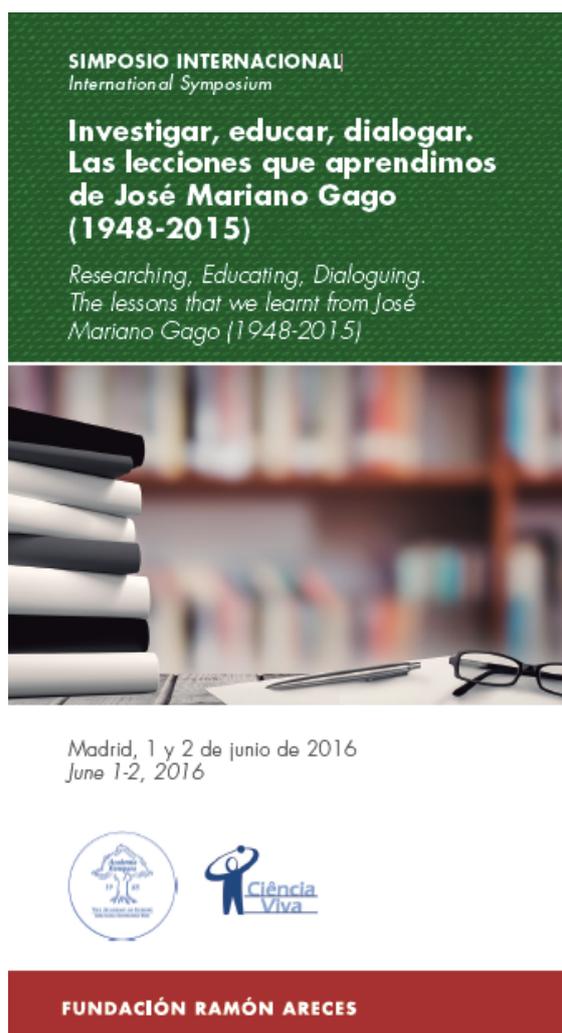


RESEARCHING, EDUCATING, DIALOGUING.

THE LESSONS THAT WE LEARNT

FROM JOSÉ MARIANO GAGO (1948-2015)



An International Symposium organised by the
Fundación Ramón Areces

with the collaboration of the *Academia Europaea*
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Chaired by: **Federico Mayor**, President of the
Culture of Peace Foundation, and **Ricard
Guerrero**, Academic Director of the Barcelona
Knowledge Hub-*Academia Europaea*.

CVs and ABSTRACTS

ANDRADAS, CARLOS

CV: Professor of Algebra since 1997 at the Universidad Complutense de Madrid (UCM), and Rector of the same University since May 2015. Author of more than forty research papers on several prestigious journals of Real Algebraic Geometry on 2014, as well as the book *Real*

Constructible Sets and a research report of the American Mathematical Society. He has been since 1983 a member of research projects funded by National Research Programmes in the UCM endorsed group related to Algebraic Geometries and Real Analytics. Andradas coordinates two European Research Programmes, has been also a member of different Spanish-German and Spanish-Italian Integrated Actions, in some of them as the IP. Andradas is visitor professor at several renowned universities such as Berkeley, Stanford and Harvard, and has been visiting scholar at the universities of Rennes, Pisa, Dortmund and Münster and at the Mathematical Science Research Institute (MSRI) of Berkeley. Determined defender of Scientific Societies, he's been president of the Royal Mathematic Society of Spain (2000-2006) and president of COSCE (2012-2015). Since 2012, he's member of the advisory council of Science, Technology and Innovation of the Ministry of Economy and Competitiveness of Spain.

BANDA, ENRIC

CV: PhD in Physics from the University of Barcelona. Post-doctorate research at the Swiss Federal Institute of Technology (ETH) in Zurich. Research Professor of the Spanish Council for Scientific Research (CSIC) since 1987. In 1988 he was appointed Director of the Earth Sciences Institute in Barcelona (Jaume Almera Institute-CSIC). He was Secretary General of the National R&D Plan in Spain in 1994 and Secretary of State for Universities and Research in 1995. He was Secretary General of the European Science Foundation (ESF) (1998-2003), Director of the Catalan Foundation for Research and Innovation (FCRI), and of the Catalan Institution for Advanced Studies (ICREA), from 2004 to 2007. Director of Innovation and Environment at La Seda de Barcelona. From 2009-2015 he has been Director of Science and Environment at “la Caixa” Foundation. He has been Vice-president of the European Geophysical Society, editor-in-chief of *Tectonophysics*, European editor of *Geophysical Research Letters* (American Geophysical Union) and author of numerous reviewed scientific papers. Fellow of the Royal Astronomical Society (UK), member of the Royal Academy of Sciences and Arts of Barcelona since 2012 and former President of Euroscience (2006–2012).

ABSTRACT: Scientific cooperation in Europe. The European Science Foundation. I learnt a number of things from Mariano Gago. In the learning process the activity I enjoyed most with him was “dialoguing”. One of our preferred subjects for debate was scientific cooperation in Europe, with particular attention to basic research. This is one of the reasons why he visited us at the European Science Foundation (ESF), at the time I was there, as many times as we invited him to come. The ESF used to be a hub in European scientific cooperation, a useful example of bottom up procedures that very often would converge towards a multilateral cooperation of funding agencies and research performing organisations in projects defined from scratch by scientists. We have, at present, lost that platform for collaboration. We found scientific cooperation to be one of the weak points in Europe and one of the strong points, perhaps the only one, of the ESF. Intergovernmental organisations such as CERN, ESO, EMBL and many others are fortunately still there. However, I claim that a lean structure for collaboration at European level is a must that we should be worrying about.

BLASCO, MARÍA A.

CV: PhD in 1993 for her research on viral DNA polymerases at the Centro de Biología Molecular in Madrid (Spain) under the supervision of Prof. Margarita Salas. That same year, Blasco joined the Cold Spring Harbor Laboratory in New York (USA) as a Postdoctoral Fellow under the leadership of Prof. Carol W. Greider. In 1997 she returned to Spain to start her own research Group at the Centro Nacional de Biotecnología in Madrid. She joined the Spanish National Cancer Research Centre (CNIO) in Madrid in 2003 as Head of the Telomeres and Telomerase group and Director of

the Molecular Oncology Programme. She served as CNIO Vice-director from 2005 to 2011 and she is the current CNIO Director (since July 2011). To date (February 2016), Maria A. Blasco has contributed a total of 219 scientific papers, including those published in high-ranking journals (8 in Cell, 6 in Nature Genetics, 5 in Nature Cell Biology, 4 in Nature, 2 in Cell Stem Cell, 2 in Nature Reviews Cancer, 2 in Nature Genetics, 2 in Science), totalling over 21,000 citations. Her h-index is of 75. Maria A. Blasco also has three granted international patents, one of which was licensed to the company Life Length, SL (www.lifelength.com), a Madrid-based biotech company. Maria A Blasco received a Doctorate Honoris Causa from Universidad Carlos III (Madrid, Spain) in 2014. That same year Blasco was elected Fellow of the Royal Academy of Pharmacy of Spain.

ABSTRACT: Development of a research centre of excellence (CNIO) and its relation with the citizen. The CNIO is a centre of excellence accredited as such by the Ministry of Economy and Competitiveness. Criteria that reflect the CNIO's excellence are the quality of the research performed as demonstrated by our high-quality and impactful scientific publications and the place of CNIO among the top cancer research centres in international rankings. According to the *SIR World 2013* report of SCImago, the CNIO occupies the second position among the top cancer research centres worldwide. With respect to EwL (Excellence with Leadership) parameter, which measures how many of these publications have CNIO's investigators as corresponding authors, the Centre holds the fourth position among cancer research centres. The main goal of the CNIO is to investigate in cancer, covering the whole spectrum of translational research from basic to clinical investigation. To achieve this, we have increased the number of clinical research units at the CNIO to facilitate collaboration with several hospitals and carry out preclinical trials. CNIO's approach to the development of new drugs, which are eventually licensed to pharmaceutical industry partners, is substantially shortening the time needed to bring a drug from the bench to the bedside. The Centre is fostering public participation in scientific cancer research through the platform "Amigos del CNIO". The Centre is involved in numerous public engagement activities to help the public participate in scientific research and understand the CNIO's science strategy and achievements. Among these initiatives, CNIO has repeatedly been part of GEPAC, an organization that includes many cancer patient associations, and has also established monthly guided tours of the research facilities to meet the scientists.

CELIS, JULIO E.

CV: Chairman of the Science Policy Committee of the European Academy of Cancer Sciences; Danish Cancer Society Research Center, Copenhagen. Associated Scientific Director of the Danish Cancer Society Research Center. He has been Chairman of the European Molecular Biology Laboratory (EMBL) Council (1997-1999), Vice President of the Human Proteome Organization (HUPO; 2002), Chair of the Initiative for Science in Europe (ISE; 2005-2007), President of the European Molecular Biology Conference (EMBC/EMBO; 2000-2003), Secretary General of the Federation of European Biochemical Societies (FEBS; 1999-2007), President of the European Life Sciences Forum (ELSF; 2001-2007), President of the European Association for Cancer Research (2012-2014), Chairman of the Policy Committee of the European CanCer Organisation (ECCO; 2008-2014), and Vice-President of the Alliance for Biomedical Research in Europe (2011-2014). He is currently Advisor to the Scientific Panel for Health in Horizon 2020 (2015-), member of the European Commission Research, Innovation and Science Experts (RISE) High-Level Advisory Board (2015-), Chairman of the Science Policy Committee of the EACS, and Editor-in-Chief of Molecular Oncology (2007-). Prof Celis has organized several international laboratory courses, Summer Schools, and Congresses and is generally recognized as one of the founding fathers of proteomics. He is member of the Royal Danish Academy of Sciences and Letters, the European Molecular Biology Organization (EMBO), the Academia Europaea, the European Academy of Cancer Sciences (EACS), and the Chilean Academy of Sciences.

ABSTRACT: Shaping EU Cancer Research Policy: Towards a Virtual European Cancer Institute. Cancer is one of the major health issues affecting our societies. Today, basic research prompted by the explosion of novel high-throughput technologies available for the analysis of genes and their products is leading to a better understanding of the biological processes underlying disease pathogenesis; yet advances that improve lives, extend survival and enhance the quality of life of cancer patients have been harder to achieve. The latter is because the paths through which basic discoveries are translated into new and more efficient tailored treatments and diagnostics are complex, lengthy, and difficult to organize. Although Europe has well-organized Clinical and basic/preclinical cancer centres in the Member States, there are several barriers that preclude us from benefiting from the scientific expertise and resources available: these include the fragmentation and duplication of research activities and the resultant sub-optimal critical mass; weakness of the links between basic, applied and clinical research, and the lack of sustainability, critical infrastructures, and coordination between national and EU activities. In this presentation, I will describe the efforts that the oncology community and policy advisors have been doing for the last fourteen years to structure translational cancer research in Europe. In particular, I will give a historical account of the key events leading to the funding of the EurocanPlatform in FP7 - a Network of Excellence that links 23 cancer research centres in Europe - and to the recent establishment of Cancer Core Europe (CCE) by six leading European cancer centres. CCE has triggered interest in structuring other areas such as prevention, early detection and outcomes' research, and represents the first step towards the creation of a virtual European Cancer Institute. The impact of CCE on personalized/precision medicine, Open Science, and Science Diplomacy will be discussed.

CLOETINGH, SIERD

CV: Distinguished University Professor at Utrecht University. He published more than 330 papers in international peer-reviewed journals and has been promotor of more than 70 PhD students of 14 different nationalities. He served the Earth Science community in various functions, including Presidency of the European Geophysical Society. Currently he is President of the International Lithosphere Programme, Editor-in-Chief of the International Journal “Global and Planetary Change”, and Chairman of the collaborative research programme TOPO-EUROPE. He was elected member of Academia Europaea in 1994 and served Academia Europaea as Chair of the Earth and Marine and Earth and Cosmic Sciences Sections. In 2008 he was elected by the Council as Vice-President of Academia Europaea, and 2014 was elected as President. He was a member of the Scientific Council of the ERC from 2009-2015. His current research interests are solid earth geophysics, tectonics, intraplate deformation, lithospheric dynamics, sedimentary basin evolution, sea level change.

ABSTRACT: The Academia Europaea: challenging the Future. The founding of the Academia Europaea (AE) in 1988, was born out of a vision to create a pan-European Academy of individual scholars that was interdisciplinary, transborder (in fact borderless and independent of nationality, citizenship or geographical influence) and inclusive of the entire European continent. At the very first meeting, held in Cambridge in 1988, the mission was established: *“to promote a wider appreciation of the value of European scholarship and research; to make recommendations to national governments and international agencies concerning matters affecting science (in the sense of wissenschaften), scholarship and academic life in Europe; to encourage interdisciplinary and international research in all areas of learning, particularly in relation to European issues; to identify topics of trans-European importance to science and scholarship and propose appropriate action to ensure that these issues are adequately studied”*. I can look back with some pride that Jose Mariano Gago was involved in the establishing of this vision and then through his continued and active engagement with the AE, including during his periods in government. In the twenty-eight years following establishment, the AE has grown. It now has over 3500 members; a new and

dynamic Young Academy of Europe has been established under the AE umbrella and the AE has forged strong working linkages with a wide range of other European associations, to become a key and independent voice in the new Science Advice Mechanism (SAM) of the European Union. As AE President, I am therefore pleased to continue the vision of the founding fathers and play a part in enabling European scholars' to provide expertise for science into policy and policy for science. I will explore some of the issues of the academic-policy interface and provide examples of some of the challenges that are current and emerging for the future of academe.

GINER, SALVADOR

CV: Professor Emeritus of Sociology at the University of Barcelona. He graduated and obtained a Ph.D. in Sociology at Chicago University. He taught and did researching for a long time at several British universities including Cambridge, Reading, Lancaster and London. Besides his empirical works, Salvador Giner has paid a noteworthy attention to the developing of the sociological theory and to the study of the historical evolution of social ideas. His effort to link sociological inquiry to moral philosophy and the promotion of democracy, fraternity and the public virtues especially typifies his work. Most of his writings have been published and translated. He is a founding member of the Spanish Federation of Sociology, of which he has been also Director, and has directed also the Institute for Advanced Social Studies of the CSIC. He has been Editor of *Revista Internacional de Sociología*, and Associated Editor of the *European Journal of Social Theory*. His most notable books include *Historia del pensamiento social*, *Sociología*, *Sociedad Masa*, *Ensayos civiles* and *Carta sobre la democracia*, besides essays such as *La estructura social de la libertad*, *Altruismo cívico y política social*, *Las razones del republicanismo*, *El futuro del capitalismo*.

ABSTRACT: Reasons and unreasons of research at the University. The hallowed traditional role of Universities turned them into the natural home of scientific search for objective knowledge. Yet, mass education and wrong government policies have often interfered with it. Likewise, the transfer of research to non-university labs and industrial research have undermined the Universities' central role. This has been harmful and dysfunctional. We must go back to our natural home. Science and reason will be protected if they are freed from market forces and the special interests of firms and enterprises. The University is a crucial public good, and has all the necessary tools for the successful pursuit of objective knowledge and the democratic progress of scientific research.

GLASHOW, SHELDON L.

CV: Sheldon Lee Glashow is currently the Metcalf Professor of Mathematics and Physics at Boston University. He received his early education from the Bronx High School of Science in New York City. In 1954 he completed his graduation in Arts from Cornell University and five years later in 1959, he received a Ph.D. degree in physics from Harvard University under Nobel-laureate physicist Julian Schwinger. At Harvard he founded important theories of electromagnetic and nuclear particle interaction, which laid the basis for the next generation of research on quarks and leptons. After a small period at the Bohr Institute in Copenhagen, CERN in Geneva, and the California Institute of Technology, Glashow spent five years (1961 to 1966) teaching at the University of Stanford and the University of California (Berkeley), before returning to Harvard in 1967 as lecturer of physics. He has served the science policy committee of CERN since 1979. With the assistance of Julian Schwinger, Glashow in 1961 extended his work on electroweak unification models. Through his workings he discovered the basis of the accepted theory of the electroweak interactions and was awarded the Nobel Prize in Physics in 1979, along with Steven Weinberg and Abdus Salam. In 1964, while working with James Bjorken, Glashow was the first to predict the existence of a fourth quark, which he originally named the "charmed quark" (now charm quark).

Through this he demonstrated that the quark pairs would largely cancel out flavour changing neutral currents, as well as eliminating a technical disaster for any quantum field theory with unequal numbers of quarks and leptons-an irregularity. Along with Howard Georgi in 1973, Glashow devised the first grand unified theory. This work was the groundwork for all future unifying work. He is the author of around 300 research papers and three books: *Interactions*, *The Charm of Physics*, and *From Alchemy to Quarks*. Apart from scientific articles, Glashow has written a number of popular articles, a collection of tales, charts, cartoons, and poems about physics and physicists. He is also one of the members of the Board of Sponsors of *The Bulletin of the Atomic Scientists*. He was the focus of a far-reaching profile in the *Atlantic Monthly* during August 1984. He is a Member of the National Academy of Sciences of the USA.

GUERRERO, RICARD

CV: Full Professor of Microbiology at the University of Barcelona (1988-2013), Emeritus. Adjunct Professor at the University of Massachusetts-Amherst (2001-present). Fellow of following Academies: the Linnean Society, the American Academy of Microbiology, the Academia Europaea and the Institute for Catalan Studies. President of the Spanish Society for Microbiology, SEM (2007-2014) and Vice-president of the Confederation of Scientific Societies of Spain, COSCE (2013-present). As a consequence of his work, he has more than 400 publications on the biochemistry, genetics, and ecology of prokaryotes. Besides his activity in research and teaching at the university, he has worked on different programs and activities on behalf of the communication of science in Spain, Latin America, and the United States, and of the public understanding of science in different countries. He has been the curator of the permanent exhibition of the new Museum of Natural Sciences of Barcelona. Currently, he is the Academic Director of the Academia Europaea's office for the Mediterranean, located in Barcelona (Barcelona Knowledge Hub).

GUINOVART, JOAN

CV: Professor of Biochemistry and Molecular Biology at the University of Barcelona and Director of the Institute for Research in Biomedicine (IRB Barcelona; the Barcelona Institute of Science and Technology). His research focuses on glycogen metabolism, with special attention to the alterations in diabetes and Lafora disease. He has mentored more than 45 graduate students and postdocs and published over 160 articles on the subject. He has served as President of the Spanish Society for Biochemistry and Molecular Biology (SEBBM) and the Federation of Scientific Societies of Spain (COSCE). He is the current President of the International Union of Biochemistry and Molecular Biology (IUBMB). He is a Fellow of the Spanish Royal Academy of Pharmacy, the Catalan Academy (Institut d'Estudis Catalans) and the Academia Europaea and has been recognized with the FEBS *Diplôme d'honneur* and the Creu de Sant Jordi of the Government of Catalonia, among other distinctions.

ABSTRACT: Foundation and development of the Federation of Scientific Societies of Spain (COSCE). The Spanish scientific community has long been aware of the need to improve its commitment to science and technology. Therefore, in 2004, its most representative scientific societies decided to launch The Federation of Scientific Societies of Spain (*Confederación de Sociedades Científicas de España*, COSCE). COSCE aims to do the following: contribute to scientific and technological developments in Spain; act as a qualified and unified interlocutor for scientists, communicating with civil society and representative authorities; and promote the role of science and contribute to its recognition as an essential cultural ingredient. COSCE is currently formed by more than 70 Spanish scientific societies, whose membership exceeds 40,000 scientists. The federation therefore fully represents the Spanish scientific community. COSCE also aims to provide knowledge that may be of use to economic, social, and political agents. It generates expert

information that can be applied to actively promote, support, and contribute to developing initiatives aimed at strengthening the role of science as a component of economic and social progress in Spain. In this regard, COSCE has become a corporate instrument, encouraging research, improving science education, disseminating the scientific spirit, and promoting social appreciation of scientific values.

HEITOR, MANUEL

CV: Full Professor at *Instituto Superior Técnico*, IST, the engineering school of the Technical University of Lisbon and director of the IST's "Center for Innovation, Technology and Policy Research". From March 2005 to June 2011 he served as Secretary of State for Science, Technology and Higher Education in the Government of Portugal. Most recently, in the 2011-12 academic year he was a Visiting Scholar at Harvard. He earned a PhD at Imperial College, London, in 1985, in combustion research and did post-doctoral training at the UC San Diego. Then he pursued an academic career at IST, in Lisbon, where he served as Deputy-President for the period 1993-1998. Since 1995, he has been Research Fellow of the IC2 Institute of the University of Texas at Austin. He is a founding member of the S&T Council of the "International Risk Governance Council", IRGC. Recently, he has been active as a co-founder of the European network "science, technology, education and policy for Europe, step4EU", as well as of the "International Observatory of Global Policies for the Sustainable Exploration of Atlantic, OPIG". Manuel Heitor coordinates the doctoral Programs in "Engineering and Public Policy, EPP" and in "Engineering Design" at IST, Lisbon. Since November 2015 he is the Minister for Science, Technology and Higher Education of Portugal.

ABSTRACT: INAUGURAL LECTURE. Knowledge and the collective ambition for Europe: Learning from José Mariano Gago in policy making.

Public policy formulation in Europe, after a decade hit by recession and economic and budgetary problems, must take into account countercyclical measures, while focusing on advanced education of human resources and strengthening science and technology activities (S&T) in all branches of knowledge. The continuous qualification of the workforce at large is a persistent challenge that requires broadening the social basis for advanced education, as well as for further internationalizing knowledge and innovation networks.

Following many of the reflections continuously made by José Mariano Gago over the last three decades (e.g., Solomon and Gago, 1994, Gago 2004), this should also consider active public policies to attract and retain qualified human resources all over Europe, as well as considering public actions towards promoting new markets. The way in which the economic fabric may gain competitiveness and access to external markets may require enhancing the degree of internationalization of the scientific community and encouraging international knowledge and innovation networks.

Cross-disciplinary new frontier research should be the result of ambitious initiatives yet to be developed or stimulated from the huge potential of European organisations, including Intergovernmental European research laboratories, like CERN, EMBL, ESO, ESRF or ESA, as well by many others national and European initiatives.

We all should remember that José Mariano Gago was himself a student and, for many years, a physicist at CERN and he has acknowledged an immense debt to Intergovernmental European research laboratories, both as a scientist and as a citizen of the world. In addition, as a politician,

he has continuously remembered all of us how unique and how critical are the continuous generosity and dedication of scientists and engineers for the future of science. In other words, “scientific activism” and the active engagement of scientists in policy making has become one of the greatest challenges Europe is facing to foster innovative policy frameworks.

The need for a revisited public policy framework giving priority to knowledge and technological change across the entire Europe must consider the dynamics of cumulative data on R&D expenditure and the qualification of human resources across Europe. This is because analysis shows an increasing internal divergence on knowledge investments across Europe, beyond the increasing gap between Europe as a whole and North America. For example, levels of accumulated investment per researcher in Europe 50% lower than in the USA by 2014 and that the average investment in R&D per citizen in Europe has decreased comparatively to that in USA. As a result, I argue that new paradigms and conditions for responsible science and innovation policy across EU require the collective action of R&D institutions and a system approach to higher education, together with new initiatives towards international cooperation across an enlarged Europe.

Why is it not trivial to understand that investing in S&T creates jobs and exports and is indispensable for long run growth in modern economies and societies? This question is increasingly relevant because, in recent years, it has been very important to place many European countries and regions on track with EU average investment levels in R&D, but this remains insufficient. In addition, the accumulation of that investment in many European regions and countries is still very low, if compared to any industrially developed region, particularly in the USA.

Recent data also shows that only those European nations that have increased the investment in S&T and managed, at the same time, to diversify their economic structure have fully guarantee the necessary absorptive capacity to foster the impact of S&T in economic development. The implications for Europe is notorious and call for the need to increase the budget allocated to R&D all over Europe with measures oriented towards technological diversification and intensification of the industrial base across different sectors.

In short, the increase in R&D expenditure carried out in universities and firm is not inevitable, but a choice. European citizens at large and their governments must make this choice, and it is important that they are aware that if we do not continue to grow in those areas, it will be difficult to encourage technological innovation and economic competitiveness. In order to achieve these objectives, it is paramount to mobilize and employ more PhD graduates throughout entire Europe, foster research in universities, strengthen the relationship between universities and the business sector, and guarantee scientific and technological relationships with the leading institutions worldwide. And this can be only achieved if we simultaneously stimulate demand and supply of the ability of carrying out R&D.

The current level of European economic and technological development requires a major and sustained effort of public funding of R&D across all over Europe. This will contribute not only to graduate new PhD students and foster scientific employment, but also, directly and indirectly, to foster demand. This has been the way regions and countries with high levels of R&D and a large percentage of business R&D have followed. The faster Europe at large addresses this challenge, the quicker it will be kept up with.

Main and selected References:

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MARTÍ, GENOVEVA

CV: Doctor in Philosophy (Stanford University). Research Professor of ICREA (Catalan Institute for Research and Advanced Studies) at the Department of Philosophy of the University of Barcelona. Formerly, Professor of Philosophy at Western University (Ontario, Canada), and Reader at the London School of Economics. She has taught also at the University of Washington, Seattle, and the University of California, Riverside. Since 2009 she is a member of the Academia Europaea. She is a member of the LOGOS research group. Her research interests include the theory of reference, the semantics of singular and general terms, and the role of experimental data in semantics. She was awarded the Narcís Monturiol Medal for scientific merit by the Government of Catalonia in 2012. She was the first Academic Director of the Barcelona Knowledge Hub of the Academia Europaea (January 2013-August 2014).

ABSTRACT: The scientific career (the ICREA and Serra Hunter programmes). In my presentation I will compare the hiring and promotion systems that are common in the Universities of most Anglo-Saxon countries and some European countries (such as Sweden, Norway, Finland or Switzerland) with the Spanish system. My purpose is to provide arguments to show that the Spanish system is riddled with fundamental problems that make the pursuit of excellence in research and teaching difficult. Nevertheless, the problems I identify are not the ones that are usually identified as culprits: reliance on civil servants and endogamy. Even though I do not wish to deny that the latter are indeed crippling Spanish Universities, I will argue that they are rather symptoms, for the root of the problems lies elsewhere. Programs such as ICREA, Ikerbasque and the Serra Hünter initiative should be models to bring about a much needed change.

MAS-COLELL, ANDREU

CV: Andreu Mas-Colell is currently Emeritus Professor of Economics at the Universitat Pompeu Fabra, Barcelona, Spain. Formerly he was Professor of Economics at Harvard University (1981-96), Professor of Economics and Mathematics at the University of California, Berkeley (1972-80) and Chairman of the Barcelona Graduate School of Economics (2006-2010). He holds Honoris Causa Doctorates from the universities of Alacant, Toulouse, HEC (Paris), Universidad Nacional del Sur (Argentina) and Chicago. He has received the Rey Juan Carlos Prize in Economics (1988), the Pascual Madoz (National Research Prize), (2006) and the Premio Fundación BBVA Fronteras del Conocimiento en Economía, Finanzas y Gestión de Empresas –shared with Hugo Sonnenschein- (2009). He has served as main Editor of the Journal of Mathematical Economics (1985-88), and of Econometrica (1988-92). Professor Mas-Colell is a Fellow of the Econometric Society and was its President in 1993. In 1997 he was elected Foreign Associate to the US National Academy of Sciences and Foreign Honorary Member of the American Economic Association. He has been a Sloan Fellow (1978-1980) and Guggenheim Fellow (1985-1986). Also from 1999 to 2005 he was a member of the Executive Committee of the International Economic Association. In the year 2006 he served as President of the European Economic Association. From 2000 to 2003 he was Conseller for Universities and Research of the Government of Catalonia and President of the Advisory Scientific Committee of Telefónica Investigación y Desarrollo (2005-2008). He served as General Secretary of the European Research Council (2009-2010) and Conseller of Economy and Knowledge of the Government of Catalonia (2010-2015). Mas-Colell has written over 120 research papers on subjects ranging from abstract general equilibrium theory and the structure of financial markets to pricing policy for public firms. He is the author of *The Theory of General Economic Equilibrium: A Differentiable Approach* (Cambridge University Press, 1985) and co-author with

M. Whinston and J. Green, of the graduate textbook *Microeconomic Theory* (Oxford University Press, 1994).

ABSTRACT: Promotion and development of a science of excellence policy (the CERCA Institution). I'll review a number of ideas and principles that have informed the launching of new research centers in Catalonia in the last 15 years: legal standing, critical mass, private law management, a board with effective responsibility, a scientist as Director, with authority in scientific and management issues, own personnel policy, labour contracts, periodical evaluation by an external committee, multi annual programming, at a university campus, international outlook, above all: striving for excellence.

SEBASTIAN, NÚRIA

CV: PhD in Experimental Psychology from the University of Barcelona in 1986. After Post-doctoral training at the Max Plank Institute and the CNRS in Paris, she was appointed Associate Professor of the Faculty of Psychology, University of Barcelona, in 1988, and then was promoted to Full Professor in 2002. In 2009, she moved to the Pompeu Fabra University (UPF). She was a Visiting Scholar at several research centres, including the IRCS at the University of Pennsylvania, the ICN at the University College (London) and the University of Chicago. She was coordinator of the Consolider-Ingenio 2010 research consortium (BRAINGLOT). Recently, she was awarded a European Research Council (ERC) Advanced grant (UNDER CONTROL project). Since January 2014, she has been Vice-President of the ERC. She leads the SAP Research Group (Speech Acquisition and Processing) at the UPF's Centre for Brain and Cognition. She has authored over 90 publications in international journals.

ABSTRACT: The European Research Council and its role to promote excellence in research at the European scenario. The ERC is a public body for funding of scientific and technological research conducted within the European Union (EU). Established by the European Commission in 2007, the ERC is composed of an independent Scientific Council, its governing body consisting of distinguished researchers, and an Executive Agency, in charge of the implementation. It forms part of the framework programme of the union dedicated to research and innovation, Horizon 2020, preceded by the FP7. The ERC budget is over €13 billion from 2014-2020 and comes from the Horizon 2020 programme, a part of the European Union's budget. Under Horizon 2020 it is estimated that around 7,000 ERC grantees will be funded and 42,000 team members supported, including 11,000 doctoral students and almost 16,000 post-doctoral researchers. Researchers from any field can compete for the grants that support pioneering projects. The ERC competitions are open to top researchers also from outside the union. The average success rate is about 12%. Five ERC grantees have won Nobel Prizes. Grant applications are assessed by qualified experts. Excellence is the sole criterion for selection; there are neither thematic priorities, nor geographical quotas for funding. The aim is to recognise the best ideas, and confer status and visibility to the best research in Europe, while also attracting talent from abroad.

VARGAS, ROSALIA

CV: President of Ciência Viva-National Agency for Scientific and Technological Culture, Portugal, and Director of the Lisbon Science Center: Pavilion of Knowledge. She has been leading the creation of a network of science centers in Portugal, since 1996, currently with 20 members. After being President of ECSITE (the European Network of Museums and Science Centers) (2013-2015), she has the position of Past President in the board of this organization. Her academic and professional development covers Education, Media Studies, Political Governance, and Scientific and Technological Culture: Benchmarking Study on Scientific Culture for the European

Commission (2002); Board Member for ECSITE (2001-2007); member of the International Programme Committee of 5th Science Centre World Congress (2004-2008); member of the National Council of Education 2006-2012); elected City Councilor for Education, Youth and Culture at Lisbon City Council (2007-2009); member of Editorial Board Harvard Medical School Portugal (2010-2012); National Delegate for Science in Society at the 7th Framework Programme of Research and Development, European Commission (2007–2012); member of ASTC board (2015-2018)

ABSTRACT: José Mariano Gago. Who he was; what he did. I met Professor Mariano Gago for the first time at a conference in Lisbon, when called for his help with my master’s dissertation on the topic of discourse in science communication. Here we have something that really interests me, he replied. 20 years later I still recall from that day his generosity, wisdom and humanity. In May 1996 we launched *Ciência Viva* (Science Alive). I immediately grasped the scale of the task, but, for a moment, I feared my ability to carry it out. Why did you choose me, Professor? Because you have the ability to learn. Because the scientific community will help you. Because parents and teachers have been expecting this for a long time. Because school kids deserve it. And I learned. I did it during formal meetings for which he gathered people from many different areas - even those unlikely for a politician’s office - and also during visits to bookstores (new and old second hand ones), where our discussions crossed the path of books he admired, searched for and discovered. I quickly realised that my learning would have to go beyond the reports, studies, essays and international publications that I needed to know. And from a bookshelf “Blue August” would jump out, while Manuel Ferreira Gomes inspired a conversation about literature and politics. He gave me that book, and whenever I touch or recall it, I realize the man of letters, of sciences and of the world he was at all times.