



Workshop on

# A MISSION-ORIENTED APPROACH TO CANCER IN EUROPE: BOOSTING THE SOCIAL IMPACT OF INNOVATIVE CANCER RESEARCH



16-17 November 2018 | Casina Pio IV | Vatican City

Organized by the Pontifical Academy of Sciences & the European Academy of Cancer Sciences



"Defending the right to life  $e^{J}$  physical integrity also means safeguarding the right to health on the part of individuals  $e^{J}$  their families. Today this right has assumed implications beyond the original intentions of the Universal Declaration of Human Rights, which sought to affirm the right of every individual to receive medical care  $e^{J}$  necessary social services. In this regard, it is my hope that efforts will be made within the appropriate international forums to facilitate, in the first place, ready access to medical care  $e^{J}$  treatment on the part of all. It is important to join forces in order to implement policies that ensure, at affordable costs, the provision of medicines essential for the survival of those in need, without neglecting the area of research  $e^{J}$  the development of treatments that, albeit not financially profitable, are essential for saving human lives."

Pope Francis' Speech to the Diplomatic Corps, 8 January 2018

### **Concept Note**

**Cancer** is one of the leading health problems worldwide. In the European Union (EU) alone, the number of new cancer patients will increase annually from 2,6 million in 2012 to 3,3 million in 2030. During the same period, the cancer deaths will increase from 1,28 million to 1,67 million. A major problem for the health care organisations is the increasing number of patients living with a cancer diagnosis, a rise of still higher magnitude. The epidemiological figures for the EU, however, are not unique, as the trends are somewhat similar all over the world. Altogether, this tendency implies that current strategies for research, care, and prevention need to be revisited to balance the increasing cancer burden.

During the last 15 years, the cancer community and policy makers have been trying to develop strategies to bridge the gap between basic/preclinical and clinical research. As a result of these continuous and coordinated efforts, a patient-centred European consortium for therapeutics - Cancer Core Europe - connecting six major European cancer centres, most of them Comprehensive Cancer Centres (CCCs), was established in 2014 using a bottom-up approach. The virtual cancer centre/infrastructure has recently become a legal structure & currently comprises seven centres having the critical mass of multidisciplinary expertise, resources, patients, and data that is necessary to innovate in cancer research. By relying on CCCs, institutions linking therapeutics and prevention with research and education and that link research with the healthcare system, the virtual centre can connect research with the health care systems in each Member State.

**Cancer** Core Europe has provided an exceptional example of how to build communities, stimulate collaboration, foster knowledge, and create societal and economic added value across Europe. Inspired by Cancer Core Europe, a similar consortium addressing cancer prevention – Cancer Prevention Europe – was established early in 2017. The alliance, which links nine European cancer research centres, aims at integrating the prevention research continuum to innovative within this area. Currently, Cancer Core Europe and Cancer Prevention Europe are in the process of integrating therapeutics and prevention strategies to address in partnership the

increasing cancer problem. By offering innovative approaches for cancer research, links to the healthcare systems, development of quality-assured multidisciplinary cancer care, as well as the assessment of long-term outcomes, the infrastructure is expected to serve as a hub to connect with other centres across Europe as well as on other continents.

At present, innovation has become a political issue in Europe, and research, the engine that fuels innovation, is under scrutiny. Both politicians and decision makers would like to see research resulting in innovations, and the general opinion is that the research input is good, but the impact on society is disappointing. As a result, the Commissioner for Research, Science and Innovation Carlos Moedas following the recommendations of the Lamy report "Investing in the European future we want", decided to move from a challenge-driven to a mission-oriented approach to tackle global challenges. This development prompted Julio E. Celis and Dainius Pavalkis - members of the RISE High-level Group that advice Commissioner Moedas - to propose a mission in cancer (A mission-oriented approach to cancer in Europe: a joint mission/vision 2030; <u>http://onlinelibrary.wiley.com/</u> doi/10.1002/1878-0261.12143/full) based on the activities and objectives of Cancer Core Europe and Cancer Prevention Europe. The mission stated that "by combining innovative prevention and treatment strategies in a sustainable state-of-the-art virtual European cancer centre/infrastructure, it will be possible by 2030 to achieve long-term survival of 3 out of 4 cancer patients in countries with well-developed healthcare systems. Furthermore, the concerted actions will pave the way to handling the economic and social inequalities in countries with less-developed systems". The Cancer Mission was recently discussed at the first Gago Conference on European Science Policy that took place at the i3S in Porto, Portugal on February 14, 2018. Closing the Conference, Commissioner Carlos Moedas confirmed his strong support for a mission-oriented approach to cancer in Horizon Europe.

**In addition** to addressing implementation issues, the Conference will address the social impact of cancer research, as well as the engagement of other continents (Open to the World/Science Diplomacy).

## Programme

Day 1   Friday, November 16		
14:00	Introduction and welcome by representatives of both Academies	
	Marcelo Sánchez Sorondo   Bishop-Chancellor of the Pontifical Academy of Sciences	
	Alexander Eggermont   President, European Academy of Cancer Sciences	
Opening presentations   Towards increasing the societal impact of cancer research Chair: Julio E. Celis		
14:15	From the creation of the European Research Area to a potential Mission on Cancer in Horizon Europe Julio E. Celis	
14:25	Commissioner for Research, Science and Innovation (video message) Carlos Moedas	
14:35	Commissioner for Health and Food Safety Vytenis Andriukaitis	
14:50	President of the European Parliament (video message) Antonio Tajani	
15:00	Minister for Science, Technology and Higher Education, Portugal Manuel Heitor	
Session 1   Scientific strategies towards a mission-oriented approach to cancer		
15:15	Introduction and chair Anton Berns	
15:20	The cancer research continuum: Addressing the increasing burden of cancer <b>Ulrik Ringborg</b>	
15:40	Cancer Core Europe: A hub and an engine to coordinate and optimize European efforts to innovate in cancer therapeutics Alexander Eggermont	
16:00	Research environments for translational cancer research: The Comprehensive Cancer Centres (CCCs) of Excellence <b>Anton Berns</b>	
16:20	Cancer Prevention Europe: Strategies to integrate cancer prevention research Christopher Wild	
16:40	Some Economic Principles for Rational ReJD Practice Jeffrey D. Sachs	
17:00	Coffee Break	
17:20	Discussion: Implementing the mission – The how (Break 18:10-18:30)	
	<b>Invited discussants &amp; participation of the audience:</b> Giovanni Apolone, Anton Berns, Thierry Boon-Falleur, Joachim von Braun, Carlos Caldas, Fabien Calvo, Fatima Carneiro, Julio E. Celis, Alexander Eggermont, Angelika Eggert, Stefan Fröhling, Bengt Jönsson, Denis Lacombe, Francesco de Lorenzo, Peter Nagy, Simon Oberst, Dainius Pavalkis, Thierry Philip, Ulrik Ringborg, Joachim Schüz, Erik Steinfelder, Josep Tabernero, Ethel de Villiers and Christopher Wild	
19:30	Dinner at the Casina Pio IV	

#### Day 2 | Saturday, November 17

#### Session 2 | Social impact of cancer research

9:00	Introduction Ulrik Ringborg
9:10	<i>Virus and cancer</i> Nobel Laureate <b>Harald zur Hausen</b>
9:30	Discussion: Social impact of cancer research Invited discussants & participation of the audience: Fabien Calvo, Maria da Graça Carvalho, Alexander Eggermont, Ingemar Ernberg, Jesper Fisker, Harald zur Hausen, Bengt Jönsson, Pernilla Lagergren, Francesco de Lorenzo, Françoise Meunier, Simon Oberst, Karen Steindorf, Elisabete Weiderpass and Christopher Wild
11:25	Lunch at the Casina Pio IV
Session 3   Open to the world: Engaging other continents (science diplomacy)	
12:10	Introduction Chair <b>Cecilia Björner, Jan Tombinski</b>
12:15	Discussion: Social impact of cancer research
	<b>Invited discussants &amp; participation of the audience:</b> Jozséf Bódis, Philippe Busquin, Maria da Graça Carvalho, Jesper Fisker, Marga Gual Soler, Manuel Heitor, Jan Lubiński, Teresa Riera Madurell, Edward De Robertis, Vikash Sewram, Huanming Yang, Otmar Wiestler, and Petras Zapolskas
13:45	Concluding remarks Ulrik Ringborg, Marcelo Sánchez Sorondo

Conclusions from the conference will be printed & distributed. Information will also be disseminated by a press release in connection with the conference.

### **List of Participants**

de Almeida Lima, António José Emauz | Ambassador of Portugal to the Holy See Andriukaitis, Vytenis | Commissioner for health & food safety, European Commission Apolone, Giovanni | Scientific Director, Istituto Nazionale dei Tumori, Milan Bagnato, Vanderlei S. | Instituto de Física de São Carlos (IFSC) Universidade de São Paulo (USP) Brazil Berns, Anton | Prof., The Netherlands Cancer Institute, Amsterdam Björner, Cecilia | Ambassador, Swedish Embassy to the Holy See Bódis, Jozséf | Minister for Education, Ministry of Health, Hungary Boon-Falleur, Thierry | Former Director, Ludwig Institute for Cancer Research, Université Catholique de Louvain Busquin, Philippe | Former Commissioner of Research, European Commission Caldas, Carlos | Prof., Cancer Research UK, Cambridge Calvo, Fabien | Scientific Director, Cancer Core Europe Carneiro, Fatima | Prof., University of Porto Celis, Julio E. | Associated Scientific Director, Danish Cancer Society Research Centre Cupers, Philippe | Deputy Head of Unit Innovative tools, technologies and concepts in health research, European Commission De Miro, Roberto | Member of ECPC Eggermont, Alexander | Director, Gustave Roussy, Paris Eggert, Angelika | Prof., Charité Universitätsmedizin, Berlin Ernberg, Ingemar | Prof., Karolinska Institutet, Stockholm Fisker, Jesper | Administrative Director, Danish Cancer Society Fröhling, Stefan | Prof., National Center for Tumour Diseases, Heidelberg von Gertten, Christina | Coordinator, European Academy of Cancer Sciences da Graça Carvalho, Maria | Member of Unit 01 Scientific Advice Mechanism, European Commission Gual Soler, Marga | Project Director, American Association for the Advancement of Science zur Hausen, Harald | Prof., German Cancer Research Center, Heidelberg Heitor, Manuel | Minister of Science, Technology & Higher Education, Portugal Iannelli, Elisabetta | Member of ECPC Jönsson, Bengt | Prof., Stockholm School of Economics Lacombe, Denis | Director General, European Organisation for Research and Treatment of Cancer Lagergren, Pernilla | Prof., Karolinska Institutet, Stockholm Lubiński, Jan | Prof., Pomeranian Medical University in Szczecin de Lorenzo, Francesco | President, European Cancer Patient Coalition Marino, Gabriella | Event Manager, Translator, Webmaster, Pontifical Academy of Sciences Marques da Costa, Luís | Director of the Oncology Division, Santa Maria Hospital and University of Lisbon Meunier, Françoise | Former Director General, European Organisation of Research and Treatment of Cancer Nagy, Peter | Director, Research National Institute of Oncology, Budapest Nilsson, Kristina | Program Officer, Swedish Embassy to the Holy See Oberst, Simon | Prof., Cancer Research UK, Cambridge Pavalkis, Dainius | Former Minister of Research and Education, Lithuania Philip, Thierry | Director, Institut Curie, Paris Pontes, Laranja | President of the Porto Cancer Research Centre

Riera Madurell, Teresa | Former member of the European Parliament, University of the Balearic Islands Ringborg, Ulrik | Director, Cancer Center Karolinska, Stockholm De Robertis, Edward | Prof., University of California, Los Angeles Sachs, Jeffrey D. | Director SDSN and Director Center for Sustainable Development Columbia University Sánchez Sorondo, Marcelo | Chancellor, Pontifical Academy of Sciences Schüz, Joachim | Prof., International Agency for Research on Cancer Sewram, Vikash | Director, African Cancer Institute, Stellenbosch University Steindorf, Karen | Prof., National Center for Tumor Diseases, Heidelberg Steinfelder, Erik | Director General, BBMRI - ERIC Sysaite, Vilija | Member of Cabinet of Commissioner V Andriukaitis, European Commission Tabernero, Josep | Director, Vall d'Hebron Institute of Oncology, Barcelona Timofte, Alina | Member of Cabinet of Commissioner V Andriukaitis, European Commission Tombinski, Jan | Head of Delegation of the European Union to the Holy See de Villiers, Ethel | Prof., German Cancer Research Center, Heidelberg Weiderpass, Elisabete | Prof., Karolinska Institutet, Stockholm Wiestler, Otmar | President, Helmholtz Association of German Research Centres, Berlin Wild, Christopher | Director, International Agency for Research on Cancer, Lyon Yang, Huanming | Chairman & co-founder, Beijing Genomics Institute Zapolskas, Petras | Ambassador, Lithuanian Embassy to the Holy See

#### ACKNOWLEDGEMENTS

The Organisers are grateful for the support received from the Danish Cancer Society, the Foundation ARC, the German Cancer Aid, Molecular Oncology, and the Stockholm Cancer Society/ King Gustaf V Jubilee Fund.









Also, the collaboration with the Delegation of the European Union to the Holy See and the Embassy of Sweden to the Holy See is much appreciated.



