



Laudatio per al doctorat honoris causa atorgat a Helga Nowotny i Maria Leptin, a càrrec de Carla Lancelotti, professora d'investigació ICREA del Departament d'Humanitats de la UPF

Barcelona, 28 d'abril del 2026

Dear

Professors Helga Nowotny and Maria Leptin,

Rector Laia de Nadal

Hon. Núria Montserrat, Minister for Research and Universities of the Government of Catalonia,

Distinguished authorities,

Members of the university community,

Dear friends,

We are gathered today to celebrate two giants of European science—Professor Helga Nowotny and Professor Maria Leptin. It is customary to begin a *laudatio* by highlighting the scientific or social achievements of the awardee. Today, we could dedicate the entire afternoon to recounting the numerous scientific discoveries of Professor Leptin or the profound theories of Professor Nowotny on uncertainty and the integration between science and society.

Maria Leptin, a distinguished developmental biologist and immunologist, studied Mathematics and Biology at the universities of Bonn and Heidelberg in Germany, completed her doctorate at the Basel Institute for Immunology in Switzerland, and conducted postdoctoral research at the Laboratory of Molecular Biology in Cambridge the UK. She held positions at the Max Planck Institute in Tübingen and the University of Cologne, and served as Director of the European Molecular Biology Organization and research group leader at European Molecular Biology Laboratory. Her research on the molecular mechanisms of morphogenesis, identified key genetic pathways controlling gastrulation, the foundational stage of organ development. Her work has significantly contributed to modern developmental biology and innate immunology, with highly cited publications in top scientific journals.

Helga Nowotny, Professor Emerita of Science and Technology Studies at the Swiss federal Institute of Technology in Zurich, holds a Ph.D. in Sociology (Columbia University) and a doctorate in jurisprudence (University of Vienna). A Fellow of the American Association for the Advancement of Science and a foreign member of prestigious European Academies, she is deeply engaged in science and innovation policy, advising at national and EU levels. Rooted in the Central European humanist tradition, Nowotny offers a rigorous, interdisciplinary perspective, viewing science as inseparable from democratic culture. A leading scholar in Science and Technology Studies, her over 300 papers and several books include primary scientific contributions on "Mode 2" knowledge production—a shift toward context-driven, interdisciplinary research—and theoretical work on the sociology of time, examining how perceptions of "the present" and "uncertainty" influence scientific discovery.

While each of these two extraordinary women deserves individual recognition and has received numerous *Honoris Causae*, their joint presence here today is compelling. They embody the excellence of European Research and the European Research Council (ERC)—not just as an institution, but as a vision of what Europe can achieve when investing in individual minds. The ERC was founded on the revolutionary, yet simple, premise of "Blue-sky" research, daring to fund excellence for excellence's sake in a world fixated on immediate "impact" and market "deliverables."

In a popular science-fiction novel, *Project Hail Mary*, Andy Weir narrates how two worlds are saved by two unconventional heroes who could not be more diverse. As they navigate their scientific problems and carefully adapt to their different cultural ways, they establish a strong interdisciplinary team that is ultimately able to produce results and innovations. If I were told that both protagonists were funded by the ERC, I would not be surprised. Diversity, openness, stability versus uncertainty, and long-term commitment are some of the novel's themes and are concepts that unite the lifelong work of Professors Nowotny and Leptin.

Diversity

Helga Nowotny can be considered one of the founding mothers of the ERC. President of the council from 2010 to 2013, after serving as vice-president since 2007, she was the first of two women, both of whom are present today, to hold this prestigious position. Under her guidance, the ERC evolved into the institution we know today. A sociologist of profound depth, Professor Nowotny understood something that many policymakers miss: innovation is not a linear conveyor belt; it is an ecosystem. Her work, together with Peter Scott and Michael Gibbons on "Mode 2" knowledge production, taught us that science does not exist in a vacuum—it is socially distributed and inherently transdisciplinary. However, being transdisciplinary necessitates being diverse. The importance of transdisciplinarity and diversity is also a foundation of Maria Leptin's vision for

research in Europe. In the brief address following her election, which is available on the ERC website, she highlighted how the ability to engage with diverse individuals with different profiles and needs, an ability she developed while director of EMBO, is a characteristic she valued and one that assisted her in her role.

Openness

And openness is another of the key values of the ERC. Both Helga Nowotny and Maria Leptin are strong advocates for openness in research, although they approach the topic from different professional backgrounds—Professor Nowotny from the social sciences and policy, and Professor Leptin from experimental biology. Maria Leptin often emphasizes that if we build walls in science, we not only protect ourselves but also isolate ourselves. This is why integration into global networks and mobility are highly valued in her view, a principle reflected by the various programs promoted by the European Research Council. Helga Nowotny pushes the concept of open research beyond the mere sharing of ideas and data. In an article for the *EMBO reports* of 2015 entitled *The radical openness of science and innovation*, she writes about how research should not only be open in the present but open to the future and, as such, open to uncertainty and risk, as only in this way can true innovation come to fruition. Uncertainty and risk are terms that characterize today's world and science more than ever.

Stability versus Uncertainty

Today, the European landscape is vastly different from the one that witnessed the ERC's inception in 2007. We face a "polycrisis"—climate change, technological disruption, and shifting geopolitical alliances. In other words, we live in a world where uncertainty is high and drives most social processes. The term uncertainty can carry a negative connotation, especially when connected to science and research. Uncertainty in funding and uncertainty in job security are detrimental to science. Stability in funding is fundamental for science to thrive. And in a recent talk on the freedom of science, Professor Leptin remarked that longer grants with less mid-term reporting is something that researchers desire, and it is something that might allow them more time for contemplation and to perform the kind of long-term research needed for "innovation" to occur. In her work *The Cunning of Uncertainty*, she posits that uncertainty drives science—scientists are motivated by questions for which they do not know the outcomes, as in science, what we deem certain is merely temporary; it can change and it must change for progress to be made. This is very clear to both Professors Nowotny and Leptin: as Chair, they were and are not merely managing a budget; they are defending a culture.

Long-term Commitment

In this context, Helga and Maria represent a vital continuity. In an era where research is increasingly pressured to be "instrumental," both leaders have been fierce advocates for the autonomy of the scientist. They remind us that the mRNA vaccines or the breakthroughs in AI we

see today were born from decades of "useless" basic research. They both recognize that politics and science operate at different time scales: where politics demands immediately tangible results, science is a slow-moving affair. Mission-oriented research is fundamental to address some of the pressing problems of our society. However, when funding priority adjustments that appear perfectly reasonable become too restrictive, researchers adjust their research to the stated goals, sometimes with genuine interest, sometimes to increase their chances of securing funding. Departments hire accordingly, and younger researchers select their topics accordingly. In turn, this decreases the diversity that both Helga and Maria maintain is a source of discovery. Against the push to reduce funding for basic research, they both ensured that the ERC remained a "bottom-up" beacon, shielding it from the political winds that often demand short-term results at the expense of long-term breakthroughs.

Last but not least, there is a term that unites these two incredible people: **Woman**

As a woman in science, I feel it should be superfluous to associate their accomplishments as leaders of important research institutions with their gender. Unfortunately, even in Europe, even in 2026, it is still an exceptional achievement for a woman to reach the levels of power and influence that Professors Nowotny and Leptin have attained. In the press release announcing her election, we can read that the then Commissioner for Research, Innovation and Science, commented on the appointment (cit.): 'I am confident that Prof Nowotny will lead with ambition this truly pioneering European project. She is a fantastic role model for young women considering a science career. We need more like her.' Luckily, this seemed a foregone conclusion, as the ERC elected Maria Leptin, our current President, who took the helm in 2021 during a period of unprecedented global upheaval. As a developmental biologist, Maria brought the precision of the laboratory to the halls of Brussels. Under her stewardship, the ERC has not only maintained its gold standard but has expanded its reach, reinforcing the idea that European sovereignty depends on our ability to remain at the absolute frontier of global knowledge.

Beyond the citations, the grants, and the role in policy, both women have championed the human side of science—mentorship, diversity, and the necessity of failure as a precursor to discovery. To celebrate Maria Leptin and Helga Nowotny is to celebrate the belief that Europe's greatest resource is its creativity. Helga gave the ERC its soul and its sociological bridge to the public. Maria gives it its vigor and its scientific rigor in a competitive global theater. Together, they represent a lineage of female leadership that has redefined what it means to lead in the 21st century: not through command and control, but through the facilitation of genius. Science is a journey into the unknown. They have positioned the ERC as the top-tier institution for science. By doing so, they've created a reverse brain-drain, making Europe a destination of choice for the world's brightest minds. If it is true that you cannot plan for a discovery, you can build the home where discovery chooses to reside.

Maria, Helga—thank you for building that home for all of us. Because of your work, the "frontier" is not a border that confines us, but a horizon that keeps us expanding.