

UNIVERSITIES

Campus girds for lean times

Plush San Francisco medical hub seeks to safeguard academic research.

BY ERIKA CHECK HAYDEN

A visitor to Mission Bay could be forgiven for thinking that the US economic downturn is a myth. The 23-hectare research campus of the University of California, San Francisco (UCSF), boasts freshly planted parks, new labs and the offices of biotechnology and pharmaceutical companies, alongside a construction site for a 289-bed medical centre slated to open in 2015.

When the first building opened at Mission Bay ten years ago, the project's US\$3-billion cost and its status as lynchpin of a city redevelopment plan made it one of the most ambitious clinical-research campuses ever built — and an expensive bet on the growth of the academic biomedical-research enterprise. Now, with tight budgets at the US National Institutes of Health (NIH) squeezing research grants and US health-care reform threatening hospital revenue, the world has changed. Mission Bay is a case study of the threats to medical-research hubs — and the strategies, from investment to philanthropy, that could keep them afloat. “The business model of these places won't look like it always has,” says Peter Bach, a health-care policy analyst at the Memorial Sloan-Kettering Cancer Center in New York.

UCSF is saddled with expenses that universities elsewhere do not face. Among them are the building costs for its medical centre, expanding retirement payments for California state employees and cuts in state funding — factors that could pull its budget into the red by 2015. On top of this, the medical centre is opening at a time when cost controls built into US President Barack Obama's health-care reform could erode the hospital revenues that have helped to support research at such places. Income from the existing UCSF medical centre, for example, funnelled \$295 million

to university operations over the past decade.

Perhaps worse is the increasing restriction of the NIH's budget, which will cause big problems at UCSF, one of the countries biggest recipients of the agency's research dollars. “The big squeeze for a place like UCSF, or any major

start-ups and taking royalties off of biotechnology companies has been very profitable” for universities, says Uwe Reinhardt, a health-care economist at Princeton University in New Jersey. “That's the wave of the future.”

UCSF administrators are also banking on private philanthropy to support Mission Bay, where around one-third of construction funds came from donations. The plush design of the new hospital and its proximity to labs in which treatments are pioneered could inspire donors, they say. “When you start to combine clinical care with innovative science, that's going to excite a lot of people, including donors,” says Peter Carroll, a prostate-cancer surgeon and director of strategic planning and clinical services for the university's existing cancer centre.

Cancer is one area of medicine that should still prove profitable for the new centre. Treatment involves equipment, operations and drugs that can cost tens or hundreds of thousands of dollars, and generates high revenues that are unlikely to be eroded as much as those from other areas of medicine. That is partly because the ageing of the US population means that cancer incidence will explode in the next ten years, and partly because the arcane health-insurance system pays generously for cancer services and drugs.

However they do it, observers say, UCSF and other crown jewels of US academic medicine will weather the current financial storm and keep their research robust. These centres offer specialized care, some of it available nowhere else, that is well reimbursed by insurers. They are also seen by local law-makers as crucial to the communities they serve; UCSF, for instance, is the second-largest employer in San Francisco. “I have never seen a case where academic health centres didn't work out their problems and become hugely profitable again,” says Reinhardt. ■



The ten-year-old Mission Bay campus is adapting to the era of austerity.

academic medical centre, is the complete drying up of academic funding of research,” says Bach.

Administrators hope that their evolving business plan will insure the site against the future. When workers broke ground at Mission Bay, critics warned that the campus would be a wasteland, isolated from the main UCSF site 4 kilometres away. But starting from scratch allowed space for academic labs and industry buildings to sit cheek by jowl, to accelerate the translation of basic research to the clinic and to attract industry investment.

The plan seems to be working. Old rail yards and warehouses have been replaced by seven major research buildings, outposts of nine companies — including major pharmaceutical manufacturers such as Bayer and Pfizer — and ten venture-capital firms poised to pick up and fund university projects. Start-ups that originated on the campus have raised \$230 million in follow-on capital and have hired 300 people, officials report. “This operation of incubating

UCSF


MORE ONLINE

Q&A



Taiwanese tycoon Samuel Yin on why he set up 'Asian Nobels' to reward neglected fields go.nature.com/kvtwtk

MORE NEWS

- Metastatic tumours change cell type to spread go.nature.com/ekto9t
- Diamond could make possible MRI of single molecules *in vivo* go.nature.com/st8f4e
- Panic reactions may bypass brain's 'fear centre' go.nature.com/xnjiji

PODCAST



Ten things you don't know about ice; mystery genes in yeast; and the Indian Ocean's missing crust. go.nature.com/mzu7it

PICHI CHUANG/REUTERS