LEADING
Innovation and Discovery:
CHANGING LIVES WORLDWIDE

UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
2011
STATE OF THE SCHOOL ADDRESS
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 MD, MD/PHD, Graduate, Physical Therapy and Rehabilitation Science, and Medical and Research Technology students. We will recruit and develop faculty to serve as exemplary role models for our students.
I N T R O D U C T I O N

The University of Maryland School of Medicine and many other institutions around the world relentlessly seek ways to improve the health and well-being of an increasingly global population within a rapidly changing and challenging environment.

Continued economic uncertainty and a growing federal budget deficit, greatly threaten NIH funding, clouding the future of biomedical research and academic medicine in general. At the state level, continuing budget reductions have forced the School of Medicine to master the art of doing more with less.

Despite these challenges and uncertainties, we have pressed forward in new and exciting directions over the past year, strategically and opportunistically, to grow our biomedical research enterprise. Simultaneously, we are continuing to educate and train new generations of outstanding physicians, scientists, and allied health professionals in order to enhance the health and science workforce.

Succeeding in the face of external challenges has been a hallmark of the School of Medicine for more than 200 years. One might suggest that this trait is encoded into the SOM genome and that selective pressures have rendered our DNA dominant or homozygous for the perseverance and determination genes.

As you know, at the heart of any organism is DNA, which contains the instructions that direct and signal an organism’s functions, behaviors, and actions. We can draw an analogy of this scientific paradigm to the SOM, which has its own unique and inherent coding that guides its organizational functions, behaviors, and actions. We believe that the institutional values which help to drive our successes are figuratively imprinted into the DNA of our faculty, staff, trainees, and students.

We are guided and influenced by our 200-year old blueprint for success, and in many instances, we are re-writing that coding with each passing day. New discoveries in our laboratories, new innovations in our clinical settings, and novel curriculum changes, are responsible for transforming the code that shapes our future. Each academic unit, indeed, each individual at the School of Medicine, plays an integral role in the success and evolution of this institution.

Like any DNA-based organism, the School of Medicine has not simply survived. Rather, this institution has thrived, and its faculty, staff, trainees, students, and alumni have extended our influence and impact worldwide through clinical care, medical and allied health education, biomedical research, and community outreach.

To be sure, the very essence of our mission is to change lives worldwide — through discovery and the introduction of new scientific knowledge that enhance the ability to diagnose, treat, and ultimately to cure diseases. As dean of one of America’s top tier research institutions, I am both delighted and humbled by the sheer magnitude of the collective achievements of our School of Medicine this past year. Each year, we provide updates and share selected aspects of our mission areas and accomplishments. Thus it is with great pleasure that I present examples of these accomplishments.
The School of Medicine’s total workforce is nearly 7,300 people
WORKFORCE

The School of Medicine’s total workforce is nearly 7,300 people and includes more than 2,800 full-time, part-time and adjunct faculty and 3,300 staff members FIGURE 1. This year, the School of Medicine added 176 new faculty members. Of our 1,334 full-time faculty members, 38 percent are women and eight percent are underrepresented minorities FIGURE 2. Importantly, our retention rate remains above 90 percent, reflecting our commitment to providing a positive and productive work environment. Our workforce is also comprised of 565 clinical and research fellows and more than 600 residents.

FIGURE 1
TOTAL Workforce

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time Faculty</td>
<td>1,296</td>
<td>1,334</td>
</tr>
<tr>
<td>Part-Time Faculty</td>
<td>248</td>
<td>279</td>
</tr>
<tr>
<td>Volunteer Faculty</td>
<td>1,256</td>
<td>1,226</td>
</tr>
<tr>
<td>Clinical Fellows*</td>
<td>209</td>
<td>209</td>
</tr>
<tr>
<td>Research Fellows</td>
<td>336</td>
<td>356</td>
</tr>
<tr>
<td>Residents*</td>
<td>577</td>
<td>613</td>
</tr>
<tr>
<td>Staff</td>
<td>2,308</td>
<td>2,279</td>
</tr>
<tr>
<td>University Physicians, Inc. Staff</td>
<td>960</td>
<td>1,001</td>
</tr>
<tr>
<td><strong>TOTAL INDIVIDUALS</strong></td>
<td><strong>7,190</strong></td>
<td><strong>7,297</strong></td>
</tr>
</tbody>
</table>

*University of Maryland Medical Center pays salaries of most

FIGURE 2
BREAKDOWN OF Full-Time Faculty

<table>
<thead>
<tr>
<th></th>
<th>FY2010</th>
<th>FY2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL FULL-TIME FACULTY</strong></td>
<td>1,296</td>
<td>1,334</td>
</tr>
<tr>
<td>Women</td>
<td>469 (36.2%)</td>
<td>506 (37.9%)</td>
</tr>
<tr>
<td>Underrepresented Minorities</td>
<td>108 (8.3%)</td>
<td>106 (8.0%)</td>
</tr>
</tbody>
</table>

-90% RETENTION RATE OF FULL-TIME FACULTY
Of the nearly 43,000 applications to 134 medical schools across the United States, 4,800 were made to the University of Maryland Figure 3. One hundred fifty-nine students, ranging in age from 20 to 31, were accepted into the entering class. Seventy-three percent of the students are Maryland residents, 53 percent are women and nine percent are underrepresented minorities Figure 4. More than 80 colleges and universities are represented in the class, which had an overall entering grade point average of 3.71 and an average MCAT score of 31, both well above the national average.

Medical students comprise more than half of the total student enrollment of 1,302, which includes allied health and public health students, graduate students and students seeking combined degrees Figure 5. We currently have nine joint degree programs — two doctorate programs (MD/PhD and MD/DDS) and seven MD/Masters degree programs. Many of our students are already conducting funded research through their own grants or through grants of their mentors.

**FIGURE 3**

U.S. MEDICAL SCHOOL Applications

**FIGURE 4**

2011 FIRST-YEAR STUDENT Statistics

- 4,808 total applications for class of 159 students
- 81 colleges/universities represented
- Ages range from 20 to 31 years
- 73% are Maryland residents; 27% are non-residents
- 9% are underrepresented in medicine
- 53% are female; 47% are male
- Overall average GPA is 3.71
- Average MCAT score is 31

**FIGURE 5**

TOTAL STUDENT Enrollment

*Medical, Graduate, Allied Health and Public Health*

<table>
<thead>
<tr>
<th>STUDENTS</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical (MD)</td>
<td>625</td>
<td>634</td>
</tr>
<tr>
<td>MD/PhD</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td>Graduate (MS/PhD)</td>
<td>333</td>
<td>345</td>
</tr>
<tr>
<td>Public Health (MPH)</td>
<td>54</td>
<td>33</td>
</tr>
<tr>
<td>Physical Therapy (DPT/PhD)</td>
<td>168</td>
<td>168</td>
</tr>
<tr>
<td>Genetic Counseling (MS)</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Medical and Research Tech (BS/MS)</td>
<td>55</td>
<td>72</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,282</td>
<td>1,302</td>
</tr>
</tbody>
</table>

**FIGURE 6**

STUDENT Diversity

Percent of Minorities in the 2011 Programs*

<table>
<thead>
<tr>
<th>STUDENTS</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical (MD)</td>
<td>14%</td>
</tr>
<tr>
<td>MD/PhD</td>
<td>14%</td>
</tr>
<tr>
<td>Graduate (MS/PhD)</td>
<td>14%</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>13%</td>
</tr>
<tr>
<td>Public Health</td>
<td>26%</td>
</tr>
<tr>
<td>Medical &amp; Res Tech</td>
<td>38%</td>
</tr>
</tbody>
</table>

*Includes Native American, African American, Hispanic American and Multi-Racial Americans
The rate of student diversity is about 14 percent for all medical and graduate students. The number of underrepresented minorities in the Department of Physical Therapy and Rehabilitation Science has nearly doubled over the last two years to 13 percent in FY11 FIGURE 6. We take great pride in the diversity of our school and our university, because we believe it enriches the learning environment.

Just before graduation, Match Day is one of the highlights of medical school. It is the day when graduating medical students learn where and in what specialty they will continue their education as residents. This year, 43 percent of our students matched in the primary care fields and 54 percent matched into surgical or surgical sub-specialties, a rate similar to other medical schools around the country FIGURE 7.

There were 4,800 applicants to the School of Medicine
EDUCATION

Even more exciting is graduation. We graduated 265 students, including 151 medical students FIGURE 8. This year’s medical school convocation speaker was Dr. Risa Lavizzo-Mourey, president and CEO of the Robert Wood Johnson Foundation, a national leader in transforming America’s health system so people live healthier lives FIGURE 9. We also graduated students from our other programs. There were 46 physical therapy & rehabilitation science graduates FIGURE 10; six genetic counseling graduates FIGURE 11, 16 medical and research technology graduates FIGURE 12; and five public health graduates FIGURE 13.

FIGURE 10

Physical Therapy and Rehabilitation Science Graduates

FIGURE 11

Genetic Counseling Graduates

FIGURE 12

Medical and Research Technology Graduates

FIGURE 13

Public Health Graduates

FIGURE 8

TOTAL Graduates

<table>
<thead>
<tr>
<th>Programs</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD</td>
<td>160</td>
<td>151</td>
</tr>
<tr>
<td>MD/PhD</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>MD/DDS</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MD/MPH</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Physical Therapy &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rehabilitation Science</td>
<td>51</td>
<td>46</td>
</tr>
<tr>
<td>Genetic Counseling</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Medical &amp; Research Technology</td>
<td>38</td>
<td>16</td>
</tr>
<tr>
<td>Masters in Public Health</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>PhD Graduates</td>
<td>43</td>
<td>35</td>
</tr>
<tr>
<td>MS Graduates</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Total Graduates</td>
<td>323</td>
<td>280</td>
</tr>
</tbody>
</table>

FIGURE 9

Risa Lavizzo-Mourey, MD, MBA

Our graduate students now receive iPads, allowing online learning and real time communication between students and their mentors, and transforming the way our graduate students are performing and interacting with faculty.
Where do our students go after graduation and later practice? Our students are living and working all over the country, but most come back to the northeast. There is also a high concentration of alumni in California, Texas, Virginia and North Carolina FIGURE 14.

Even if they don’t work in Maryland, many of our former students return to their medical school home for the annual alumni reunion. This year, more than 800 alumni attended the 136th Medical Alumni Association (MAA) reunion in May, which featured a number of special activities, including the annual Clinico-Pathological Conference (CPC). The CPC uses contemporary means to determine the cause of death of an historical figure. This year the CPC determined that Charles Darwin died of cyclic vomiting syndrome, Chagas disease, and helicobacter pylori.

Dr. Stewart Fine, professor and chair emeritus of the Department of Ophthalmology at the University of Pennsylvania received the two highest awards from the MAA — the Honor Award and Alumni Gold key FIGURE 15. In addition, the wife and husband team of the class of ‘66, Drs. Carolyn Pass and Richard Sussel, received the Distinguished Service Award FIGURE 16.
The School of Medicine's research and service is in 23 countries around the globe.
The research vision of the University of Maryland School of Medicine is to increase the impact of research and discovery on human health, not only in this region, but around the world. With that vision in mind, our basic science and clinical researchers focus on diseases with high morbidity, high mortality, and high disability — areas where we can actually make an impact and transform lives for the better. These initiatives, including our most heavily funded research endeavors, emphasize collaboration across departments, programs, research centers, schools and universities. We must fuel this enormous and growing research enterprise by competing for external funding, including NIH funding, grants and contracts.

Again this year, we reached a new high in research funding, but the total requires some explanation. Last year, we received $25 million in funding through the “American Recovery and Reinvestment Act.” This one-time stimulus funding was used for construction and equipment costs. With that extra help, our total funding rose from $479 million last year to $486 million this year, a 1.5 percent increase. When you exclude the one-time stimulus funding, our total research funding actually increased 12.5 percent. That is clearly a tremendous accomplishment in a very challenging economic environment, and I extend congratulations and thanks to our entire faculty. This kind of growth is nothing new. Since 2000, we have secured almost $4 billion in extramural funds for the School of Medicine.

INCREASING THE IMPACT OF RESEARCH AND DISCOVERY ON HUMAN HEALTH

Our Goals:
- Create and/or expand research magnet programs and funding
- Increase emphasis on translational research
- Increase emphasis on collaboration and multi-disciplinary groups
- Increase consortia grants and contacts
- Enhance faculty recruitment and retention
- Achieve Top-10 ranking

MAJOR PROGRAMS BASED ON FUNDING
- AIDS/HIV
- Aging
- Bioterrorism Defense
- Cardiovascular Disease
- Cancer
- Community Mental Health
- Diabetes
- Disparities
- Genomics
- Infectious Diseases
- Metabolic Disorders
- Schizophrenia
- Transplant
- Trauma
- Vaccines

New RESEARCH PROGRAMS

Recognizing the importance of translational medicine, biotechnology and collaboration, we have created two new major research programs:

1) The Program in Personalized and Genomic Medicine is led by Alan Shuldiner, MD, the John L. Whitehurst Endowed Professor of Medicine and the new associate dean of Personalized and Genomic Medicine.

2) The Center for Biomedical Technologies at College Park is led by David Weber, PhD, professor of Biochemistry and Molecular Biology.
FIGHTING Schizophrenia

 Researchers at the School of Medicine are making strides in the quest for new treatments for schizophrenia, a debilitating brain disease affecting one percent of the world’s population. Under the leadership of director WILLIAM CARPENTER, MD, professor, Department of Psychiatry, the Maryland Psychiatric Research center (MPRC) is using brain imaging and animal models to better understand neuro circuits and receptors in the brain.

For the first time, MPRC scientists have linked a brain compound called kynurenic acid to cognition; possibly opening doors for new ways to enhance memory function and treat catastrophic brain diseases. When researchers decreased the levels of kynurenic acid in the brains of mice, their cognition was shown to improve markedly.

The study, which was published in the journal Neuropsychopharmacology, is the result of decades of pioneering research in the lab of ROBERT SCHWARCZ, PHD, professor, Departments of Psychiatry, Pediatrics and Pharmacology and Experimental Therapeutics.

THE FUTURE OF Transplant Research

School of Medicine researchers are leading the way in transplant research, uncovering the secrets of the immune system in order to prevent rejection following organ transplants.

JONATHAN S. BROMBERG, MD, PHD, who heads the division of transplantation within the Department of Surgery, is studying the migration and trafficking of lymphocytes and the structure of secondary lymphoid organs. “We are one of the very few laboratories in the world looking at how structure affects immune response,” says Dr. Bromberg. “We are the only laboratory in the world looking at that structure in terms of transplant models.” Another area of interest is the microbiota — the microorganisms that live on and inside of the human body.

TARGETING Malaria

MYRON LEVINE, MD, DTPH, the Simon and Bessie Grollman Distinguished Professor of Medicine, and director of the University of Maryland School of Medicine’s Center for Vaccine Development (CVD), is reporting significant progress in the search for an effective malaria vaccine.

KIRSTEN LYKE, MD, associate professor, Department of Medicine, is on a team of researchers who developed a safe malaria vaccine that uses the entire malaria parasite to produce a strong immune response. The vaccine is unique in that it employs the entire malaria parasite, while most experimental malaria vaccines consist of just one or at most a few proteins found in the parasite. The vaccine — the first whole parasite vaccine to be approved by the U.S. Food & Drug Administration for clinical trials — could provide unprecedented immune responses against malaria when administered intravenously.

Another important breakthrough came from CHRISTOPHER PLOWE, MD, PHD, professor, Department of Medicine. In a study published in the New England Journal of Medicine, Dr. Plowe and his team demonstrated the importance of matching the vaccine to the particular strain of malaria circulating in the population.
This section features the outstanding work of just a few of our investigators who secured very large and prestigious grants last year. Featured here are investigators who received NIH grants, non-NIH grants, multiple NIH RO1 grants, research cooperative agreements, as well as young investigators who secured their first NIH RO1 grants.

**Largest NIH Grants**

**Thomas MacVittie, PhD,** professor, Departments of Radiation Oncology and Pathology, received a five-year $54.2 million grant from the National Institute of Allergy and Infectious Diseases (NIAID) to study radiation and nuclear medical countermeasure product development.

**Jay Magaziner, PhD, MSHyg,** professor and chair, Department of Epidemiology & Public Health, received a five-year $11.8 million grant from the National Institute on Aging for his study on community ambulation following hip fracture.

**Alan Shuldiner, MD,** associate dean for Personalized and Genomic Medicine and the John L. Whitehurst Professor of Medicine, received a five-year $11.4 million grant from the National Heart Lung and Blood Institute (NHLBI) for his “Pharmacogenomics of Anti-platelet Interventon-2 (PAPI-2)” study.

**Christopher Plowe, MD, MPH,** professor, Departments of Medicine, Epidemiology & Public Health and Microbiology & Immunology, and Doris Duke Distinguished Clinical Scientist Investigator, Howard Hughes Medical Institute, received a four-year $7.5 million grant from the NIAID for a clinical trial of Trimethoprim-Sulfamethoxazole or Chloroquine in adults on ART.

**Dean Mann, MD,** professor, Departments of Pathology and Microbiology & Immunology, received a five-year $7.3 million grant from the National Cancer Institute to fund his research, entitled “Resource for the Collection and Evaluation of Human Tissues and Cells from Donors with an Epidemiology Profile.”

**Alan Shuldiner, MD,** associate dean for Personalized and Genomic Medicine and the John L. Whitehurst Professor of Medicine, and Andrew Goldberg, MD, professor, Departments of Medicine and Family & Community Medicine, and director, Geriatric Research, Education and Clinical Center, received a five-year $5.8 million grant from National Institute of Diabetes, Digestive and Kidney Diseases to support the Mid-Atlantic Nutrition & Obesity Research Center.

**W. Jonathan Lederer, MD, PhD,** professor, Department of Physiology, received a four-year $5.5 million multiple PI grant from the NHLBI for his “Calcium Entrained Arrhythmias” study.

**Igor Lukashevich, MD, PhD,** associate professor, Department of Neurology, received a five-year $4.3 million grant from the NIAID for the development of new bivalent cross-protective arenaviral vaccines.
**Lynn Grattan, PhD**, associate professor, Departments of Neurology, Psychiatry, and Epidemiology & Public Health, received a five-year $4.3 million grant from the National Institute of Environmental Health Sciences to study domoic acid neurotoxicity in Native Americans.

**Rose Viscardi, MD**, professor, Department of Pediatrics, received a five-year $3.1 million multiple PI grant from the National Institute of Child Health and Human Development to fund a study of Azithromycin to prevent BPD in ureaplasmia-infected preterms.

**Mary McKenna, PhD**, professor, Department of Pediatrics, received a three-year $2.9 million grant from the National Institute of Child Health and Human Development to study the metabolic developmental aspects of intellectual disability.

**Michael Shipley, PhD**, Donald E. Wilson, MD, MACP, Distinguished Professor and chair, Department of Anatomy & Neurobiology, received a five-year $2.3 million grant from the National Institute on Deafness and Other Disorders to study the modulation of glomerular function.

**Thomas MacVittie, PhD**, professor, Departments of Radiation Oncology and Pathology, received a five-year $51.0 million award from Aeuulus Pharmaceuticals to study the development of medical countermeasures for pulmonary injury associated with radiation exposure.

**Robert Gallo, MD**, professor and Director, Institute of Human Virology, Departments of Medicine and Microbiology & Immunology, received a five-year $16.8 million award from the Bill & Melinda Gates Foundation to fund a Phase I clinical trial of a novel HIV vaccine candidate.

**Gary Fiskum, PhD**, the Matjasko Professor for Research in Anesthesiology, and vice chair, Department of Anesthesiology, received a three-year $2.6 million award from the U.S. Air Force to study prolonged hypobaria during aeromedical evacuation and the effects on TBI.

**Robert O’Toole, MD**, assistant professor, Department of Orthopaedics, received a five-year $3.5 million award from the Department of Defense to fund a multicenter randomized controlled trial to reduce infection after operative treatment of fractures at high risk of infection.

### Awardees with 4 or more existing NIH R01 Grants

- **Patricio O’Donnell, MD, PhD**, professor, Departments of Anatomy & Neurobiology and Psychiatry
  - Totaling $1.2 M/yr
- **Geoffrey Schoenbaum, MD, PhD**, professor, Departments of Anatomy & Neurobiology and Psychiatry
  - Totaling $1.0 M/yr
Awardees with 3 or more existing NIH R01 Grants

Jonathan Bromberg, MD, PhD, professor, Departments of Surgery and Microbiology & Immunology

Totaling $1.0 M/yr

Alan Faden, MD, David S. Brown Professor in Trauma, professor, Departments of Anesthesiology, Anatomy & Neurobiology, Neurology and Neurosurgery

Totaling $1.2 M/yr

Asaf Keller, PhD, professor, Department of Anatomy & Neurobiology

Totaling $1.1 M/yr

Joseph Lakowicz, PhD, professor, Department of Biochemistry & Molecular Biology

Totaling $1.0 M/yr

Stephen Liggett, MD, associate dean for Interdisciplinary Research, professor, Departments of Medicine and Physiology

Totaling $1.1 M/yr

Iris Lindberg, PhD, professor, Departments of Anatomy & Neurobiology and Biochemistry & Molecular Biology

Totaling $1.0 M/yr

Wuyuan Lu, PhD, professor, Department of Biochemistry & Molecular Biology

Totaling $0.7 M/yr

Marc Simard, MD, PhD, professor, Departments of Neurosurgery, Pathology, and Physiology

Totaling $1.0 M/yr

Eric Sundberg, PhD, associate professor, Department of Medicine

Totaling $1.0 M/yr

Paul Welling, MD, professor, Department of Physiology

Totaling $1.4 M/yr

Jian-Ying Wang, MD, PhD, professor, Department of Surgery

Totaling $0.9 M/yr

Young Investigators with First NIH R01 Grants

Matthew Frieman, PhD, assistant professor, Department of Microbiology & Immunology, received a five-year $1.9 million R01 from the NIAID to study the role of the epithelial growth factor receptor in SARS coronavirus pathogenesis.

Alicia Lucksted, PhD, assistant professor, Department of Psychiatry, received a two-year $1.1 million R01 from the National Institute of Mental Health to study RCT to improve internalized stigma & services engagement among people with SMI.

Wayne Wang, PhD, assistant professor, Department of Medicine, received a five-year $1.9 million R01 from the NHLBI to study novel mechanisms of smooth muscle beta2-receptor regulation relevant to asthma.
Research RANKINGS

How do we measure the quality and impact of our academic scholarship? **Funding is a standard, objective measure of program excellence because it is secured through a competitive process. It is also a direct reflection of the strength of our research enterprise.** The Association of American Medical Colleges collects data for all medical schools across the nation in order to create objective rankings based on total grants and contracts and direct expenditures. In 2010, we ranked **7th among the 76 public medical schools** nationwide, which puts us in the **top 10 percent.**

Of the 134 public and private medical schools across the nation, we remain in the top 15 percent, ranking 17th. Both rankings are pleasing to us, but our sights are set much higher **FIGURE 18.**

Another important measure we want to look at is **technology transfer.** In FY10 and FY11, some 40 patents have been issued for innovations and discoveries made by School of Medicine faculty members **FIGURE 19.** We are making an impact through an increased number of scientific disclosures, technology licenses, and start-up companies. Many new therapies are in the phase-two or phase-three clinical trial stage. They’re focused on diseases with high morbidity, high mortality, and high disability **FIGURE 20.** I want to acknowledge our faculty inventors and the companies that have formed as a result of their hard work.

**FIGURE 18**

**ALL PUBLIC SCHOOLS**

7th out of 76*

2010 Total Grants and Contracts Direct Expenditures Public Schools, All Regions

<table>
<thead>
<tr>
<th>RANK/SCHOOL</th>
<th>GRANTS &amp; CONTRACTS</th>
</tr>
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<tbody>
<tr>
<td>1 / UWASH</td>
<td>$744,241,083</td>
</tr>
<tr>
<td>2 / UCSF</td>
<td>$716,979,382</td>
</tr>
<tr>
<td>3 / UCLA-Geffen</td>
<td>$549,560,156</td>
</tr>
<tr>
<td>4 / UCSD</td>
<td>$364,628,771</td>
</tr>
<tr>
<td>5 / Colorado</td>
<td>$342,098,194</td>
</tr>
<tr>
<td>6 / Michigan</td>
<td>$327,871,117</td>
</tr>
<tr>
<td>7 / Maryland</td>
<td>$324,777,012</td>
</tr>
<tr>
<td>8 / North Carolina</td>
<td>$281,859,300</td>
</tr>
<tr>
<td>9 / UT Western</td>
<td>$242,731,977</td>
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<tr>
<td>10 / Alabama</td>
<td>$242,368,892</td>
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*Association of American Medical Colleges (AAMC)

**FIGURE 19**

**TECHNOLOGY TRANSFER**

<table>
<thead>
<tr>
<th>FY2010</th>
<th>FY2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Patents Issued</td>
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</tr>
<tr>
<td>Foreign Patents Issued</td>
<td>29</td>
</tr>
<tr>
<td>Scientific Disclosures</td>
<td>83</td>
</tr>
<tr>
<td>Technology Inventions Licensed</td>
<td>15</td>
</tr>
<tr>
<td>Start-Up Companies Formed</td>
<td>4</td>
</tr>
</tbody>
</table>

**FIGURE 20**

**SELECTED SCHOOL OF MEDICINE INVENTIONS**

*(ON THE MARKET OR IN ADVANCED CLINICAL TRIALS)*

<table>
<thead>
<tr>
<th>INNOVATIONS</th>
<th>SOM INVENTORS</th>
<th>COMPANIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products on the Market: Stroke Rehab Device</td>
<td>Jill Whithall, PhD</td>
<td>EncorePath, Baltimore</td>
</tr>
<tr>
<td>Medical Information System</td>
<td>Marcelo Cardarelli, MD, MPH</td>
<td>Bink Medical Technologies, Baltimore</td>
</tr>
<tr>
<td>Phase III Clinical Trials: Cholera Vaccine (2012)</td>
<td>Myron Levine, MD, DTPH</td>
<td>PaxVax, San Diego</td>
</tr>
<tr>
<td>Phase II Clinical Trials: Stroke</td>
<td>Marc Simard, MD, PhD</td>
<td>Remedy Pharmaceuticals, New York</td>
</tr>
<tr>
<td>Celiac Disease</td>
<td>Alessio Fasano, MD</td>
<td>Alba Therapeutics, Baltimore</td>
</tr>
<tr>
<td>Cancer</td>
<td>Scott Strome, MD</td>
<td>Gliknik, Baltimore</td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td>Vincent Njar, PhD, Angela Brodie, PhD</td>
<td>Tokai, Boston</td>
</tr>
</tbody>
</table>
As you might imagine, it takes a lot of space to conduct research at the highest level. Unfortunately, we don’t have a lot of it. From a positive perspective our lack of space is a sign of productivity. **We are securing about $475 of grant funding per square foot, making us the 14th most efficient medical school with regard to the use of research space** FIGURE 21. That’s good news! The bad news is we don’t have enough research space to grow, to recruit faculty, and to expand our research programs as much or as quickly as we would like.

**FIGURE 21**
SPONSORED PROGRAMS EXPENDITURES PER Net Assignable Square Foot

The construction of the SOM research building, Health Sciences Facility III (HSF III) will open the doors to the expansion of our research programs, which already comprise the fourth fastest growing research enterprise in the country, according to the AAMC. **This year, I am pleased to report that we are well on our way toward making HSF III a reality.** I want to acknowledge and thank the Maryland General Assembly for approving $4 million dollars in matching funds to begin the architectural and engineering design of HSF III. This is a $286 million and over 300 square-foot research building. We have also received tremendous support from the Governor’s office, from University of Maryland President Jay Perman, MD, and from University System of Maryland Chancellor William Kirwan, PhD. They recognize our physical constraints and have been very supportive of our need for a new research building. I can’t wait to see this building get started. HSF III will be located on the site of the old Dental School on Baltimore Street **FIGURE 22.**
Over 1,131,400 patients

CLINICAL CARE

Niharika Khanna, MD, associate professor of family and community medicine
Our clinical vision starts with our strong clinical partnership with the University of Maryland Medical System (UMMS). There are 12 hospitals within the Medical System, with care provided by School of Medicine faculty. We are inextricably linked to each other and as a consequence, we’re able to provide the best possible patient-centered care across the state. I am working with UMMS President and CEO Robert Chrencik to assure a symbiotic organizational alignment. The benefits of this partnership are evident throughout this publication and are chronicled by our joint annual report.

Our faculty members deliver care through University of Maryland Faculty Physicians, Inc. (FPI—formerly UPI), which generated $227 million in total revenue in FY11, a seven percent increase Figure 23. Our faculty practice, which generates clinical dollars to support school salaries and operations, continued to be successful despite the ongoing challenge of reduced reimbursements. Total patient volume, including inpatient and outpatient visits increased 3.5 percent to 1.1 million, while admissions to the University of Maryland Medical Center increased 3.3 percent to 39,500 Figure 24. In addition, we had very substantial and very respectable improvements in three key indicators of practice plan performance. The number of days in accounts receivable was reduced to 48 days. The number of accounts greater than 90 days was down to 20 percent and the initial denial rate was down to 6.2 percent Figure 25. This is excellent practice plan performance. I owe a debt of gratitude to our practice leadership and staff, our faculty leaders, and to our practice plan managers who collectively made these results possible.

**Figure 23**

**Clinical Revenue**

<table>
<thead>
<tr>
<th>Year</th>
<th>Clinical Revenue (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY06</td>
<td>$160.6</td>
</tr>
<tr>
<td>FY07</td>
<td>$175.7</td>
</tr>
<tr>
<td>FY08</td>
<td>$194.5</td>
</tr>
<tr>
<td>FY09</td>
<td>$210.0</td>
</tr>
<tr>
<td>FY10</td>
<td>$212.7</td>
</tr>
<tr>
<td>FY11</td>
<td>$227.2</td>
</tr>
</tbody>
</table>

**Figure 24**

**Patient Care Statistics**

<table>
<thead>
<tr>
<th>Practice Plan Performance</th>
<th>2010</th>
<th>2011</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Patient Volumes</td>
<td>1,092,623</td>
<td>1,131,405</td>
<td>3.5%</td>
</tr>
<tr>
<td>Admissions</td>
<td>38,332</td>
<td>39,585</td>
<td>3.3%</td>
</tr>
<tr>
<td>Inpatient Surgeries</td>
<td>14,035</td>
<td>14,896</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

**Figure 25**

**Key Indicators for Billing & Collections**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>FY10</th>
<th>FY11</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days in Accounts Receivable</td>
<td>51</td>
<td>48</td>
<td>3.0%</td>
</tr>
<tr>
<td>Accounts Receivable &gt; 90 days</td>
<td>23.1%</td>
<td>20.3%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Initial Denial Rate</td>
<td>6.7%</td>
<td>6.2%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>
Clinical Care HIGHLIGHTS

THE PATIENT-CENTERED Medical Home PROMISES EFFICIENCY AND AFFORDABILITY IN HEALTHCARE

A team from the University of Maryland Department of Family and Community Medicine will lead education and training for Maryland’s Patient Centered Medical Home program, a pilot project to examine if a new patient care structure can improve care and bring down health care costs.

The educational training program is called the Maryland Learning Collaborative (MLC). Under the leadership of associate professor and chair DAVID STEWART, MD, the MLC will educate, train and support primary care practices selected to participate in the program. Medical home patients will receive care from a single team that includes a primary physician, specialists, pharmacists, and nurses. Electronic medical records are used instead of paper, and medication is prescribed electronically. Healthcare providers will have evening and weekend hours.

“The Maryland Learning Collaborative brings together representatives from many diverse perspectives, patients, academics and representatives from government, industry and the community,” says NIHARIKA KHANNA, MD, associate professor of family and community medicine and MLC program director.

Social Media HELPS ADOLESCENT HIV PATIENTS

“Youth represent the highest percentage of new HIV infection of any age group in the United States,” says LIGIA PERALTA, MD, associate professor of pediatrics at the School of Medicine, chief of the Division of Adolescent and Young Adult Medicine and director of the Adolescent HIV Program at the University of Maryland Medical Center.

Dr. Peralta has developed a “one-stop shopping” model of service for adolescents and young adults, which includes anonymous, confidential, and free HIV testing and counseling; advanced gynecological examinations, including colposcopy and cervical dysplasia screening using digital photographs; sexual and substance abuse counseling and treatment, and pharmacy, dental and legal services.

This one-stop shopping model includes a unique social media program to communicate with young people through Facebook and text messaging.

“We have youth who are being trained in using social media, to be able to answer questions, screen patients and link people to care immediately,” says Dr. Peralta.
“Dr. Watson” COMES TO THE SCHOOL OF MEDICINE

Many people watched on television as IBM's Watson computer went on to become a champion on the popular game show “Jeopardy,” beating two top human contenders. Now Watson is a student at the University of Maryland School of Medicine.

The University of Maryland is one of only two universities to be collaborating with IBM on this groundbreaking artificial intelligence technology. Watson is learning how to assist physicians, and help them to become more efficient and effective.

“When a patient sees his or her primary physician or goes into the emergency room, we want Watson to be there, listening to the conversation between the practitioner and the patient to come up with questions and suggested treatment possibilities, says ELIOT L. SIEGEL, MD, professor of diagnostic radiology and nuclear medicine. Watson has an amazing ability to comprehend human language, a barrier that has been a challenge for computer designers for many years.

PLANNED Proton Therapy Center TO BRING CUTTING EDGE CANCER CARE TO THE UNIVERSITY OF MARYLAND

The University of Maryland School of Medicine, through its affiliated clinical faculty practice group, is playing a key role in plans for an estimated $200 million project to bring to Maryland for the first time the most advanced radiation technology in cancer treatment, called proton therapy.

A major news conference was held to announce a collaborative venture with the Advanced Particle Therapy Company. “This is the next-generation improvement in radiation oncology,” says WILLIAM F. REGINE, MD, professor and Isadore & Fannie Schneider Foxman Endowed Chair in Radiation Oncology and interim chair of the Department of Diagnostic Radiology and Nuclear Medicine. “It allows us the unprecedented ability to deliver a targeted dose of lifesaving radiation therapy directly to the tumor while minimizing radiation to the healthy tissue.” The center, which would include an on-site hotel, is expected to open by 2014.

SHOCK TRAUMA Critical Care Tower PROGRESS

Significant progress has also been made on the new Critical Care Tower for the R Adams Cowley Shock Trauma at the University of Maryland, which will ease a shortage of bed space. A topping out ceremony for the new building was held on June 9, led by Shock Trauma Physician-in-Chief THOMAS SCALEA, MD the Francis X. Kelly Professor in Trauma. Originally built to treat 3,500 patients per year, Shock Trauma housed over 8,000 patients last year.
PARTNERSHIP AND RECOGNITION

The Power of Partnership and Institutional Alignment
PARTNERSHIP AND RECOGNITION

I want to bring special attention to some very prestigious awards stemming from our strong partnership with the University of Maryland Medical System. I am pleased to congratulate our clinical faculty and the medical center for earning a number of important accolades. Credit goes not only to our faculty, but to the leadership and staff of the medical center for their hard work and dedication to excellence in patient care.

• The University of Maryland Medical Center (UMMC) has been designated by the Leapfrog Group, as a Top Hospital of the Decade for patient safety and quality of care.
• Once again, UMMC has been ranked among the top 50 hospitals nationwide in nine specialties by U.S. News and World Report. In addition to a great showing in the Best Hospital rankings, more than 40 School of Medicine faculty physicians were named to the U.S. News and World Report’s Top Doctors list.
• UMMC has been designated as a Cardiac Interventional Center by the state of Maryland. The designation means that ambulances transporting patients suffering from life-threatening, in-progress heart attacks will take patients directly to centers such as UMMC.

• A total of 66 School of Medicine physicians, all of whom also practice at the UMMC, were selected to Baltimore Magazine’s list of “Top Doctors.” The results are based on a Baltimore Magazine survey of more than 5,500 randomly selected physicians in the Baltimore area, including Baltimore City and the surrounding five counties, asking where they would send a member of their family in each of 86 specialties.

• The American Heart Association recognized UMMC with the Gold Level Award as a Fit-Friendly Company.
• UMMC received two prestigious environmental excellence awards: The 2010 Trailblazer Award, for its innovative pharmaceutical waste program, and a national environmental excellence award from Practice Greenhealth.
• Specialists at the UMMC Center for Diabetes and Endocrinology and UniversityCare received the National Committee on Quality Assurance Diabetes Recognition. This is given to top clinicians who have demonstrated a high level of performance in delivering care to patients with diabetes.
• Lisa Rowen, DNSc, RN, Chief Nursing Officer, and Senior Vice President of Patient Care Services, received the nursing excellence award from Nursing Spectrum magazine in the category of “Advancing and Leading the Profession.”
COMMUNITY SERVICE

The School of Medicine is recognized in Baltimore and beyond for its service to the community. Our faculty, staff and students are actively involved in hundreds of projects to improve health and well-being, and to improve the quality of life for those less fortunate.

Community outreach and service remains a cornerstone of the student experience at the School of Medicine, and this year our student body participated in more than 250 projects. The Student National Medical Association (SNMA) at the School of Medicine was so active in the community, it was named national chapter of the year. **SNMA members provided health education and screening in the community**, collected coats and blankets for the homeless, and provided school supplies and Christmas gifts for children in need **FIGURE 26**.

For the 21st consecutive year, our medical students organized **Project Feast to feed hundreds of Baltimore’s homeless and needy families on Thanksgiving Day**. Students, faculty, staff, and friends gathered at Booker T. Washington Middle School in Baltimore City to help prepare and serve a hot Thanksgiving meal and accept donations to help the needy **FIGURE 27**. Other community outreach events included the Student Sight Savers Project, which offered glaucoma screenings at Lexington Market.

**Mini-Med School** — held annually in the Fall — featured nine new topics to improve the health and well-being of Baltimore area residents. Faculty members generously gave their time and knowledge to help people learn how to prevent and treat illness. More than 300 people attended this year’s edition of the popular community outreach initiative **FIGURE 28**.

The School of Medicine also sponsors Mini-Med School programs on the Eastern Shore, in western and southern Maryland, and at Baltimore area high schools. Mini-Med School is not only important for the improvement of the health and well-being of the community, but it provides inspiration and motivation that transforms lives. **One of our Mini-Med School students, who attended as a college student, was so inspired that he enrolled in the School of Medicine and will graduate in 2012**. In the past decade, nearly 6,000 people have participated in Mini-Med School **FIGURE 29**.

```
<table>
<thead>
<tr>
<th>Maryland Region</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore</td>
<td>165</td>
<td>150</td>
<td>200</td>
<td>300</td>
<td>225</td>
<td>220</td>
<td>243</td>
</tr>
<tr>
<td>Baltimore-Ele/Middle</td>
<td>35</td>
<td>40</td>
<td>75</td>
<td>55</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baltimore-High School</td>
<td>20</td>
<td>105</td>
<td>85</td>
<td>100</td>
<td>75</td>
<td>75</td>
<td>230</td>
</tr>
<tr>
<td>Eastern Shore</td>
<td>140</td>
<td>105</td>
<td>105</td>
<td>120</td>
<td>80</td>
<td>80</td>
<td>62</td>
</tr>
<tr>
<td>Western Maryland</td>
<td>180</td>
<td>150</td>
<td>140</td>
<td>154</td>
<td>132</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Bioethics (statewide)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>510</td>
<td>442</td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>505</td>
<td>510</td>
<td>565</td>
<td>714</td>
<td>587</td>
<td>940</td>
<td>1,137</td>
</tr>
</tbody>
</table>
```

**TOTAL NUMBER OF PARTICIPANTS BETWEEN 2005-2011 = 5,849**
Some community outreach goes beyond the borders of Baltimore, beyond Maryland, and beyond the United States. Last year a delegation from Bosnia and Herzegovina, led by that country’s president, came to the University of Maryland. The Maryland delegation included Executive Vice Dean Bruce Jarrell, MD, who invited a special guest to attend the event: first-year medical student Vedrana Hodzic, a native of Bosnia. Hodzic greeted President Bakir Izetbegovic in Bosnian, her native language FIGURE 30. The formal meeting concluded with the signing of a cooperative agreement to pursue partnerships and exchanges that would be mutually beneficial.
The School of Medicine’s total revenues are nearly $1 billion
The School of Medicine’s total revenues are nearly $1 billion. More than half of our total operating budget (53 percent) is comprised of research grants and contracts. Excluding one-time stimulus funding from the previous year, research funding increased 12.5 percent and 1.5 percent overall to $486.3 million in FY11. A large portion of our revenue (40 percent) comes from clinical activities performed by faculty physicians, with 24 percent from practice plan fees for service, and 15 percent from contracts with our hospital partners. The remaining income comes from tuition, state appropriations and/or gifts. Even in these times of economic uncertainty, we were pleased to see increases from all revenue sources except direct state support FIGURE 32.

The School of Medicine’s direct economic impact on the region is nearly $2 billion. The total is even more impressive when you combine the impact of the school and our clinical partners. The University of Maryland Medical Center has an economic impact of $2 billion and the economic impact of the system’s other healthcare facilities is $1.4 billion. Together, our economic impact on the state of Maryland is more than $5 billion.

Because of declining state support and an uncertain economy, private gifts are critical, if we are to sustain our standard of excellence and continue our research growth. Thanks to the efforts of the Office of Development, I am pleased to report that private gifts and pledges reached $66.1 million dollars in FY11, an eight percent increase over last year and a new record FIGURE 32.

FIGURE 31
REVENUE IN Millions

<table>
<thead>
<tr>
<th></th>
<th>FY10</th>
<th>FY11</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants &amp; Contracts</td>
<td>$479.1</td>
<td>$486.3</td>
<td>1.5%</td>
</tr>
<tr>
<td>Tuition &amp; Fees</td>
<td>$22.7</td>
<td>$23.6</td>
<td>4.0%</td>
</tr>
<tr>
<td>Medical Service Plan (UPI)</td>
<td>$212.7</td>
<td>$227.2</td>
<td>6.8%</td>
</tr>
<tr>
<td>Affiliated Hospitals</td>
<td>$122.5</td>
<td>$140.6</td>
<td>14.8%</td>
</tr>
<tr>
<td>Gifts &amp; Endowment Expenditures</td>
<td>$14.0</td>
<td>$11.3</td>
<td>-19.3%</td>
</tr>
<tr>
<td>State Appropriations</td>
<td>$30.5</td>
<td>$29.6</td>
<td>-3.0%</td>
</tr>
</tbody>
</table>

FIGURE 32
Private Support BY YEAR
I want to acknowledge and thank a number of individual donors who made significant gifts to the School of Medicine. We were grateful to receive six seven-figure gifts, ranging from $1.1 million to $2.8 million FIGURE 33. The largest donation came from the family of Frederick Henry Prince to establish the Prince Distinguished Professorship in Neurology. Two large gifts were made by School of Medicine Board of Visitors members. Peter Angelos donated $1.2 million to the Department of Surgery and the Dean’s Academic Development Fund. Stewart Greenebaum donated $1.5 million to support cancer care and the Institute of Human Virology.

FIGURE 33

FY2011 SELECTED PHILANTHROPIC GIFTS

<table>
<thead>
<tr>
<th>Donor</th>
<th>Gift Amount</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Frederick H. Prince, IV &amp; Mrs. Diana A. Prince</td>
<td>$2,853,088</td>
<td>Neurology</td>
</tr>
<tr>
<td>Mr. and Mrs. Stewart J. Greenebaum*</td>
<td>$1,525,000</td>
<td>Oncology, IHV</td>
</tr>
<tr>
<td>Mr. Peter Angelos*</td>
<td>$1,271,000</td>
<td>Surgery, Dean’s Academic Development Fund</td>
</tr>
<tr>
<td>ANONYMOUS</td>
<td>$1,160,000</td>
<td>Center for Integrative Medicine</td>
</tr>
<tr>
<td>Orokawa Foundation</td>
<td>$702,500</td>
<td>Radiation Oncology, Oncology, Medicine, Otorhinolaryngology</td>
</tr>
<tr>
<td>Mr. Willard Hackerman*</td>
<td>$687,800</td>
<td>Dean’s Academic Development Fund</td>
</tr>
<tr>
<td>Ms. Carolyn B. McGuire-Frenkil*</td>
<td>$545,050</td>
<td>Medical Education, Dean’s Academic Development Fund, Center for Research on Aging</td>
</tr>
</tbody>
</table>

**TOTAL** $8,744,438

* SOM Board of Visitors

In the past year, the School of Medicine awarded three endowed professorships during two special investiture ceremonies. Sharon M. Henry, MD, FACS, was awarded the Anne Scalea Professorship in Trauma. The professorship was established in honor of Anne Scalea, mother of Thomas M. Scalea, MD, the Francis X. Kelly Professor in Trauma Surgery and physician-in-chief of the R Adams Cowley Shock Trauma Center, as a living legacy to honor her guidance and inspiration FIGURE 34.

In a first-of-its kind investiture ceremony, the School of Medicine awarded two endowed professorships in Anesthesiology funded by one donor — the late M. Jane Matjasko, MD, who chaired the department from 1986 to 2005. Vice Chair Gary Fiskum, PhD, was named the Matjasko Professor for Research in Anesthesiology and Vice Chair Mary Njoku, MD, was named the Matjasko Professor for Education in Anesthesiology FIGURE 35.

Our annual Fund for Medicine Gala, entitled “Horizons of Discovery,” was an outstanding success with more than 700 community leaders, alumni, faculty, students, staff and SOM board members in attendance. This past year, the event was co-chaired by Board of Visitor member Patrick McCuan and his wife Jill. The gala raised more than $500,000 for the School of Medicine, money that will provide critical funding for both translational research and clinical initiatives FIGURE 36.

FIGURE 34

Stephen Bartlett, MD and E. Albert Reece, MD, PhD, MBA with Sharon M. Henry, MD, FACS

FIGURE 35

Mary Njoku, MD and Gary Fiskum, PhD
This year, the School of Medicine, the University of Maryland, the University of Maryland Medical System and the faculty practice plan unveiled a new visual identity. This University-wide visual identity includes a common logo and colors to reflect our campus-wide collaboration. The goal of the new look is to provide a simplified and consistent external public image to students, faculty, staff, alumni, patients, referring physicians, donors and the community that is easy to recognize and visually unifying. Under the new brand, the School of Medicine will retain the use the original Davidge Hall dome symbol to reflect our history as the oldest public medical school in the nation, founded in 1807. In addition to a new logo, University Physicians, Inc. (UPI) now has a new name: University of Maryland Faculty Physicians, Inc. (FPI). FPI is in the midst of a $10 million renovation of its downtown professional building on Redwood Street to make it even more patient friendly FIGURE 37.
Joseph Martinez, MD, assistant dean for Student Affairs, assistant professor, Department of Emergency Medicine, was selected by the medical students to address the graduating class at the 2010 convocation ceremony.

Gary Plotnick, MD, professor, Department of Medicine, was elected by the graduating medical students to receive the Golden Apple Award — Clinical.

Cedric Yu, DSc, Carl M. Mansfield, MD, Endowed professor in Radiation Oncology was named 2010 University of Maryland Founders Week Faculty Entrepreneur of the Year.

Yvette Rooks MD, assistant professor, Department of Family and Community Medicine, was named 2010 University of Maryland Founders Week Public Servant of the Year.

Kevin Cullen, MD, professor, Departments of Medicine and Pharmacology & Experimental Therapeutics, director, University of Maryland Marlene and Stewart Greenebaum Cancer Center, was appointed by President Obama to the National Cancer Center Advisory Board for a six-year term.

Myron Levine, MD, DTPH, Simon and Bessie Grollman Distinguished Professor, Department of Medicine, and director, Center for Vaccine Development, will receive the Maurice Hilleman/Merk Award from the American Society for Microbiology.

Elijah Saunders, MD, clinical professor, Department of Medicine, head, Section of Hypertension, has received the AAMC Herbert W. Nickens Award for outstanding contributions to the promotion of justice in medical education and healthcare.

Stephen B. Liggett, MD, associate dean for Interdisciplinary Research, professor, Departments of Medicine and Physiology, director, Cardiopulmonary Genomics Program, discovered that bitter taste receptors are not just located in the mouth, but also in human lungs.

Christopher Plowe, MD, MPH, professor, Departments of Medicine, Epidemiology & Public Health, and Microbiology & Immunology; the Doris Duke Distinguished Clinical Scientist Investigator and the Howard Hughes Medical Institute Investigator, developed a blood-stage vaccine — a major goal of malaria prevention research.

Bartley Griffith, MD, Thomas E. and Alice Marie Hales Distinguished Professor in Transplant Surgery, is the primary investigator on a national study investigating the efficacy of repairing lungs before transplant.

Dr. Griffith, professor, Department of Surgery, and chief of Cardiac Surgery at the University of Maryland Medical Center, was named 2010 University of Maryland Founders Week Faculty Research Lecturer of the Year.
In Memoriam

Sadly, a few School of Medicine family members have left us:

**Hugo Gonzalez-Serratos, MD, MSc, PhD**, professor, Department of Physiology, died on April 1, 2011, at the age of 78. Dr. Gonzalez-Serratos was a School of Medicine professor for more than 32 years. He developed the popular Medical Spanish program offered to 1st and 2nd year medical students. His major research interests included skeletal muscle, excitation-contraction coupling, and mechanisms that cause muscle fatigue.

**Kenneth Johnson, MD**, former professor and chair, Department of Neurology, died on September 3, 2011, at the age of 79. During his tenure as chair, the department grew from 8 to 35 members. Dr. Johnson founded the Maryland Center for Multiple Sclerosis in 1983 and discovered treatments for patients. Today, the center cares for one-third of the MS patients in the Mid-Atlantic area.

**Elizabeth ‘Lisa’ Kimbrough, PhD, MPH**, assistant professor, Department of Family and Community Medicine died on January 3, 2011, at the age of 54. A graduate of the School of Medicine, Dr. Kimbrough conducted research at the Center for Integrative Medicine. She authored and co-authored more than 75 publications and served on the review panel of five peer-reviewed journals.

**M. Jane Matjasko, MD**, the former Martin A. Helrich Professor and Chair of the Department of Anesthesiology, died on January 10, 2011, at the age of 69. Dr. Matjasko chaired the department from 1990 to 2005. She was a generous supporter of the School of Medicine and established two endowed professorships in research and education.

**Renee Royak-Schaler, PhD, MEd**, associate professor, Department of Epidemiology & Public Health, died on May 22, 2011, at the age of 64. A graduate of the University of Maryland, Dr. Royak-Schaler led the Masters of Public Health program to a successful 5-year accreditation in record time.

**Margaret ‘Meg’ Zupancic, PhD**, a post doctoral fellow in the Institute for Genome Sciences, died on October 7, 2010, at the age of 36. A graduate of Johns Hopkins University, Dr. Zupancic’s research involved human microbiome interaction with the genetic basis of obesity.
MEDIA COVERAGE

Expanding News Coverage — From Maryland to the World

Lisa Shulman, MD
The many achievements and discoveries included in this publication received local, national and international coverage in the news media. Last year the total number of media placements, including print, web, radio and television, topped 20,000 FIGURE 38. The New York Times, the Washington Post, CBS, NBC, and ABC are among the news outlets that featured the School of Medicine in their coverage. Total placements remained strong despite a year in which numerous publications closed due to economic forces. Web traffic increased 35 percent and viewership of faculty and patient videos online increased by 45 percent.

Every year, we feature the top two news stories that received the most news coverage. The number two top news story in the last year focused on School of Medicine research that offers new hope for people with Parkinson’s disease. Lisa Shulman, MD, found that low intensity exercise improves walking ability for people with Parkinson’s disease. Dr. Shulman’s research demonstrated that patients who walked on a treadmill at a comfortable speed for a longer duration improved their walking more than patients who walked for less time. Dr. Shulman’s research findings led to hundreds of news stories FIGURE 39.

The number one top news story featured Eliot Siegel, MD, and his collaboration with IBM on the potential health care applications of the Watson computer. Dr. Siegel, a professor of diagnostic radiology and nuclear medicine is leading the project for the school of medicine. This story generated more than 700 media placements worldwide, including USA Today and ABC News FIGURE 40.

FIGURE 38

Media RESULTS*

<table>
<thead>
<tr>
<th>Total Media Placements</th>
<th>20,025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Equivalent in Media Placements</td>
<td>$33,359,211</td>
</tr>
<tr>
<td>Total Broadcast (TV &amp; Radio)</td>
<td>1,080</td>
</tr>
<tr>
<td>Faculty &amp; Patient Videos Views On-line</td>
<td>1,481,195</td>
</tr>
<tr>
<td>Web Traffic (Visits to <a href="http://www.umm.edu">www.umm.edu</a>)</td>
<td>41,509,195</td>
</tr>
</tbody>
</table>

* Joint program between SOM and UMBC

FIGURE 39

Lisa Shulman, MD

FIGURE 40

Eliot Siegel, MD

FIGURE 41

Anthony Lehman

MEDIA RLY ON SCHOOL OF MEDICINE EXPERTS

When Arizona congresswoman Gabrielle Giffords was wounded in January by a gunman thought to be mentally ill, the news media sought out the expertise of School of Medicine faculty.

The suspect, identified as Jared Lee Loughner, was later diagnosed with schizophrenia. ANTHONY LEHMAN, MD professor and chair of the Department of Psychiatry appeared on PBS News Hour to help put the clinical aspects of the case in context.

Dr. Leman told the broadcast’s national audience that it is rare for a person with mental illness to commit a violent act, but that early intervention can help prevent a tragedy from occurring FIGURE 41.

LISA DIXON, MD, professor of Psychiatry, appeared on CNN to talk about the University of Maryland’s early intervention clinic for teens showing the first signs of mental illness. Six people were killed and 13 people were injured in the attack.
As I look ahead, I see some big challenges as well as some big opportunities. The economy will continue to impact our efforts, but it should not prevent us from moving forward in new and exciting directions to grow our research enterprise and our academic programs.

SELECTED 2012 PRIORITIES:

- Advance the $500 Million Campaign: Transforming Medicine Beyond Imagination
- Increase Financial Margins and Reserves in all academic units
- Implement Ambitious Five-Year Strategic Plan, “Taking a Quantum Leap Forward”
- Work with UMMS to integrate, collaborate and coordinate clinical services across the Medical System and clinical satellites
- Build and/or Expand Centers of Research and Clinical Excellence
- Advance research education at all levels, and expand medical education program to meet regional and current needs
- Expand UMSOM research engine into the I-270 Biotechnology corridor
- Explore new global opportunities

We have accomplished a great deal this past year, thanks to the dedication and commitment of our faculty, staff, trainees and students and the generous support of our SOM Board of Visitors and donors. We will be successful if we continue to be carefully guided by our institutional DNA — which represents our core values and our history. I believe that innovative and resourceful approaches will allow our institution to thrive in the years to come. Through collaboration and creativity, we will continue to be medical pioneers, and the results of our collective efforts will continue to profoundly change lives worldwide.

In the relentless pursuit of excellence, I am

Sincerely,

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