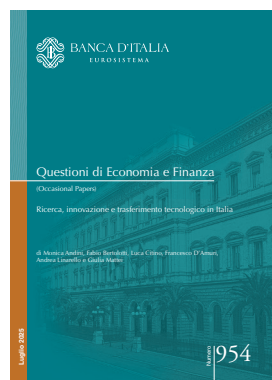


BOOK REVIEWS, NOTES AND COMMENTS

Edited by
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RICERCA, INNOVAZIONE E TRASFERIMENTO TECNOLOGICO IN ITALIA

Monica Andini, Fabio Bertolotti, Luca Citino, Francesco D'Amuri, Andrea Linarello, Giulia Mattei
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[Research, innovation and technology transfer in Italy]

This careful and comprehensive survey of the current state of Italian research, but above all of its short- and medium-term prospects, is a voluminous text that we strongly recommend to researchers, scholars, and even students. We recommend it to researchers active in industrial research, particularly in pharmacology and pharmaceuticals, or in the diverse world of biomedicine in general, including those who work exclusively or almost exclusively in clinical practice. This substantial “critical reflection” reveals and analyzes (especially through rigorous and thoughtful comparisons with other European countries) the main strengths, but also the weaknesses, that hinder or slow down our overall significant, and often excellent path in the development of biomedical and technological scientific research at the national level.

The discussion is based on a fundamental principle that frames the whole educational narrative, as is usual for Banca d'Italia, an institution that also, or maybe mainly, aims to give practical advice that goes way beyond mere economic or financial issues. In this case, it aims to critically review the whole higher education system, especially research, with a view to improving it. Public research plays a recognized central role, and the related reflections are well worth reading carefully, as they are likely to trigger collective reasoning. The stated intent is to “restore” the ecosystem for Italian innovation (analyzing its various elements separately and together), with the hope that they will gradually interact in an increasingly coordinated and synergistic manner.

Certainly, the limited availability of economic resources allocated to the Italian research system represents a long-standing structural problem that has

not yet been fully overcome. Nevertheless, as repeatedly and firmly emphasized by the editors, the excellent performance of Italian scientific research emerges mainly when evaluated through scientific publications: growing in number in the STEM disciplines, i.e., science and technology, where between 2009 and 2023 the most cited publications grew by 60%. This is despite the emergence, and therefore the powerful challenge, of the People's Republic of China: our country has, in fact, maintained unchanged its share of publications in the world (3%). At the European level, we are second, just behind Germany, but we have long surpassed France and Spain. One wonders why this phenomenon persists despite the criticism of the mechanisms for allocating funding, which are not always considered fully meritocratic.

It should be added that the volume's curators probably underestimate the unfortunately growing weakness of the indicators of “scientific output” represented by the quantity/quality of scientific publications: a historically weak criterion, which has shown its limitations with the aggressive and rapid emergence of the so-called predatory journals [1, 2].

A second aspect deeply analyzed in the text is the fragility of our technology transfer, where Italy, when measured by the number of patents filed, although growing, remains at about half that of France and one-fifth that of Germany. On this subject, the former President of the CNR, biomedical engineer Maria Chiara Carrozza, recently identified the difficulties of the so-called scale-up phase: in other words, our research groups “invent” and perhaps come close to obtaining a patent, and sometimes they do but when there is a need to move from a prototype to a large-scale production, the overall ecosystem, which obviously includes the essential industrial component, structurally struggles perhaps due to its historically small, sometimes nuclear size.

The section that is likely to be of most interest to biomedical readers is the one dedicated to pharmacology, which in Italy has a long and prestigious history of excellence. Unfortunately, there have been painful examples of a subsequent decline in the ability to produce genuine innovation and development in this area, which should be addressed by the relevant public bodies, at least at the national level.

Overall, this “ecosystemic” analysis of the elements and problems involved, and of possible future remedies for this situation, make this publication an almost essential reading. Hopefully, it will lead to further seminars, workshops, or thematic conference sessions aimed at the institutions or, rather, at the scientific societies most directly involved in the delicate process of advancing technological knowledge and its applications (in-

cluding for public health) and biomedicine in general, which has nevertheless implemented powerful means and methods to hyperbolically increase its output of publications. This last element deserves careful consideration, especially given the pressing need to promote evaluation standards that are more suited to the transformed context of scientific publishing and bibliometric practices.

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FILOMENA NITTI E IL NOBEL NEGATO

Carola Vai
With the contribution of
Maria Luisa Nitti
Soveria Mannelli (CZ):
Rubettino Editore; 2025
208 p.
16,00 €
ISBN 9788849884470

[*Filomena Nitti and the denied
Nobel prize*]

Filomena Nitti and the denied Nobel prize is the result of a collaborative writing effort, in which the recollections of Maria Luisa Nitti, Filomena's niece, form the narrative thread that journalist Carola Vai weaves into the story of Filomena Nitti, a twentieth-century scientist.

The narrative unfolds through social, historical, and personal events, intertwining the life of Filomena Nitti with that of Rita Levi-Montalcini – two scientists whose paths crossed at the Istituto Superiore di Sanità.

Through the comparison between these two figures and their distinct human and scientific journeys, the author highlights how the highest recognition in the scientific field – the Nobel Prize – was denied to Filomena Nitti.

The book is structured into chapters that trace the personal history of Filomena Nitti and of her family. The opening epigraph, a quote attributed to Filomena Nitti, encapsulates – according to the author – the essence of her character: a generous woman whose scientific and human qualities constantly supported the creativity of others, in particular that of her father, the statesman Francesco Saverio Nitti, and of her husband,

the Nobel Prize winner for medicine Daniel Bovet:

"My destiny was marked by the good and bad fortune of having had two great people by my side (...) I loved and admired them both, but it was hard not to disappear in their shadow." Filomena Nitti

It is precisely based on this interpretation of Filomena Nitti that the first chapter of the book focuses on her marriage to Daniel Bovet, a brilliant young researcher at the Pasteur Institute. The narrative of Filomena Nitti's life unfolds through a family perspective – which we can guess belongs to her niece, Maria Luisa Nitti – and through the historical context in which the events of the Nitti and Nitti-Bovet families unfold. The description of the socio-cultural environment of the Nitti family, their twenty-two years of exile in France, and Filomena Nitti's social and personal life is detailed and vividly rendered.

The two years of imprisonment of Francesco Saverio Nitti and the family's return to Italy at the end of the war paint a picture of a supportive family, animated by strong democratic principles and a sense of belonging to an Italy they had been forced to abandon.

One chapter is devoted to Daniel Bovet's Nobel Prize, awarded during his years of research at the laboratories of the Istituto Superiore di Sanità (Italian National Institute of Health), then directed by Domenico Marotta. The author describes the harmonious and collaborative working atmosphere fostered by Filomena Nitti, as well as the highly dynamic scientific environment of the Institute, where at the time also worked the German-born British biochemist Ernst Boris Chain, Nobel laureate in Medicine in 1945 for his studies on penicillin. Carola Vai emphasizes how the research conducted at the Istituto Superiore di Sanità led Daniel Bovet to the Nobel Prize, while his main collaborator, Filomena Nitti, despite having always carried out and co-signed scientific papers with him, was excluded from the award.

Overall, *Filomena Nitti and the denied Nobel prize* offers a personal and wide-ranging narrative of Filomena Nitti's eighty-five years of life, as a scientist and as a protagonist of an era marked by deep family and scientific commitment. Recognition of Filomena Nitti's role as a researcher is also reflected in the publication *Filomena Nitti: Scienziata del Novecento* (2024), issued by the Istituto Superiore di Sanità within the series *I beni storico-scientifici dell'Istituto Superiore di Sanità* [1]. This recent work, which focuses particularly on Filomena Nitti's scientific activity, has inspired the renaming of the Institute's conference hall – previously dedicated to Daniel Bovet – to honor both scientists as the *Nitti-Bovet Hall*.

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