

Research funding in Italy

Bad Habits

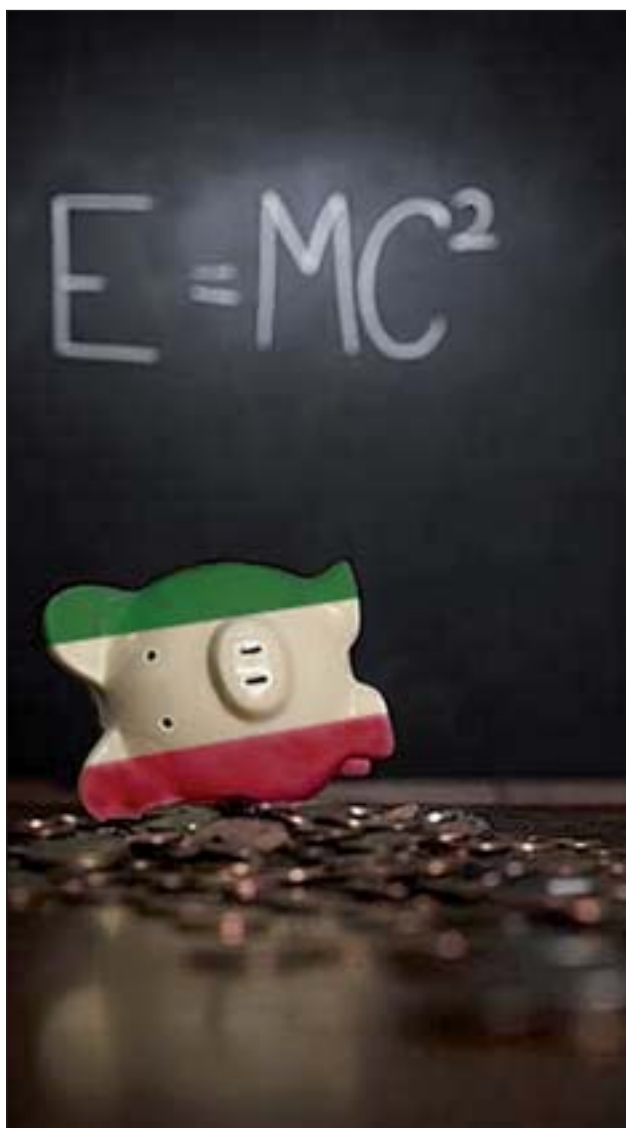
Italy apparently has a problem with proper peer review. As a consequence, research money is increasingly distributed under dubious, non-transparent circumstances. Now Italian researchers have enough, they've started to go public.

It was only in March 2008, when a group of Italian geneticists and medical doctors were already boiling with rage, that they wrote an open letter to the President of Italy, Giorgio Napolitano. The scientists were – and still are – sick of how money for research is inappropriately distributed in Italy.

“In Italy, only a marginal quota of science funding for scientific research in general and for research in the Life Sciences and biomedicine in particular, is allocated through the peer-review process...” seven scientists complained in the open letter published in the Italian newspaper *Il Sole 24 Ore*. A few days later, 1,500 scientists had also signed the letter. They are all convinced that “in the public sector, this [*modus operandi*, the editors] challenges the interests of the public administration as it introduces non-scientific factors into the decision, such as ideological prejudices, personal pressures, affiliation and conflicts of interest”.

Evaluation? What for?

What made the scientists appeal to the public with these serious complaints? In November 2007, Paolo Bianco, stem cell researcher and professor of pathology at the University of Rome “La Sapienza”, learned that the then-government, under the leadership of Romano Prodi, planned to allocate 3 million euros to stem cell research. Good idea, in principle. However, this money was to be given to scientists not *via* an official call and evaluation of grant applications but *via* direct and uncontrolled negotiation between the public administration and a group of researchers to whom those scientists that actually work on stem cells did not belong. It's no surprise that Bianco and other stem cell researchers worried that the money would be distributed as



Obviously, there's something wrong with the way Italian research funding is distributed.

usual in Italy: under questionable, perhaps even dubious, but certainly non-transparent circumstances.

False promises

“But this time we made a big fuss out of that,” reports Bianco. “We asked the Ministry of Health for information. We waited for six or seven weeks and got no response. Then, on March 7th, we wrote this open let-

ter to the press. Next day we got a personal response from the then-minister of health, Livia Turco. She wrote, she had personally given order to publish a call on stem cell research and she had increased the budget to 8 million euros.” However, the ministry didn't produce any call on stem cell research until August. It just kept silent.

A “super-referee”

The only politician who visibly reacted to the scientists' protest was the Italian president Napolitano. He invited some scientists to relate their complaints. “He said he was wondering that all parties claim that peer review is a good system but nothing is done to implement it,” reports Pier Mannucci from the University in Milan, who also signed the open letter. However, Napolitano can't do anything because he has no legislative power.

While the scientific community hasn't seen any progress in this affair, it was thrilled in July by the final outcome of a programme for science of national interest, the so-called PRIN (*Programmi di ricerca di interesse nazionale*). This programme, involving almost 100 million euros, is one of the major sources of capital for the Italian universities. 11 million euros were allocated to biology and 17 million euros for medical research.

“We had a big scandal about the PRIN,” reports Mannucci. “In the case of biomedicine, for example, there was only one person, a surgeon from the University of Naples, in charge of all the biomedical applications. Strangely enough, the University of Naples was successful with a surprisingly high number of applications.”

Indeed, money for 24 of 137 grants went to the three universities of Naples, amounting to 18%. Not bad. The University of Milan, a stronghold of biomedicine

and biotechnology, gained only 11 grants, 8%. Were the applications from Naples' scientists so excellent? Mannucci believes that these numbers in fact point to a heavy bias. He notes that a single surgeon can hardly oversee the rapid scientific progress in all the various fields of biomedicine, ranging from basic science to clinical issues, including T-cell regulation as well as electron microscopy, the investigation of athletes suffering from allergies and therapy with mesenchymal stem cells, to name only some of the applications.

"We don't have standardised procedures, no general rules for assigning public science money, there is no transparency in the processes leading to a powerful top-down system," raves Ranieri Cancedda from the Institute for Cancer Research, University of Genoa, who also signed the open letter. He says that for years he's observed a strong tendency to handle the dissemination of public money for science within closed circles.

Top-down or even worse

Bianco, Cancedda and Elena Cattaneo (University of Milan) are hard on politicians and scientists who support or at least don't attempt to resist the existing system of science funding. In an article for the Italian magazine *Darwin*, translated into English for the European stem cell portal *EuroStemCell* (<http://www.eurostemcell.org/files/darwinfinal.pdf>), they wrote: "And if we distribute money top-down to the known names, or worse, if we let the known names decide to give the money to the known names (that is, to themselves), we can claim ourselves meritocratic but not serving, no matter if we are scientists or administrators... If Italy is not a scientific power worldwide it's mainly because we are a country of groups and affiliations, members, clients and godfathers, referees, protectors and protected and not free individuals... Science blossomed in Italy when it was not in conflict with the political leading class. But in times when science has become the product and multiplier of liberty in the free world, in Italy it has withered into a corrupt system. Top down."

One hand washes the other

So is it all a political issue? Seemingly. Of course, government representatives rebuff the scientists' allegations. They claim to have an evaluation system. However, is a review of dozens of grants done by one

person who may not even be an expert in the specific scientific field true peer review? And even if more than one person were involved they would all be working in Italy. The scientific community of this country is small. That leaves the door wide open for all sorts of gratitude services and old boys network behaviour. One hand washes the other, making it especially difficult for young researchers who haven't yet been able to establish strong networks. They merely have a chance to take part in bargaining for research money.

Sorry, how does peer review work?

Changing the system is not only a political issue; it is also an issue of knowledge and competence. Many scientists, politicians and the ministries' employees deal



Silvio Berlusconi, the old and new Prime Minister of the Italian Republic. Will he be the right man for change?

ing with science funding don't know what peer review really means or how it is practised. This widely heard complaint is confirmed by Lucia Monaco, chief officer of the science foundation Telethon. Like some other private foundations, Telethon uses peer review. For that purpose, former scientists are employed in its scientific office to prepare and overview the process of money allocation by peer reviewing, which itself is done by Italian (10%) and foreign scientists (90%). The foundation raised 34 million euros last year, 80% of which were spent on research.

Having worked in science for many years, some of which he spent at the EMBL in Heidelberg (Germany), Monaco is very

familiar with all the evaluation procedures. She says: "In Italy the money is distributed irrespective of the merit of an investigator." Also, scientific directors take it for granted that they will become authors, maybe *senior* authors, of scientific papers, even if their contribution was zero. To combat that bad habit Telethon always insists that every scientist who successfully applied for project money acts as senior author of every paper that is produced within that project. "You can imagine we sometimes had discussions on that topic," says Monaco. Furthermore, she stresses the importance of the final reports. "We need to know the outcome of the funding," she says.

Because of the lack of knowledge of the peer review procedures, the *Consorzio Progen* (Progen) organised two symposia. In Progen, scientists (biologists and medical doctors) from 31 universities and research institutes have allied to agitate for peer review and an independent national science agency. Giovanni Romeo, one of the *directori* of Progen, says: "We need to create a culture for funding according to peer review guidelines. So we try to educate and motivate people to do it." The next training course for scientists and administrators working in the field, organised by the European Genetics Foundation, Telethon and Progen, will take place at the Euro-Mediterranean University Centre of Ronzano in Bologna from November 8th to 11th.

Budget cuts join in

Apart from introducing peer review principles to funding, Italian scientists call for a national, independent authority that oversees the whole process of publishing calls, dealing with the applications and looking for reviewers all over the world. Such an agency should also define strategic issues and choices in science and technology.

The last government discussed the establishment of such an agency but, unfortunately, it turned out to be a lot of hot air. However, there appears to be a glimmer of hope. Mannucci heard rumours that all funds for biomedicine will be united. "That wouldn't be the solution to our problems, but at least it would be a big step forward," he says.

As if all that annoying trouble was not enough, scientists are currently anticipating even rougher times. According to Law No. 112 of July 2008, the budget for research and universities will be cut, severely. With-

in the next three years the universities have to save 1.5 billion euros. This huge cut involves a reduction of 20% in university staff, the privatisation of university departments and a reduction in salaries for professors and lecturers (by delaying salary increases from every second to every third year). This last measure will mainly hurt young researchers, argues Michele Ciavarella, engineer at the Technical University in Bari, in an open letter posted on his website, directed to the rectors of the Italian universities. Within 15 days, more than 3,000 scientists had joined Ciavarella's vehement protest.

Reduce but distribute better

Indeed, Italy has to struggle with a huge hole in its national budget. The country spends only 1.1% of its gross domestic product (GDP) on science. The Netherlands dedicate 1.78% of its GDP and Sweden even



Logo of the researcher's initiative, *Liberiamo la ricerca*

that the reduction of science funds harms science less if one distributes money according to merit instead of nepotism.

The body follows the head

No silver lining on the horizon? After all, some regional governments have started applying peer review with external evaluators. For a short time, the 22 regions of Italy will have money from the health se-

3.86% to science. The EU average is 1.84%.

But little money for science is only part of the problem. Bianco explains: "It's true, there is not enough money. However, if we could spend that money correctly, the benefit for the scientific community would be huge and the input would be negligible for the government."

The scientists believe

curity system that they can use to fund biomedical science on their own, independent of the government in Rome. However, many regions adopt the traditional Italian way of funding.

A flicker of hope?

Another flicker of hope is a new programme dedicated to young researchers under the age of 40. More than 60 million euros will be spent on them in 2008 and 2009. An international commission of experts evaluated the applications – something to be celebrated as "a revolutionary approach for the unregulated Italian system of research funding allocation," according to the scientist Ignazio Marino in *Nature*. He works at the Jefferson Medical College in Philadelphia (USA) and belongs to the Senate of the Republic of Italy.

However, this programme was drawn up by the last centre-left coalition. So we shall have to wait and see what the Berlusconi team has up its sleeve for Italy's research servants.

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