



BACKLIST: Dr. James Weinstein, the founder of DHMC's Spine Center and the leader of the nation's largest randomized trial of surgical versus nonsurgical ways of treating back pain, was chosen by the bimonthly *Becker's ASC Review* as one of the 100 best spine surgeons in the U.S.

DMS research income tops \$160 million in FY10

Funding for scientific research in the U.S. most likely will be very tight in coming years. But at least this past fiscal year, Dartmouth Medical School did very well in bringing in grant and contract income.

Awards: Thanks mainly to the American Recovery and Reinvestment Act (ARRA), awards to DMS in fiscal year 2010 shot up 39% over the previous fiscal year. Dartmouth Medical School researchers brought in \$160.2 million in FY10, compared to \$115.6 million in FY09.

The amount awarded for bench research (as opposed to funding for clinical trials, equipment, construction, or other purposes) was up 33% over FY09 (\$114.8 million, compared to \$86.1 million).

And nearly all departments at DMS did well in FY10. The Department of Surgery, for example, brought in more than \$12 million, thanks in good measure to an ARRA-funded construction grant to build an Advanced Surgical Center at DHMC; the facility will be used largely for surgery-related research.

Other departments that benefited considerably from ARRA were Orthopaedics, Pathology, and Pediatrics.

Dollars: In future years, however, not only will the stream of ARRA funding eventually dry up, but there's a good likelihood that cost-cutting by Congress will result at least in stagnation and perhaps in a decline in the dollars available from federal sources—including the Nation-

al Institutes of Health (NIH), which is a major source of funding for research at DMS.

A further change in the research funding environment is that the NIH grant process has recently been modified. Grant applications now have a shorter format—with a limit of 12 pages instead of the previous 25, so researchers have had to learn how to explain their projects more concisely. And there's a new scoring system, too, one that stresses innovation "a lot more," according to Jennifer Friend, DMS's director of research support services.

Furthermore, if a researcher's grant was not funded, it used to be possible to submit up to two amended proposals to the NIH; now just one is allowed.

Variables: All of those changes, points out Friend, amount to "a

Federal funding "supports scientific discovery, but also supports jobs."

huge number of new variables. . . . It's a new game."

Lung: But DMS faculty members seem to be adapting well to the "new game." Dr. Bruce Stanton, for example, a pulmonary physiologist, is the principal investigator for three major grants. One is aimed at increasing interconnectivity and internet access among research institutions in northern New England to enable them to better study lung disease; most of these funds went toward hardware. Dartmouth's Lung Biology Center, which Stanton directs, has also "done very well," he says. That effort recently received a four-year renewal grant from the Cystic Fibrosis Foundation.

"We're very pleased with our funding stream," Stanton says. "I think part of the reason is that we . . . do team science and that seems to be the future of successful funding . . . to collaborate, interact, and do team science that has a translational and clinical component."

Jobs: Dr. Duane Compton, a biochemist and DMS's new senior associate dean for research, brought in two "supplement" grants funded through ARRA. One enabled him to hire another researcher in his lab, and the other was a training grant supporting two new Ph.D. students. Compton says this is an "incredibly important" point—the fact that federal funding for science "supports scientific discovery, but also supports jobs . . . generates jobs."

MATTHEW C. WIENCKE

Worthy of note: Honors, awards, appointments, etc.

The American Association for the Advancement of Science recently elevated three members of the DMS faculty to the rank of fellow. **Charles Barlowe**, Ph.D., a professor of bio-



chemistry, was recognized for "distinguished contributions to the field of protein and lipid trafficking, particularly for elucidating molecular mechanisms of vesicular transport between endoplasmic reticulum and Golgi complexes."



Ta-Yuan "T.Y." Chang, Ph.D., a professor of biochemistry, was honored for "distinguished contributions to the understanding of cholesterol metabolism and its role in human disease." And



William Wickner, M.D., a professor of biochemistry, was recognized for "his singular efforts in the isolation and characterization of the bacterial secretory protein translocation complex and the complete machinery for yeast vacuole fusion."

George O'Toole, Ph.D., a professor of microbiology and immunology,

continued on page 58

JON GILBERT FOX



So-called bench research—basic, laboratory-based biomedical research—rose 33% at DMS from FY09 to FY10.

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Worthy of note

continued from page 20

was recently elected to membership in the American Academy of Microbiology, the honorific leadership group of the American Society for Microbiology, the world's oldest and largest life science organization. Membership in the academy recognizes scientists who have made "outstanding contributions to microbiology." See dartmed.dartmouth.edu/f10/f101 for insight into O'Toole's research.

Bruce Stanton, Ph.D., the Andrew C. Vail Memorial Professor of Microbiology and Immunology, was recently presented with the University of Maine's Distinguished Honors Graduate Award. Stanton is a 1974 graduate of UMaine's Honors Program.

Jeffrey Cohen, M.D., a professor of neurology, was appointed to the Peripheral and Central Nervous System Drugs Advisory Committee of the Food and Drug Administration (FDA). The committee advises the FDA commissioner and evaluates data concerning the safety and effectiveness of drugs for use in the treatment of neurologic diseases.

Duane Compton, Ph.D., a professor of biochemistry, has been named senior associate dean for research at DMS. One of his new responsibilities is chairing the Biomedical Research Council, a committee that will guide the strategic direction for research at DMS. He has been a member of the Dartmouth faculty since 1993. (See page 50 for more on his work.)

Shaofeng Yan, M.D., Ph.D., an assistant professor of pathology, received the 2010 Hitchcock Foundation's Tiffany Blake Career Development Fellowship. The fellowship is awarded to a young Dartmouth investigator who is committed to clinically oriented research and translating that research into effective treatments for patients.

Errata: An article in the Vital Signs section of our Winter 2010 issue, about a partnership between Uruguay and DHMC's Epilepsy Program, stated that Mark Natola, DHMC's manager of neurodiagnostics, was a member of a Dartmouth team that traveled to Uruguay in 2002; although Natola has been very active in the partnership over the years, he did not participate in the 2002 trip. And the Lisa Dwyer who commented in the Winter Letters section about cystic fibrosis research lives in Oshkosh, Wis., not Hopkinton, N.H. We regret the errors. ■

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