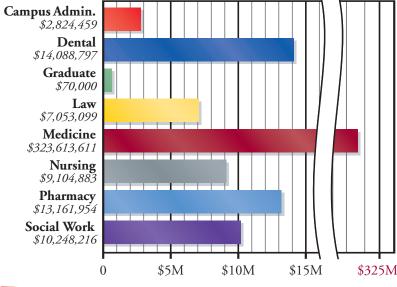
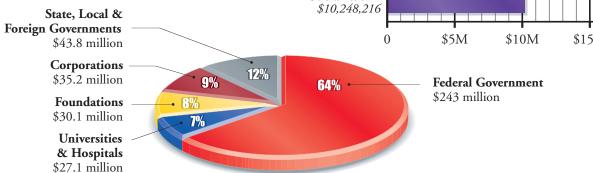
## **Extramural Funding**

In Fiscal Year 2006, UMB researchers attracted \$380 million in support of 1,600 research, service, and training projects. The diversion of federal funds, in particular the flattening of the National Institutes of Health budget, contributed to a \$15 million decrease in federal support that, in turn, reduced state and hospital funding. Projects funded by corporations and philanthropic foundations, such as the Bill & Melinda Gates Foundation, have remained strong. The overall trend is consistent and favorable, showing a remarkable 25 percent increase in funding since 2002.





## Taking Technology to the Marketplace

Scientific discoveries and advancements at the University of Maryland, Baltimore (UMB) are making an impact in the marketplace. Highlights of recently executed license agreements include:

- In Vitro Technologies, Inc. (IVT), a Maryland-based, biotechnology company, exclusively licensed a novel in vitro hepatitis C viral (HCV) model used to screen therapeutic antiviral drug candidates. David Oldach, MD, PhD, of the Institute of Human Virology (IHV), in collaboration with Scott Heyward, PhD, of the University of Maryland Biotechnology Institute, and IVT's CEO/ Founder Paul Silber, PhD, created an HCV model that offers the pharmaceutical industry a valuable tool for identifying HCV-specific therapeutic interventions. IVT earned more than \$10 million in revenues last year and was recently acquired by Celsis International plc, a British diagnostics and analytical services company.
- Omentec Biosciences, Inc., a start-up biopharmaceutical company, aims to develop therapies and diagnostics for diabetes, obesity, and cardiovascular inflammation. An exclusive license was granted for two UMB technologies co-discovered by Alan Shuldiner, MD; Da-Wei Gong, MD, PhD; Susan Fried, PhD; Rong-Ze Yang, MBBS, PhD, MD; and John McLenithan, PhD, in the Division of Endocrinology. Technologies developed by Omentec are based on the discovery of omentin, a protein selectively expressed in adipose tissue, as a therapeutic drug target for treating obesityassociated diseases, and serum amyloid protein (SAA) as a potential prognostic marker for obesity and its associated diseases.
- TOKAI Pharmaceuticals, Inc., a private company in Cambridge, Mass., exclusively licensed a technology directed to androgen synthesis inhibitors for developing a treatment for polycystic ovarian disease and prostrate cancer. The novel inhibitors, co-discovered by Angela Brodie, PhD; Vincent Njar, PhD; and Yangzhi Ling, PhD, in the School of Medicine's Department of Pharmacology and Experimental Therapeutics, block two biological sites, each critical for androgen biosynthesis, and promise to provide a dramatic improvement over conventional treatments.
- Acologix, Inc., a privately held biopharmaceutical company, licensed technology from UMB for the potential treatment of interstitial cystitis (IC), for which there is no current treatment. IC is a bladder condition characterized by serious pain and affects an estimated 700,000 Americans, 90 percent of whom are women. Acologix signed two separate license agreements with UMB, one for exclusive rights to a heparin-binding epidermal growth factorlike technology and one for therapies targeting a novel human peptide known as anti-proliferative factor (APF). The inventions were co-developed by researchers from UMB and the Baltimore Veterans Affairs Medical Center: Susan Keay, MD, PhD; John Warren, MD; Michael Hise, MD; and Michael Kleinberg, MD, PhD. Their research demonstrated the potential of HB-EGF and APF in the development of a novel interstitial cystitis therapy.