States was prepared for the social breakdown that resulted when epidemics arrived in the growing American cities. Those who survived the epidemic recognized the importance of an organized American medical system that was absent in colonial America. In direct response to this outbreak, every major city in the United States began movements to create physician-managed boards of public health, whose responsibilities included staying and organizing care in crises. Physicians also cited the epidemic as a reason to create the first American schools of medicine, like the University of Maryland.

That investment in public medical education reaped direct rewards, as a little over a 100 years later a University of Maryland medicine graduate, James Carroll, class of 1891, and colleague Walter Reed proved through experimentation on Carroll himself that the female Aedes aegypti mosquito is the vector of yellow fever. No cure exists for yellow fever today, but national campaigns for the control of the mosquito in the mid-20th century largely eliminated the pool of vectors throughout the United States and contained the virus decades before the discovery of the vaccine.

The emergence of virulent diseases like ebola and West Nile Virus urge us to consider the power of public fear as well as the social aspects of infectious diseases that contemporary medicine is still struggling to understand, cure, and control. Diseases do not live solely in the host or in medical laboratories, they are also social phenomena whose impact can change the course of history.

About the author: Mary Ellen Leuver is a doctoral candidate in the History of Science & Medicine at Yale University specializing in bioethics and the history of infectious diseases. She conducts medical history research at the University of Maryland School of Medicine.
Spence’s donation was intended to show Christ as “healer” and “comforter.” It had been copied by Theobald Stein of the Royal Academy of [Danish] Arts from an earlier work and “comforter.” It had been copied by Theobald Stein of the Royal Academy of [Danish] Arts from an earlier work.

As a young man in the early 19th century and career within his middle and later years he donated both time and money to various charitable organizations. The magnificent church now known as First & Franklin Presbyterian was to a great extent his creation. Among Spence’s other physical legacies is an over-sized marble statue seen by several generations of Baltimore physicians and patients, the Christus Consolator still on display in the central foyer of the Administration Building at Johns Hopkins Hospital. Spence’s donation was intended to show Christ as “healer” and “comforter.” It had been copied by Theobald Stein of the Royal Academy of [Danish] Arts from an earlier work and “comforter.” It had been copied by Theobald Stein of the Royal Academy of [Danish] Arts from an earlier work.

Aside from his artistic and religious interests, what may now draw our closest attention to Spence is that he died shortly following his 100th birthday in the fall of 1915. For several years leading up to that occasion, notices were published in the Baltimore Sun about the exact state of the old man’s health: when it was up, when it was down; when he felt well enough to go to meetings and take part in civic activities, or when doctors—including William S. Thayer of Hopkins—were nuked to his crowded bedside. When he turned 98 in October of 1913, the Sun reported that he liked to boast of how he would live to age 100, and that he “enjoys three hearty meals a day, sleeps well and takes daily exercise in all good weather.” The newspaper also stated that he was “very fond of a glass of buttermilk in the middle of the day…and smokes four cigars a day and enjoys them, too.”

Spence’s 99th birthday a year later was prominently reported, and when he turned 100, on October 18, 1915, journalists pulled open every stop about a visit to Spence from Baltimore’s mayor, about the “bower of roses and chrysanthemums” that spilled out from bedroom into reception rooms of his house on St. Paul Street, and about the wee basket of feathered, brocked and thistle given him by a group of local Scottish-Americans. Yet Spence himself pointedly told the Sun’s reporter that he “was not quite so busy” as he had been a century earlier, “but I was last that he will live to celebrate another anniversary.” The old man was nothing if not a planner: he was dead on November 3.

How much attention would such a life, or such a well-timed exit, attract today? The number of centenarians has been growing rapidly since the middle of the 20th century, and by 2010 there were an estimated 80,000 persons over age 100 in the USA alone—far too many to receive individual greetings from Willard Scott. The share of population represented by centenarians has reached 6 per 10,000 in developed countries, a near-doubling since 1980, according to the New England Centenarian Study being conducted by Boston University’s School of Medicine. An additional category has even been established, “super-centenarians,” for those who have experienced their 110th birthdays.

What can be generalized—if anything—about the quality of life for this swelling mass of centenarians? According to James P. Richardson,’80, who also holds a master’s of public health degree and is chief of geriatric and palliative medicine at St. Agnes Hospital in Baltimore, the extreme elderly are often those who can “feel the joy in their lives regardless of circumstances.” Even as age and illness have reduced their mobility and limited their sensory input, simple activities such as visiting with family and listening to books on tape tend to be felt as great pleasures. They are content with what they have rather than what they don’t have. Centenarians also tend to be those who handle stress well—stress of whatever kind, ordinary or extreme. Their patient profiles are associated with diminished rates of those degenerative conditions that often make life miserable for people who are merely in their 60s and 70s.

One of the more curious findings of centenarian research is that women who reach age 100 are often those who have had pregnancies-to-term as late as age 40 and then delivered with few complications. In the words of the Boston University study, “health span equals lifespan”—as with William Wallace Spence’s three hearty meals every day and exercise in all good weather. Among men, effective response to the extreme stress of combat may also serve as a predictor of living to age 100.

During the past several years, the last confirmed veterans of World War I have died at great ages: the American veteran, sailor Claude Choules (English, later Australian), was 110 years old when thelife ended in May 2011. All of these men reported good qualities of life and few medical complaints even past age 100, and most were still able to communicate, had few signs of dementia and were involved in the larger community until just a few days or weeks prior to their deaths—much as Spence had been a century earlier, when the Great War was only at its bloody start. Spence’s good meals may have helped him reach a great age, as did his reportedly good sleeping habits and a healthy bank account. More recent studies such as those conducted by the Boston University study group have consistently shown that healthy modes of life combined with genetic predisposition—e.g., is there a sibling who has also lived a century—are shared by most of those who have passed their 100th and by nearly all who have reached their 110th.

The extreme elderly are often those who can “feel the joy in their lives regardless of circumstances.” William Wallace Spence was a familiar figure to Baltimoreans of a century ago. He had emigrated from Scotland as a young man in the early 19th century and built a successful career within his new city’s growing community of wholesale merchants. Spence’s particular specialty was sugar, yet he was also a principal founder of the Mercantile Bank and an early investor in local railroads. During his middle and later years he donated both time and money to various charitable organizations. The magnificent church now known as First & Franklin Presbyterian was to a great extent his creation. Among Spence’s other physical legacies is an over-sized marble statue seen by several generations of Baltimore physicians and patients, the Christus Consolator still on display in the central foyer of the Administration Building at Johns Hopkins Hospital. Spence’s donation was intended to show Christ as “healer” and “comforter.” It had been copied by Theobald Stein of the Royal Academy of [Danish] Arts from an earlier work and “comforter.” It had been copied by Theobald Stein of the Royal Academy of [Danish] Arts from an earlier work.
This honor is awarded to physical therapists who have made distinguished contributions to the profession of physical therapy in any area of clinical practice. Aylon will deliver the lecture next June during the annual conference.

Vasken Dilsizian, MD
professor, department of diagnostic radiology & nuclear medicine; received the 2014 Society of Nuclear Medicine and Molecular Imaging Hermann Blumgart Award, the highest award and honor bestowed by the cardiovascular council of the Society of Nuclear Medicine.

Michelle Giglio, PhD
assistant professor, department of medicine and the institute for genome sciences, was named to The Daily Record’s 2014 list of Maryland’s top 100 women, in recognition of her science educational outreach to regional teachers and students. The Daily Record’s annual list was created to recognize outstanding achievement by women who have demonstrated significant professional accomplishments.

John LaMartina, MD
assistant professor, department of surgery, was named to The Daily Record’s “Influential Marylanders under 40” list for his leadership of the living donor liver transplant program at the medical center.

Wendy Lane, MD, MPH
clinical associate professor, department of pediatrics & public health, was awarded a 2014 commissioner’s award from the U.S. Department of Health and Human Services and its children’s bureau’s office on child abuse and neglect. The award honors one person from each state and U.S. territory for exceptional contributions to the prevention and treatment of child abuse and neglect.

Denise Orwig, PhD
associate professor, department of epidemiology & public health, was named a health sciences fellow by The Gerontological Society of America. It is the nation’s oldest and largest interdisciplinary organization devoted to research, education, and practice in the field of aging, for her outstanding work in the field of gerontology.

Raymond Penny, MD
assistant professor, department of orthopedics, was featured in the article “Medical Mysteries: For Seven Years, Searing Pain. With No Relief” in The Washington Post Health & Science section on May 27.

Keshava Rajagopal, MD
assistant professor, department of surgery, was awarded the Norman E. Shumway Career Development Award. A $160,000 award from the International Society for Heart and Lung Transplantation is granted through a competitive application and is awarded to a single awardee every two years for basic/translational research by an early career faculty member.

Matthew Trudeau, PhD
associate professor, department of physiology, received the Cranefield Award for his paper “Direct Interaction of EAG Domain and Cyclic Nucleotide-Binding Homology Domains Regulate Deactivation Gating in NERU Channels,” published in the Journal of General Physiology in 2013. The Award recognizes an independent young investigator who in the preceding calendar year published an outstanding article in the journal.

Paul Wellin, MD
professor, department of physiology, received the Steven Hebert Award from the American Physiological Society and delivered the Steven Hebert Distinguished Lecture at the experimental biology meeting in April.

Claire Fraser, PhD
professor, department of microbiology & public health and associate director, IGSC; and David Rasko, PhD, associate professor, department of microbiology & immunology, also with IGSC, have been awarded a five-year, $15,214,315 grant from the National Institute of Allergy and Infectious Diseases to create a genome center for infectious diseases, applying genomic techniques to the study of pathogens and their hosts, and to expand understanding of the ways that pathogens can cause harm.

Thomas MacVittie, PhD
professor, department of radiation oncology and his preclinical radiobiology lab team within the division of translational radiation sciences, received a $1.3 million, six-month, National Institute of Allergy and Infectious Diseases-sponsored contract through RxBio. Proprietary drug efficacy will be assessed in a “Randomized, Blinded, Vehicle-Controlled, Assessment of Rx101 Administration on Survival in Rhesus Macaque Experiencing the Acute Gastrointestinal Syndrome Following Exposure to 12Gy Partial-Body Irradiation With 5% Bone Marrow Sparingly (PBMS)” study. MacVittie is the primary investigator on the contract.

Sandra Mooney, PhD
associate professor, department of pediatrics, received a five-year, $1,726,875 grant from the National Institute on Alcohol Abuse and Alcoholism for “Experimental Factors in Fetal Alcohol Spectrum Disorder.”

J. Kathleen Tracy, PhD
associate professor, department of epidemiology & public health, has received a three-year, $4,972,000 contract with the Department of Health and Mental Hygiene for “Research and Evaluation for the Maryland Center of Excellence for Problem Gambling.”

Grants & Contracts*
Profiles in Discovery

In research, triumphs are made of the collective products of those whose vision is driven by the pursuit of discovery. Such is the uncompromising path taken by Maryland scientists, among them Drs. Robert C. Gallo, Myron (Mike) Levine and Bankole Johnson.

There are those who cite the contributions to science of Robert Gallo, MD, as the most important in the last generation. Gallo, the Homer and Martha Gudelsky Distinguished Professor in Medicine, professor of microbiology and immunology, and director of the Institute of Human Virology, reports one of the toughest problems in the history of virology is an AIDS battle still being waged. He believes it’s one that can be won.

“The retrovirus can establish itself as a permanent infection within a few days,” he says. “We need to find a way to block the virus prior to infection. I have come to the conclusion that this is a solvable problem. But we have yet to solve it.” He explains that the antibodies that attack the virus are short-lived. He and his colleagues are working on a way to compensate for their short lifespan. It is typical of the scientist who discovered the HIV virus as the cause of AIDS and the blood test that determines its presence to speak of this remaining struggle without minimizing its severity but with resilience to overcome it.

It is no surprise that Gallo had an early interest in researching blood diseases. The drug program of the National Institutes of Health (NIH) National Cancer Institute which became effective for pediatric leukemia patients was developed after his six-year-old sister lost her life to the disease. Years later in 1979, while working at the NIH, Gallo and his team discovered the first known human retrovirus, one that causes a specific kind of leukemia. His laboratory also discovered the second known retrovirus. After these discoveries, and because of the characteristics of the viruses, the team speculated that it seemed likely the AIDS virus was due to a closely related virus. It appeared to be the call to arms for which Gallo was waiting, and led to the discovery of HIV, the third known retrovirus.

By 1996, his scientific achievements led to his being named by Science magazine as the most cited scientist in the world between 1980 and 1990. In 1996, following 30 years at the NIH, Gallo founded the Institute of Human Virology at Maryland. By that time, he had proved HIV to be the cause of AIDS, developed the blood test to diagnose the disease, discovered the first known retrovirus and the molecule, Interleukin 2, which for the first time enabled the growth of T-cells in the laboratory. Today, Interleukin 2 is being used to treat both cancer and some immune disorders.

After Gallo delivered the James Joyce Lecture in Dublin, Ireland, a member of the audience questioned him about the problems virologists face in confronting the unchecked viruses responsible for millions of deaths annually. Gallo digresses momentarily to mention that the lecture is one that both Winston Churchill and Harry Belafonte had previously addressed. He becomes more serious as he relates that the remark from the audience questioned if science could have “done it better.” Gallo didn’t have to think long before finding a possible answer in the Global Virus Network, a coalition he founded of renowned virologists from more than 20 countries, dedicated to finding the answers to the mysteries behind killer viruses and developing the drugs to prevent or cure them. Gallo today serves as scientific director of the network.

“We need top experts in every kind of virus that infects humans. It is no surprise that Gallo had an early interest in researching blood diseases. The drug program of the National Institutes of Health (NIH) National Cancer Institute which became effective for pediatric leukemia patients was developed after his six-year-old sister lost her life to the disease. Years later in 1979, while working at the NIH, Gallo and his team discovered the first known human retrovirus, one that causes a specific kind of leukemia. His laboratory also discovered the second known retrovirus. After these discoveries, and because of the characteristics of the viruses, the team speculated that it seemed likely the AIDS virus was due to a closely related virus. It appeared to be the call to arms for which Gallo was waiting, and led to the discovery of HIV, the third known retrovirus. By 1996, his scientific achievements led to his being named by Science magazine as the most cited scientist in the world between 1980 and 1990. In 1996, following 30 years at the NIH, Gallo founded the Institute of Human Virology at Maryland. By that time, he had proved HIV to be the cause of AIDS, developed the blood test to diagnose the disease, discovered the first known retrovirus and the molecule, Interleukin 2, which for the first time enabled the growth of T-cells in the laboratory. Today, Interleukin 2 is being used to treat both cancer and some immune disorders. After Gallo delivered the James Joyce Lecture in Dublin, Ireland, a member of the audience questioned him about the problems virologists face in confronting the unchecked viruses responsible for millions of deaths annually. Gallo digresses momentarily to mention that the lecture is one that both Winston Churchill and Harry Belafonte had previously addressed. He becomes more serious as he relates that the remark from the audience questioned if science could have “done it better.” Gallo didn’t have to think long before finding a possible answer in the Global Virus Network, a coalition he founded of renowned virologists from more than 20 countries, dedicated to finding the answers to the mysteries behind killer viruses and developing the drugs to prevent or cure them. Gallo today serves as scientific director of the network.

“We need top experts in every kind of virus that infects humans,” he says, “and they must work collaboratively in training future generations of researchers.” This is the directive of the Global Virus Network and one to which Gallo is wholeheartedly committed to bringing individual talents focused on global issues.

The Institute of Human Virology has, from the start, been funded by the State of Maryland, NIH, Centers for Disease Control and subsequently the Bill and Melinda Gates Foundation, as well as by several additional funding sources. Gallo describes NIH support as underlining the continuing programs of the institute, and Gates as having encouraged them to “go for it.”

Gallo is the recipient of the most esteemed international scientific awards including being a two-time winner of possibly the most important U.S. honor, the Lasker Prize. He tells a story of a meeting between his wife and Mary Lasker, during which Mrs. Lasker asked if there was anything she could do for Gallo. With humor, Mrs. Gallo suggested a third Lasker Prize, which earned a surprised reaction. He wonders, since Gallo is to date, one of only a few recipients of two Laskers.

Success of scientific endeavors comes slowly. Does Gallo ever become impatient? “When I was young, yes” he admits. “But not anymore. With time, you get realistic and settle down.”

The man who has accumulated most of international science’s most prestigious honors, including induction into the National Academy of Science, hesitates only briefly before naming his most cherished personal rewards. “I have enjoyed the scientific and intellectual friendship of so many people,” he says. “I’ve been especially grateful to see many of the young scientists I’ve worked with become highly successful themselves. As for the institute, my hope is that it will forever contribute to our school of medicine campus growth and quality. It will be important for us not only to survive, but to grow and become better and better.”

War Against Disease

After 40 years as CEO, founder and director of the University of Maryland Center for Vaccine Development (CVD), Myron M. Levine, MD, DTH, the Bessie and Simon Grollman Distinguished Professor of Medicine, is about to take on a new challenge as associate dean for global health, vaccinology and infectious diseases.

“It’s a wonderful opportunity that offers flexibility to focus on an array of issues and projects of global importance,” he says. Levine’s career has followed two paths, global health and vaccinology. In the 1960s and early 1970s, global health was generally considered tropical medicine, pursued by the military, the Public Health Service, missionary groups and a few U.S. schools of medicine. These were the only doors open to a young physician whose interest focused on work in underdeveloped countries, and Levine took advantage of these opportunities. His interest became focused on vaccines at a time when vaccinology did not exist as a discipline. However, he undertook a series of projects that helped to formalize it as one. Over the next several decades, under his leadership, the CVD
became an internationally recognized organization in vaccine development, and the implementation and combat of communicable diseases in developing countries. Looking back on the last four decades, Levine recalls some of his achievements—he shuns the word “accomplishments,” preferring “areas of pursuit.”

He cites his participation in the smallpox eradication program in Bangladesh. After a World Health Organization consultant in Pakistan in 1967, he had experienced an earlier smallpox epidemic. He says it was enormously gratifying to him on a personal level to witness the last Asian case of the disease in 1975. “It was a poignant counterpart to my Pakistan experience,” he says.

Levine spent time in Chile as consultant to the ministry of health in the mid-1970s. He designed and supervised four field trials of live oral TY21, a typhoid vaccine that treated 560,000 Chilean school children and led to licensure by the FDA. While serving as a consultant to the Rockefeller Foundation, Levine helped create the Global Alliance for Vaccines and Immunization (GAVI), serving as co-chair of the task force for research and development of the organization which includes multiple UN agencies, the Bill and Melinda Gates Foundation, numerous government and non-government entities, the vaccine industry, developing countries and bilateral donors. Today, GAVI has revolutionized vaccine supply and implementation at the global level. In 2002, Levine reluctantly resigned his post at GAVI in order to focus full attention to the CVD. He acknowledges, however, that GAVI’s recognition of the importance of research is his legacy to the alliance.

The country of Mali is another among many to hold special meaning for the tireless Levine. One of the poorest and least developed countries in the world, it was one without some of the most basic medical needs when the CVD team began working there in the early ’90s. Today, CVD-Mali is a joint venture of the CVD and the Malian Ministry of Health. It has earned a reputation for evaluating vaccine candidates in the African setting, and new vaccines such as routine infant immunizations. Since Mali remains one of the world’s most underdeveloped countries, this program serves as a role model.

Levine reports that, before the CVD’s intervention, facilities in Mali hospitals were such that doctors had to treat blindly. “In the government hospital, where severely ill children were admitted, there was no clinical microbiology laboratory to perform blood or cerebrospinal fluid cultures to identify potentially treatable bacterial agents causing invasive disease,” he says.

He received grants from the Bill and Melinda Gates Foundation and Rockefeller Foundation to turbid and equip a clinical microbiology laboratory and trained staff in a Mali government hospital. Since then, surveillance on invasive bacterial infections provide evidence for introduction of vaccines against common causes of bacterial disease. Levine has fostered the development of a series of basic vaccine projects and has trained vaccinology faculty and fellows while doing so.

“Some of our vaccines are doing well in clinical trials or are preparing to transition to pre-clinical trials now,” he says. Among these, he includes a live cholera vaccine co-developed with James Kaper, professor of microbiology and immunology, a parenteral conjugate vaccine to prevent invasive non-typhoidal salmonellosis, a live oral vaccine to prevent typhoid and paratyphoid fever, and another to prevent non-typhoidal Salmonella gastroenteritis.

Giving some thought to the transitions ahead in his new position, Levine says, “One of my strengths is recognizing the need for change. ‘I’d like to leave the field while I can still kick a goal’.”

Under his leadership, the CVD became an internationally recognized organization in vaccine development, and the implementation and combat of communicable diseases in developing countries.

Researching and Treating Addictive Behavior

Bankole Johnson, Dsc, MD, MPH, nationally acclaimed neuroscientist and the Irving I. and Mina L._triangle.png

Johnson has devoted much of his career to determining how the brain processes signals that ultimately translate to a person’s behavior. “That quest has taken me from pharmacology to neuroscience to molecular genetics to brain imaging research—and the search continues,” says Johnson, whose specialization is the psychopharmacology of medications used to treat addictions.

Johnson graduated from the University of Glasgow in 1982. He trained in psychiatry at the Royal London and Maudsley, and Bethlem Royal Hospitals, received a masters in philosophy degree in neuropsychiatry from the University of London, and conducted doctoral research at Oxford University. He received an MD in biomedical sciences, then a doctor of science in medicine from the University of Glasgow.

“I wanted to understand how the brain actually processes the signals of someone using alcohol or drugs,” he says. “What systems in the brain make people continue to choose decisions which, at some level, they know are not good for them.”

“The research can become complicated,” Johnson says, “because behavioral and biological factors vary for each person.” Currently, his research has led to the study of molecular indications to identify those who can be effectively treated with the most specific treatment for their molecular differences.

“One thing we have learned without exception is that genetics are not destiny,” he says. “People make choices outside of their biology.”

Much of Johnson’s research can be considered the frontier of neuroscience for addictive behavior, focusing on why people become addicted. “We know a lot of basic science about addiction,” he says. “We know less about how we can apply that to treatment.”

The BSRCU at Maryland is an initiative that will bring together some of the most highly qualified neuroscience researchers at the university for the purpose of developing important cures in the treatment of brain disorders. The BSRCU is a bold response to Dean Reece’s ACCEL-Med call to increase interdisciplinary research throughout the school. Johnson says the opportunities for collaboration are exceptional for the program. With a strong background in translational neuroscience, and degrees in both basic and clinical science, Johnson is ideally situated to bridge the gap between the two disciplines.

“Just exciting to realize that Maryland is at the forefront of such an important research initiative,” he says. “Right now, this university is fortunate in having some of the top neuroscientists in the country. We will be first in developing themes of research, and eventually we’ll be working with other institutions in specific collaborative areas.”

Among the disorders studied by consortium participants are psychiatric and mood swing disorders, brain inflammation, brain trauma, traumatic brain injury, and the drugs that produce inflammatory influences in the brain.

Johnson believes the medical school is fortunate to have a computer as smart as a rat’s brain. That holds tremendous potential, he says, but on the brain itself.

“We’re at a fascinating juncture in neuroscience, which involves not only treating disease but also enhancing the brain,” he says.

Johnson continues to treat patients, believing it’s important to do so because it is often the patient who provides the answers to problems. “I think there is no point in acquiring all this knowledge, finding new medicines, and then not being able to use them,” he says. “One of the joys I get is being in the forefront of discovery and then being able to watch someone get well because of it.”

When the nationally regarded Johnson first received an invitation to apply for his position in the department of psychiatry, he put it aside until his wife brought it to his attention, insisting it looked like a possibility he should explore. He followed her advice which led to very happy results.

“During the interview process, I became intrigued by all the fascinating and clever people here,” he says. “When I had my final interview with Dean Reece whom I found to be engaging and so focused on the importance of research, I knew I had to be here.”

Johnson and his wife, Carolina, have two sons, ages four and one. “They are my life bonds,” he says. “They are everything.”

Speaking of his research and his reasons behind his studies of the brain, he explains, “I guess we always want to reach for something we know we cannot fully grasp. We know a good deal about the brain, but there is much more that remains a mystery. We are millions of years away from a computer as smart as a rat’s brain. That holds tremendous fascination for me.”

Much of Johnson’s research can be considered the frontier of neuroscience for addictive behavior, focusing on why people become addicted.
The John Beale Davidge Alliance

The John Beale Davidge Alliance is a permanent recognition society for donors of the University of Maryland School of Medicine. Established in 1978, the Alliance is named in memory of Dr. John Beale Davidge, the medical school’s founder and first dean who in 1812 raised the necessary capital to fund construction of the school’s first medical building. The society includes alumni, friends, and partners of the medical school.

The 1807 Circle

The 1807 Circle is the highest honors level of the Alliance, recognizing donors for gifts of $50,000 and above. The 1807 Circle was established in 1993.

1895
Frank C. Bresler

1897
Isaac Dickson

1904
A. Lee Ellis

1921
Moses Paulson

1926
Max Tubbuck

1930
Maxwell Hurston

1931
Harry S. Shelley

1933
Sam Beanstock

Mark Thumim

Medical Alumni Association Honor Roll 2014

Each year the Medical Alumni Association publishes its honor roll of donors in the fall Medicine Bulletin. Included in the John Beale Davidge Alliance, a permanent recognition society for donors of $10,000 and above, and contributors to the annual fund between July 1, 2013 and June 30, 2014. The Medical Alumni Association of the University of Maryland, Inc., and the University of Maryland School of Medicine gratefully acknowledge your support!
The Silver Circle

Established in 1996, the Silver Circle is an honorary level within the John Beale Davidge Alliance and recognizes donors for gifts of $25,000–$49,999.

1932
Abraham B. & Gertrude Kaplan

1936
William L. Howard

1939
Irvin P. Pollack

1940
Donald Allan, Jr.

1943
Harry Cohen

1945
Joseph W. Boggs

1948
John R. Jenkins

1951
Henry D. Perry

1952
Donald A. Wollf

1955
Frank H. Bullard

1956
Webb S. Herpender

1958
Irvin P. Pollack

1960
Paul D. Meyer

1962
Raymond D. Baur

1964
Salvatore R. & Edith M. Donadio

1965
Shelton B. Beaman

1966
George G. Ballough

1967
Alfred A. Semitrella

1969
Gerard D. & Shirley J. Dobrynicki

1970
R.S. Buddington

1973
Jose M. Torres-Gomez

1974
Luis A. Querel

1975
Anonymous

1978
Andrew F. Fridberg

1980
Donald T. & Carolyn F. Thompson

1981
Roy T. Smoot Jr.

1984
John W. Roye

1986
Nelson T. Mower

1987
Stephen L. Houff

1989
Gary B. Ruppert

1990
Joanna D. Brandt

1993
John D. Lash

1994
Mark K. Laksmanian

1995
William H. Ryan

1996
John R. Mauch

1997
Louis A. Querel

2000
Gary B. Ruppert

2001
Camille Hammond

2002
C. Richard Morrisey

2003
Mark J. LeVine

2004
Robert J. Bauer

2005
Vivian M. Swomley

2006
William H. Ryan

2007
Robert J. Bauer

2008
Mark J. LeVine

2009
Vivian M. Swomley

2010
William H. Ryan

2011
Robert J. Bauer

2012
Vivian M. Swomley

2013
Mark J. LeVine

2014
Vivian M. Swomley

2015
William H. Ryan

2016
Robert J. Bauer

2017
Vivian M. Swomley

2018
William H. Ryan

2019
Robert J. Bauer

2020
Vivian M. Swomley

2021
William H. Ryan

2022
Robert J. Bauer

2023
Vivian M. Swomley

2024
William H. Ryan

2025
Robert J. Bauer

2026
Vivian M. Swomley
The following made gifts to the Medical Alumni Association between July 1, 2013 and June 30, 2014.

1941
Franklin E. Leslie
1949
James T. Welborn
Charles H. Lithgow
1948
John P. White
Sidney J. Venable
Eugene P. Salvati
1947
Sidney G. Clyman
Oliver P. Winslow, Jr.
1946
Leonard Posner
1941
Leonard Bachman
1948
James T. Welborn
Charles H. Lithgow
1949
James T. Welborn
Charles H. Lithgow
1951
William H. Yeager
Milton R. Righetti
Louis F. Reynaud
1954
Benjamin Lee
William S. Kiser
Capt. Robert Kingsbury
Werner E. Kaese
John W. Heisse
Donald A. Wolfel
Alvin A. Stambler
Bella F. Schimmel
Irvin Hyatt
Lee W. Elgin, Jr.
Lawrence D. Egbert
Marvin J. Rombro
Henry D. Perry
David M. Kipnis
Benjamin D. Gordon
1952
William H. Yeager
Milton R. Righetti
Louis F. Reynaud
1953
Mary C. Burchell
John Z. Williams
Clark Lamont Osteen
Herbert M. Marton
Gerald N. Maggid
Sheldon Kress
Albert V. Kanner
Robert N. Headley
J. Henry Hawkins
Giraud V. Foster
Joan Raskin
Leonard J. Morse
Walter E. James
Eugenio E. Benitez
Robert E. Yim
Arthur V. Whittaker
Lawrence F. Awalt
1960
Ramon F. Roig, Jr.
William E. Rhea
Nicholas A. Pace
Morton M. Mower
Jose Oscar Morales
Marvin M. Kirsh
Franklin A. Hanauer
W. F. Falls, Jr.
William N. Cohen
Joseph A. Mead, Jr.
Albert F. Heck
Gilbert B. Cushner
Gaylord Lee Clark
Michael S. Tenner
Erich R. Bethke, Jr.
Theodore Zank
1961
George E. Bush
Oscar H. R. Bing
Anthony B. Bucci
Thomas G. Brinson
Ronald L. Can
Charles G. Giral
Leonard W. Giss
Jay S. Cushen
Gilbert S. Field
Richard G. Holt
Gerald K. Coppolecchio
David L. Stein
Michael A. Olinek
Douglas D. Davison
Michael R. Safar
Richard L. Mullen
Luther E. Gilmore
1962
Conrad A. Elsen
Martin A. Anson
Peter M. Landau
Alvin L. Posner
Howard E. Borch
Charles H. Clason
Robert M. Figer
Thomson D. Mavor
Donald A. Funck
Aron G. Lushan
David G. McPeek
John G. Papadakis
William N. Cohen
Joseph A. Mead, Jr.
Albert F. Heck
Gilbert B. Cushner
Gaylord Lee Clark
Michael S. Tenner
Erich R. Bethke, Jr.
Theodore Zank
1963
Robert A. Buechler
Stephen Barlow
Margaret R. McCloud
Arthur T. Oates
R. James B. Purcell
Donald A. Funck
Aron G. Lushan
David G. McPeek
John G. Papadakis
William N. Cohen
Joseph A. Mead, Jr.
Albert F. Heck
Gilbert B. Cushner
Gaylord Lee Clark
Michael S. Tenner
Erich R. Bethke, Jr.
Theodore Zank
1964
Michael A. Olinek
Douglas D. Davison
Michael R. Safar
Richard L. Mullen
Luther E. Gilmore
1965
Eugene A. Leith
Chaim E. Izzof
Joseph S. Carlin
1966
Michael A. Olinek
Douglas D. Davison
Michael R. Safar
Richard L. Mullen
Luther E. Gilmore
1967
Lawrence F. Awalt
1968
Larry J. Warner
Michael L. Sherman
Edward B. Ostroff
George A. Lapes
John S. Ignatowski
Arthur L. Hughes
James L. Hamby
Joseph S. Gimbel
Robert O. France
Colvin C. Carter
Elizabeth A. Abel
Robert R. Young
William A. Warren

University of Maryland
ONE OF HIS EARLY CHILDHOOD role models was his Baltimore pediatrician. In sixth grade, he read a book about famous physicians throughout history and decided there was no better career. However, it was as a student at Maryland that Phillip L. Pearl, ’84, now the William G. Lennox Professor and Chair of Neurology at Harvard Medical School, and director of the division of epilepsy and clinical neurophysiology at Boston Children’s Hospital, focused on neurology.

“Maryland had a superb neurology department under the leadership of Ken Johnson,” Pearl says. “The opportunity to study in such a wonderful environment was the deciding factor in choosing my specialty.”

Following medical school, Pearl took residencies in pediatrics and neurology at Baylor College of Medicine, Houston, and a fellowship in clinical neurophysiology at Boston Children’s Hospital, Harvard Medical School. He returned to the mid-Atlantic region and ultimately joined the neurology department at Children’s National Medical Center, where he rose to division chief of neurology and professor of neurology, pediatrics and music at George Washington School of Medicine. He also developed research interest in inherited metabolic epilepsies with specific focus on GABA metabolism, a rare disorder encompassing epilepsy, intellectual deficiency, and autism spectrum disorder known as succinic semialdehyde dehydrogenase deficiency.

“It all started with a single patient,” he says. “The boy was 16 and was having terrible seizures. His mother had taken him to several neurologists from Washington to Virginia, but his condition remained undiagnosed.”

Ultimately, Pearl made the diagnosis with colleagues in the laboratory at Children’s National Hospital, which led to a research program with a bench scientist who developed an animal model of the disease, leading to clinical trials that Pearl has led over the past several years.

The project led to special symposia and ultimately a book, Inherited Metabolic Epilepsies, that established this as a sub-specialty within pediatric epilepsy. This was the first of his three edited books and more than 110 manuscripts and 70 chapters in his specialty.

Pearl reflects that his most natural inclination is toward teaching. “I really loved teaching students and residents,” he says. “The interaction with young doctors and the opportunity to pass on what I have learned has been a joy.”

Funded consistently by the NIH and numerous foundations since 1992, Pearl has many honors and awards. During training, he received outstanding teaching awards from Baylor College of Medicine and Harvard Medical School, and in 2005, he received the distinguished teacher award for the outstanding clinical teacher at George Washington University School of Medicine. He has been an invited professor at multiple institutions and invited speaker at national and international conferences throughout the world. Currently, he is the president of the Professors of Child Neurology, the national organization of chair and training program directors in pediatric neurology. Two years ago, Pearl received a call from the head of the search committee at Boston Children’s Hospital, where he had served a fellowship in clinical neurophysiology nearly 25 years before. The renowned hospital that founded the first seizure unit of its kind under the leadership of administrative chair. Asked if he had any suggestions of one who might fill that role, Pearl gave them several names.

“Well, we were hoping you might be interested in returning,” the chair said.

Pearl reports he had not been thinking of making a change. He and his wife had family and long established relationships in the Washington, DC, area.

“It was difficult to leave colleagues,” he says. “It was especially hard to leave hundreds of patients I was following. Some of them are traveling to Boston to consult me.” Nevertheless, it was an opportunity for him to lead the division of epilepsy at Boston Children’s, while continuing his research at the NIH.

“I’m finding that my new position is quite the mixture of administrator, clinician, researcher and educator,” he says. “I especially enjoy the opportunity to mentor junior faculty.”

Pearl was widowed at age 39 and had two children, now 27 and 25. He is now married to Maria Tartaglia Pearl, MD, and has two young daughters, in addition to one grandchild.

Music and Pearl have been lifelong companions. He recalls fondly leading the folks band during his years at the medical school. He even taught in the music department at George Washington University. While at George Washington, he and a colleague formed the Drs. Phil Pearl & Jorge Rodriguez Children’s Hospital Jazz Band. For eight consecutive years they entertained at the hospital’s annual Jazzmatazz Festival benefitting medical care for indigent children at the hospital. Since arriving in Boston in January of this year, he was recruited into the percussion section of the Longwood Symphony Orchestra, an orchestra of physicians and others in the Longwood area, and already has performed in a concert at the famous Jordan Hall of the New England Conservatory of Music.

In some of his international medical presentations, Pearl has lectured on the link between neurology disorders and famous musicians...all the while reviewing their neurological histories, and simultaneously performing their music at the piano.

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An Exercise in Living

Philip Ades ’78

By Rita M. Rooney

Philip Ades’ entry in the 1978 Terra Mariae Medicus reads, “Phil trotted over from the University of Brussels, and while at Maryland, found the time to run several marathons. He also was engaged in exercise research with Dr. Fisher.”

Reading those words years later, Ades can’t help smiling. “It’s what I’m still doing,” he says. As it turned out, the years Ades spent learning the basics of research from Michael Fisher, who was then chief of cardiology at the VA, became essential to his life’s work as a nationally recognized cardiologist and researcher.

“I performed my first study, looking at exercise and echocardiogram results, in Michael Fisher’s lab,” Ades says. “We tested members of a running club, and I learned a great deal that Fisher’s lab,” Ades says. “We tested members of a running club, and I learned a great deal that was new to rehabilitative programs in the 1980s.”

“At the time, it was also considered that a person past 65 should be excluded from cardiac rehabilitation because these patients were more disabled,” Ades reports. As his subsequent research proved, he believed rehabilitation was especially important for these older patients for the very reason that they may be disabled. He says he was not the first to recognize this fact, but he was in the forefront of studies that ultimately led to its acceptance.

His first NIH-funded program, published in the journal Circulation, included muscle studies demonstrating the considerable value of cardiac rehabilitation among older patients. His subsequent studies, also NIH-supported, have included those directed to the mechanisms of muscle wasting in aging men, resistance training for older women with coronary disability, a study defining effects of chronic disease on skeletal muscle contraction in the elderly, another exploring high caloric expenditure exercise in cardiac rehabilitation for overweight patients, and one investigating relationships between personal behaviors and the risk for chronic disease and premature death.

Ades’ 2003 article in the New England Journal of Medicine examined the value of cardiac rehabilitation for the secondary prevention of coronary heart disease, showing statistics for men and women, ages 50 to 69, and 70 to 88 years of age, with and without coronary heart disease. It concluded that deaths within five years of coronary heart disease incurred by patients can be lessened when cardiac rehabilitation is initiated.

In 2008, Ades’ book, The Eating Well, Healthy Heart Cookbook sold more than 30,000 copies nationally, and was nominated for the James Beard Award in the healthy heart category. This time, Ades’ research provided a lay audience with the benefits of a healthy lifestyle by showing readers how they can cut risk of a heart attack by 30 percent by making healthy eating choices.

Ades’ prescription for exercise in cardiac rehabilitation is one he subscribes for a generally healthy lifestyle—and one he and his wife, Deborah, thoroughly enjoy. The parents of three adult children, they engage in cycling, and frequently take biking trips throughout Vermont and Canada. Since they also like to travel, they have managed to combine the two in biking tours through Italy and Ireland, where they enjoy the landscapes up close.

Ades has been included in Best Doctors in America since 2005. He has served as president of the American Association of Cardiovascular and Pulmonary Rehabilitation, and as editor of The Journal of Cardiopulmonary Rehabilitation and Prevention. Among several awards, he has received the clinical investigator award from the NIH Aging Institute, and was the proud recipient of the First Annual Michael Pollack Award for Excellence in Research in Cardiopulmonary Rehabilitation.

Philip Ades graduated from Maryland with membership in the Alpha Omega Alpha Society. “I worked extremely hard,” he recalls. “I considered it such an honor to be at Maryland. I just ran with it. Like most of us, I’ve kept in touch with friends through the years, and it makes me proud to realize, that as good as the medical school was while I was a student, it has become so much better since then.”

Acknowledging that he enjoyed the benefits of travel, learning a new language and making lifelong friends abroad, Ades talks of his enthusiasm in coming back to Maryland.

“I felt then that it was important for me to complete my clinical training in the U.S., and I was right, he says. “They were terrific years, with great teachers. I remember believing it was such a privilege to be there. When I look back at what I’ve been able to do in my life, I know much of it wouldn’t have been possible had I not returned to Maryland.” He adds that, being accepted at Maryland was so important to him that he kept his acceptance letter from then admissions chair, Dr. Gilbert Allen, for many years.

Following a residency in internal medicine at McGill University, Montreal, Ades served a fellowship in cardiology at the University of Colorado where he focused on the impact of exercise in cardiac rehabilitation. He began his medical career as director of the cardiac rehabilitation program at the University of Vermont Medical School, where his research and clinical practice continue as professor of medicine, director of cardiac rehabilitation and preventative cardiology. His training as well as his personal inclinations led him to establish a program emphasizing the value of exercise for cardiac patients of different ages and with various medical histories. While that may not seem extraordinary today, the concept of individualizing care based upon the patient profile was new to rehabilitative programs in the 1980s.

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Support for Genetics Research in Parkinson's Disease
Getting Personal

EUGENIA BRIN knows first-hand the challenges of Parkinson's disease. She is a Parkinson's patient who was treated at the University of Maryland Parkinson's Disease Center. She generously pledged $1 million this year to fund a new Parkinson's Disease Genetics Research Study at Maryland. The donation will support research conducted by Lisa Shulman, MD, The Eugenia Brin Professor in Parkinson's Disease and Movement Disorders in the department of neurology.

"Parkinson's has touched me and my family very personally," says Brin. "I made this gift because progress in understanding the causes of Parkinson's through genetic research is very promising, and Dr. Shulman and the movement disorder center have proven the quality of their research."

The research project will investigate genes that play a role in determining individual differences in Parkinson's disease—why some people with Parkinson's have more tremor than others and why some experience a somewhat more rapid or slower disease progression.

"We now understand that genetics plays an important role in Parkinson's disease," explains Shulman. "The genetics of the Brin family will enable us to discover the connections between genes and disease profiles in our large patient database. In this way, our work will advance our understanding of the mechanism of Parkinson's disease."

Shulman is the first recipient of the Eugenia Brin Professorship in Parkinson's Disease and Movement Disorders Center. Established in 2008, the professorship is the result of a generous gift from Brin, her husband Michael Brin, PhD, and their son, Google co-founder, Sergey Brin.

The Parkinson's Disease and Movement Disorders Center is partnering with Baylor College of Medicine ing with Baylor College of Medicine and the department of neurology. The research project will investigate genes that play a role in determining individual differences in Parkinson's disease—why some people with Parkinson's have more tremor than others and why some experience a somewhat more rapid or slower disease progression.

"This gift will enable us to develop a genetics data library that we will use for years to come to answer our many scientific questions about Parkinson's disease," says Shulman.

Brin adds: "I hope good genetic information comes out of this study that helps delineate different forms of Parkinson's and gives us more tools for combating the disease."

For information about making a gift to support research, please contact the office of development at 410.706.8503.
Class of 2018

One hundred fifty seven students comprising the class of 2018 reports to campus for orientation August 14. They are brighter and more diverse than ever, coming from 72 different colleges and universities and with ages ranging from 20 to 32. The average grade point average was 3.79 and MCAT score of 32.

At a Glance

<table>
<thead>
<tr>
<th>Program</th>
<th>Total Applications</th>
<th>Applicants Interviewed</th>
<th>Acceptances Offered</th>
<th>Class Size</th>
<th>Percentage Male/Female</th>
<th>Percentage Maryland Residents</th>
<th>Percentage Underrepresented in Medicine</th>
<th>Average Science GPA</th>
<th>Overall GPA</th>
<th>Average MCAT Score</th>
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<tr>
<td>MD/PhD Program</td>
<td>4,989</td>
<td>631</td>
<td>336</td>
<td>157</td>
<td>46%/54%</td>
<td>76%</td>
<td>9%</td>
<td>3.76</td>
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<td>MD/Master’s Program</td>
<td>211</td>
<td>46</td>
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Members of the SAC include:

- Miranda Gordon-Zigel, ’16
- Shilpa Ratan, ’16
- Andrea Dobson, ’15
- Jackline Lasola, ’18
- Kerry Campbell, ’17
- Charlotte Daub, ’17
- Sami Fracois, ’18
- SteveBaldwin, ’15
- Brenda Fassnacht, ’17
- Stefano Muscatelli, ’18
- Tara Barry, ’16
- Anaíza Sade, ’17
- Daniel Kim, ’15
- and Chris Petrucci, ’18

Missing are Ariana Khaladj-Ghom, ’15, and Crystal Bae, ’16.

Four Selected to MAA Student Advisory Council

Among the 157 new students, four were picked to serve on the MAA Student Advisory Council (SAC). Sara Francomacaro, Jackline Lasola, Stefano Muscatelli and Chris Petrucci joined 11 continuing members to help organize MAA-sponsored activities and serve as a communications link between their respective classes and the association. This year’s president is Ariana Khaladj-Ghom, ’15.

A look back at America’s fifth oldest medical school and its illustrious alumni.
1930s:

1938: Joseph M. George Jr. of Livonia reports that, at age 101, he is doing well.

1940s:

1947: Eugene P. Salvati of Martinsville, N.J., reports that, at age 92, he hopes to capture his boat at the summer home in Cape Cod. He has been retired for 11 years. 1948: John R. Shell of Madison, Miss., is enjoying independent living in a retirement village. He reports that when his medical student granddaughter visits, his wife complains that they spend too much time talking medicine.

1950s:

1950: Harry Bleeccker of San Pedro, Calif., hopes to attend the 65th reunion next spring. He continues to enjoy part-time work with the remainder of his day on the golf course or fishing.

1952: Miriam S. Daly of Albion, Mich., reports that after three generations of women physicians in her family, he has a granddaughter attending nursing school.

1953: Evangeline M. Poling of Philadelphia, Pa., will be out of the 1954 reunion plans to attend the 65th reunion in spring.


1956: Robert E. Yin of Lutherville, Md., reports that he continues receiving royalties from his book, handhelds in medicine.

1957: Richard L. Plumb of Houston is retired after 50 years of practice but continues part-time, working 13 hours per week in the pediatrics department at the University of Texas.

1958: Charles Sanisol of Millard, Mich., extends greetings and best wishes to classmates. He continues working in his vascular lab, with MidMichigan Medical Center, is now an affiliate of the University of Michigan Medical Center, where Sanisol began his career after medical school. 1959: Richard C. Reba of Frederic, Md., is adjusting slowly to his June retirement after a career holding faculty positions at Johns Hopkins, George Washington University, University of Chicago, Georgetown University, and for the last seven years at NIH. He looks forward to the next reunion.

1960s:

1960: Michael J. Fennell of New York City is professor of dermatology at New York Medical College, attending dermatologist at Metropolitan Hospital, and medical director for Advanced Dermatology Associates.

1961: Jerome Ross and wife Ruth of Baltimore report: grandson Ethan sang in the chorus this summer in “Carmen” at the Santa Fe Opera. 1962: Morton E. Smith of Gliotta, Md., presented the George N. Wise Memorial Lecture at Einstein College of Medicine/Montefiore Hospital in New York in June.

1963: John R. Stram of Reye Beach, N.H., received a lifetime achievement award from Boston University School of Medicine. 1964: Thomas G. Briston of Bristol, R.I., reports that he has been retired for 20 years.

1965: Leonard Glass of Ranchita Santa Fe, Calif., reports that he is remaining a practicing physicians of any specialty online for adult outpatient general medicine in an attempt to help alleviate the growing shortage of 33,000 family doctors.

1966: Donald L. Cain of Anchorage, Alaska, sadly reports that wife Antje passed away on March 16, 1962. Raymond E. Backer of Baltimore reports that there are more than 800 U.S. hospitals with chest pain centers in the emergency department.

1967: His concept continues to spread as it is projected that there will be 1500 by the end of 2015. 1968: William B. Wagge Jr. of Pomotom, Md., is acting chair of the department of biochemistry and molecular medicine and professor of medicine at the George Washington School of Medicine.

1969: Robert Giangrande of Grasselli, Md., recently moved out of his home in Baltimore City and now divides his time between Bradenton, Fla., and the eastern shore.

1970: Michael Hayes of Baltimore reports that he has turned his work full time.

1971: William B. Howard of Tippa, Md., reports that he has returned to the folding, left MedStar and now working in the department of pediatrics in sports medicine at Maryland.

1972: Eric D. Schmitten of Santa Monica, Calif., attended residency at Dartmouth-Hitchcock Medical Center and University of Vermont College of Medicine.

1973: John C. Hummer of Pasadena, Calif., reports that after three generations of Rye Beach, Georges County.

1974: Stuart L. Fine of Carbondale, Colo., remains actively involved in research and education in ophthalmology four years after retiring as chair at the University of Pennsylvania. He maintains a part-time appointment as clinical professor at the University of Colorado. He and wife Elie recently purchased a condominium in Winston-Salem, N.C., where daughter Karen and family reside. He is happy to report that everything is going well, and Fine looks forward to the 50th reunion in two years.

1975: Louis Grenzer of Baltimore is the clinical dean at Spartan Health Sciences University in St. Louis, Mo. He has six children and 15 grandchildren.

1976: John W. Garrett is fully retired, and he and wife Dolores are enjoying life in Lancaster, Pa., and Lewes, Del. They have five children and 14 grandchildren, with daughter Jennifer and granddaughter, David, Soap the Bald and the Beautiful, and David R. Nelson is author of a Manual of Orthopaedic Terminology. Ethel Edinos, recently retired, of Michigan. Richard A. Baun of Richard A. Baun and wife Kathleen of Baltimore report the birth of their first grandchild. Maia Hanna Lenz, born in May 19, and named after Mr. Baun, age 18, and named after town of Badenrath, Fla., and the eastern shore.

1977: Michael Hayes of Baltimore reports that he has returned to the folding, left MedStar and now working in the department of pediatrics in sports medicine at Maryland. 1976: Eric D. Schmitten of Santa Monica, Calif., attended residency at Dartmouth-Hitchcock Medical Center and University of Vermont College of Medicine.

1978: Michael J. Fennell of New York City is professor of dermatology at New York Medical College, attending dermatologist at Metropolitan Hospital, and medical director for Advanced Dermatology Associates.

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1980: Joseph M. George Jr. of Livonia reports that, at age 101, he is doing well.

1981: John R. Shell of Madison, Miss., is enjoying independent living in a retirement village. He reports that when his medical student granddaughter visits, his wife complains that they spend too much time talking medicine.

1982: Miriam S. Daly of Albion, Mich., reports that after three generations of women physicians in her family, he has a granddaughter attending nursing school.

1983: Evangeline M. Poling of Philadelphia, Pa., will be out of the 1984 reunion plans to attend the 65th reunion in spring.


1986: Richard L. Plumb of Houston is retired after 50 years of practice but continues part-time, working 13 hours per week in the pediatrics department at the University of Texas.

1987: Charles Sanisol of Millard, Mich., extends greetings and best wishes to classmates. He continues working in his vascular lab, with MidMichigan Medical Center, is now an affiliate of the University of Michigan Medical Center, where Sanisol began his career after medical school. 1988: Richard C. Reba of Frederic, Md., is adjusting slowly to his June retirement after a career holding faculty positions at Johns Hopkins, George Washington University, University of Chicago, Georgetown University, and for the last seven years at NIH. He looks forward to the next reunion.

1989:

1989: Joseph M. George Jr. of Livonia reports that, at age 101, he is doing well.

1990: Eugene P. Salvati of Martinsville, N.J., reports that, at age 92, he hopes to capture his boat at the summer home in Cape Cod. He has been retired for 11 years. 1991: John R. Shell of Madison, Miss., is enjoying independent living in a retirement village. He reports that when his medical student granddaughter visits, his wife complains that they spend too much time talking medicine.

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Mission: The Medical Alumni Association of the University of Maryland, Inc., in continuous operation since 1875, is an independent charitable organization dedicated to supporting the University of Maryland School of Medicine and David Geffen School of Medicine at Baltimore.

Board of Directors: The MAA is governed by a board consisting of five officers and nine board members. Each year more than 100 alumni participate on its standing committees and special anniversary class reunion committees.

Membership: Annual dues are $89 and are complimentary the first four years after graduation or through the completion of their residency. Dues are waived for members reaching their 50th graduation anniversary or have turned 70 years of age. Members receive the quarterly alumni magazine, have access to on-line first- and second-year classroom lectures, can obtain contact information of classmates, and are invited to social events including the annual Reunion. Revenues support scholarships for two full-time and five part-time employees, as well as general office expenses to maintain the magazine, stage social events, administer a revolving student loan fund, and oversee conservation of DavidGeffen Hall and maintain its museum.

Annual Fund: The association administers the annual fund for the medical school. Gift revenues support student loans and scholarships, lectureships, professorships, capital projects—including DavidGeffen Hall conservation—plus direct support to departments for special projects and unrestricted support to the dean.

The Morton M. Krieger, MD, Medical Alumni Center is located on the second floor of DavidGeffen Hall. 522 W. Lombard Street, Baltimore, MD, 21201-1695, telephone: 410-706-7494, fax: 410-706-3658, website: www.medicinalumni.org, and email: alumni@medschool.umaryland.edu.
family. Daughter Tala is finishing her junior year abroad in Africa, while Aygun and husband Cengiz keep putting off retirement. Christine K. Galan of Saint Michaels, Md., continues working in the ED on the eastern shore. Son Peter is in his second year of medical school at the University of Maryland. Daughter Julia has a swim-related business. Galan and husband Mihai are enjoying travel and swim competitions together.

Anne D. Lane of Baltimore reports that daughter Eileen is getting her MPH at Johns Hopkins, and her youngest is a freshman at College Park. Margaret McCabe of San Diego is pursing a master’s degree at the Franciscan School of Theology affiliated with the University of San Diego. She continues seeing patients part-time at the USP Student Health Center, as well as teaching at USCD and USOS.

Timothy P. McLaughlin and Marian Kellner of Farmington, Conn., announce the birth of their first grandchild, Elinor Elizabeth Braun, on July 29. Elinor is the daughter of Elizabeth Lashick and Julian Braun of Phoenix, Md., is a busy seventh grader at Boys' Latin.

Les B. Forgosh of Towson, Md., reports that son Michael is managing health data in the quality control department for the University of Maryland Medical System after receiving his MBA from the University of Maryland. 1981: Orly Korat of Boynton Beach, Fla., reports that her son is a second-year surgery resident and is married to a second-year ophthalmology resident. Korat adds that her stepson recently completed his PhD in laser physics.

Mark Lakshmanan and wife Sheila of Zionsville, Ind., report that youngest daughter Anastasia recently graduated from Indiana University with dual majors in biology (with honors) and mathematics. 1990s: Linda J. Shaw of Towson, Md., reports that her son completed his two years at SLU/Cardinal Glennon Children's Medical Center as a child abuse pediatrician. 1982: Wayne L. Barber of Oeings Mills, Md., reports that son Gregory is a first-year medical student at Saint Louis University. 1991: Jay Darrell of Portsmouth, Ohio, is a senior medical director of cardiac thoracic surgery at Southern Ohio Medical Center.

Darryl B. Korland of Princeton, N.J., has recertified in family medicine and certified with his county Community Emergency Response Team (CERT) to assist first responders and perform other functions with the office of emergency management. He encourages classmates to participate with CERT or the Medical Reserve Corps.

Charles T. Lucey II of Killeen, Tex., reports an abundance of rain and fewer 100-degree days have the pecans growing well in central Texas. 1983: Peter G. Brassard of Block Island, R.I., recently completed the 100-Mile Wilderness in Maine. He tips his hat to classmate Stan Bennett for setting the bar so much higher.

Robert C. Greenwell Jr. of Phoenix, Md., is looking forward to the spring graduation of son Patrick and his fiancé Anna Khalady Qaim from medical school at Maryland. 1986: Jeffrey R. Abrams of Warren, Va., is medical director of the Faulkner Rehabilitation Center, a hospitalist with Virginia Emergency Medicine Associates, and physician consultant with Medfich after retiring from Culpeper Regional Hospital and Bluemont Nephrology.

Lee Kleiman and wife, Laura, ’85, of Severna Park, Md., report that they recently biked across Austria with children Hannah, Sacha and Elana Rose. 1990s: Lee B. Forgosh of St. Paul, Minn., reports that daughter Samantha is 10 years old. 1990: Nadine B. Seemer is practicing palliative medicine at the University of Texas Southwestern.

Korat adds that her stepson recently completed his rheumatology fellowship at Duke University Medical Center. 2001: Thomas Cusack on September 20 at the Baltimore Basilica and both are now completing residences in Phoenix.

2010s 2013: Lauren Drake married college sweetheart Thomas Cusack on September 20 at the Baltimore Basilica and both are now completing residences in Phoenix.

2013: Lauren Drake married college sweetheart Thomas Cusack on September 20 at the Baltimore Basilica and both are now completing residences in Phoenix.
Leonard Posner, '40
Ophthalmology
Boca Raton, Fla.
May 6, 2014
Dr. Posner practiced ophthalmology in Brooklyn and later in a part-time capacity in Pittsfield, Mass. He enjoyed playing golf and was a season ticket holder for the New York Rangers and Brooklyn Dodgers. Survivors include wife Shirley, two daughters, five grandchildren and 10 great-grandchildren.

David R. Will, '43D
General Surgery
Easton, Md.
June 10, 2014
Dr. Will interned at Henry Ford Hospital in Detroit before serving 26 months in the U.S. military during World War II. Afterwards he completed residency training at Maryland where he served as chief resident in his final year. Will relocated to Charleston, West Virginia where he practiced general surgery and was an attending at Charleston Area Medical Center and Kanawha Valley Memorial Hospital until retirement in 1984. He was preceded in death by first wife Terry and is survived by wife Evelyn, two children, three step-children, two grandchildren, five step-grandchildren, and five great-grandchildren.

Charles E. Shaw, '44
Internal Medicine
Tweed, Md.
August 81, 2014
Dr. Shaw enlisted in the U.S. Navy while in medical school, and upon graduation was stationed with occupation forces in Japan and China. He would later serve in the Korean War aboard the U.S.S. Northampton. Shaw began his internal medicine private practice in 1949, specializing in diabetes. Early on he held privileges at Maryland and Maryland General Hospital where he served as chief of staff. Shaw later had affiliations with GBMC and St. Joseph’s Medical Center. He retired at age 70 after 40 years of practice, and in retirement worked for the Social Security Administration reviewing disability cases. He retired for good at age 85. Shaw was a supporter of the Baltimore Opera Company and enjoyed photography. He was preceded in death by wife Elva and is survived by two sons, two granddaughters, and five great-grandchildren.

Joseph C. D’Antonio, '46
Internal & Nuclear Medicine
Wilton, Ct.
June 28, 2014
Church Home and Hospital was the site of Dr. D’Antonio’s training after graduation, and he later received fellowship training at Johns Hopkins University. He served as director of nuclear medicine at St. Joseph’s Hospital and was a senior staff member at Church Hospital. Franklin Square Hospital, GBMC and Maryland General Hospital.

Joseph H. Mintzer, '46
Pediatrics
Saratoga Springs, N.Y.
May 31, 2014
Upon graduation, Dr. Mintzer was commissioned into the U.S. Army as a medical officer and served in occupied Nagoya, Japan, from 1947 to 1949. After fulfilling his military commitment, he received residency training at Queens General Hospital before moving to Saratoga Springs and becoming the county’s first board-certified pediatrician. At Saratoga Hospital, Mintzer created the department of pediatrics and served as president of its medical staff and later its board of directors. Hobbies included golf, fishing and playing cards. Survivors include wife Joan, one son, one daughter, nine grandchildren and seven great-grandchildren. He was preceded in death by daughter Lisa.

Charles H. Lithgow, '48
General Surgery
Easton, Md.
June 5, 2014
Dr. Lithgow joined the U.S. Public Health Service upon graduation, serving in Baltimore and Detroit. He stayed with the service for 21 years, rising to the rank of captain and being named chairman of the department of surgery at USPHS/Presidio in San Francisco. Upon discharge, Lithgow joined St. Mary’s Hospital as acting director of the surgical residency program and...
**Hugh V. Fircr, ’53**  
Pediatric Surgery  
Cincinnati, Ohio  
September 24, 2012

Dr. Fircr retired in 1997 as chairman of the department of surgery for the University of Illinois in Pritz. He served in similar positions at the Cleveland Clinic and Cook County Hospital in Chicago, and was professor of surgery and pediatrics at Texas Tech University. During his career, Fircr also worked at the Red Cross War Memorial Children’s Hospital in Capetown, South Africa. He was preceded in death by wife Betty and is survived by one daughter, two sons, and six grandchildren.

**Thomas F. Herbert, ’53**  
Family Practice  
St. Michaels, Md.  
July 20, 2014

Upon graduation, Dr. Herbert received training at St. Agnes Hospital. From 1955 to 1975, he served in the U.S. Air Force with an assignment in Moscow as physician to the American Embassy. Upon discharge, Herbert returned to Ellicott City and practiced out of the home where he was raised and where his father practiced medi- cine before him. Appointments included Howard County assistant medical examiner and chief deputy medical examiner. He served on the staff at St. Agnes hospital and was president of the Howard County Medical Society. In 1989, Herbert’s practice merged with Primary Care Specialists, and two years later he retired to St. Michaels. Herbert enjoyed singing and playing piano, gardening and electric trains. Survivors include wife Kathlene and one daughter.

**Marvin A. Feldstein, ’57**  
Endocrinology  
Monticello, Ohio  
April 4, 2014

Dr. Feldstein arrived in Cleveland in 1960, working at the Cleveland Clinic before starting his own practice in Mentor with which he maintained for 50 years. He is survived by wife Susan.

**Paul A. Mullan, ’57**  
Pediatrics  
Baltimore  
September 14, 2014

Dr. Mullan completed a rotating internship at Jersey City Medical Center and returned to Baltimore for residency training at Mercy Medical Center. He entered private practice in 1960 and served as an assistant professor of pediatrics at both Maryland and Johns Hopkins. Mullan was chief of pediatrics at St. Joseph Medical Center and also served on the staffs at Mercy Medical Center, GBMC, and Maryland General Hospital. Commissioned into the U.S. Air Force Medical Corps, Mullan was commanding officer of the 22nd Medical Service Squadron at Andrews Air Force Base in Washington, D.C., from 1964 to 1967. He was discharged with the rank of colonel in 1969. In 1977 a boy was found wrapped in a blanket near a Towsen garden apartment and brought to St. Joseph’s where he was cared for by Mullan. A few months later Mullan and his wife adopted the boy. Mullan served on the MNA Board of Directors and was a volunteer counselor during its annual phononoth in Davidge Hall. He enjoyed boating and travel and was a commis- sant at the Cathedral of Mary Our Queen. Mullan was preceded in death by his son and is survived by wife Carol.

**Richard J. Erickson, ’58**  
Family Practice  
Knoxville, Tenn.  
March 28, 2014

Dr. Erickson interned in Buffalo, N.Y., and trained in family practice in Knoxville. Prior to opening a private practice there, he served for two years in the U.S. Army. Erickson practiced with Southern Medical Group at Fort Sanders Regional Medical from 1964 until retirement in 2000, where he served on its ethics committee. In 1993, he was elected president of the Tennessee Academy of Family Physicians. An avid run- ner, Erickson competed in more than 30 consecutive Knoxville Road race. He was preceded in death by two daughters and is survived by wife Lubby, one son and one granddaughter.

**Robert A. Stram, ’66**  
Radiology  
Dresden, Maine  
June 12, 2012

Dr. Stram’s training in radiology at the University of Vermont in Burlington was interrupted by military service, as he served as a naval flight surgeon in Fallon, Nev. After training he settled in Dresden and for 25 years was a partner at Kennebec Valley Radiology and chief of radiology at Augusta General Hospital. He was a past president of the Maine Radiological Society. Stram enjoyed outdoor activities and played both the guitar and banjo. Survivors include wife Karen, one son, four grandchildren, as well as brother John R. Stram.

**Ernest G. Szczepheny, Jr., ’74**  
Radiology  
Missoula, Mont.  
March 4, 2014

Dr. Szczepheny was born in Salzburg, Austria, to Count Emo and Countess Gabriella Szczepheny and immigrated to Washington, D.C., as a child with his fam- ily. Upon graduation from Maryland, he interred at Washington Hospital Center and received residency training in radiol- ogy at Georgetown University Hospital. Szczepheny practiced in Indian Head, Md., before moving to Tulsa, Oklahoma, where he received residency and fellowship train- ing in diagnostic radiology at Oral Roberts University. He ran a radiological practice in Mangum from 1987 to 1992, and then, until retirement, served as physician at the Gallup Indian Medical Center. He loved animals and enjoyed travel, speaking three languages and also played bridge.

**Mark E. Bohlam, ’76**  
Radiology  
Millersville, Md.  
July 11, 2014

Maryland General Hospital was the site of Dr. Bohlman’s internship, and he returned to Maryland for his radiology residency. In 1980, he began working at the old Francis Scott Key Medical Center which later became Johns Hopkins Bayview Medical Center. For the last 13 years Bohlam served as chairman of the department there and also held the title of associate professor of radiology at Johns Hopkins School of Medicine. He was widely published in the areas of musculoskeletal radiology and interventional procedures involving CT scanning and MRI. Bohlam enjoyed fishing and dining his restored 1960 Corvette. Survivors include wife Mary Ellen DeGall-Dihines, two sons and two stepchildren. His marriage to Barbara Reuer ended in divorce.

**Faculty**

Rita Sloan Berndt, PhD  
Neurology  
Baltimore  
June 17, 2014

Dr. Berndt was a professor of neurology at Maryland for 25 years beginning in the early 1980s. Born and raised in Baltimore, Berndt pursued a bachelor’s degree at the University of Maryland Baltimore County after marrying and giv- ing birth to a son in 1968. Her bachelor’s degree was completed in 1971, followed by
Lisa Walker, the Medical Alumni Association’s director of operations since 1994, died on September 3, 2014. Walker earned a bachelor of science in management science from Coppin State College and later an MBA from the University of Baltimore. Prior to joining the MAA, she worked for the Social Security Administration, Intelligent Resources International, Inc., and Integrated Microcomputer Systems, Inc., in Rockville. She was a familiar face at the registration table for all alumni and student activities.

On-line Classroom Lectures for Alumni

Dues-paying members of the Medical Alumni Association are invited to view On-line Classroom Lectures. These include many of the first- and second-year presentations available to students as taught from Taylor Lecture Hall in the Bressler Laboratory, as well as recordings of grand rounds. In addition, the MAA Annual Historical Clinicopathological Conferences and a few historical lectures by Theodore E. Woodward, ’38 are available for viewing. Enrich your education by visiting the MAA website and registering today: www.medicalalumni.org.

Do you have a recorded lecture to add to our inventory for viewing by alumni? If so, contact Larry Pitrof at 410.706.7454 or larry@medalumni.umaryland.edu
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