

Spain reeling from budget and staff cuts in biomedicine

BARCELONA — In November, the conservative People's Party, led by Mariano Rajoy, stormed to power on a platform of sweeping reforms and drastic austerity measures. During its first two months in office, the new government has quickly reined in Spain's swollen deficit, but at the expense of the country's competitiveness in the biomedical sector, critics say (see editorial on page 179).

"Scientists are extremely worried," says Joan Comella, director of the Vall d'Hebron Research Institute in Barcelona. "If these cuts end up reflecting on salaries, doctors will leave research and flee to private clinics."

On 11 January, the Spanish Parliament approved €8.9 billion (\$11.5 billion) in spending cuts, including a €600 million reduction in loans and subsidies for scientific research and development (R&D). The 7%

drop in the science budget comes after 15% and 8% cuts in 2010 and 2011, respectively, as well as previous restrictions applied by regional governments to health spending that have led to delays in payments to pharmaceutical companies, hospital ward closures and drastic downsizing of flagship biomedical centers such as the Prince Felipe Institute in Valencia.

Together with a countrywide push to bring branded drugs' prices to the level of generic ones, all these measures are predicted to hit Spain's drug industry particularly hard, leading to less research and innovation. "We expect a 25% reduction in R&D expenditure of pharmaceutical companies by the end of 2013," says Humberto Arnés, director general of Farmaindustria, a Madrid-based trade organization.

Pressed for pesetas

In an effort to downsize the government, Prime Minister Rajoy also moved swiftly in December to ax the country's Ministry of Science, which oversaw the country's R&D policy, and fold its responsibilities into the Ministry of Economy and Competition. Researchers are now lamenting the loss of science's prominent seat at the cabinet table, but they remain hopeful that the newly appointed secretary of state for research, development and innovation Carmen Vela Olmo will defend the interests of the scientific community in the government. A biochemist by training, Vela has over 30 years of experience in the drug industry, having led the small Madrid biotech company Ingenasa and having served as president of the Spanish

Society of Biotechnology.

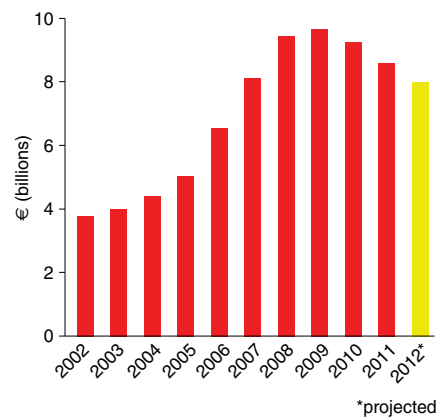
"Carmen Vela knows the inside of basic research and has experience in transference to industry," says Carlos Andradás Heranz, president of the Confederation of Scientific Societies of Spain (COSCE). "We will see how much freedom she will have and how strong she will be in facing the announced budget cuts."

As another part of its austerity measures, the government froze public sector wages last month and declared that vacancies in civil service positions would only be refilled in some fields, including health, but not in research. As a result, young scientists will probably have a hard time finding jobs within the Spanish National Research Council (CSIC), the largest public institution dedicated to research in the country, notes José María Valpuesta, director of the CSIC-affiliated National Biotechnology Center in Madrid. "In 2011, CSIC issued two permanent places in biomedicine, whereas before 2010 there were up to 25 per year," he says. "In 2012, the number may be zero."

In a desperate attempt to find financial support, some Spanish scientists are now urging the country's tax authority to allow people to direct 0.7% of their income taxes to scientific research—a contribution they can already elect to make to support the Catholic Church or various social organizations simply by ticking a box on tax forms. Within two weeks of going online in early January, the petition had already garnered more than 200,000 signatures.

Michele Catanzaro

Spain drain: Budget cuts for Spanish science.



Source: Ministry of Science and Innovation.

New insight on bariatric surgery difficult to swallow

It was only a few years ago that some researchers hailed bariatric surgery as a miraculous, life-saving intervention. But the more nuanced picture painted by recent studies might be difficult for some proponents of the treatment to digest.

Typically, a person's weight has served as the deciding factor as to whether or not he or she should undergo bariatric surgery, also known as stomach stapling or banding. According to US and European guidelines, individuals need to be morbidly obese—which usually means at least 100 pounds overweight—to qualify. But a study published in January suggests that the benefits of weight-loss surgery have little to do with an individual's starting weight or subsequent weight loss (*J. Am. Med. Assoc.* **307**, 55–65, 2012). What matters is how sick the person is—in particular, whether he or she has type 2 diabetes.

The study followed more than 2,000 obese individuals in Sweden who chose to undergo one of three types of bariatric surgery—gastric banding, gastric bypass or vertical gastropasty, in which part of the stomach is removed. It also tracked around 2,000 obese subjects who received standard nonsurgical care. Over the next 15 years, the subjects who had surgery were 33% less likely than their traditionally treated counterparts to experience a first heart attack or stroke and 53% less likely to die from such an event. Notably, their overall death risk from a cardiovascular event only dropped by 1%.

Those individuals who started out fattest did not benefit more from the surgeries than those who were the leanest, and the number of pounds they lost after surgery made no difference either. "It's not about the weight," says Edward Livingston, a