

HARVARD PORTRAIT



Darren Higgins

REMEMBER the couple of hot dogs in your fridge that you appear to think are immortal? As the dogs lurk there for week after week, precooked and refrigerated though they are, they may grow *Listeria monocytogenes*. This food-borne pathogen can and does kill people at risk, although most of us toss off a touch of listeriosis with a bellyache, et cetera, and never become statistics. Darren Higgins, associate professor of microbiology and molecular genetics at the Medical School, heads a laboratory with 11 other researchers studying listeria. At first they examined how the bacterium attacks fruit-fly cells, but have now moved on to human cells. They have taken the pathbreaking approach of focusing on the cells, not the bug, to discover which of the cells' genes admits the pathogen and lets it replicate. (The photograph behind Higgins, above, shows listeria entering cells.) If the cell doesn't need that gene to function, the gene could be blocked, thwarting the pathogen. Physicians might thus be able in future to rely less on antibiotics to fight disease. Higgins, 39, was born on an Air Force base in Michigan, did his undergraduate work at Texas A&M, and earned a doctorate in microbiology and immunology from the University of Michigan in 1995. When he isn't overseeing his lab, he likes to sit at a bench in it, doing what to the uninitiated appears to be moving small volumes of liquid from one tube to another, but which is more likely to be troubleshooting or testing new research approaches, and which he finds recreational. He runs and skis and is a movie buff—*Blade Runner* being his favorite. When Higgins eats hot dogs, he cooks them plenty.

million currently (with the forecast deficit).

In their January 10 presentations, members of the faculty's Resources Committee advanced a context for FAS's financial position, detailed the underlying academic agenda, and outlined the fiscal measures it will pursue to balance its books.

Speaking first, Florence professor of government Gary King said that forecasts of FAS finances always show future deficits due to new projects or emerging fields. Management then must stave off actual budget gaps. In an interview, he said a prospective deficit "means things are going well," in the sense that FAS is taking intellectual risks. The rest of Harvard, he noted, "has grown spectacularly relative to FAS for a very long time." Now, increasing the faculty (from about 600 members in 2000; see "Growth Spurt, Growing Pains," January-February, page 64) and expanding in "areas of science that FAS represents" is exciting and appropriate. The current "investment plan" requires heavy spending on facilities—"the biggest growing period in Harvard's physical plant in decades" (see page 60)—to accommodate new professors.

Caroline M. Hoxby, Freed professor of economics, detailed the outlook for the faculty. FAS began this fiscal year with reserves of \$72.8 million, she said, and with an endowment of \$11.7 billion (of which \$1.4 billion is unrestricted—the crucial source of funds for new initiatives). Anticipated faculty hiring from this year forward will add \$28.5 million to annual costs by 2010, after accounting for any grants that faculty members receive. Programmatic initiatives—international study, science research centers, dissertation fellowships, expanded arts venues and staffing—require another \$29.5 million.

Overshadowing those items are debt service and operating expenses for new buildings, which rise from \$11.7 million this year to \$72 million in 2010, after accounting for recovery of "indirect costs" for sponsored research conducted there. The driving factor is FAS's decision to expand its science space 34 percent in a six-year span. All these commitments—particularly the costly faculty growth and expansion in the sciences—are high priorities of both FAS and the University administration.