



UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

FROM VISION *to* VENTURE


2014 STATE OF THE
SCHOOL ADDRESS

DEAR COLLEAGUES

I am pleased to provide you
with a copy of my **State of the
School Address**. Some highlights:

- Secured research grants and contracts worth \$400.2M, up 8%. Clinical revenue was \$278.7M, up 8.4%
- Philanthropic gifts to our "Transforming Medicine Beyond Imagination" campaign reached \$404M, 81% toward our goal of \$500M
- Attracted global media attention for the role our Center for Vaccine Development played in launching a major Ebola vaccine trial

In the relentless pursuit of excellence,
I am sincerely yours,


E. Albert Reece,
MD, PhD, MBA

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OUR MISSION

The University of Maryland School of Medicine is dedicated to providing excellence in biomedical education, basic and clinical research, quality patient care and service to improve the health of the citizens of Maryland and beyond. The School is committed to the education and training of medical, MD/PhD, graduate, physical therapy and medical and research technology students. The School will recruit and develop faculty to serve as exemplary role models for our students.

INTRODUCTION

Last year, in the closing remarks of my State of the School Address, I indicated that a tide of uncertainty was anticipated. In reality, there were rapid and radical changes in science, public policy and the economy that reshaped the healthcare landscape in ways far more comprehensive and encompassing than anyone expected.

We chose not to focus on the obstacles. Rather, we decided to accelerate our pace and face the challenges “head on.” This State of the School report highlights the results of our bold and strategic approach.

It has been said that “where there is no vision, there is no progress.” It has also been said that “vision without venture is useless.” It therefore is fitting that our theme for this year is “**From Vision to Venture.**”

In 2014, two eminent scientists at the School of Medicine celebrated **major milestones** in their career ventures. They are sources of pride and inspiration to the School of Medicine and to the entire University of Maryland, Baltimore community.

It has been 30 years since Robert Gallo, MD, co-discovered HIV as the cause of AIDS. This milestone was celebrated at an international symposium and gala in Baltimore. Dr. Gallo and his team are continuing their quest to find cures for HIV/AIDS — either a functional cure or a cure of eradication. The impact of his work has been enormous, touching the lives of millions across the globe.

Myron Levine, MD, DTPH, commemorated 40 years since co-founding the Center for Vaccine Development (CVD), which he directed from its founding until December 2014. This milestone was also celebrated at an international symposium and a dinner titled “The Levine Festschrift.” Dr. Levine, along with the CVD team and its vast network of collaborators, have introduced life-saving vaccines to communities around the world. Currently, **he is leading a major Ebola vaccine trial** at the Center for Vaccine Development in Mali.

Dr. Levine will continue his global reach in his new SOM role as **Associate Dean for Global Health, Vaccinology and Infectious Disease** on the Dean’s Cabinet.

Last year, Robert Chrencik, MBA, CPA, President and CEO of the University of Maryland Medical System, and I introduced our **Shared Vision 2020 for University of Maryland Medicine**.

This vision aimed to help us utilize our highest potential to set and achieve benchmarks related to the pace and scope of discovery and innovation, and quality of patient care across the Medical System and the School of Medicine. **This shared vision was the roadmap that guided our ambitious pursuits over the last year and our strategic plans for the coming five years.**

I am delighted to report that our bold and strategic vision is coming steadily into focus. Throughout this report, you will see numerous examples that highlight our remarkable progress. We are not content, however, to rest on our laurels. We will continue to advance relentlessly, always with a goal of transforming medicine beyond imagination.

In the relentless pursuit of excellence,
I am sincerely yours,

E. Albert Reece, MD, PhD, MBA

*Vice President for Medical Affairs, University of Maryland
John Z. and Akiko K. Bowers Distinguished Professor and
Dean, University of Maryland School of Medicine*

**From Vision to Venture: Research
Unraveling the Mysteries of Modern Medicine**




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ONLINE VIDEO

View the State of the School Address at
www.medschool.umaryland.edu/SOTS





7,178 TOTAL

WORKFORCE

The School of Medicine's total workforce is 7,178 persons and includes nearly 3,000 full-time, part-time and adjunct faculty, and more than 2,900 staff members.

Of our 1,369 full-time faculty members, 38.4 percent are women and 8.69 percent are under-represented minorities. Our retention rate is 90.58 percent, reflecting our continued commitment to providing a positive and productive work environment. Our workforce is also comprised of 589 clinical and research fellows and 689 residents.

FIG. 1
TOTAL WORKFORCE

	2013	2014	
Full-Time Faculty	1,370	1,369	} 2,969
Part-Time Faculty	299	288	
Adjunct Faculty	1,236	1,312	
Clinical Fellows*	227	204	} 1,278
Research Fellows	347	385	
Residents*	637	689	
Staff (administrative, research and clinical — including University of Maryland Faculty Physicians, Inc.)	2,936	2,931	
TOTAL INDIVIDUALS	7,052	7,178	

*University of Maryland Medical Center pays salaries of most

FIG. 2
BREAKDOWN OF FULL-TIME FACULTY

	2013	2014
Total Full-Time Faculty	1,370	1,369
Women	525 (38.3%)	526 (38.4%)
Under-represented Minorities	110 (8%)	114 (8.69%)
90.58% RETENTION RATE OF FULL-TIME FACULTY		

RESEARCH

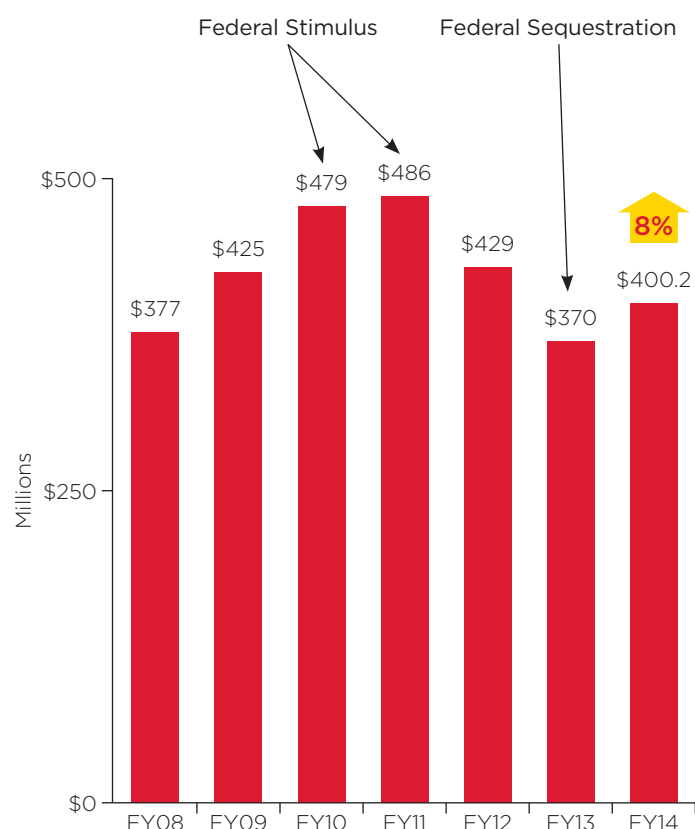
There **couldn't be a better time** than now for us to become engaged in the most intricate science. Faculty members have been working diligently in pursuit of answers to **"Big Science"** questions that require broad collaboration across disciplines.

Accelerating Innovation and Discovery in Medicine (ACCEL-Med), a major initiative of the University of Maryland School of Medicine, was launched on November 22, 2013.

The many different components of ACCEL-Med will work together to **increase the pace and scope of clinical and basic science research and will dramatically impact and improve human health and well being.**

The initiative kicked off with the first SOM Festival of Science, a full-day symposium highlighting the research being done by our faculty. **Francis Collins, MD, PhD [1]**, Director of the National Institutes of Health, delivered the inaugural keynote address. The day's topics included research in **genomic medicine, neuropharmacology, oncopharmacology, stem cell treatments, and advances in transplant science.** These presentations were evaluated by the School of Medicine's Scientific Advisory Council (SAC), composed of five pre-eminent biomedical researchers and physician-scientists.

FIG. 3
GROWTH OF RESEARCH GRANTS & CONTRACTS (FY08-FY14)



[from left] Snyderman, Colwell, Greider, Reece, Needleman, and Zerhouni

SCIENTIFIC ADVISORY COUNCIL

RITA COLWELL, PHD

Distinguished Professor at the University of Maryland, College Park and the Johns Hopkins University Bloomberg School of Public Health; Senior Advisor and Chairman Emeritus, Canon US Life Sciences, Inc.; President and Chairman of CosmosID, Inc.

CAROL GREIDER, PHD

Daniel Nathans Professor and Director, Department of Molecular Biology and Genetics, Institute of Basic Biomedical Sciences, Johns Hopkins University School of Medicine; Awarded 2009 Nobel Prize for Physiology or Medicine

PHILIP NEEDLEMAN, PHD

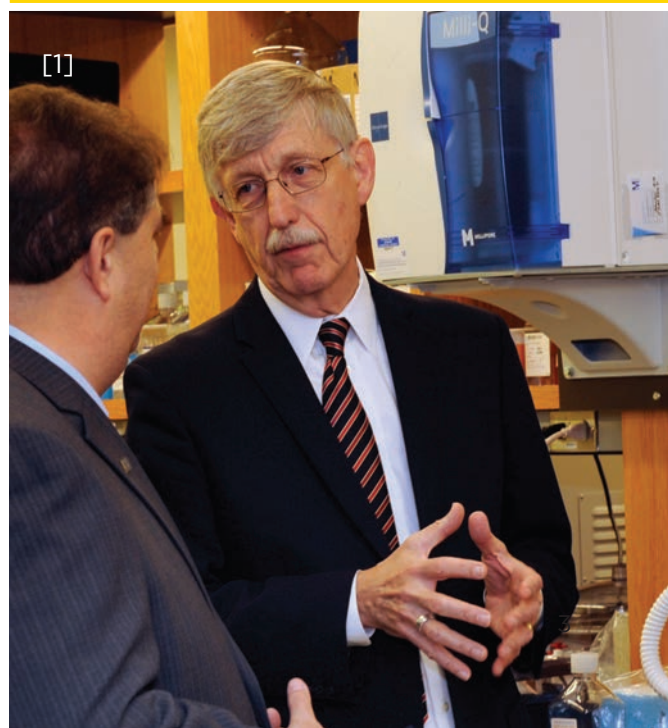
President/CEO, St. Louis Science Center; Former President, Searle Research & Development

RALPH SNYDERMAN, MD (COUNCIL CHAIR)

Chancellor Emeritus, Duke University and The James B. Duke Professor of Medicine

ELIAS ZERHOUNI, MD

President of Global Research & Development and Member of the Executive Committee, Sanofi Pharmaceutical





One of the major recommendations made by the distinguished Scientific Advisory Council was that the School of Medicine should continue its strong **focus on collaborative research**, and ensure that programs and policies are in place to encourage interdisciplinary research.

To improve alignment of ongoing research in the basic and clinical departments, as well as remove the organizational silos separating collaboration, **another part of the ACCEL-Med initiative is creating Research Consortia Units, or “RCUs,” to bring together senior basic and clinical faculty with the common goal of answering “Big Science” research questions in a number of key disease areas.** Leveraging existing research interest groups within the School, we are encouraging continued collaboration and providing support for their efforts. The first SOM RCU has already been established: **The Brain Science Research Consortium Unit (BSRCU)**, featured on page 12.

Another integral part of ACCEL-Med is the **Center for Innovative Biomedical Resources (CIBR)**, which had its official opening on the same day as the 2013 Festival of Science.

CIBR brings together most of our core and resource technologies into a single, centralized facility. **The CIBR facilities serve as a center of excellence for state-of-the-art technologies, equipment, and expertise that supports biomedical research, clinical practice and health care in the state of Maryland and the region.** The new facilities give faculty greater access to sophisticated instrumentation, as well as highly-trained technical staff who can offer support to faculty on experimental design, data analysis and interpretation, and provide training for graduate and medical students, postdoctoral fellows, and faculty.

We are already seeing results from these initiatives. We surpassed our goal of increasing our federal funding by at least five percent annually. **Our scientists and clinicians received \$400.2 million in grants & contracts in FY 2014, an eight percent increase (Fig. 3)!** This is quite impressive considering the competitiveness of science these days, when the lingering effects of sequestration and a stagnant NIH budget mean there is less money available for research. **We are now eighth among all 86 public medical schools and 22nd among all 141 medical schools in total grants and contracts expenditures.¹**

¹AAMC: MSPS, LCME Part 1-A data file, as of 08/28/2014.
LCME Part 1-A data file last updated 06/26/2014.

FIG. 4
COLLABORATIVE RESEARCH EFFORTS ACROSS THE
UNIVERSITY SYSTEM OF MARYLAND

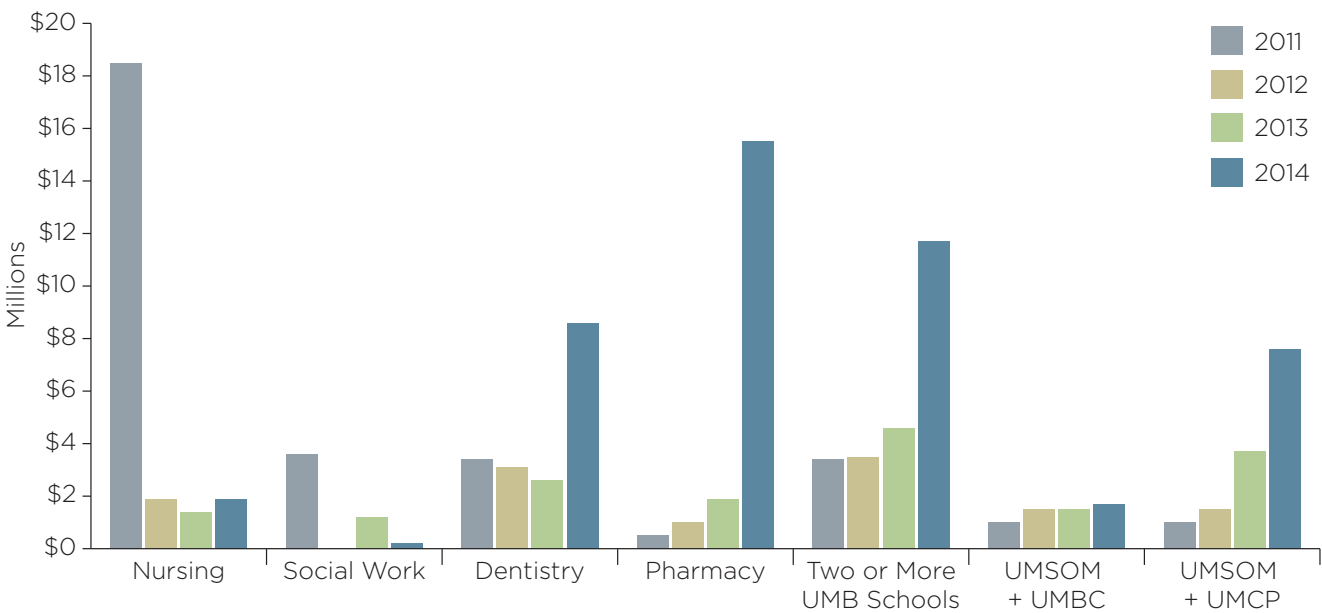


FIG. 5
TOTAL COLLABORATIVE
RESEARCH FUNDING

2013	2014
\$15,045,308	\$47,107,735
213% Growth	

An important part of this success was our collaborative research efforts across not just the UMB campus but the entire University System of Maryland. Our **collaborative relationship** with College Park (UMCP) continues to grow, as do our partnerships with the other Schools here on campus, particularly the School of Dentistry and the School of Pharmacy (*Fig. 4*).

Joint Seed Programs netted \$778,636 in funding for UMB/UMCP partnerships and \$390,000 for UMB/UMBC (University of Maryland, Baltimore County) partnerships. **Total collaborative research funding in the University System of Maryland jumped an incredible 213 percent**, from \$15,045,308 to \$47,107,735 (*Fig. 5*).



TOP GRANT AWARDEES

This section features the outstanding work of just a few of our investigators, those who were able to secure very large and/or prestigious grants over the last year. Featured here are investigators who received NIH grants, non-NIH grants, and multiple NIH R01 grants. We also spotlight young investigators who secured their first NIH R01 grants.

LARGEST NIH GRANTS

[1] Myron M. Levine MD, DTPH, the Simon and Bessie Grollman Distinguished Professor in the Department of Medicine and Director of the Center for Vaccine Development (CVD), is the primary investigator on a **five-year, \$25 million grant** from the National Institute of Allergy and Infectious Diseases (NIAID) to fund a Center of Excellence for Translational Research (CETR) within CVD to focus on “Immunoprophylactic Strategies to Control Emerging Enteric Infections.”

[2] Claire Fraser, PhD, Professor, Department of Medicine, and Director of the Institute for Genome Sciences, was awarded a **five-year, \$15.2 million grant** from NIAID for “Host, Pathogen and the Microbiome Determinants of Infectious Disease Outcome,” which will create a research center to apply genomic techniques to the study of pathogens and their hosts and expand understanding of the ways that pathogens can cause harm.

[3] Robert Schwartz, PhD, Professor, Department of Psychiatry, and Director of the Neuroscience Program at the Maryland Psychiatric Research Center (MPRC) was **awarded \$10.7 million** to establish the Silvio O. Conte Neuroscience Research Center at MPRC, which will examine the causes of schizophrenia and search for possible new treatments.

[4] Kevin Cullen, MD, the Marlene and Stewart Greenebaum Distinguished Professor in Oncology; Professor, Department of Medicine; and Director of the University of Maryland Marlene and Stewart Greenebaum Cancer Center, was **awarded \$7.7 million** for a grant to support the Greenebaum Cancer Center.

[5] **Alan Shuldiner, MD**, the John L. Whitehurst Endowed Professor in the Department of Medicine and Director of the Program in Personalized and Genomic Medicine, was **awarded \$6.1 million** from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) in support of the Mid-Atlantic Nutrition Obesity Research Center (NORC).

[6] **Toni Pollin, PhD**, Associate Professor, Department of Medicine, was **awarded \$3.7 million** for “Genomic Diagnosis and Individualized Therapy of Genetic Diabetes.”

[7] **Andrew Goldberg, MD**, Professor, Department of Medicine, and Co-Director of the Center for Research on Aging, was **awarded \$3.5 million** in support of the Claude D. Pepper Older Americans Independence Center.

[8] **Mary McKenna, PhD**, Professor, Department of Pediatrics, was **awarded \$2.8 million** for “Metabolic and Developmental Aspects of Intellectual Disability.”

[9] **Marcelo Sztein, MD**, Associate Professor, Department of Pediatrics and Center for Vaccine Development, was **awarded \$2.7 million** for “Mucosal and Systemic Immunity, Vaccines and Microbiota Interplay in Humans.”

[10] **Diana Fishbein, PhD**, Professor, Department of Psychiatry, and Director of the Center for Translational Research on Adversity, Neurodevelopment and Substance Abuse (C-TRANS) was **awarded \$2.6 million** for “Mechanisms Underlying the Relationship Between Sleep Problems and Drug Abuse” and **\$1.5 million** for “Study of Alcohol Use In Adolescence.”

[11] **Alan Faden, MD**, the David S. Brown Professor in Trauma; Professor, Department of Anesthesiology; and Director of the Shock, Trauma and Anesthesiology Research Organized Research Center (STAR-ORC), in partnership with Susan Dorsey, PhD, RN, FAAN, Associate Dean for Research and an Associate Professor in the School of Nursing, was **awarded \$2.4 million** for “The Center for the Genomics of Pain.”





[12]

[12] **Lai-Xi Wang, PhD**, Professor, Department of Biochemistry & Molecular Biology and the Institute for Human Virology, was **awarded \$2.3 million** for “Synthetic HIV Vaccine Targeting Glycopeptide Neutralizing Epitopes.”



[13]

[13] **Britta Hahn, PhD**, Assistant Professor, Department of Psychiatry, was **awarded \$2.3 million** for “Mechanisms Mediating the Attention-Enhancing Effects of Nicotinic Receptor Agents.”



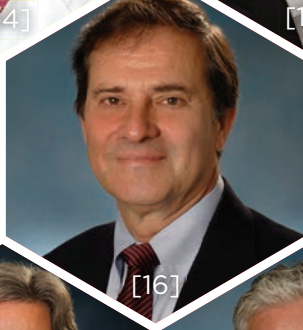
[14]



[15]

[14] **Terry Watnick, MD**, Associate Professor, Department of Medicine, was **awarded \$2 million** for the Baltimore Polycystic Kidney Disease and Research Center at the School of Medicine.

[15] **Sunjay Kaushal, MD, PhD**, Associate Professor, Department of Surgery, was **awarded \$1.9 million** for “Biological Characterization of Cardiac Stem Cells.”



[16]

[16] **Robert Bloch, PhD**, Professor, Department of Physiology, was **awarded \$1.7 million** for “Role of Dysferlin in T-Tubules of Skeletal Muscle.”



[17]



[18]

[17] **Robert Buchanan, MD**, Professor, Department of Psychiatry and Interim Director, MPRC, was **awarded \$1.7 million** for “Social Processes Initiative in Neurobiology of the Schizophrenia(s).”

[18] **Reha Erzurumlu, PhD**, Professor, Department of Anatomy & Neurobiology, was **awarded \$1.7 million** for “Consequences of Developmental Defects.”



[19]

[19] **Vladimir Gerzanich, MD, PhD**, Associate Professor, Department of Neurosurgery, was **awarded \$1.7 million** for “TrpM4 Channel in Spinal Cord Injury.”



[20]

[20] **Sandra Mooney, PhD**, Associate Professor, Department of Pediatrics, was **awarded \$1.7 million** for “Experimental Factors in Fetal Alcohol Spectrum Disorder.”



[21]

[21] **Brian Polster, PhD**, Assistant Professor, Department of Anesthesiology, was **awarded \$1.7 million** for “Novel Mechanisms of Microglial Neurotoxicity at Physiological Oxygen.”



[21]

[22] **E. Albert Reece, MD, PhD, MBA**, Vice President for Medical Affairs, University of Maryland, and the John Z. and Akiko K. Bowers Distinguished Professor and Dean of the School of Medicine, and [23] **Peixin Yang, PhD**, Associate Professor, Department of Obstetrics, Gynecology & Reproductive Sciences, were **awarded \$1.7 million** for “Molecular Signaling Pathways and Cellular Stress in Diabetic Embryopathy.” Dr. Yang also was **awarded \$1.6 million** for “Autophagy and Its Regulation in Diabetic Embryopathy.”

[24] **J. Marc Simard, MD, PhD**, Professor, Department of Neurosurgery, was **awarded \$1.7 million** for “Spinal Cord Injury, Progressive Hemorrhagic Necrosis and the NC(Ca-ATP) Channel.”

[25] **Alexandre Medina de Jesus, DSci**, Associate Professor, Department of Pediatrics, was **awarded \$1.6 million** for “Improving Neuronal Plasticity in a Mouse Model of FASD.”

[26] **Lisa Sadzewicz, PhD**, Executive Administrative Director, Institute for Genome Sciences, was **awarded \$1.6 million** for “Bacterial Pathogens Using Emerging Innovative Technologies.”

[27] **Horst Zielke, PhD**, Professor, Department of Pediatrics, was **awarded \$1.6 million** for the Brain and Tissue Repository at the University of Maryland School of Medicine. This is part of a network of six brain and tissue banks with the directive to collect tissue from brain and tissue donors of research interest to scientists dedicated to the improved understanding, care and treatment of individuals with developmental and neurological disorders.

[28] **Toni Antalís, PhD**, Professor, Department of Physiology, was **awarded \$1.5 million** for “Membrane Serine Protease Activities in Protease Activated Receptor Signaling.”

[29] **Joseph Cheer, PhD**, Associate Professor, Department of Anatomy & Neurobiology, was **awarded \$1.5 million** for “Endogenous Cannabinoid Control of Reward Substrates.”

[30] **Thomas Hornyak, MD, PhD**, Associate Professor, Departments of Dermatology and Biochemistry & Molecular Biology, was **awarded \$1.5 million** for “Identification and Characterization of Melanocyte Stem Cells.”





[31]

[31] **Pedro Jose, MD, PhD**, Professor, Department of Medicine, was **awarded \$1.5 million** for “GRK4 and Development of Salt Sensitivity.”



[32]

[32] **Dudley Strickland, PhD**, Professor, Department of Physiology; Assistant Dean for Graduate & Postdoctoral Studies; and Director of the Center for Vascular and Inflammatory Diseases, was **awarded \$1.5 million** for “Mechanisms by Which LRP1 Protects the Vasculature.”



[33]

[33] **Britta Hahn, PhD**, Assistant Professor, Department of Psychiatry: **\$2.3 million** for “Mechanisms Mediating the Attention-Enhancing Effects of Nicotinic Receptor Agents.”



[34]

[34] **Mary Kay Lobo, PhD**, Assistant Professor, Department of Anatomy & Neurobiology: **\$1.9 million** for “Cell Subtype Transcriptional Mechanisms in Cocaine Addiction.”



[35]

[35] **Thomas Hornyak, MD, PhD**, Associate Professor, Departments of Dermatology and Biochemistry & Molecular Biology: **\$1.5 million** for “Identification and Characterization of Melanocyte Stem Cells.”



[36]

[36] **Raphael Simon, PhD**, Assistant Professor, Department of Medicine and Center for Vaccine Development: **\$1.5 million** for “Exploration of Protective Immunity Induced By Salmonella Cops: FLIC Conjugates.”



[37]

[37] **David Loane, PhD**, Assistant Professor, Department of Anesthesiology: **\$1.4 million** for “Microglial Activation of Phenotypes and Mechanisms of Repair in Aged TBI Brain.”



[38]

LARGEST NON-NIH GRANTS

[38] **Christopher Welsh, MD**, Associate Professor, Department of Psychiatry, and Medical Director of the Maryland Center for Excellence on Problem Gambling was **awarded \$5 million** from the Maryland Department of Health and Mental Hygiene for “Research and Evaluation — The Maryland Center of Excellence on Problem Gambling.”



[39]

[39] **Edson Albuquerque, MD, PhD**, Professor, Department of Epidemiology & Public Health, was **awarded \$3.6 million** from the Countervail Corporation for “Nerve Agent Counter-Measures for Sub-Lethal Exposures.”

[40] **Robert Redfield, Jr., MD**, Professor, Department of Medicine, and Associate Director, Institute of Human Virology, was **awarded \$2.6 million** from the Centers for Disease Control and Prevention for “Partnership for Advanced Clinical Education (PACE) – Kenya.”

[41] **Stephen Bartlett, MD**, the Peter Angelos Distinguished Professor in Surgery and Chair of the Department of Surgery, was **awarded \$2.5 million** from U.S. Army Medical Research Acquisition Activity for “Upregulation of Bone Marrow Compartment-Mediated Immunomodulation.”

[42] **Carla Alexander, MD**, Assistant Professor, Department of Medicine and Institute of Human Virology, was **awarded \$2.1 million** by the Patient-Centered Outcomes Research Institute (PCORI) for “Implementation of a Palliative Approach with HIV Treatment.”

[43] **Mark Ehrenreich, MD**, Assistant Professor, Department of Psychiatry, was **awarded \$2 million** from the Maryland Department of Health and Mental Hygiene in support of University of Maryland Psychiatry Residency Training.

[44] **Zeljko Vujaskovic, MD, PhD**, Professor, Department of Radiation Oncology and Director of Translational Radiation Sciences, was **awarded \$2 million** from Aeolus Pharmaceuticals, Inc. for “Therapeutic Efficacy Screening of AEOL 10150.”

[45] **Robert Sheneberger, MD**, Assistant Professor, Department of Family & Community Medicine and Institute of Human Virology, was **awarded \$1.9 million** from Catholic Relief Services for “Implementation of HIV/AIDS Prevention, Care, Support and Treatment in Zambia.”

[46] **Deus Bazira Mubangizi, MBA, MPH**, Assistant Professor, Department of Medicine and Institute of Human Virology, was **awarded \$1.5 million** from the Center for Clinical Care and Research for “Engaging Indigenous Organizations to Sustain and Enhance Clinical Services.”



[40]



[41]



[42]



[43]



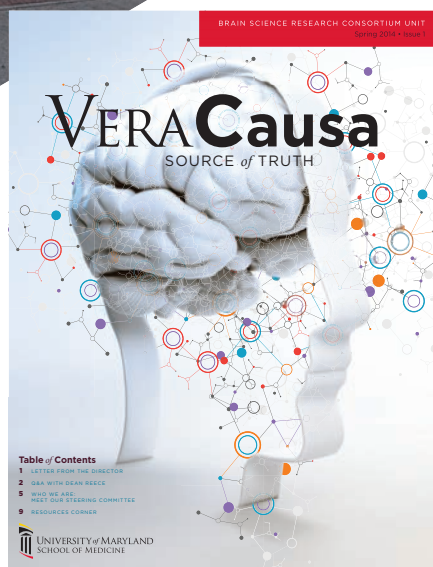
[44]



[45]



[46]



RESEARCH ENDEAVORS

OUR NEWEST RESEARCH SPACE IS GROWING FAST

Last year, I was delighted to share the news that we were finally able to break ground on **our new research facility, Health Sciences Facility III (HSF-III). This 10-story, \$305M, 428,970 square foot research building** will be the largest building on campus and will enable the School of Medicine to retain its position as one of the leading biomedical research institutions in the world.

It will provide both the laboratory space and state-of-the-art technology for the School of Medicine to continue advancing scientific discoveries and breakthroughs in the most critical disease categories. Construction is on schedule and on budget, with the building due to be **completed in September 2017**.

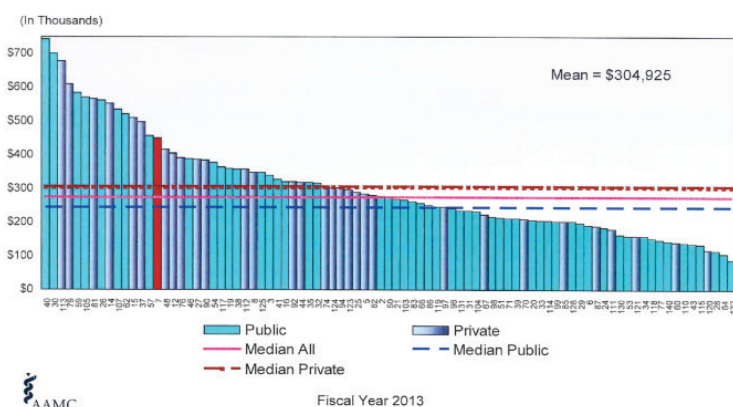
BRAIN SCIENCE RESEARCH CONSORTIUM UNIT (BSRCU) ESTABLISHED

Led by Bankole Johnson, DSc, MD, MB, ChB, MPhil, the Dr. Irving J. Taylor Professor and Chair, Department of Psychiatry, the BSRCU will conduct large-scale, multidisciplinary studies on brain function and dysfunction.

Faculty from **multiple disciplines**, including Neurology, Neurosurgery, Neurobiology, Pharmacology, Physiology, Psychiatry, MPRC and the STAR-ORC will all come together within the unit. Key areas of research will be Understanding **Neuroinflammation**, High-Intensity Focused Ultrasound for **Neuromodulation** and **Neuropsychiatric Disorders and Addiction**.

RESEARCH RANKINGS

FIG. 7
DIRECT EXPENDITURES PER
PRINCIPAL INVESTIGATOR



How do we measure our academic scholarship? There are a number of ways we can, but funding is the most obvious. Funding is measurable, it is objective, and it is not influenced by a great deal of subjectivity. If you look at the Association for American Medical Colleges (AAMC) data, out of the 86 public medical schools nationwide, we rank number eight in this metric (See red bar in Fig. 7). Looking at both public and private medical schools nationwide, we rank number 22 (Fig. 6). This is respectable, and we are excited about these rankings, but we know we can do even better.

Looking at the productivity of our faculty, AAMC data shows that among all medical schools, the **mean funding per investigator is about \$304,000. At the University of Maryland School of Medicine, the mean funding per investigator is almost \$500,000, making us the 15th most productive medical school in America**, which I think is a very strong endorsement (Fig. 7).

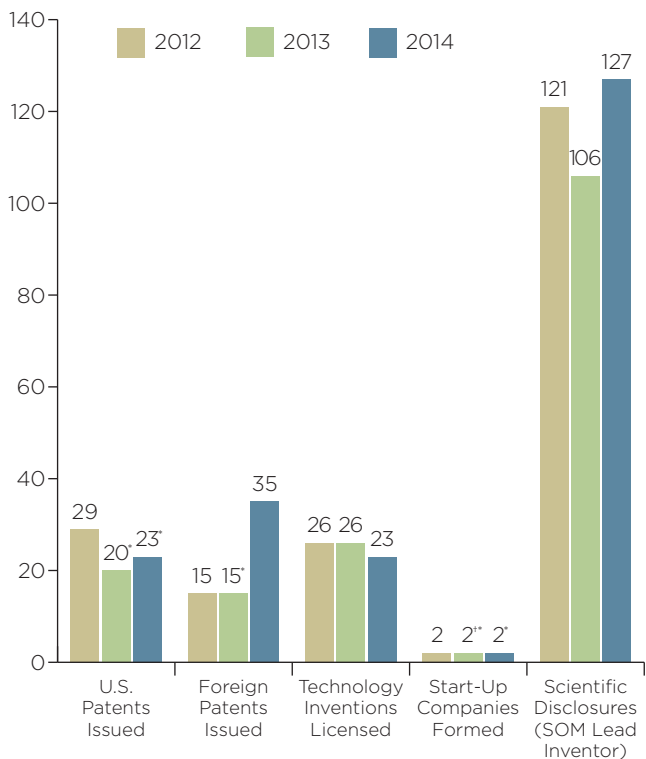
Helping grow this productivity are initiatives such as our **Research Career Development Program**, which offers classes in grant writing, identifying funding sources, and professional development, particularly when it comes to scientific leadership. The program helped **1,050 participants secure almost \$8 million** in funding in FY 2013. Since its inception in 2006, more than \$40 million in funding has been awarded to participants in the grant writing courses.

RESEARCH IMPACT

Even the best research isn’t a success until it truly makes an impact. Our researchers know the importance of translating their research findings from bench to bedside. We continue to grow in the important area of **technology transfer**, securing patents both foreign and domestic, licensing technology that our faculty have invented, and starting companies to market these discoveries (*Fig. 8*).

One example of this is **James Gammie, MD [1]**, Professor, Department of Surgery, and Head of the Division of Cardiac Surgery. Dr. Gammie invented a device to repair heart valves without opening the chest or stopping the heart, reducing morbidity, length-of-stay and costs for patients in need of this cardiac procedure. **He co-founded Harpoon Medical, Inc.** to develop and market the device, and in 2014 the University of Maryland, Baltimore named him their **Entrepreneur of the Year**.

FIG. 8
TECHNOLOGY TRANSFER



*Note: Patents issued not including Copyright, Trademark, Service Mark
 †Start-Up Firms: IGI Technologies, Advances Mgt. Services

FIG. 6
FY13 NATIONAL RANKINGS

8 th /86 Public Medical Schools (Top 10%)	
School	Grants & Contracts*
1. U Washington	\$1,013,337,248
2. UC San Francisco	\$939,498,364
3. UCLA Geffen	\$676,893,528
4. UC San Diego	\$525,077,266
5. Michigan	\$455,027,812
6. Colorado	\$418,387,264
7. North Carolina	\$399,797,002
8. MARYLAND	\$371,390,895
9. UT Southwestern	\$313,176,345
10. Oregon	\$310,346,318

22 nd /141 Public & Private Medical Schools (Top 15%)	
School	Grants & Contracts*
1. Harvard	\$2,659,008,810
4. Pennsylvania-Perelman	\$791,196,548
6. Johns Hopkins	\$722,187,487
8. Columbia	\$655,761,720
10. Stanford	\$564,896,599
16. Baylor	\$422,033,522
17. Vanderbilt	\$421,230,574
20. Case Western Reserve	\$386,372,452
22. MARYLAND	\$371,390,895
23. Northwestern-Feinberg	\$359,187,194

*Total grant & contract expenditures (incl. directs and indirects)

Source: AAMC, MSPS, LCME Part I-A data file, as of 8/22/2014; LCME Part I-A Data file last updated 6/26/2014



Photo: Stephen Spartana



CLINICAL CARE

Our clinical success is in great part due to our strong clinical partnership with the University of Maryland Medical System (UMMS) and our shared belief in finding innovative ways to positively impact the health of the citizens of Maryland and all those we treat.

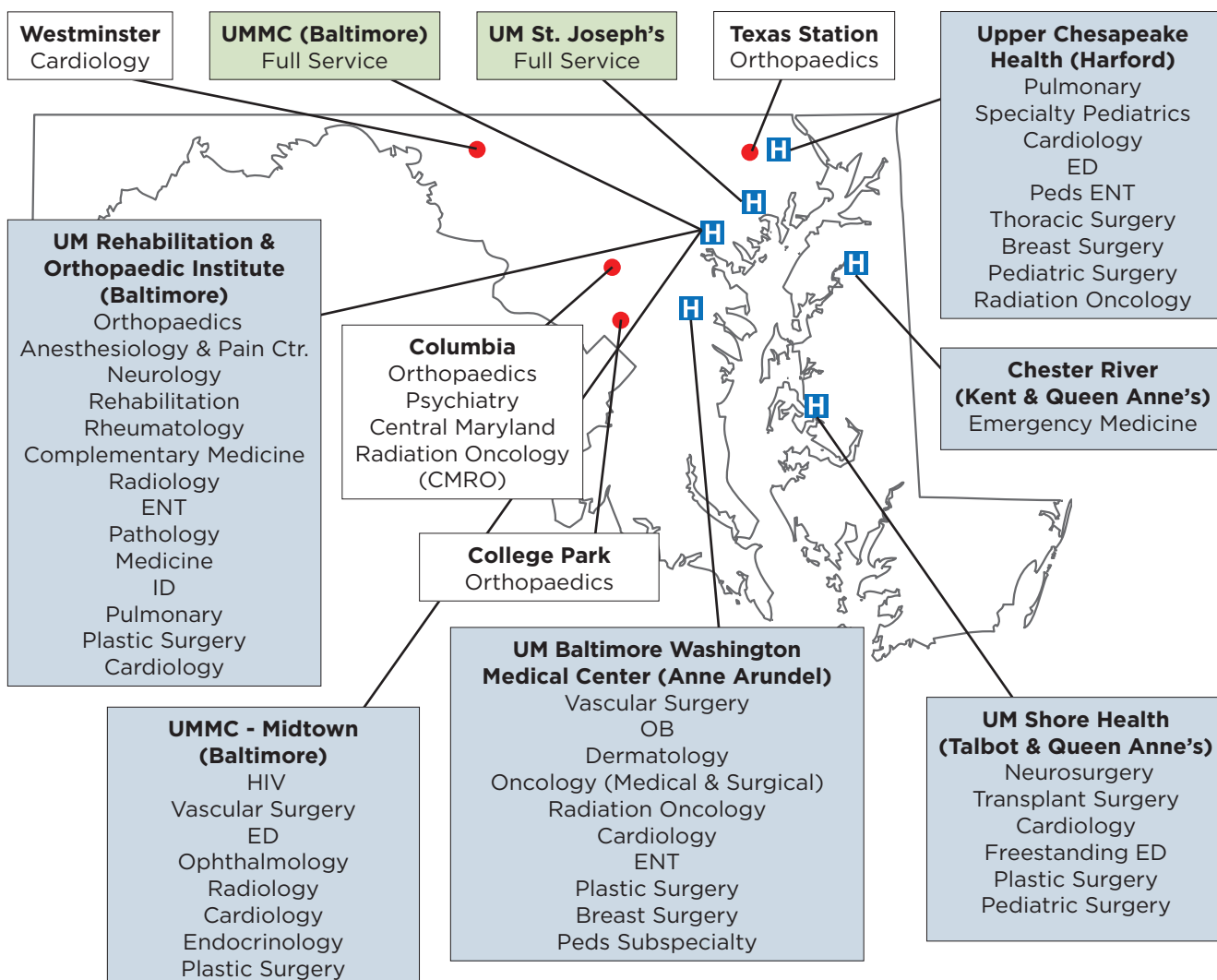
Our strategic alliance sets us up for extraordinary success as we strive to provide high-quality, integrated healthcare not only in our own neighborhood in West Baltimore, but across all of the state of Maryland through the UMMS Statewide Hospital Network and its affiliated clinics. (Fig. 8).

Our faculty members deliver care through University of Maryland Faculty Physicians, Inc. (FPI). Our faculty practice, which generates clinical dollars to support school salaries and operations, continues to be successful in spite of the ongoing challenge of reduced reimbursements.

Total patient volume, including office and in-patient and outpatient visits, increased 2.2 percent. Admissions to the University of Maryland Medical Center decreased by 6.5 percent and in-patient surgeries decreased by 0.1 percent. Helping to balance this out was a 2.7 percent increase in outpatient surgeries.

FIG. 8

GROWTH OF CLINICAL SERVICES ACROSS THE STATE



In addition, we had respectable improvements in two key indicators of practice plan performance. **The number of days in accounts receivable went from 42 days to 39 days, and the number of accounts delinquent for greater than 90 days fell to 17.3 percent.**

These numbers are important, because in these constrained fiscal times we depend on our financial revenue from the clinical side to support the clinical enterprise, research and educational components. So I'm very pleased to report that this past year we again experienced strong growth, with **an 8.4 percent increase in clinical revenue, generating \$278.7 million in total revenue in FY 2014 (Fig. 9).**

With generous support from Carolyn Frenkil, a member of our Board of Visitors, the School of Medicine is also establishing an Executive Health Program that will cater to business, community and government leaders, offering them a one-stop destination for personalized preventive health care. It also hopes to attract international patients.

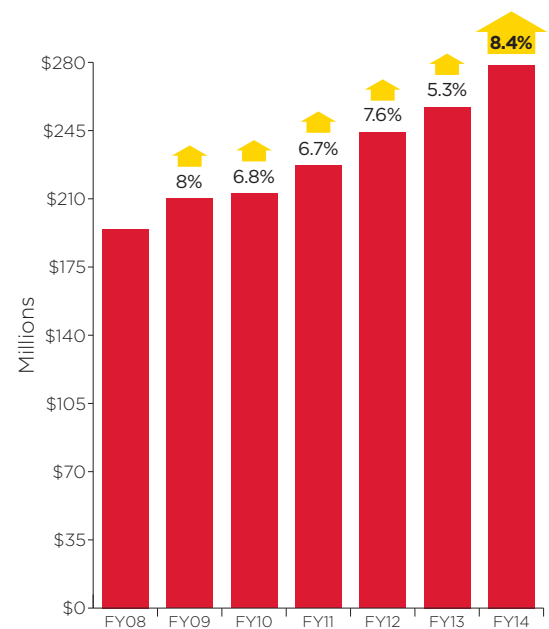
CLINICAL CARE HIGHLIGHTS

The Maryland Proton Treatment Center reached an important milestone in June 2014 when the cyclotron was installed in the new building. Made of iron, **the cyclotron is a 90-ton particle accelerator that will produce a beam of protons used to treat cancer patients.** The beam can be used to precisely target tumors while dramatically reducing radiation exposure to surrounding tissue. **The Proton Center** is due to open in 2015.

Patients with severe lung disease will have a better chance at recovery with the **establishment of a Program in Lung Healing, which will offer the most advanced treatment options to these patients,** via an interdisciplinary team from our Program in Trauma, Department of Surgery and Department of Medicine. The program is currently in the early stages of development, with the hopes of it being totally operational within the next year.



FIG. 9
TOTAL CLINICAL REVENUE



[Below] A crane was needed to lift the 90-ton cyclotron into the Proton Center.



EDUCATION

FIG. 10
FIRST YEAR UMSOM
STUDENT STATISTICS
(CLASS OF 2018)

- 4,989 total applications for class of 157 students
- 72 colleges and universities are represented
- Ages range from 20 to 32 years
- 76% are Maryland residents; 24% are non-residents
- 9% are under-represented in medicine
- 54% are female, 46% are male
- Overall average GPA is 3.79*
- Average MCAT score is 32*

*Above national average

Of the **49,400 applicants** attempting to find spots in U.S. medical schools last year, **4,989 applied** to the University of Maryland School of Medicine. One hundred and fifty-seven, ranging in age from 20 to 32, were accepted into this year's entering class (*Fig. 10*).

While our medical students comprise nearly half of the total **student enrollment of 1,302**, our student body also includes Allied Health and Physical Therapy students, as well as graduate students and students pursuing combined degrees (*Fig. 11*). We currently have **ten joint degree programs**: two doctorate programs (MD/PhD and MD/DDS), seven MD/Masters degree programs, and a DPT/PhD degree program within the Department of Physical Therapy & Rehabilitation Science.

The rate of student diversity within the different programs ranges from 8 percent to 44 percent (*Fig. 12*). The most diverse are the Masters in Public Health Program and the Department of Medical & Research Technology. Congratulations to them for bringing the opportunity of education to such a variety of students. **Diversity is essential to the success of our medical school, as it further enriches the learning environment** we strive to provide here for students of all backgrounds.

FIG. 11
TOTAL STUDENT ENROLLMENT

Program	2013	2014	
Medical (MD)	647	626	} Medical
MD/PhD	39	44	
Graduate (MS/PhD)	357	347	} Graduate
Public Health (MPH)	50	36	
Physical Therapy (DPT/PhD)	180	178	} Allied Health
Genetic Counseling (MS)	12	13	
Medical & Research Technology (BS/MS)	59	54	
Clinical Research Certificate	0	4	
Total	1,344	1,302	

FIG. 12
TOTAL STUDENT ENROLLMENT

2014 Percent Minority*	
Medical (MD)	11%
MD/PhD	8%
Graduate (MS/PhD)	16%
Public Health (MPH)	44%
Physical Therapy (DPT/PhD)	13%
Medical & Research Technology (BS/MS)	35%
Clinical Research Certificate	25%

*Includes Native American, African American, Hispanic American and Multi-Racial American

Source: Office of Institutional Research and Accountability

We take great pride in our graduates. In May 2014, we **conferred degrees on 337 students**, including 165 new physicians, five of whom received dual degrees (MD/PhD, MD/DDS or MD/MPH). Maryland Governor Martin O'Malley gave the keynote speech at the hooding ceremony for our MD graduates. In our other programs, 54 graduated with Doctor of Physical Therapy degrees from our Department of Physical Therapy & Rehabilitation Science; six completed the Masters in Genetic Counseling degree; there were 18 medical and research technology graduates; 14 earned Masters of Public Health degrees; 34 received MS degrees, and 42 earned PhDs (*Fig. 13*).

Students in our Graduate Program in Life Sciences were authors on **233 publications** last year, a 25 percent increase! They competitively secured grants worth **\$403,000 in funding**. Among the 75 new MS and PhD students, 53 percent were female and 10 percent were under-represented minorities.

Thirty percent of our MD graduates secured residency spots in Maryland on Match Day, when fourth-year medical students around the country learn the programs into which they have been accepted. This is up from 26 percent last year. This is an important jump, since many young doctors end up setting up practice where they do their residencies. We want to keep Maryland talent here in Maryland. With more and more students applying for an unchanging number of residency spots, this was the most competitive year in the history of The National Resident Matching Program (NRMP). Our graduates placed very well though, finding spots in 73 programs in 28 different states.

FIG. 13
GRADUATION STATISTICS

Program	2013	2014	
MD	157	164	Medical
MD/MPH	7	1	
Physical Therapy & Rehabilitation Science	57	54	
Genetic Counseling	6	6	
Medical & Research Technology	24	18	Allied Health
Clinical Research Certificate	0	2	
Masters in Public Health	13	14	Graduate
MS	25	34	
PhD	16	42	
PhD/MS	1	1	
DDS/MPH	1	1	
Total Graduates	307	337	



COMMUNITY SERVICE

Community service is a priority for the School of Medicine. Sharing our time, our talent and our knowledge makes the neighborhoods around our campus better places to live and work. It also gives the local community the opportunity to see us as people, not just healthcare providers — people they can trust with their health and well-being.

Each year, more than 200 members of the local community register for our Mini-Med School, a free, five-week program where faculty give lectures — in layman's terms — on medical topics that are of importance, helping to improve the health literacy of our neighbors. Thousands have attended this program over the last 14 years, and variations of it have successfully been held on the Eastern Shore, in Western Maryland, and in various high schools around Baltimore. This year we had 189 graduates (those who attended at least four of the five classes), ranging in age from 8 to 80.

We love when our Mini-Med School students [1] bring young relatives, as it's never too soon to learn about good health. This has been proven by one of our most successful Mini-Med School extensions. Six years ago, we started a summer Mini-Med School program for campers at West Baltimore's Franklin Square Boys & Girls Club, ranging in age from 6 to 16 years old. **Our goal is to instill not only healthy habits in this vulnerable population, but also to give them a love of science.** The enthusiastic response from these students keeps us coming back, year after year. We hope that one day we will see some of these campers become students and successful graduates of our school, before going back to their communities to take care of and inspire their neighbors.



Each year, our students coordinate **Project Feast**, a Thanksgiving dinner for the less fortunate in West Baltimore [2]. **There are as many as 100 volunteers, helping to feed 400 or more guests.** Volunteers come from all the schools on campus and from the local community, but it is our medical students who take the lead in organizing the event. Along with a hot meal, attendees have the chance to have their blood pressure taken and to select donated winter clothing, blankets and non-perishables to take with them when they leave.

Students from the campus branch of the National Medical Student Association also assist at the **annual Lexington Market Health Fair**. We have students volunteering as tutors in local schools, assisting with our Mini-Med School programs, and going on medical missions to expand their medical experience and assist in countries where medical expertise is in short supply.

Our students also know how important it is to be politically aware in a profession that deals with the government on a regular basis. **Every January, a group of students visits the State Capitol in Annapolis to meet with senators and delegates** [3]. They speak on matters of importance to the School, such as increasing funding for medical research. They also speak on matters of importance to them, such as student loan forgiveness programs that might allow them to practice in underserved communities in exchange for assistance with paying for medical school.

Community service is not only of importance here in Baltimore. **We have faculty and students conducting research and providing medical care in 35 countries around the globe** (Fig. 14). **With approximately \$90 million in funding**, from sources ranging from the NIH to the Bill and Melinda Gates Foundation and the Wellcome Trust, strides are being made in such important areas as the prevention and treatment of HIV and malaria and the search for an Ebola vaccine.

FIG. 14
RESEARCH & SERVICE
IN 35 COUNTRIES

- | | |
|-------------------|----------------|
| Australia | Mali |
| Austria | Mozambique |
| Bangladesh | Nigeria |
| Belgium | Norway |
| Brazil | Pakistan |
| Caribbean Nations | Russia |
| Chile | Rwanda |
| China | Sweden |
| Egypt | Tanzania |
| Gambia | Thailand |
| Germany | Uganda |
| Georgia | United Kingdom |
| Guyana | Vietnam |
| Haiti | Zambia |
| India | |
| Ireland | |
| Israel | |
| Jamaica | |
| Kenya | |
| Libya | |
| Malawi | |



GLOBAL VISIBILITY

Argentina	Malaysia
Australia	Netherlands
China	New Zealand
France	Peru
Germany	Sweden
Greece	Switzerland
India	United States
	United Kingdom
	Zambia

BBC
NEWS

CBS

CCTV

CNN

AUDIENCE OF
145
MILLION

MEDIA COVERAGE

Speaking of Ebola, the role the University of Maryland School of Medicine played in developing and testing an **Ebola vaccine** was our biggest story of the year. Thanks to interviews on CNN, BBC News, and the broadcast networks, as well as in publications around the world and online, **more than 145 million people heard from our Ebola experts, Alan Schmaljohn, PhD [1]**, Professor of Microbiology & Immunology, and **Myron Levine, MD, DTPH [2]**, the Simon and Bessie Grollman Distinguished Professor in the Department of Medicine and Director of the Center for Vaccine Development.

We credit our success in gaining media exposure for the School of Medicine not only to the quality and caliber of our faculty and the innovative research that is happening here, but also the fact that we've made things much easier for the media. **We have a TV studio in our School of Medicine**, a collaborative initiative between the hospital and the School of Medicine that allows us to do satellite uplinks to any place in the world. Previously, faculty members had to travel to Washington, DC, or further in order to participate in an interview. Now our faculty members can be interviewed by the networks or any other major news organization at a moment's notice, just steps away from their offices.



FINANCE & PHILANTHROPY

Our total budget is nearly \$924 million, but we have an economic impact of nearly \$2.5 billion in the state of Maryland alone. Still, only 4.5 percent of our budget comes from the state. We value that very much, and we are always grateful for the support that they give us. However, that number doesn't come anywhere close to the nearly \$1 billion we need to operate, so we have to find other means of support. Tuition and fees only pay 2.9 percent of these costs. As for the rest, 43.3 percent comes from competitively securing grants; and 47.7 percent comes from our clinical care revenue.

The additional 1.6 percent comes to us from philanthropy. These private gifts are very important, because we need those discretionary funds to make up gaps in funding. **Our philanthropy dollars are typically a combination of private, individual gifts and foundation grants.** I am very pleased to report that in this past year, we secured more than \$54 million in private philanthropy. We also surpassed the \$400 million threshold of our Transforming Medicine Beyond Imagination campaign.

We are particularly grateful for our top donors, whom you can see listed on this page (Fig. 15). Many of these gifts were for the establishment of endowed professorships, which allow us to attract and retain top talent.

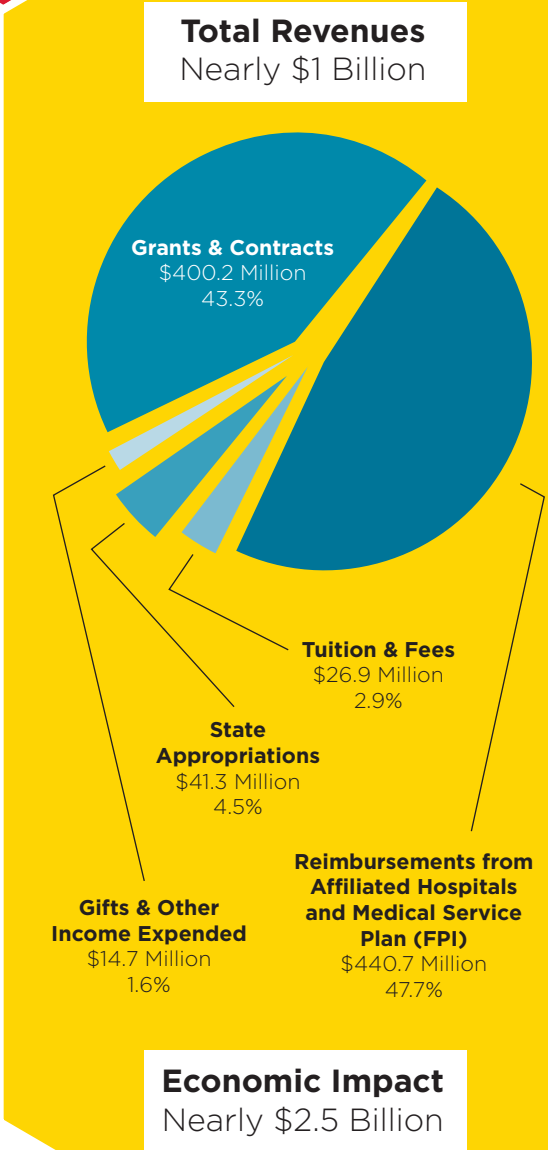
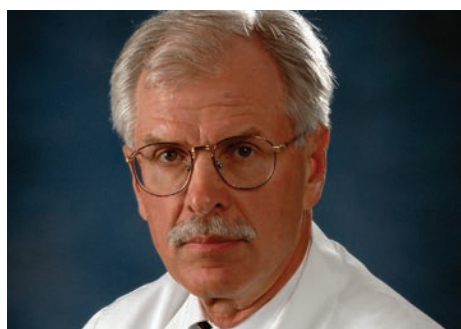


FIG. 15
TOP PHILANTHROPIC GIFTS

Donor	Amount	Recipient
Peter G. Angelos	\$3,000,000	Department of Surgery
Taylor Foundation, Inc. - Bruce T. Taylor, MD, Ellen L. Taylor, MD, Irving J. Taylor, MD	\$2,500,000	Department of Psychiatry
Hamish S. Osborne and Christine C. Osborne	\$1,536,079	Program in Trauma
Maryland Emergency Medicine Research Fdn., Inc.	\$1,500,000	Department of Emergency Medicine
Eugenia Brin	\$1,060,000	Department of Neurology
Stewart & Marlene Greenebaum Family Fdn., Stewart and Marlene Greenebaum and Michael Greenebaum	\$1,000,000	Department of Neurology
United Therapeutics	\$800,000	Department of Surgery
Dr. Walker James Fleming, III and Barbara B. Fleming, MD	\$650,000	Dean's Office
John W. Heisse, Jr, MD	\$575,454	Department of Otorhinolaryngology
Scott M. Rifkin, MD and Fran M. Rifkin, RN	\$510,000	Department of Medicine
TOTAL	\$13,131,533	

INVESTITURE CEREMONIES



Philip Mackowiak, MD, MBA, as the Carolyn Frenkil and Selvin Pas-sen History of Medicine Scholar (September 26, 2013)



Robert Gallo, MD, Director of the Institute of Human Virology, as the Homer and Martha Gudelsky Distinguished Professor in Medicine (November 7, 2013)



Christopher Harman, MD, Chair of the Department of Obstetrics, Gynecology & Reproductive Sciences, as the Dr. Sylvan Frieman Professor in Obstetrics, Gynecology & Reproductive Sciences (November 18, 2013)



Jeffrey Hasday, MD, Department of Medicine, as the Dr. Herbert Berger Professor in Medicine (March 6, 2014)



Sanjay Rajagopalan, MBBS, FACC, FAHA, Department of Medicine, as the Melvin Sharoky, MD Professor in Medicine (April 8, 2014)



Aldo Iacono, MD, Department of Medicine, as the Hamish S. and Christine C. Osborne Professor in Advanced Pulmonary Care (May 19, 2014)



Bankole Johnson, DSc, MD, MB, ChB, MPhil, FRCPsych, DFAPA, FACFEI, Department of Psychiatry, as the Dr. Irving J. Taylor Professor and Chair (August 7, 2014)



Andrew Pollak, MD, Department of Orthopaedics, as the James Lawrence Kernan Professor and Chair (September 15, 2014)



Barney Stern, MD, Interim Chair, Department of Neurology, as the Stewart J. Greenebaum Endowed Professor in Stroke Neurology (October 9, 2014)

Our annual School of Medicine gala also gave us the opportunity to celebrate the accomplishments of our faculty while at the same time securing some additional philanthropy. This year's gala was a wonderful occasion, with nearly 1,000 guests coming together to recognize the collaborative achievements of the School of Medicine academic community – efforts that have propelled innovations and discoveries that have saved lives and improved the quality of life for people throughout the state, the region and the world. **“These extraordinary accomplishments have launched the School of Medicine into the forefront of incredible medical discovery, resulting in exceptional educational opportunities for our outstanding medical students, and providing unimaginable cures for patients,”** said Dean Reece.

This year's event was **co-chaired by Board of Visitors members** Carolyn Frenkil and Laura Gamble. The event raised **\$400,000** for the School of Medicine's capital campaign “Transforming Medicine Beyond Imagination.” This ambitious campaign to raise half a billion dollars for the School of Medicine between 2008 and 2015 is now at 81 percent of its goal, with \$404,279,628 million in funding so far.

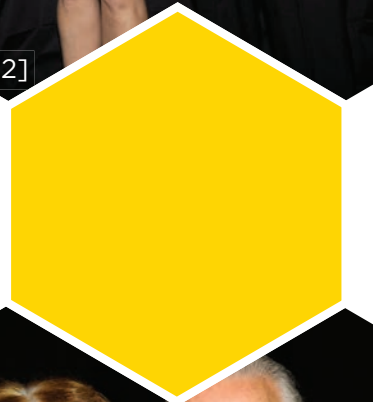
[1] Hosts Laura Gamble and Carolyn Frenkil, both members of the School of Medicine's Board of Visitors

[2] Patricia Wilson; Dean Emeritus Donald E. Wilson, MD, MACP; June Bartlett; and Stephen Bartlett, MD

[3] The Honorable Kathleen Kennedy Townsend and Senator Paul Sarbanes

[4] Ava Todd, Amanda Bana Fernandez, Kenneth Nugent, Thomas Robertson, Greg Lessans, and Donna Parker, MD

[5] Curt Civin, MD; Nancy Civin; Irving Taylor, MD, Class of 1943; Lisa Taylor; and Ellen Taylor, MD, Class of 1978



FACULTY AND LEADERSHIP HIGHLIGHTS

LEADERSHIP APPOINTMENTS

Richard Eckert, PhD [1], the John F.B. Weaver Professor and Chair of the Department of Biochemistry & Molecular Biology, has been **appointed Associate Director for Basic Science at the Greenebaum Cancer Center**. He replaced **Amy Fulton, PhD**, Professor of Pathology, who had served in an interim role since 2011.

Diana Fishbein, PhD [2], Professor, Department of Psychiatry, was recruited from Research Triangle Institute International in North Carolina to become Director of the **new Center for Translational Research on Adversity, Neurodevelopment and Substance Abuse (C-TRANS)** within the department.

Joseph Friedberg, MD [3], one of the preeminent authorities in the thoracic surgical community, has been **appointed as Head of the School of Medicine's Division of Thoracic Surgery**. In addition, he will be the Charles Reid Edwards Professor of Surgery in the School of Medicine and Thoracic-Surgeon-in-Chief of the University of Maryland Medical System (UMMS).

James Kaper, PhD [4], Professor and Chair, Department of Microbiology & Immunology, was **appointed Senior Associate Dean for Academic Affairs in April 2014**. He replaced Richard Pierson III, MD, who had been the Senior Associate Dean for Academic Affairs and the Interim Director of Research Affairs since 2012.

Shyamasundaran Kottilil, MBBS, PhD [5], a world-renowned expert in infectious disease, joined the faculty in September 2014 as a Professor in the Department of Medicine, as well as **Co-Director of the Institute of Human Virology's Clinical Research Unit and Associate Director for Clinical Research** in the Institute's Division of Clinical Care and Research.

Jonathan Lederer, MD, PhD [6], Professor, Department of Physiology, was **appointed the Director of the Center for Biomedical Engineering and Technology (BioMET) in March 2014**. BioMET brings together basic biomedical researchers with engineers and is a joint effort between the School of Medicine and the Fischell Department of Bioengineering in the Clark School of Engineering at the University of Maryland, College Park.

Myron Levine, MD, DTPH [7], the Simon and Bessie Grollman Distinguished Professor in the Department of Medicine and director of the Center for Vaccine Development, which he co-founded 40 years ago, will step down as Director in January 2015 **to become Associate Dean for Global Health, Vaccinology and Infectious Disease on the Dean's Cabinet**.

Nancy Lowitt, MD, EdM [8], Assistant Professor, Department of Medicine, and Associate Dean for Faculty Affairs & Professional Development, was **appointed Chief Conflict of Interest (COI) Officer** in May 2014, to help faculty members understand and comply with state and federal regulations and School and University policy regarding identification, disclosure, and management of conflicts.

Steven Ludwig, MD [9], Professor, Department of Orthopaedics, was **appointed Head** of the newly established Division of Spine Surgery in the department.

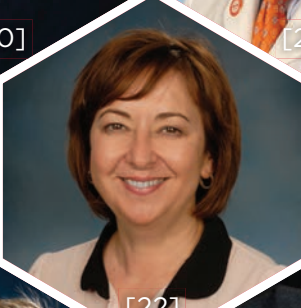
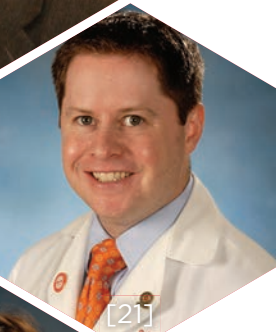
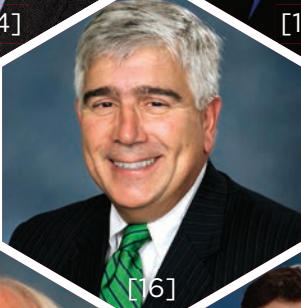
Glenn Ostir, PhD [10], Professor, Department of Epidemiology & Public Health, has been **appointed Director of the Program on Aging, Trauma, & Emergency Care (PATEC)**, a joint venture with more than 40 participating faculty members from the different schools on the University of Maryland, Baltimore (UMB) campus, as well as faculty from the University of Maryland, College Park (UMCP) and the University of Maryland, Baltimore County (UMBC).

Robert O'Toole, MD [11], Professor, Department of Orthopaedics, has been **appointed as Head of the Division of Orthopaedic Traumatology** in the department, as well as Chief of Orthopaedics for the University of Maryland Medical Center's (UMMC) R Adams Cowley Shock Trauma Center.

Sanjay Rajagopalan, MBBS, FACC, FAHA [12], the Melvin Sharoky, MD, Endowed Professor in Medicine, was recruited from the Wexner Medical Center at the Ohio State University College of Medicine in Columbus, OH, to **lead the newly named Division of Cardiovascular Medicine** within the Department of Medicine.

Terry Rogers, PhD [13], Professor, Department of Biochemistry & Molecular Biology, has been **appointed as the new Executive Director of the Office of Research Affairs (ORA)**. Dr. Rogers replaced Thomas Hooven, Executive Director of Research Administration, who retired in June 2014.





HONORS AND AWARDS

For his role in expanding diversity in the graduate studies program, **Dudley Strickland, PhD [14]**, was presented with the second annual Faculty Award for Diversity & Inclusion by **Dean E. Albert Reece, MD, PhD, MBA**, and **Margaret McCarthy, PhD**, who nominated him.

Claudia Baquet, MD, MPH [15], Professor, Department of Medicine; Associate Dean for Policy & Planning; and the Director of the Center for Health Disparities, was **named by The American Heart Association (AHA) as the recipient of their 2014 Watkins-Saunders Award**.

Stephen Bartlett, MD [16], the Peter Angelos Distinguished Professor and Chair of the Department of Surgery and Surgeon-in-Chief and Senior Vice President at the University of Maryland Medical System (UMMS), **was recognized with the University System of Maryland's Board of Regents 2014 Faculty Award**.

William Carpenter, MD [17], Professor, Department of Psychiatry, was **awarded the Institute of Medicine's 2013 Rhoda and Bernard Sarnat International Prize in Mental Health** for achievements in broadening the understanding of schizophrenia, as well as for his research ethics and informed consent in studying schizophrenia.

Eduardo Davila, PhD [18], Associate Professor, Department of Microbiology & Immunology, was **recognized with a 2014 BioMaryland LIFE (Leading Innovative Faculty Entrepreneurs) Award**. Dr. Davila, whose work has opened the door to successfully treat cancer with the body's own immune system, plans to use the \$50,000 award for crucial pre-clinical research to confirm the flexibility of the Anti-Tag Chimeric Antigen Receptor (AT-CAR) system, which he and his colleagues invented.

Mikulas Popovic, MD, PhD [19], Adjunct Professor, Department of Medicine and Institute of Human Virology, **received the Czech Republic's most prestigious scientific award from a private, non-profit organization, the "Ceska Hlava,"** during a ceremony on November 17, 2013 in Prague. The "Ceska Hlava" honor is given to scientists who are, or were, citizens of the former Czechoslovakia, or the Czech Republic, and have made a significant contribution to science abroad.

The Class of 2014 presented Golden Apple Awards for excellence in teaching to Gary Plotnick, MD [20], Clinical Professor of Medicine (pre-clinical), and **Robert Habicht, MD [21]**, Assistant Professor of Medicine (clinical). They also presented Student Council Faculty Awards to **Olga Ioffe, MD [22]**, Professor of Pathology, and **Nevins Todd, MD [23]**, Associate Professor of Medicine and Physiology (pre-clinical), and to **David Gens, MD [24]**, Professor of Surgery, and **Stephanie Knight, MD [25]**, Assistant Professor of Psychiatry (clinical).

IN MEMORIAM

Unfortunately, we lost some members of our School of Medicine family, all of whom will be greatly missed. They were:

Joanna Franklin, MS, MCGC II [26], who was instrumental in the founding of the Maryland Center of Excellence on Problem Gambling at the School of Medicine. Previously, she had designed and delivered clinical training programs for The Federal Bureau of Investigation, The Central Intelligence Agency and The National Security Agency.

Edith McKeller [27], who worked in the Development Office at the School of Medicine for 20 years and was widely known across the SOM and UMB campuses for her vibrant and upbeat personality.

Willard Hackerman [28], a giant in industry and philanthropy, who served on the School of Medicine Board of Visitors for 11 years and led construction on HSF-I, HSF-II and the Shock Trauma Tower as head of the Whiting-Turner Contracting Company.



[26]



[27]



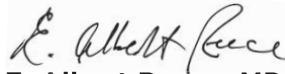
[28]

LOOKING AHEAD

In 2013 we introduced — in partnership with **Robert Chrencik**, President and CEO of the Medical System — **our Shared Vision 2020** to focus on key strategies and approaches to success we will take over the next several years. **We are well on track** and are looking ahead to achieving more of these goals moving forward. These include...

- Make bold, realistic and selective decisions
- Introduce selective initiatives that will increase the pace and scope of innovation, discovery and the highest quality of patient-centered care
- Think and act out of the box in order to achieve “strategic disruptive innovations” when possible and appropriate.

In the relentless pursuit of excellence,
I am sincerely yours,



E. Albert Reece, MD, PhD, MBA

*Vice President for Medical Affairs, University of Maryland
John Z. and Akiko K. Bowers Distinguished Professor and
Dean, University of Maryland School of Medicine*



GOALS FOR 2020

- OUR DISCOVERIES WILL SIGNIFICANTLY CHANGE THE DIRECTION OF SCIENTIFIC RESEARCH AND HEALTHCARE
- WE WILL BE UNEQUIVOCALLY KNOWN FOR DOING “BIG SCIENCE” WITH A HUGE FUNDING BASE
- WE WILL HAVE TRAINED EXCELLENT CLINICIANS, INNOVATORS AND DISCOVERERS
- OUR FACULTY AND STAFF WILL BE KNOWN FOR WORKING COLLABORATIVELY, IN MULTI-DISCIPLINARY TEAMS AT UNPRECEDENTED LEVELS
- WE WILL BE UNQUESTIONABLY THE LEADER IN CLINICAL DESTINATION AND MAGNET CENTERS OF EXCELLENCE





UNIVERSITY *of* MARYLAND
SCHOOL OF MEDICINE

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