



Innovative Approaches to Promote Equity in Cancer Research Funding Across European Regions

OEI - ONCOLOGY DAYS 2024

12-16 June 2024, Helsinki

Péter Nagy

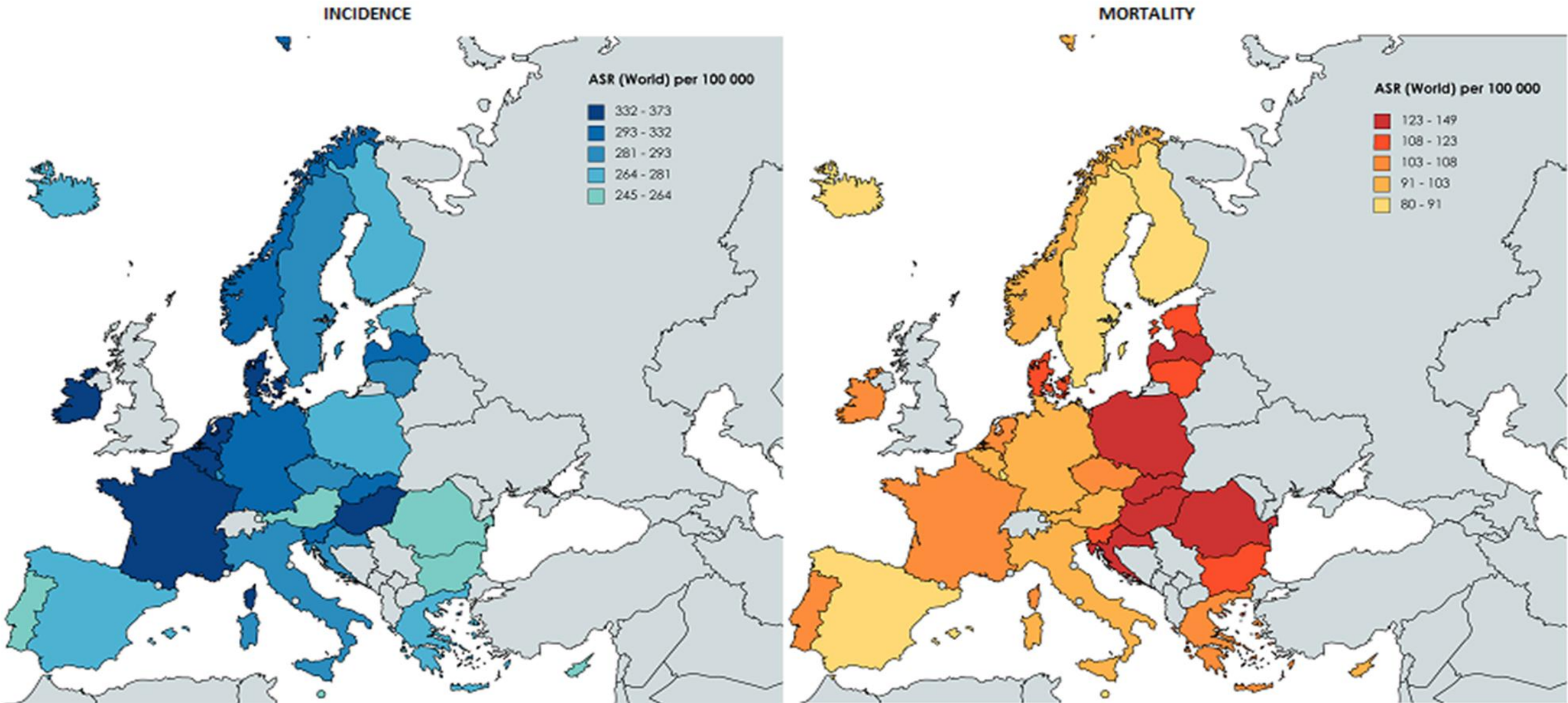
scientific director

National Institute of Oncology, Budapest, Hungary

Member of the OEI A&D Board

- Cancer is the leading cause of premature morbidity and mortality in many countries
 - ~3 million new cases annually in Europe
 - ~1.4 million deaths annually in Europe
- Major economic burden for citizens and societies (continuously growing)
- Europe provides outstanding cancer care
- There are notable disparities
 - Between countries
 - Within countries
- Aim: 70% average 10-year survival for all European cancer patients by 2035 (70:35 vision)
- Reducing inequalities in cancer care and research is a priority

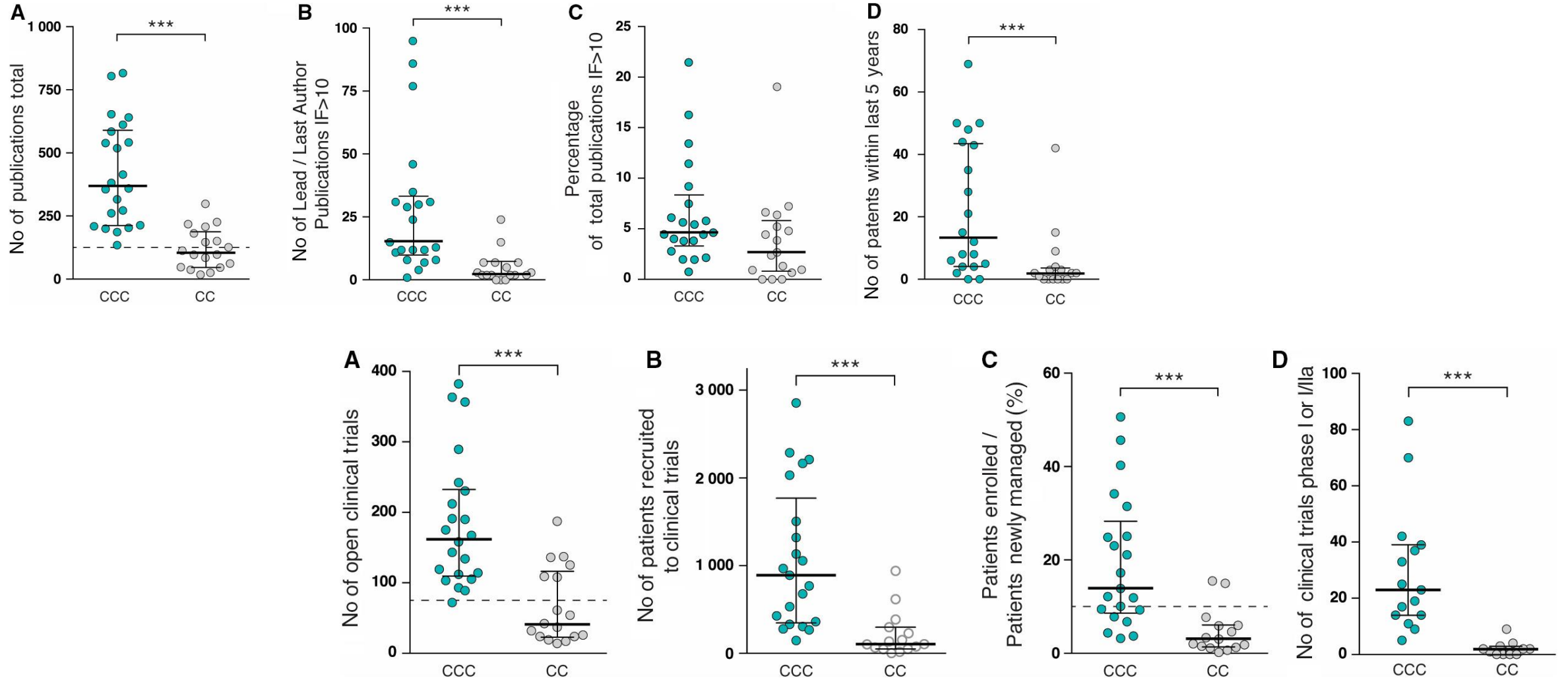
Incidence and mortality rates in Europe



Potential causes of inequalities in cancer mortality

- Individual and collective behaviors
- Customs and social interactions linked to the exposure to cancer risk factors
- Availability and access to early diagnosis and screening programs
- Availability and access to effective treatments
- **Disparities in Cancer Research**

- European continent is a global leader in cancer discovery science
(topics of cancer biology, modelling, diagnostics and early detection, translational research and clinical trials, precision oncology, novel technologies and approaches, epidemiology)
- Cancer prevention research has lower priority
- Europe has world-leading activities in data science
- The essential role of cancer registries!
- Network of comprehensive cancer centers
 - high-quality cancer diagnostics and care
 - high-quality cancer research
 - educational activity (university partnership)
 - international networking
- Patients treated in research-active hospitals have better outcomes
- Inequalities in cancer research – mapping is important



Results quick scan: Information from OEI (provided by Prof. Thierry Philip)

- OEI Comprehensive Cancer Centre (CCC)
www.oeci.eu/accreditation
- OEI Cancer Centre
www.oeci.eu/accreditation
- In OEI Accreditation & Designation Process
www.oeci.eu/accreditation
- EACS Designation of Research Excellence and OEI CCC
www.europeanacademy.eu
- Oncologische Spitzenzentren of Deutsche Krebshilfe
www.ccc-netzwerk.de/das-netzwerk/mitglieder.html



EU countries with almost full coverage of accredited centres:

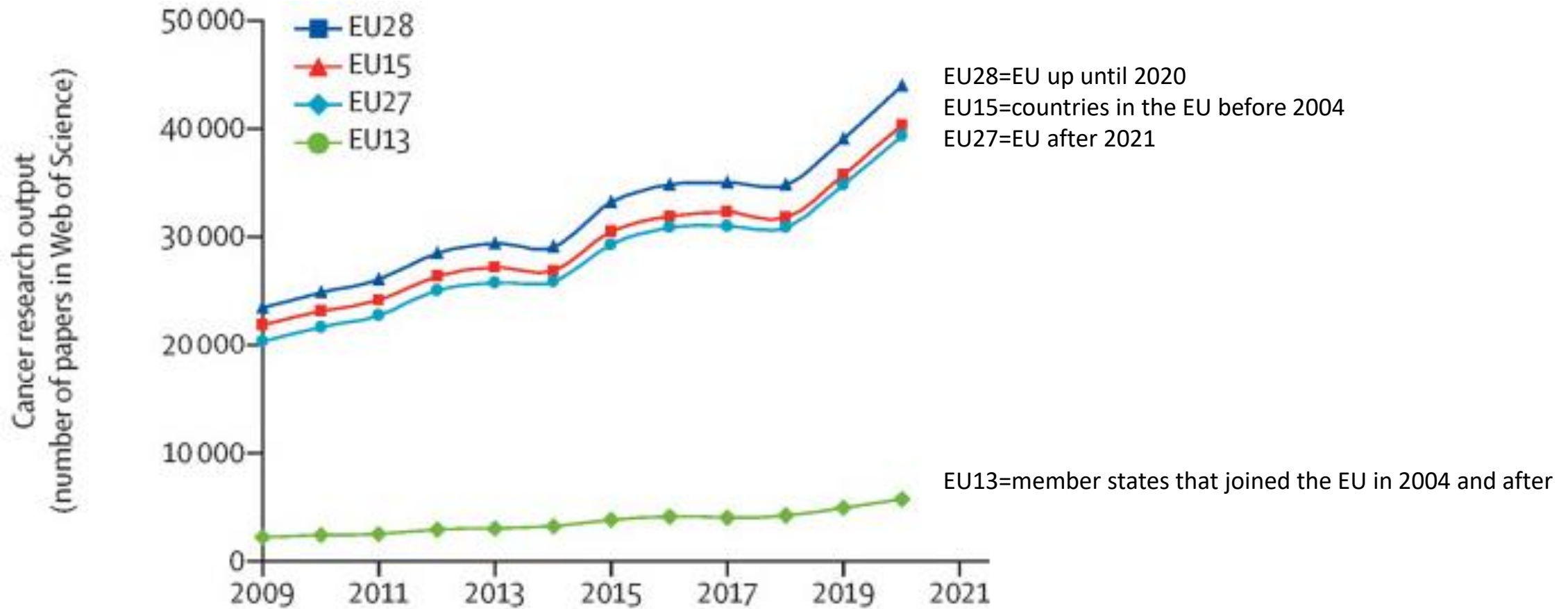
- Finland
- France
- Germany
- Italy
- Portugal

EU countries with no accredited centres yet:

- Bulgaria
- Croatia
- Cyprus
- Greece
- Latvia (interested)
- Luxembourg (in progress)
- Malta
- Poland (applying)
- Slovakia
- Slovenia (in progress)

(Comprehensive) Cancer Infrastructures accredited by OEI, German Cancer Aid or European Academy of Cancer Sciences

Outputs of biomedical research papers and cancer research papers from groups of European countries



Patients treated in research-active hospitals have better outcomes!



THE GAGO CONFERENCES

ON EUROPEAN SCIENCE POLICY



EUROPEAN ACADEMY
OF CANCER SCIENCES

1st Gago Conference on European Science Policy on „***Policy Perspectives for Cancer Research in Europe***”

14 February 2018, Porto, Portugal

2nd Gago Conference on European Science Policy on „***Science, society and policy towards a Europe of knowledge: On the role of science engagement in Horizon Europe***”

21 September 2018, Vienna, Austria

3rd Gago Conference on European Science Policy on „***Greening Europe: the next challenge for science and science policy***”

15 October 2021, Nicosia, Cyprus

4th Gago Conference on European Science Policy on „***Europe supporting young researchers in times of uncertainty***”

13 June 2022, Brussels, Belgium

5th Gago Conference on European Science Policy on „***Cancer research: society at the frontiers of knowledge***”

6 October 2022, Heidelberg, Germany

The Vatican Conferences

1st A mission-oriented approach to cancer in Europe: Boosting the social impact of innovative cancer research

16–17 November 2018

2nd **Strategies to decrease inequalities in cancer therapeutics/care and prevention**

Presentation: Inequalities in cancer research – improved science with improved outreach

23–24 February 2023

Twinning Partnerships

National Hellenic Research Foundation-NHRF

National Institute of Oncology- NIO

Oncology Warsaw

ERN PAEDCan Consortium



German Cancer Research Center- DKFZ

Karolinska Institute- KI

Institute Curie in Paris



Dnr. S-44/2021



OIO JSZ. 327-1 /2021.173

Memorandum of Understanding

between

NATIONAL INSTITUTE OF ONCOLOGY, HUNGARY
and

KAROLINSKA INSTITUTET, SWEDEN

National Institute of Oncology, Hungary, and Karolinska Institutet, a medical university, Sweden (hereinafter, jointly or individually, referred to as "Parties" or "Party" to this Memorandum) believe that:

1. Mutual benefit can be derived from academic exchange, cultural interchange and cooperation in teaching and research;
2. The Parties regard the following areas of cooperation as described separately in a implementation agreement as desirable and feasible within the limits of available resources and interests:
 - (i) Exchange of students and academic staff members;
 - (ii) Collaborative research and possible exchange of academic papers;
 - (iii) Organisation of joint academic and scientific activities, such as courses, conferences, seminars, workshops or lectures;
 - (iv) Exchange of scientific materials, publications and other information;
 - (v) Co-operation in training projects for specified areas of development;
 - (vi) Opportunities for other forms of co-operation, such as the delivery of award and non-award courses.



Alexander Valdman MD, PhD
Associate Professor of Oncology
1w · Edited ·

+ Follow



Grateful for the opportunity to represent Karolinska at the radiotherapy workshop in Budapest within the framework of the "Twinning agreement" between the Karolinska ...see more



AMBITION

September 1, 2022

November 30, 2023

4.UNCAN.eu

UNCAN.eu

A Coordination and Support Action

Blueprint
(sustainability, governance)

1

2

3

4

European Federated Cancer Research Data hub.

Address inequalities

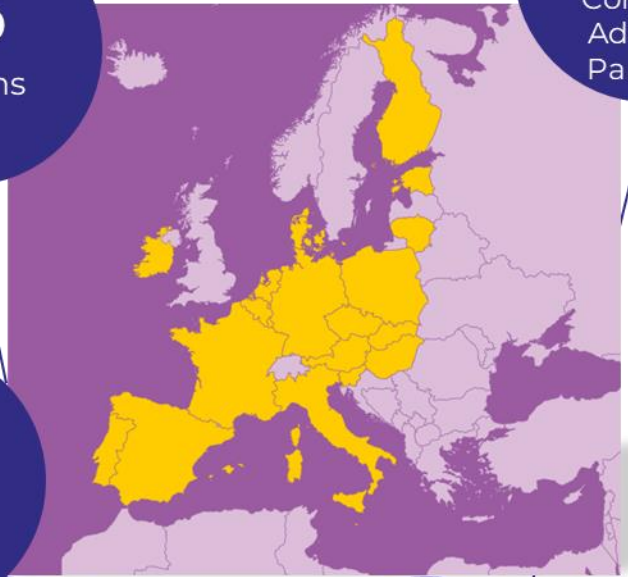
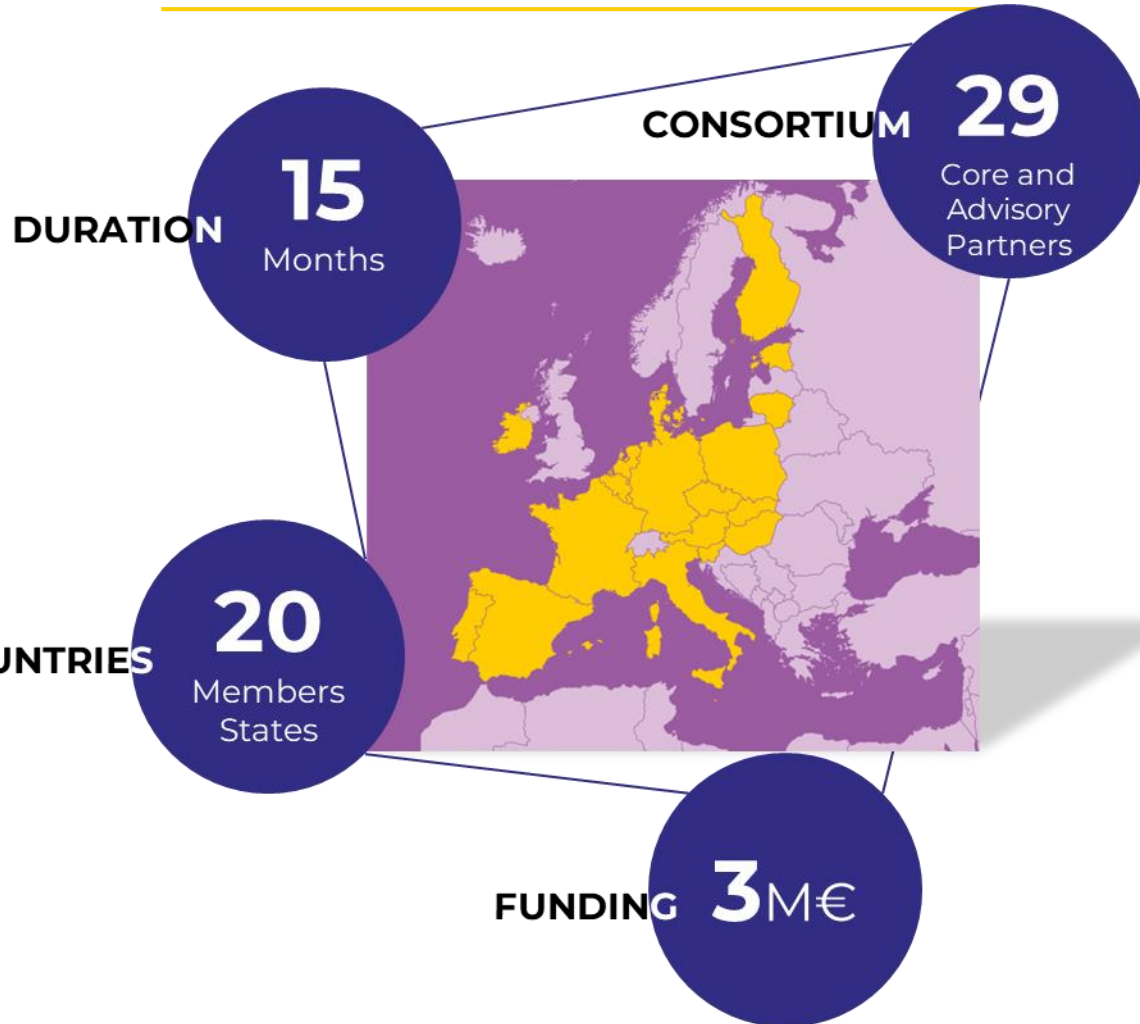
Use cases

Patients,
Patient advocates
Citizens





« 4.UNCAN.eu » CSA ★



Inserm
La science pour la santé
From science to health
Inserm

ALLIANCE AGAINST CANCER
Alliance Against Cancer

ciberiscii
ciberonc
Biomedical Research Networking Center

UNCAN.eu
Funded by the European Union

Childhood Cancer International EUROPE
Childhood Cancer International Europe

European Cancer Patient Coalition
European Cancer Patient Coalition

dkfz. GERMAN CANCER RESEARCH CENTER IN THE HELMHOLDZ ASSOCIATION
Research for a life without cancer
German Cancer Research Center

NETHERLANDS CANCER INSTITUTE
ANTONI VAN LEEUWENHOEK
Netherlands Cancer Institute Antoni Van Leeuwenhoek

SIOP Europe
the European Society for Paediatric Oncology
European Society for Paediatric Oncology

ECI
Organisation of European Cancer Institutes – EEIG
Organisation of European Cancer Institutes – EEIG

National Institute of Oncology Hungary

Oncode Institute
Oncode Institute

VHIO VALL D'HEBRON Institute of Oncology
Vall d'Hebron Institute of Oncology

InsermTransfert
Your partner in health innovation
InsermTransfert

RÉPUBLIQUE FRANÇAISE
Liberté Égalité Fraternité
Institut National du Cancer

International Agency for Research on Cancer
World Health Organization
International Agency for Research on Cancer

VIEWS

IN FOCUS

UNCAN.eu, a European Initiative to UNDERstand CANcer



Eric Solary¹, Patricia Blanc², Michael Boutros³, Charis Girvalaki⁴, Franco Locatelli⁵, Rene H. Medema⁶, Péter Nagy⁷, and Josep Taberero⁸

Summary: “UNCAN.eu” refers to a collective European effort seeking to enable a leap forward in our understanding of cancer. This initiative, which includes the creation of a European cancer research data hub, will pave the way to new advances in cancer care. Starting on September 1, 2022, a 15-month coordination and support action will generate a blueprint for UNCAN.eu. Here, we summarize the cancer research issues that the blueprint will propose to tackle at the European level.

INTRODUCTION

Two convergent novel initiatives of the European Union (EU)—in health, Europe’s Beating Cancer Plan and, in research and innovation, the Horizon Europe Mission on Cancer (<https://research-and-innovation.ec.europa.eu>; ref. 1)—spurred the creation of a platform to better UNDERstand CANcer (UNCAN.eu) as part of their implementation road map. Starting in September 2022, a 15-month coordination and support action (4.UNCAN.eu) will generate a blueprint for setting up UNCAN.eu. This initiative is anticipated to collect research data, patient health data, and any other relevant data at an unprecedented scale to gain a new and deeper understanding of cancer mechanisms. The global ambition of this initiative is to achieve significant new knowledge to guide improvements in cancer prevention, early diagnosis, and treatment, including prevention of treatment-related side effects, ultimately providing a basis for saving millions of lives and improving the quality of life of cancer survivors and their caretakers.

The blueprint for the UNCAN.eu platform includes two pillars (Fig. 1). One is the implementation and management

U.S. National Cancer Institute (NCI; ref. 2). In line with the European Commission’s strategic priority on the digital transformation of health, anticipated outcomes may include artificial intelligence (AI)-powered medical decision support systems to guide personalized cancer prevention, diagnosis, or care. Importantly, use cases will be selected in close interaction with cancer patient advocacy groups to integrate the expectations of patients with cancer and their families into the proposed agenda.

CANCER AS A GROWING SOCIETAL CHALLENGE

Although sometimes perceived to be a disease of modernity, cancer has existed since antiquity. The earliest fossil evidence for malignant neoplastic disease in the hominin record is a metatarsal osteosarcoma identified in the cave site of Swartkrans in South Africa, with the estimated age of these human remains ranging between 1.8 and 1.6 million years. The Greek physician Hippocrates (460–377 BC), who is credited with

VIEWS

IN FOCUS

UNCAN.eu: Toward a European Federated Cancer Research Data Hub



Michael Boutros¹, Michael Baumann², Anna Bigas³, Linda Chaabane⁴, Julien Guérin⁵, Jens K. Habermann⁶, Aurélien Jobard⁷, Pier Giuseppe Pelicci⁸, Oliver Stegle^{9,10}, Giovanni Tonon¹¹, Alfonso Valencia¹², Eva C. Winkler¹³, Patricia Blanc¹⁴, Ruggero De Maria¹⁵, Rene H. Medema¹⁶, Peter Nagy¹⁷, Josep Taberero^{3,18}, and Eric Solary¹⁹

Summary: To enable a collective effort that generates a new level of UNDERstanding CANcer (UNCAN.eu) [Cancer Discov (2022) 12 (11): OF1], the European Union supports the creation of a sustainable platform that connects cancer research across Member States. A workshop hosted in Heidelberg gathered European cancer experts to identify ongoing initiatives that may contribute to building this platform and discuss the governance and long-term evolution of a European Federated Cancer Data Hub.

INTRODUCTION

Recognizing the urgent need for a new level of investment and action against cancer, Europe’s Beating Cancer Plan and the Mission on Cancer illustrate the institutional commitment to unite efforts across Europe to better understand this disease and enhance the management of patients. The first of the 13 recommendations of the Mission on Cancer (1) and one of the 10 flagship initiatives of the Europe’s Beating Cancer Plan converge in supporting the launch of a European initiative to increase our UNDERstanding of CANcer, UNCAN.eu (<https://uncan.eu>). To implement this objective, the European Commission proposed the creation of a European platform where researchers from Member States and all over the world may share and access cancer research data that address the greatest challenges in cancer research. This platform has been conceived as a federated network that connects national nodes and feeds from multimodal cancer data emerging from a series of pioneering research use cases. Through a Coordination and Support Action (CSA) named 4.UNCAN.eu, we are preparing a blueprint to guide the creation of a fully fledged, sustainable UNCAN.eu platform in Europe. Launched in September 2022, 4.UNCAN.eu will deliver this blueprint on

A Strategic Road Map for UNCAN.eu

To enable the creation of a strategic road map that effectively contributes to a better understanding of cancer, 4.UNCAN.eu designed a bottom-up process involving hundreds of researchers and patient representatives across Europe to prioritize the most critical questions—research use cases—that need to be tackled in cancer research. Following this consultation, the CSA identified a defined number of ambitious, large-scale projects that form the basis of the UNCAN.eu platform proposed to the European Commission (2). These use cases are envisioned to be addressed by interdisciplinary, supranational, equitable research consortia working collaboratively. The ultimate goal is that these use cases generate transformative breakthrough discoveries in the six areas predefined by the 4.UNCAN.eu CSA, namely: prevention, early diagnosis, resistance to therapy, cancer and aging, pediatric cancer, and survivorship. This research agenda seeks to achieve three overarching goals:

- Cocreate an inclusive UNCAN.eu platform with participation from basic and translational researchers, data scientists, physicians, patients, and citizens from all over

4.UNCAN WP 6 on „Inequalities in cancer research – improved science with improved outreach”

Objectives of WP6:

To identify mechanisms that may boost cancer research and innovation potential in lower income regions across Europe while promoting technology transfer and interaction with private companies.

Task 1 Mapping cancer specificities across European countries

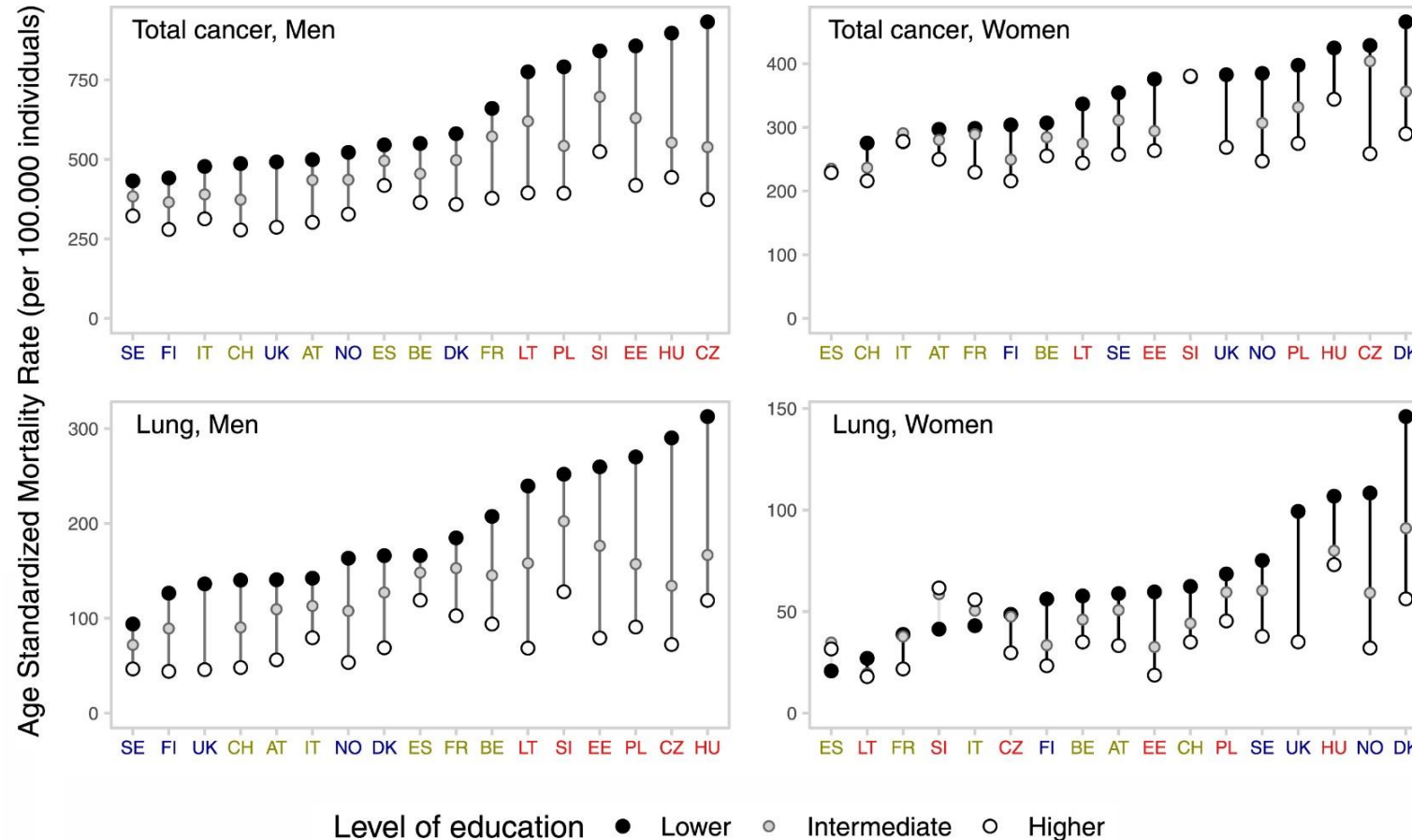
Task 2 Benchmark existing research infrastructures and networks across Europe

Task 3 Benchmark and Promote Twinning Programs with Focus on Sustainability

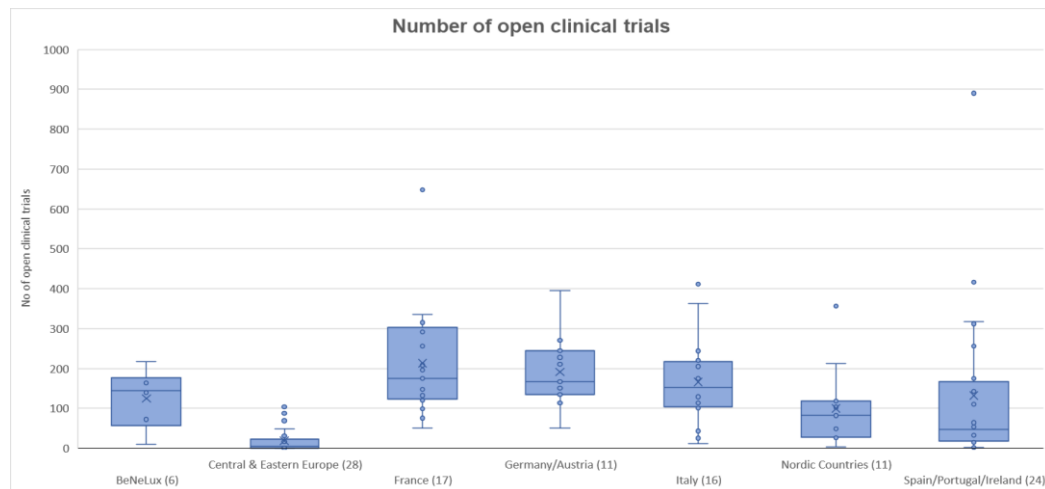
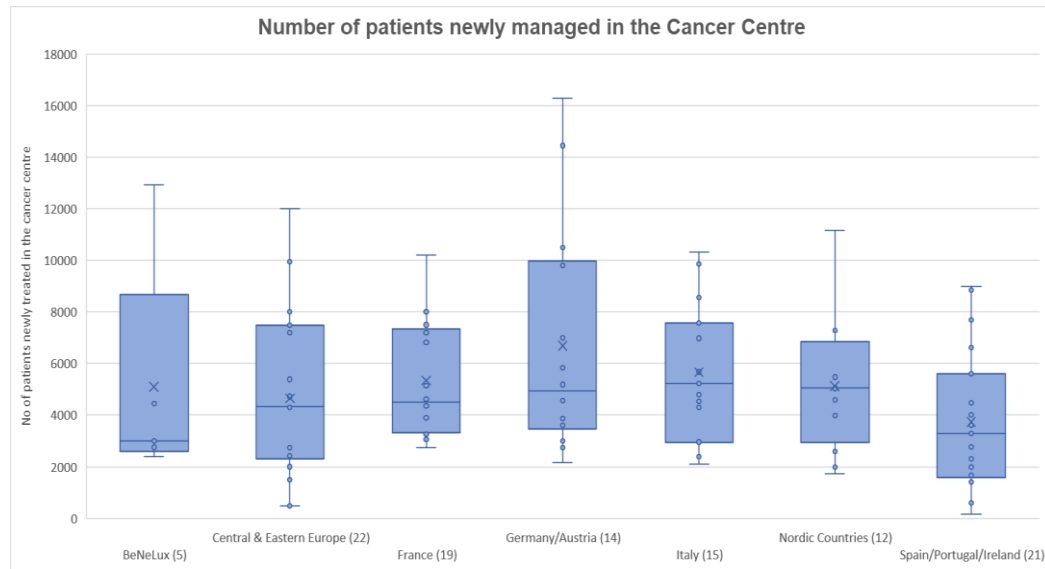
Task 4 Identify opportunities for technology transfer and industry collaboration



Task 1 Results: Socioeconomic inequalities between and within countries in relation to cancer mortality in Europe



Task 2 Results: Number of patients newly managed patients and clinical trials



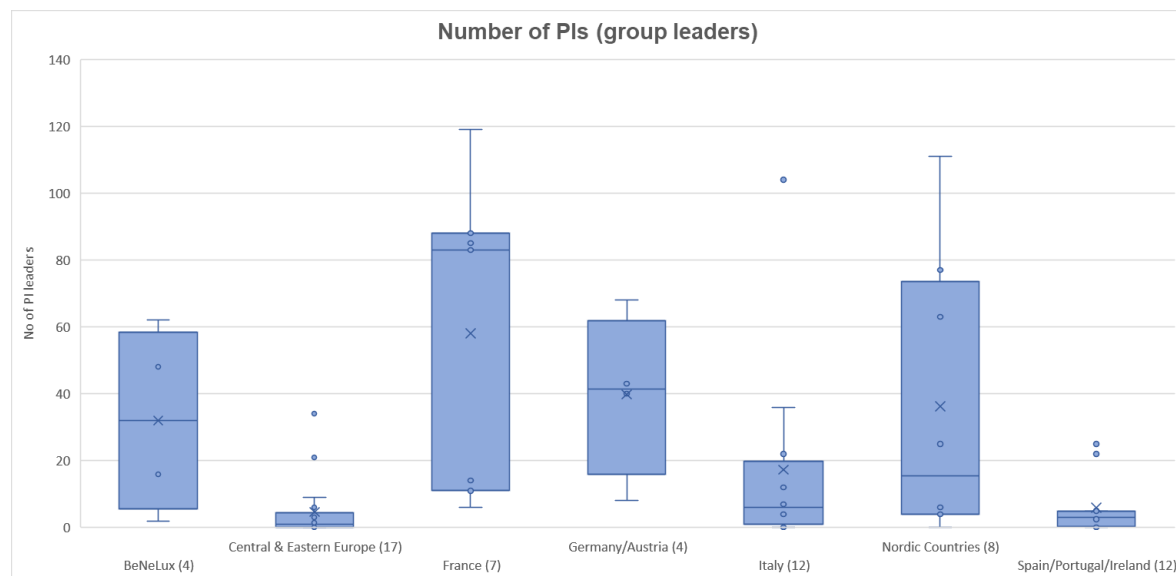
Based on a total of 108 cancer centres, centres have 5,193 newly managed cancer patients on average. The range was from 161 (a centre within Central and Eastern Europe) to 16,270 (in Germany/Austria) but in summary the mean and median data show a **consistency between regions**.

Out of 113 Cancer Centres, 60 centres have more than 75 clinical trials open to patient accrual. Most of these centres are located in France (16), Germany/Austria (10), and Italy (13).

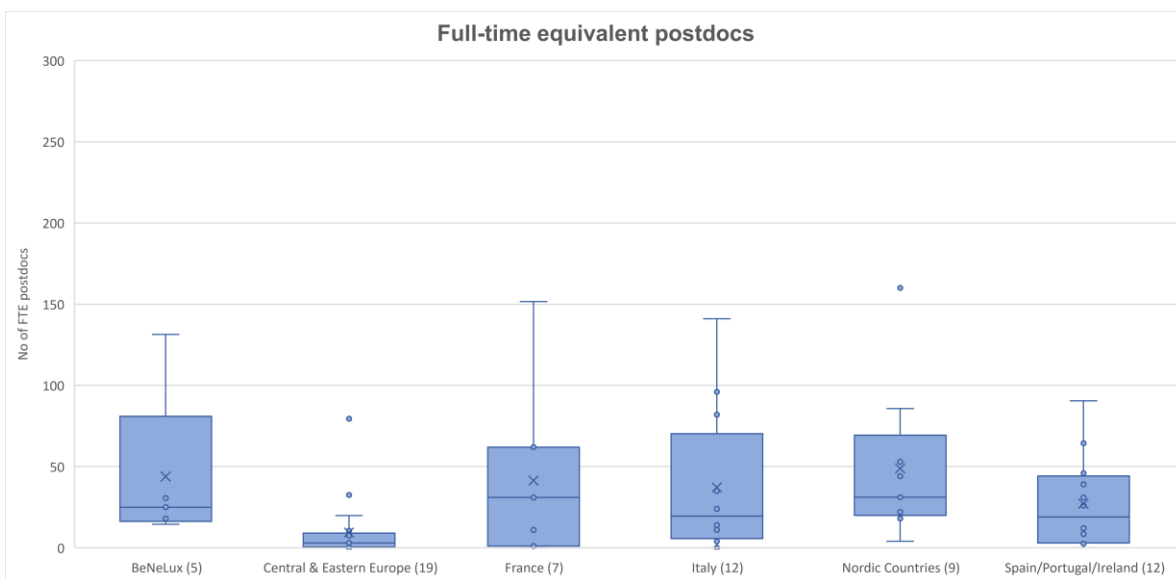
In total 24 cancer centres have **fewer than 10 clinical trials** open for patient accrual. **Most** of these centres are located **In Central and Eastern Europe (19)**.

Source: 4.UNCAN.eu survey, OECl database, CraNE survey

Task 2 Results: Number of PIs and FTE postdocs

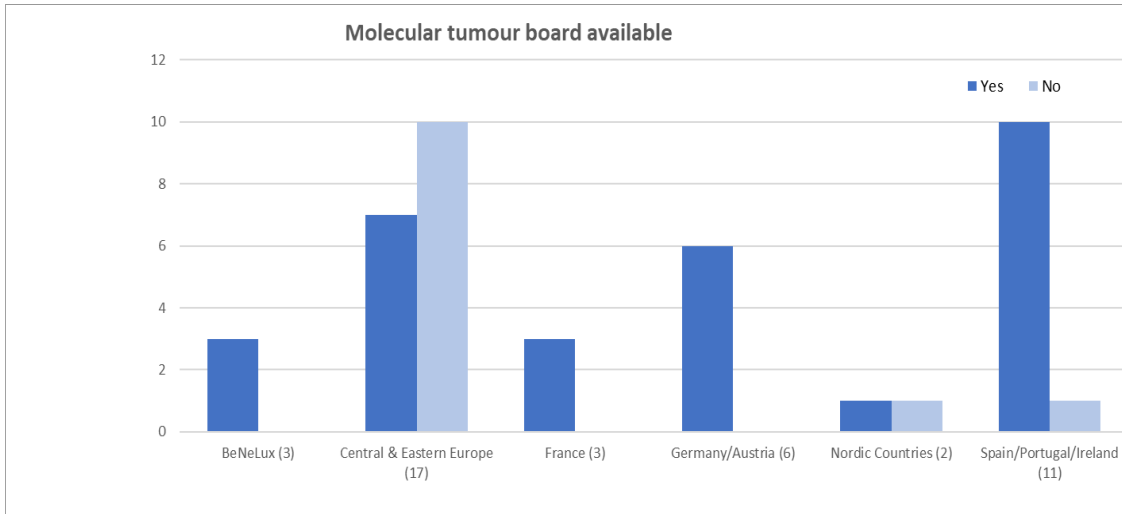


Cancer centres with the highest number of Principal Investigators (group leaders) are France (mean: 58), Germany/Austria (mean: 40), the Nordic Countries (mean: 36), and BeNeLux (mean: 32). **The lowest numbers** were reported in **Central and Eastern Europe** (mean: 5), Spain/Portugal/Ireland (mean: 6), and Italy (mean: 17).

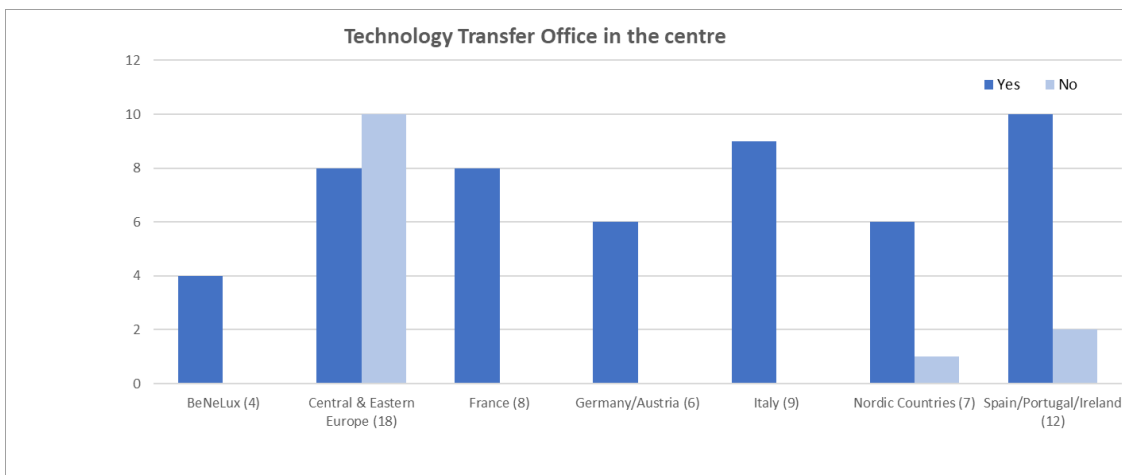


The highest number of Full-time equivalent postdoctoral researchers working in cancer centres were found in the Nordic Countries (mean: 49), BeNeLux (mean: 44), and France (mean: 41). **The lowest numbers of FTE postdocs were reported in centres in Central and Eastern Europe** (mean: 9). Germany/Austria was left out of the analysis because the number of cancer centres included was not representative.

Task 2 Results: Molecular Tumor Board and Technology Transfer Office Available

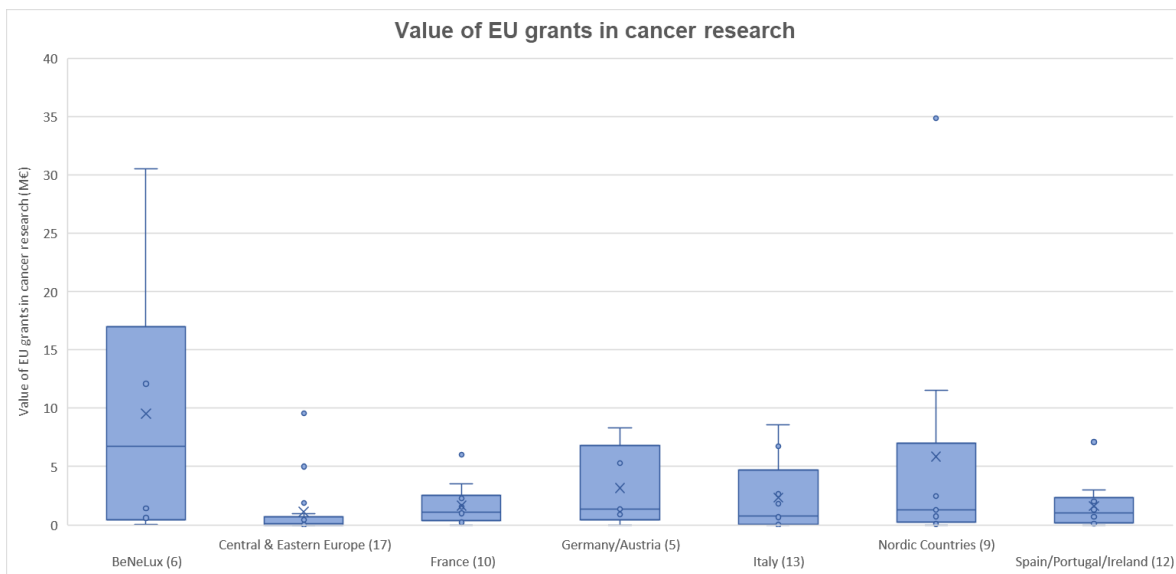


Out of 42 cancer centres, 30 cancer centres have a molecular tumour board available in the centre. Most of these centres are located in Spain/Portugal/Ireland (10) and Germany/Austria (6). **12 cancer centres reported that there is not a molecular tumour board in the centre; most of those centres are in Central and Eastern Europe (10).**

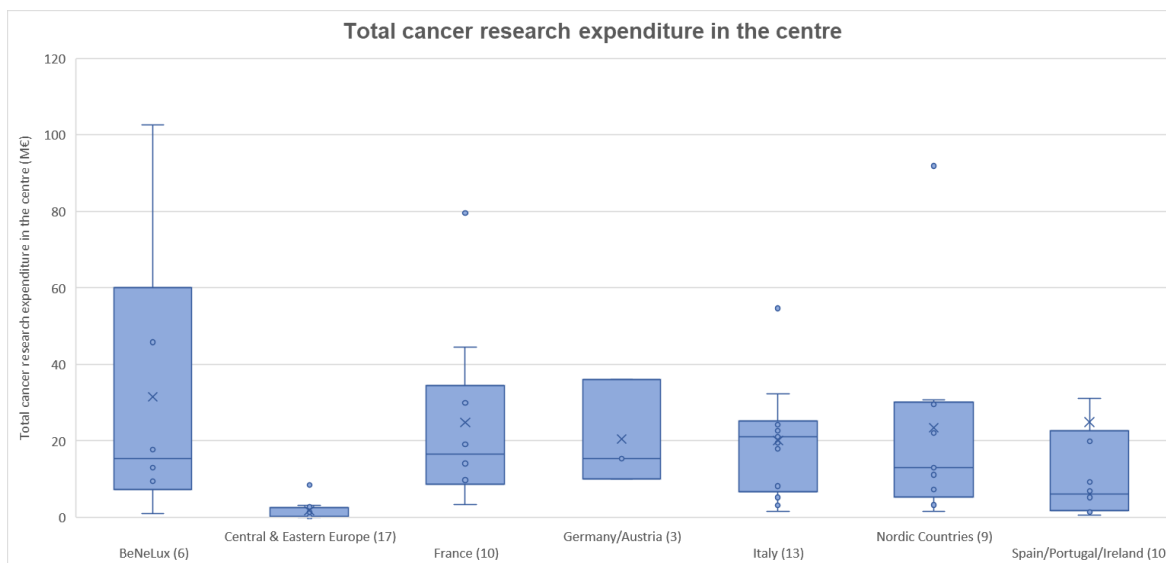


In 51 centres a Technology Transfer Office is available, compared to **13 centres** in which such an office is **not present**. TTOs are available in all centres in Italy (9), France (8) and Germany/Austria (6). In **10 centres located in Central and Eastern Europe** TTOs are not available in the centre.

Task 2 Results: Value of grants in cancer research and total cancer research expenditure in center

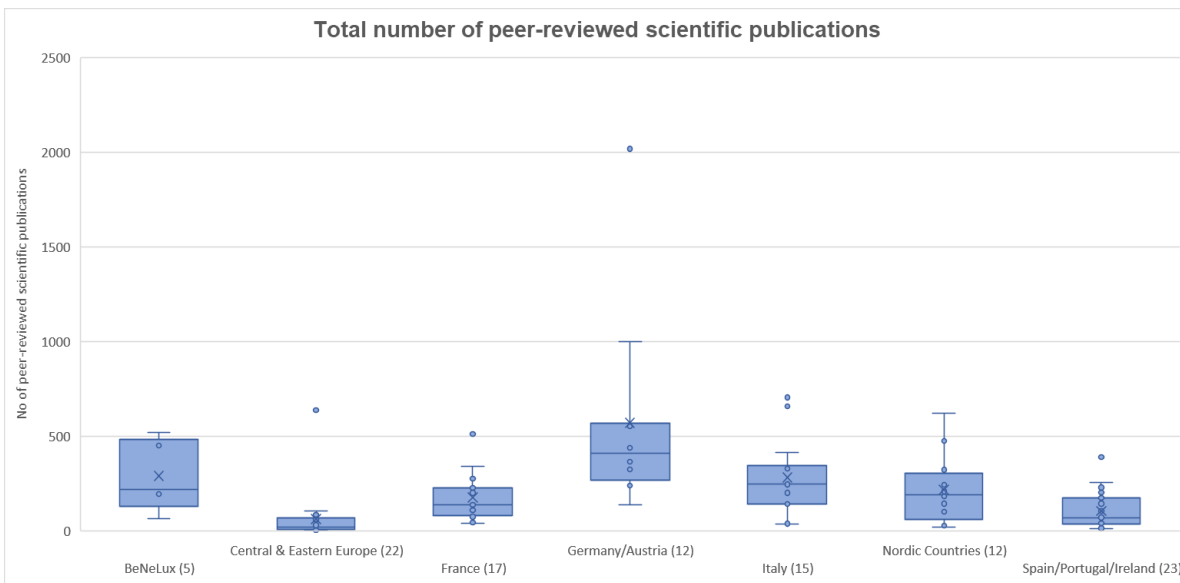


The highest value of EU grants in cancer research was reported in cancer centres in the BeNeLux (median: 6.7 M€). In cancer centres in other countries the average of the value of EU grants is found to be approximately 1 M€ (range median: 0.7 – 1.3 M€). **The lowest value of EU grants were reported in cancer centres in Central and Eastern Europe** (median: 0.09 M€), although there were 4 higher outliers in that dataset.



The total cancer research expenditure in cancer centres ranges from centres in Italy (median: 21.1 M€), France (median: 16.5 M€), Germany/Austria (15.3 M€), BeNeLux (median 15.2 M€), the Nordic Counties (median: 13 M€), Spain/Portugal/Ireland (median: 6 M€), to Central and Eastern Europe (median: 0.15 M€), **where it was by far the lowest** although there were some notable higher outliers in that dataset.

Task 2 Results: Research output and patents over the last 5 years



Out of 106 participating cancer centres, the total number of peer-reviewed scientific publications in one year ranges from cancer centres in Germany/Austria (median: 412), Italy (median: 248), BeNeLux (median: 218), the Nordic Countries (median: 192), France (median: 139), Spain/Portugal/Ireland (median: 70), to **Central and Eastern Europe** (median: 19), where it was an order of magnitude lower.

Task 3 Results: Existing twinning programs

Added value for the partners in the following aspects:

- **Twinning models in cancer research are reported to be an appropriate model to address inequalities in cancer care and research in a pan-European manner** with the power to improve cancer research and cancer treatment with better standards at a European level.
- The **most important challenges for twinning partnerships** are seen in **access to financial support for the partnership**. Barriers to accessing funding are reported to result from the **limited amount of appropriate calls** and the **high administrative burden for the partners**.

Task 4 Results: Results

- Qualitative approach, conducting **semi-structured interviews with 14 TTO managers and directors** at a diverse range of institutions (**cancer-specific research institutes, large universities, life science oriented research institutes and tech transfer companies** serving multiple research institutes) from 12 EU member countries (FI, SE, PL, HU, AT, DE, FR, IT, BE, NL, IE) and 2 from the UK.
- **Topics of the interview**
 - TTO staff and operations (staff, experience, indicator data collection, regional and national ecosystem)
 - IP policies (IP ownership, budget, educational procedures)
 - Funding and support (internal funds, national funding, other supportive mechanisms)
 - Industry engagement (strategy, collaborative projects)
 - Company creation (policies and support)
 - Other (incentives for researchers, clinical trial procedures, twinning)
- **Patterns identified:**
- **Complexity of Technology Transfer landscape – no unified system**
- **Difference in maturation level between countries / regions**, with UK (regions) and Ireland in leading position and **central Europe in early to mid phase maturation**
 - capacity, expertise and market barriers; gaps also at regional level
- **Inequality in access to (structural) funding and legislation/top-down support for technology transfer** (offices)
 - Capacity/qualified staff
- **Scientific output is not reflected in valorization output** (full potential not captured)
- Short term vs long term vision

4.UNCAN.eu – WP6 - Blueprint recommmendations to reduce inequalities

- Recommendations # 28: Socioeconomic inequalities in cancer care should be further evaluated across Europe, e.g. through implementation research.
- Recommendations # 29: UNCAN.eu network should promote team science approaches including at least one widening Member States per five participating Member States in every use case.
- Recommendations # 30: UNCAN.eu network should contribute to promoting cancer research-dedicated twinning programs specifically designed for partnerships between cancer centers in Central/Eastern Europe and in Western/Northern Europe.
- Recommendations # 31: A non-transferable operational budget should be part of every Use Case to manage technology transfer activities.

Follow-up 4.UNCAN.eu projects

Two new Horizon Europe projects are being initiated to implement our recommendations under 4.UNCAN.eu WP6 :

I. Use cases for the UNCAN.eu research data platform

/HORIZON-MISS-2024-CANCER-01-01/

II. Support dialogue towards the development of national cancer data nodes

/HORIZON-MISS-2024-CANCER-01-02/

None of the recommendations were implemented in the calls!!!

National Initiatives to aid Cancer Research in Hungary

Thematic Excellence Programmes:

- 2019 "Innovative oncological treatment of breast cancer,,
- 2020 "Innovative oncological treatment of breast cancer and melanoma,,

The aim of the projects were **to develop and apply a precision medicine model for the treatment of breast cancer and melanoma** by combining surgery, radiotherapy, clinical oncology, imaging, molecular diagnostics and basic research efforts.

- 2021-2025 "Redox Tumour Biology,,

The primary aim of the project is to better **understand redox regulation and oxidative vulnerability of tumor cells** in collaboration with the clinical departments and to develop innovative therapeutic procedures.

Investing in the future:

The project aims to develop **innovative cancer diagnostic** and therapeutic procedures at the National Institute of Oncology.

National Initiatives to aid Cancer Research in Hungary

National Tumor Biology Laboratory (NTL)

Supported by the National Research, Development and Innovation (NRDI) Office
National Laboratories – knowledge centers that can become scientific hubs in areas with high potential to boost the national economy

Initially 18 National Laboratories were established, now 26 → dynamic, institutionalizing, collaboration-based arenas of discovery and experimental research that open up new, international dimensions and enable the social, economic and environmental utilization of research results
Out of these 26 laboratories, a total of 5 laboratories have received an excellent rating, including the National Tumor Biology Laboratory

Project implementation period: (actual starting date – expected end date of project):

2021.01.01. – 2021.12.31. – 2025.12.31.

Implementing institution:

National Institute of Oncology, Budapest, Hungary

National Initiatives to aid Cancer Research in Hungary

National Tumor Biology Laboratory (NTL)

The establishment of NTL **strengthens the position of NIO and Hungarian cancer research on the international level**, helping to ensure that the outcomes of **cutting edge oncological research** will be available and utilized **for the optimal care of Hungarian cancer patients**.

The major aim of this new comprehensive R&D project is the optimization of tumor-specific diagnostic and therapeutical modalities, and introduction of novel techniques in the daily clinical routine in order to reduce cancer mortality in Hungary.

Combinations of basic, clinical and translational research are performed using a multidisciplinary approach utilizing the diverse expertise of our researchers and the outstanding patient data/samples available at our center.

3 closely related subprograms are coordinated by NTL:

- **Subprogram I: Establishment of a national, complex oncology database**
- **Subprogram II: Development of innovative therapies based on the modulation of redox systems**
- **Subprogram III: Implementation of new therapeutic strategies in the clinical practice**

Results can be utilized in the industry & in healthcare

- **Tumorbank**: homogeneous sample sets will lead to more efficient preclinical research
- **Establishment of the oncology database with organized data storage** will result in a „state-of-the-art” platform utilized in public healthcare as well

A well-established Cancer Registry will provide accurate overview of the national oncology landscape, as well as efficacy of the applied therapies, leading to valuable collaboration with innovative pharmaceutical companies to prepare and organize clinical trials

- **Validated new diagnostic protocols** will ground the development of optimized prevention and therapeutic programs (eg. the activity of the **National Molecular Tumor Board**)
- **New, molecular based tumor classification** to design precision therapeutic protocols
- **National and international drug development: patents, startups, established Technology Transfer mechanism**
- Preparation of further phases of drug development **in cooperation with industrial players**
- **Optimized and more efficient treatments with a lower side effect profile**

**LONG TERM
OBJECTIVES,
BUSINESS MODEL**

Results:

- 2 international patents were published
- 1 national patent submitted and 2 national patents prepared for submission

- Overall 117 scientific publications in 2021: $\sum IF = 720,392$.
- Overall 118 scientific publications in 2022, $\sum IF = 665,178$.
- Overall 82 scientific publications in 2023, $\sum IF = 1067.654$

- We are **supervising a number of new and graduating PhD and MSc students** in joint programs with other universities
- 57 PhD students and young researchers joined since project kickoff

- 54 new national collaborations
- 44 new international collaborations

Among the 18 initially implemented National Laboratories, 4 programs were highlighted as research and development areas of high importance, including the National Tumor Biology Laboratory

RESULTS



Basic Research

➤ New Basic research groups:

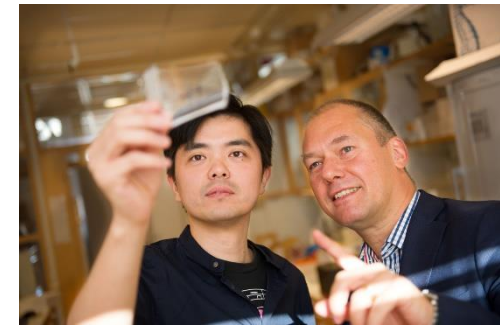
- **Selenoprotein Research Group** (Prof. Elias Arnér)
- Molecular Genetics has a recently **recruited PI** (Prof. Patócs A.)

➤ New directions in basic cancer research

- Functional Proteomics
- Redox tumor-biology
- Endocrine tumors
- Development of novel therapies
 - Mechanistic insights into regulation of cellular signaling from new angles
 - Drug-peptide conjugates

➤ Publications in high profile journals with leading roles

- K. Galambos, et al. P. Nagy*, **Cell Metab** (2024) accepted
- K. Erdélyi, et al. P. Nagy*, **Proc Natl Acad Sci USA** (2021) 118(45):e2100050118
- É. Dóka et al. P. Nagy*, **Science Advances (AAAS)** (2020) 6(1):eaax8358.
- I Ingold, et al. E. Arnér **Cell** (2018) 172 (3), 409-422. e21
- W. Stafford, et al. E. Arnér*, **Sci Transl Med.** (2018) 10.
- É. Dóka et al. Nagy P. *, **Science Advances (AAAS)** (2016) (1), e1500968



We carry out a wide range of **FDA quality-assured clinical research** at multiple centres

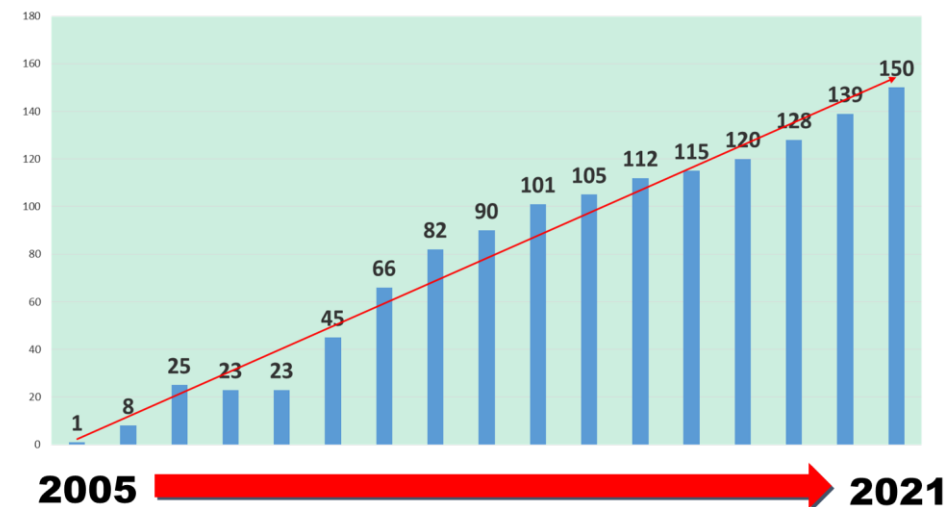
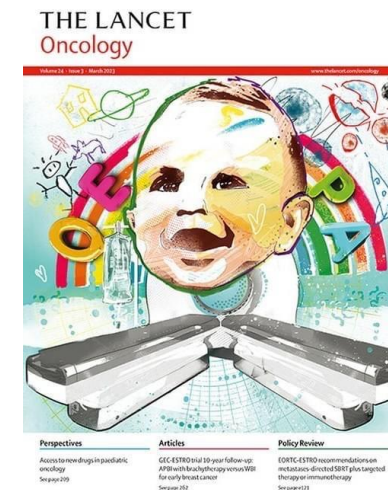
- Prospective and retrospective studies

Increasing number of clinical trials and patients enrolled in these trials

- Constantly over 100 running clinical trials
- Sponsored trials
- Collaborations with leading agencies (EORTC, International Breast Cancer Study Group etc.)
- Investigator initiated and academic trials

Coordinating roles in increasing number of Clinical studies

- Strnad V., Polgár C., et. al., **Lancet Oncol.** (2023) 24, 2.
featured on the cover of the journal
- Schäfer R., Strnad V., Polgár C., et. al., **Lancet Oncol.** (2018)19, 834.
- Polgár C. et al. **Lancet Oncol.** (2017)18, 259.
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Epidemiological Research

International Agency for Research on Cancer



Hosting, maintaining and improving the Hungarian National Cancer Registry

Continuous publication of cancer epidemiological papers in both domestic and international contexts

Implementation of a 3-year development project together with IARC

Examination of cancer registry data quality according to international standards

- Wéber A, Mery L, Nagy P, Polgár C, Bray F, Kenessey I. **Cancer Epidemiol.** 2023 Feb.

Publication of tumor coding guidelines for registrars

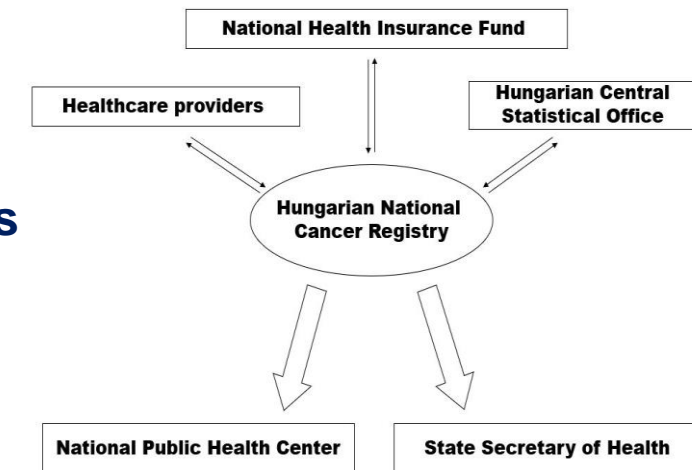
- Kenessey I, Wéber A, Szilágyi I, Nagy P, Polgár C, Kásler M. **Magy Onkol.** 2022 Mar

Improving data quality by reconciling different databases in Hungary

(Death Register and Health Insurance Fund data)

Leading international research projects on cancer epidemiology

- Wéber A, Laversanne M, Nagy P, Kenessey I, Soerjomataram I, Bray F. **Eur J Epidemiol.** 2023 Nov
- Wéber A,, Nagy P, Kenessey I, Soerjomataram I, Bray F. **BMJ Open.** 2023 May



Awards and recognitions



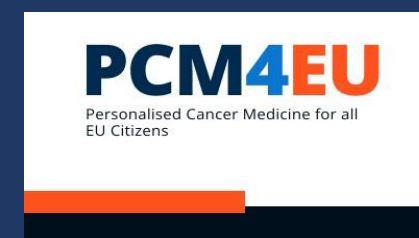
„MTA Centre of Excellence” Award and "TOP 50 research infrastructure" tender



EU Projects in the National Institute of Oncology



- **4.UNCAN.eu:** A Coordination and Support Action to prepare UNCAN.eu platform (2022-2023)
- **eCan:** Joint Action on strengthening ehealth including telemedicine and remote monitoring for health care systems for cancer prevention and care (2022-2024)
- **CraNE:** Network of Comprehensive Cancer Centres: Preparatory activities on creation of National Comprehensive Cancer Centres and EU Networking (2022-2024)
- **JANE:** Joint Action on Networks of Expertise (2022-2024)
- **PCM4EU:** Personalized Cancer Medicine for all EU citizens (2022-2024)
- **ECHoS:** Establishing of Cancer Mission Hubs: Networks and Synergies (2023-2026)
- **CCI4EU:** Strengthening research capacities of Comprehensive Cancer Infrastructures (2023-2026)
- **EUonQoL:** Quality of Life in Oncology Toolkit (2023-2024)
- **OriON:** European Cancer Inequalities Registry (2023-2026)
- **INTERCEPTOR (COST):** INTercEption of oRal CancEr develoPment (2022-2026)



OriON
Interceptor

Thank you for your attention!

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