What would not have been
without the National Institute for
Cancer Research

71
research groups

37 Prague
22 Brno
12 Olomouc

6 new ones
15 led by women

390+ female researchers
280+ male researchers

of whom

150+ international ones
of whom
59 newly incoming

5 research programmes

40+ defended theses
60+ new Ph.D.'s
& dozens currently prepared for defence

25+ new senior lecturers or professors & more are expected soon
75+ education events organised

10 memoranda of collaboration or understanding
5 proof-of-concept or academic clinical studies

10 issues of the inSCIder newsletter
20 episodes of the In Amongst the Cells podcast

2 new Ph.D. programmes
67 Ph.D. students accepted in 2023—2025

35 female students
32 male students
21 international students

790+ JIMP publications

550+ publications in Q1
180+ publications in D1

330+ publications as part of inter-regional cooperation
360+ publications in collaboration with foreign experts

For 2022 and 2025 the data were approximated.
For 2025, classification of Q1 and D1 is based on JCR – Clarivate in the previous year.

THE FUTURE OF ONCOLOGY
BRINGS US TOGETHER

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Jan Rasch, Denisa Pavelková, Martin Maček

Data deadline October 2025

NiCR CZECH REPUBLIC NATIONAL INSTITUTE FOR CANCER RESEARCH

Contents

A word of introduction by NICR directors

Three and a half years of working together had clearly shown why creation of a National Institute for Cancer Research (NICR) made sense. For the first time in the modern history of Czech cancer research, we have connected within one consortium 11 institutions in three nodes – in Prague, Brno, and Olomouc. By doing so, we have created a network of 71 research groups which work within five research programmes that cover the entire chain of innovation from basic research all the way to initial clinical verification. This framework has merged 'islands of excellence' into a coordinated capacity which can take ideas much faster from the labs and transform them into concrete solutions with impact on diagnostics, treatment, and prevention.

The results, after all, speak for themselves: hundreds of publications in the top quartiles of their fields and dozens in journals of the first decile, new research groups led by scientists with international experience, two new doctoral programmes that train future leaders, strategic partnerships with international centres and large research infrastructures, as well as significant modernisation of equipment in terms of instruments. We have invested in technologies that expand the boundaries of our research from proteomics and genomics all the way to advanced imaging and made them accessible to collaborators across the nodes. NICR also offered professional growth: dozens of defended Ph.D. theses, habilitations, and appointments of new professors, dozens of educational events, and systematic strengthening of links between academic and clinical oncology. The Czech Annual Cander Research Meeting holds a special place among our activities – this regular event had within just a few years become a solid platform of Czech cancer research.

No less important is the fact that we have made science accessible to the general public through podcasts, videos, and collaboration with media. We have also thought of young talents and even secondary school students had the opportunity – at workshops, popularisation days, and NICR summer schools – to experience work in research environment and familiarise themselves with real laboratories and modern equipment. Moreover, they met with young researchers who showed them that science is not a detached and remote world but open space for curiosity. This is our investment into the future generation of experts who will, one day, continue the tradition of Czech research.

By doing all this, we have created an 'ecosystem' that already brings concrete results and sets standards of what modern, coordinated, and

internationally open cancer research in the Czech Republic should look like. In short, it turned out that important things take place under the surface of statistics: we have created a culture of cooperation.
People who used to meet only at conferences now share projects, laboratories, and ideas. Teams that would have hardly been able to acquire state-of-the-art technologies or participate in international projects became part of a functioning network. Clinicians and researchers speak one language, and not only within the individual nodes but across the republic. NICR is not a 'stone institution': it is an approach to work, a way of thinking and sharing responsibility for cancer research in our country. And this is also the direction in which we need to continue. Czech cancer research has much to offer – in terms of expertise, technologies, and human potential – and our goal is to make sure that NICR remains a platform that connects, inspires, and brings internationally competitive results.

What we have managed to build so far is not the end result but the foundation. Together, we have shown that cooperation between academia, clinical practice, and the society works as longs as it is clearly meaningful and has a long-term perspective. It is now up to us to develop this model further and with an even greater emphasis on translational research, open data, shared infrastructures, and education of a new generation of researchers.
We would like to thank everyone who participated in this journey: the research teams and all their members, clinical, industrial, and other partners, students, providers of administrative and technical facilities, our supporters, the media, and the public. This publication is not just about stock-taking. It is also an invitation, an affirmation that NICR should be a long-term force linking Czech research, clinical practice, and social responsibility.

We were – and we will be. Thank you for creating NICR with us.

Aleksi Šedo, NICR Director
Jaroslav Štěrba, NICR Science Director
Marián Hajdúch, NICR Medical Director

NICR
Structure

The National Institute for Cancer Research (NICR) links through its 3 nodes (Prague, Brno, and Olomouc) a total of 11 research institutions and 71 excellent research teams. Their work is divided in 5 research programmes covering the entire chain of innovation, i.e., basic, applied, and translational cancer research.

71
research groups

390+
female scientists

280+
male scientists

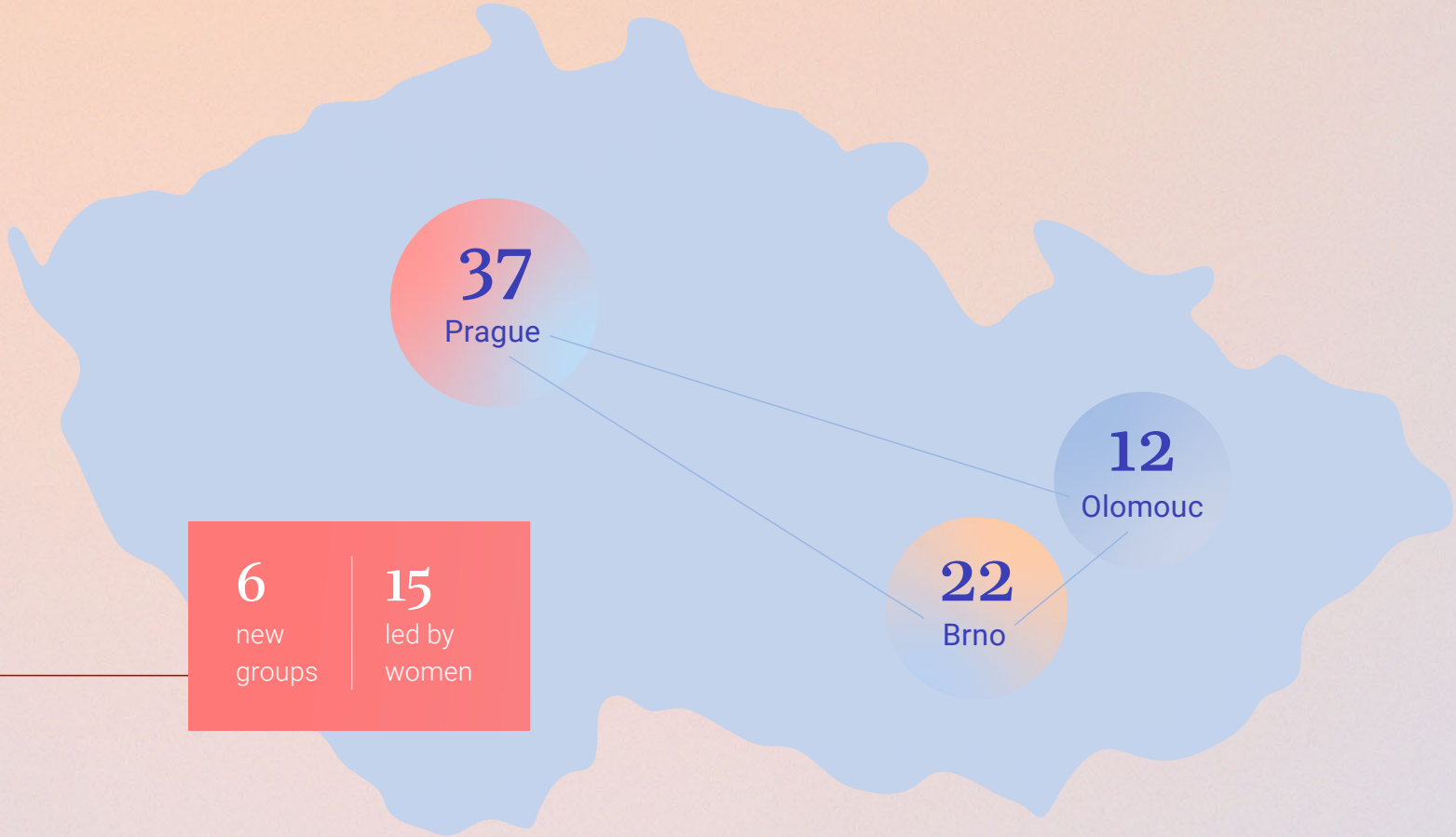
of whom

150+
international

of whom

59
newly incoming

See for more info about NICR



6 new groups

15 led by women

PRAGUE NODE

- Charles University
- Institute of Organic Chemistry and Biochemistry of the CAS
- Institute of Molecular Genetics of the CAS
- Institute of Photonics and Electronics of the CAS
- Institute of Microbiology of the CAS
- Institute of Biotechnology of the CAS
- Institute of Macromolecular Chemistry of the CAS
- Institute of Experimental Medicine of the CAS

BRNO NODE

- Masaryk University
- Masaryk Memorial Cancer Institute

OLOMOUC NODE

- Palacký University in Olomouc

Institutes participating in NICR

PRAGUE NODE
Charles University – First Faculty of Medicine, Second Faculty of Medicine, Faculty of Science, Faculty of Medicine in Pilsen
Institute of Organic Chemistry and Biochemistry of the CAS
Institute of Molecular Genetics of the CAS
Institute of Photonics and Electronics of the CAS
Institute of Biotechnology of the CAS
Institute of Macromolecular Chemistry of the CAS
Institute of Microbiology of the CAS
Institute of Experimental medicine of the CAS

BRNO NODE
Masaryk University – Faculty of Medicine, Faculty of Science, Central European Institute of Technology (CEITEC)
Masaryk Memorial Cancer Institute

OLOMOUC NODE
Palacký University in Olomouc – Faculty of Medicine and CATRIN under the patronage of the Institute of Molecular and Translational Medicine

Research programmes

RP1: Molecular basis of cancers and molecular targets
RP2: Research and development of anti-cancer pharmaceuticals and therapeutic methods
RP3: Biomarkers of cancers and cancer diagnostics
RP4: Early detection and prevention of tumours
VP5: Translational oncology: Verification clinical studies of the proof-of-concept type

Research groups

PRAGUE NODE
First Faculty of Medicine CU
Doc. MUDr. Ludmila Boublíková, Ph.D.
Doc. Ing. Milan Jakubek, Ph.D.
Prof. MUDr. Zdeněk Kleibl, Ph.D.
Prof. MUDr. Pavel Klener, Ph.D.
Mgr. Helena Kupcová Skalníková, Ph.D.
Prof. MUDr. Aleksi Šedo, DrSc.
Prof. MUDr. Karel Smetana, DrSc.
Prof. MUDr. Tomáš Stopka, Ph.D.
Mgr. Martin Sztacho, Ph.D.
Second Faculty of Medicine CU
Prof. MUDr. Jan Trka, Ph.D.

Faculty of Medicine CU in Pilsen
Prof. Kari Hemminki, M.D., Ph.D.
Prof. MUDr. Václav Liška, Ph.D.
Prof. RNDr. Pavel Souček, CSc.

Faculty of Science CU
Prof. RNDr. Jan Brábek, Ph.D.
Doc. RNDr. Daniel Rösel, Ph.D.

Institute of Molecular Genetics of the CAS
Doc. Meritxell Alberich Jordà, Ph.D.
Doc. RNDr. Pavel Dráber, DSc.
RNDr. Martin Gregor, Ph.D.
MUDr. Zdeněk Hodný, CSc.

Mgr. Michal Kolář, Ph.D.
RNDr. Vladimír Kořínek, CSc.
MUDr. Libor Macůrek, Ph.D.

Institute of Organic Chemistry and Biochemistry of the CAS
Prof. Ing. Michal Hocek, CSc., DSc.
Dr. Zuzana Kečkéšová, Ph.D.
Mgr. Tereza Ormsby, Ph.D.
Doc. RNDr. Pavlína Maloy Řezáčová, Ph.D.

Institute of Photonics and Electronics of the CAS
RNDr. Markéta Bocková, Ph.D.

Institute of Biotechnology of the CAS
RNDr. Cyril Bařinka, Ph.D.
Prof. Ing. Jiří Neužil, CSc.
Prof. Ing. Bohdan Schneider, CSc., DSc.
Mgr. Jaroslav Truksa, Ph.D.

Institute of Macromolecular Chemistry of the CAS
RNDr. Tomáš Etrych, PhD., DSc.

Institute of Microbiology of the CAS
RNDr. Marek Kovář, Ph.D.
Dr. Luca Vannucci, M.D., Ph.D.

Institute of Experimental Medicine of the CAS
Mgr. Michal Kroupa, Ph.D.
RNDr. Pavel Rössner, Ph.D., DSc.
Ing. Veronika Vymetálková, Ph.D.

BRNO NODE
Faculty of Medicine MU and CEITEC MU
Prof. RNDr. Šárka Pospíšilová, Ph.D.
Prof. RNDr. Ondřej Slabý, Ph.D.

Faculty of Medicine MU
RNDr. Zdeněk Andrysík, Ph.D.
Mgr. Lenka Bešše, Ph.D.
Prof. MUDr. Michael Doubek, Ph.D.
RNDr. Pavel Krejčí, Ph.D.
Prof. MUDr. Jiří Mayer, CSc.
Doc. RNDr. Sabina Ševčíková, Ph.D.
Prof. MUDr. Jaroslav Štěrba, Ph.D.
Mgr. Bc. Stjepan Uldrijan, CSc.
Prof. RNDr. Lenka Zdražilová Dubská, Ph.D.

Faculty of Science MU
Doc. Mgr. David Bednář, Ph.D. Prof.
Mgr. Petr Beneš, Ph.D. Doc.
Mgr. Pavel Bouchal, Ph.D. Prof.
Mgr. Vítězslav Bryja, Ph.D.
Prof. RNDr. Renata Veselská, Ph.D., M.Sc.

CEITEC MU
Prof. MUDr. Mgr. Marek Mráz, Ph.D.
Mgr. Michal Šmída, Dr. rer. nat. Doc.
Mgr. Lukáš Trantírek, Ph.D.

Masaryk Memorial Cancer Institute
Prof. Ing. Lenka Hernychová, Ph.D.
Doc. Mgr. Roman Hrstka, Ph.D.
MUDr. Petr Müller, Ph.D.

OLOMOUC NODE
Faculty of Medicine of Palacký University, Institute of Molecular and Translational Medicine
Doc. Mgr. Jan Bouchal, Ph.D.
Doc. RNDr. Vladimír Divoký, Ph.D.
Prof. Mgr. Jiří Drábek, Ph.D.
MUDr. Petr Džubák, Ph.D.
Doc. MUDr. Marián Hajdúch, Ph.D.
Mgr. Vladimíra Koudeláková, Ph.D.
Prof. RNDr. Vladimír Kryštof, Ph.D.
Mgr. Martin Mistrík, Ph.D.
Doc. PharmDr. Miloš Petřík, Ph.D.
Doc. RNDr. Václav Ranc, Ph.D. Doc.
MUDr. Josef Srovnal, Ph.D.
Prof. RNDr. Milan Urban, Ph.D.

For more info on research groups

New research groups

The creation of some of the 6 new research groups within NICR has been driven by scientists who returned to the Czech Republic after successfully working at prestigious institutions abroad. Thanks to their experience, international contacts, and new approaches to scientific work, they bring into the Czech research environment not only their know-how but also innovative ways of organising and leading research.
New research groups moreover offer new opportunities to the young generation of scientists, providing them with space to develop their own projects, acquire practical experience, and establish collaboration with colleagues from the Czech Republic and abroad. This leads to the formation of international teams which support knowledge exchange and contribute to strengthening the position of Czech biomedical research within European and global context. The founding of new research group has thus motivated the creation of entire new hubs which fill existing gaps in cancer research in the Czech Republic.

Lenka Bešše

Cancer immunotherapy

Faculty of Medicine MU, Brno

RP1 – Molecular basis of cancers and molecular targets

RP3 – Biomarkers of cancers and cancer diagnostics

RP5 – Translational oncology: verification clinical studies of the proof-of-concept type

Motto: *'It's not as hopeless as it seems.'*

Mission: Find the 'weaknesses' of cancer cells which enable them to survive therapy.

Vision: Identify these weaknesses for a more effective use of existing anti-cancer therapies.

Helena Kupcová Skalníková

Laboratory of proteomics

First Faculty of Medicine CU, Prague

RP1 – Molecular basis of cancers and molecular targets

Motto: *'Can we understand the crosstalk between cells?'*

Mission: Find the proteins that direct tumour development.

Vision: Contribute to a better understanding of cellular processes that take place during tumour development and are significant for cancer diagnostics and treatment.

Zdeněk Andrysík

Molecular mechanisms of cancer

Faculty of Medicine MU, Brno

RP1 – Molecular basis of cancers and molecular targets

RP2 – Research and development of anti-cancer pharmaceuticals and therapeutic methods

Motto: *'I love the smell of lysis buffer in the morning... It smells like... results' (Lieutenant Colonel Bill Kilgore in Apocalypse Now, 1979, modified)*

Mission: Identify possible innovative therapies targeting transcription factors which participate in the carcinogenesis.

Vision: To contribute to saving cancer patients by designing new, targeted therapeutic methods based on modification of activity of transcription factors.

Martin Sztacho

Laboratory of cancer cell architecture

First Faculty of Medicine CU, Prague

RP1 – Molecular basis of cancers and molecular targets

Motto: *'Let's beat cancer by understanding cell architecture!'*

Mission: Investigate molecular mechanisms of patho--physiological changes in cell architecture during tumorigenesis.

Vision: Identify the key factors which influence the formation of pathological structures in cancer cells and prevent their emergence.

Lenka Zdražilová Dubská

Innovative ATPM for rare diseases

Faculty of Medicine MU, Brno

RP5 – Translational oncology: verification clinical studies of the proof-of-concept type

Motto: *'Innovative therapies require vision, knowledge, and common sense.'*

Mission: Develop advanced therapies using cutting-edge technologies in cancer research, gene editing, and cell engineering.

Vision: To be a pioneer of advanced technologies that would treat, and potentially cure, some high-risk tumours and selected rare diseases.

Vladimíra Koudeláková

Virology and molecular carcinogenesis

Institute of Molecular and Translation Medicine of the Faculty of Medicine PU and University Hospital Olomouc

RP3 – Biomarkers of cancers and cancer diagnostics

Motto: *'Unveiling the secrets of viruses to prevent the tumours of tomorrow.'*

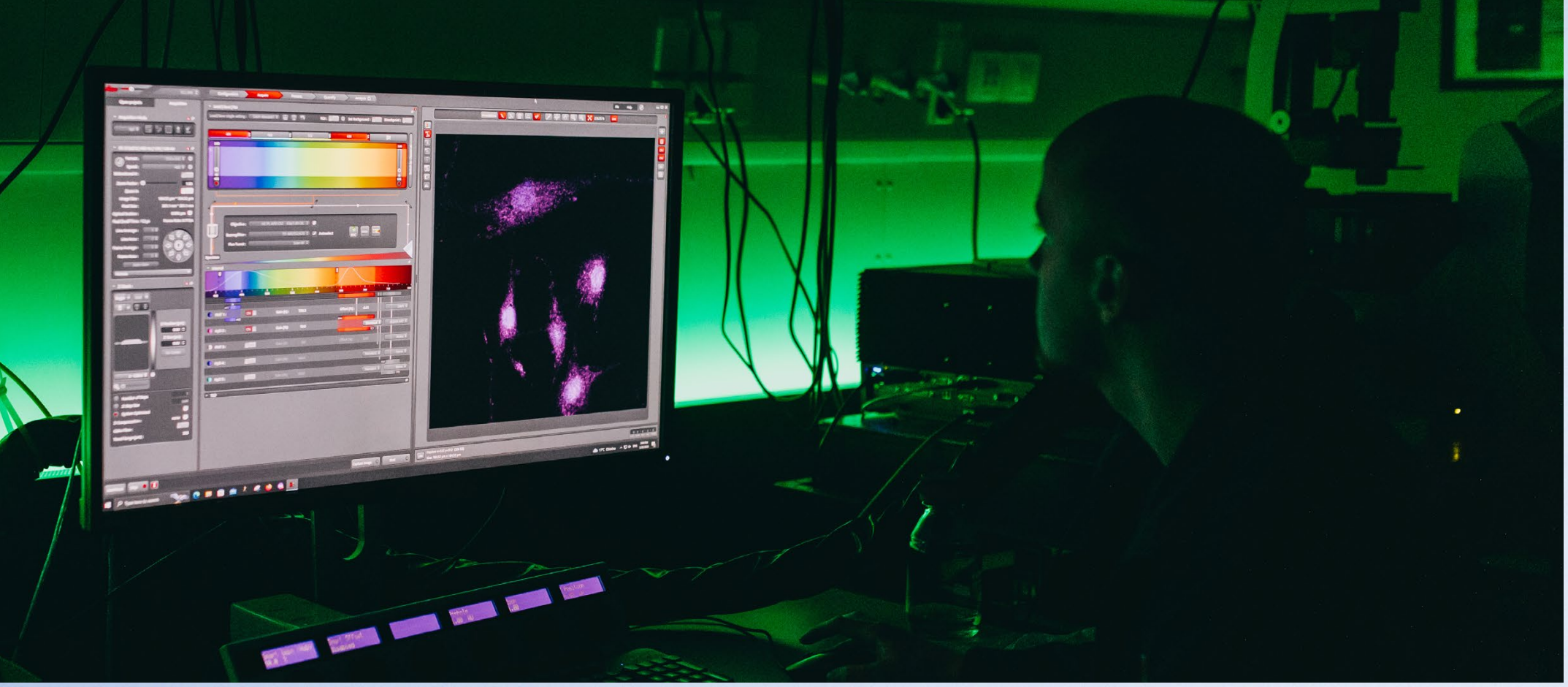
Mission: Investigate viral mechanisms of tumour development and develop strategies for their prevention.

Vision: To live in a world where knowledge of viruses enables an effective prevention of cancers which are linked to infections.

Professional and academic growth

Systematic support of professional and academic growth of researchers is one of the most important goals of NICR. Creation of a stable, motivating, and internationally competitive environment for science and teaching is a necessary precondition of a long-term sustainable development of cancer research in the Czech Republic.
NICR is therefore systematically engaged in supporting researcher at all stages of career development. It works towards further improvement of research skills, provides science education, supports interdisciplinary cooperation and international mobility, and focuses on the development of academic careers based on the principles of open and transparent personnel policy.
Results achieved during work on this project in the form of doctoral theses, habilitations, and appointments of professors reflect a growing quality and vitality of the academic environment and confirm the potential of further development in this area.

Under the supervision of NICR researchers, doctoral students have successfully defended 60+ Ph.D. theses (and dozens more are preparing for defence) and 25+ habilitation procedures or appointments of professors took place (with further in the works). New doctoral programmes have been launched: Experimental and clinical oncology at the Charles University and Molecular and translational medicine at the Palacký University in Olomouc.
The development of professional competence is supported also by summer schools, expert workshops, mentoring programmes, and other educational activities organised within NICR. Such activities help connect junior and senior researchers with clinicians and international partners. Development of human resources also became the foundation for further expansion of international cooperation and participation of Czech researchers in European research structures.



40+

defended theses

60+

new doctoral theses

& dozens more on the way

25+

new docents or professors

& more on the way

75+

organised educational events

New Ph.D. programmes

Collaboration with NICR and its patronage led to the creation of two new, unique Ph.D. programmes whose content aims to fill the need for future experts ready to conduct modern cancer research in terms of both expertise and managerial skills. The area boards of these programmes and their supervisors include representatives of numerous institutions which are part of NICR.

40 accepted in 2023—2025

22 female students

18 male students

12 from abroad

Molecular and translational medicine

PALACKÝ UNIVERSITY

Guarantors: experts from the Institute of Molecular and Translational Medicine of Faculty of Medicine of the Palacký University and University Hospital Olomouc, and large research infrastructure EATRIS-CZ; head of area board Doc. MUDr. Marián Hajdúch, Ph.D.

What the programme offers:

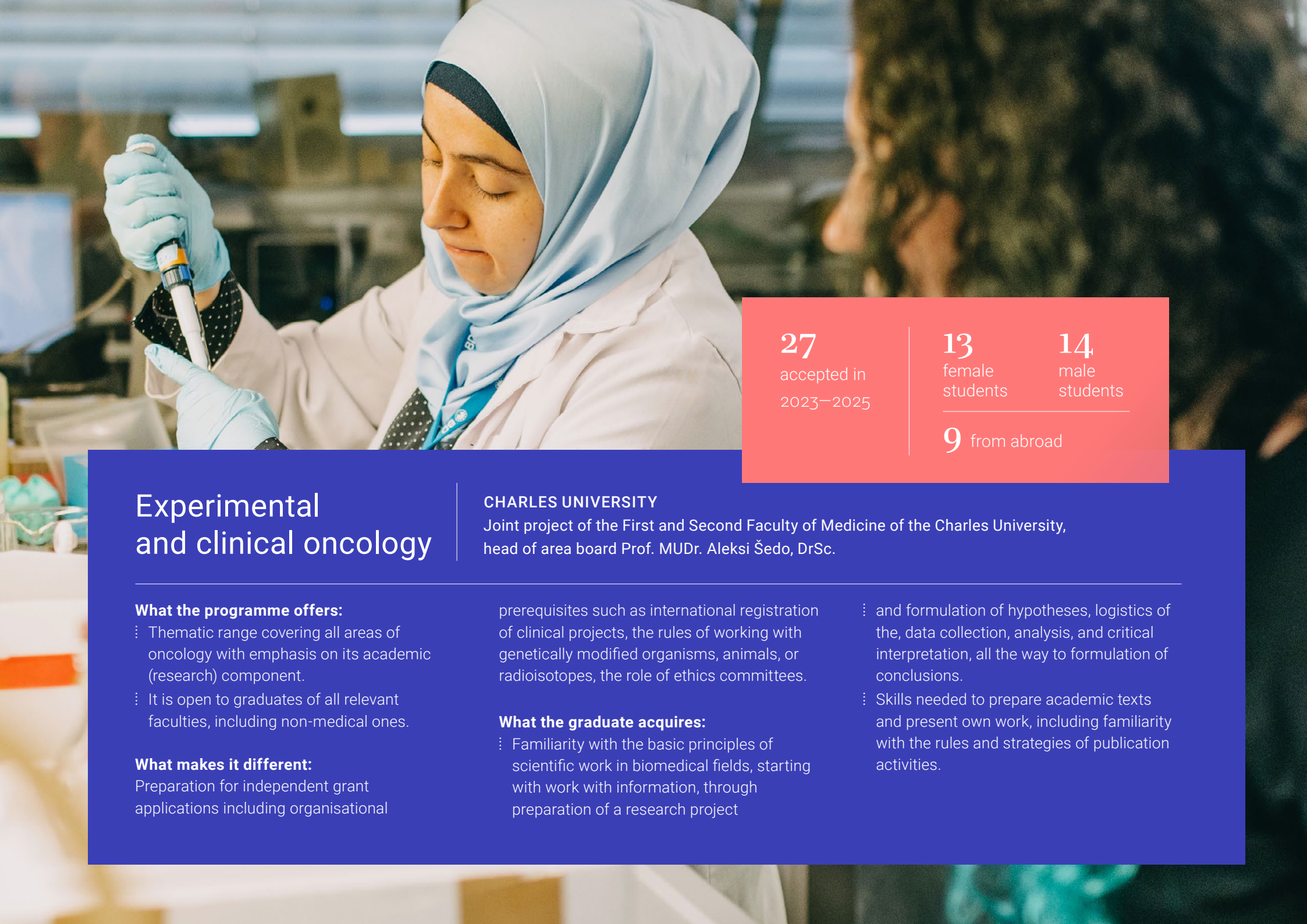
- Understanding the molecular foundation of human diseases and possibilities of their diagnostics and treatment, search for new molecular targets and biomarkers.
- Emphasis on search for new biomarkers of diseases, innovative therapeutic methods, health informatics, and personalised medicine.

What makes it different:

Emphasis on translational research and bed-to-bench approach, which should facilitate a rapid transfer of information from laboratory to the recipient of results, i.e., the patient.

What the graduate acquires:

- The ability to independently analyse a problem, define research targets, prepare research project, choose appropriate methods, organise data collection, evaluate and publish the results of their work.
- The ability to present research results in a clear, convincing, and understandable way and didactic skills needed to share knowledge with both experts and the general public.



27 accepted in 2023–2025

13 female students

14 male students

9 from abroad

Experimental and clinical oncology

CHARLES UNIVERSITY

Joint project of the First and Second Faculty of Medicine of the Charles University, head of area board Prof. MUDr. Aleksi Šedo, DrSc.

What the programme offers:

- Thematic range covering all areas of oncology with emphasis on its academic (research) component.
- It is open to graduates of all relevant faculties, including non-medical ones.

What makes it different:

Preparation for independent grant applications including organisational prerequisites such as international registration of clinical projects, the rules of working with genetically modified organisms, animals, or radioisotopes, the role of ethics committees.

What the graduate acquires:

- Familiarity with the basic principles of scientific work in biomedical fields, starting with work with information, through preparation of a research project and formulation of hypotheses, logistics of the, data collection, analysis, and critical interpretation, all the way to formulation of conclusions.
- Skills needed to prepare academic texts and present own work, including familiarity with the rules and strategies of publication activities.

Publications

Publication activity is a basic measure of productivity and quality of scientific work, a way of sharing new findings with the expert community and an opportunity for international collaboration on concrete projects. For research teams, publications in impacted journals represent not only a fulfilment of formal project indicators but also a basic way of building a reputation in science. Every article published in a prestigious journal contributes to the visibility of Czech cancer research and increases the attractivity of Czech institutions for foreign partners and students. In terms of evaluation of projects co-financed from national and European sources, publications are crucially important for sustainability and future financing. Transparent publication results are one of the best ways of showing that investment in research within NICR have been bringing tangible results that have the potential to influence diagnostics, therapy, and prevention of malignant tumours.

Right from the start, NICR set itself the goal of generating at least 630 classifiable outputs, over 400 of which would be published.

The project's ambition was to publish 65% of outputs in impacted journals of the first quartile (Q1) of the relevant field according to the Web of Science.

NICR has managed to not only meet but even exceed these targets.

The work of scientists belonging to research teams that participate in NICR has appeared in prestigious journals such as *Nature, Nature Communications, PNAS, Leukemia, Blood Advances, Nucleic Acid Research, Journal of Clinical Investigation, Clinical Cancer Research, Angewandte Chemie, Journal of Experimental Medicine, EMBO J, or Molecular Cancer* and many others.

790+
JIMP publications

550+
publications in Q1

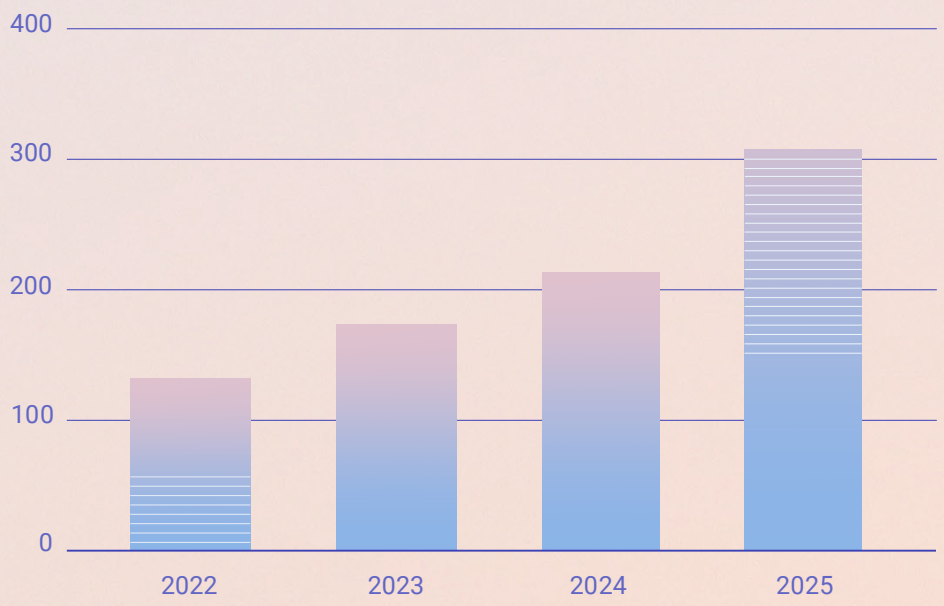
180+
publications in D1

330+
publications within inter-regional cooperation

360+
publications resulting from international cooperation

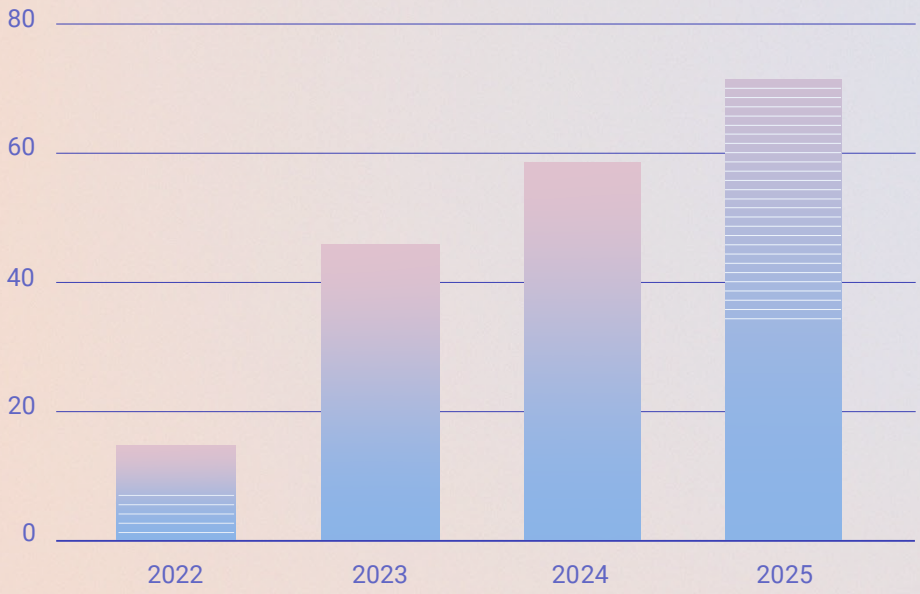
For 2022 and 2025, the totals have been approximated.
For 2025, classification of Q1 and D1 is based on JCR – Clarivate values in the previous year.

Numbers of JIMP publications



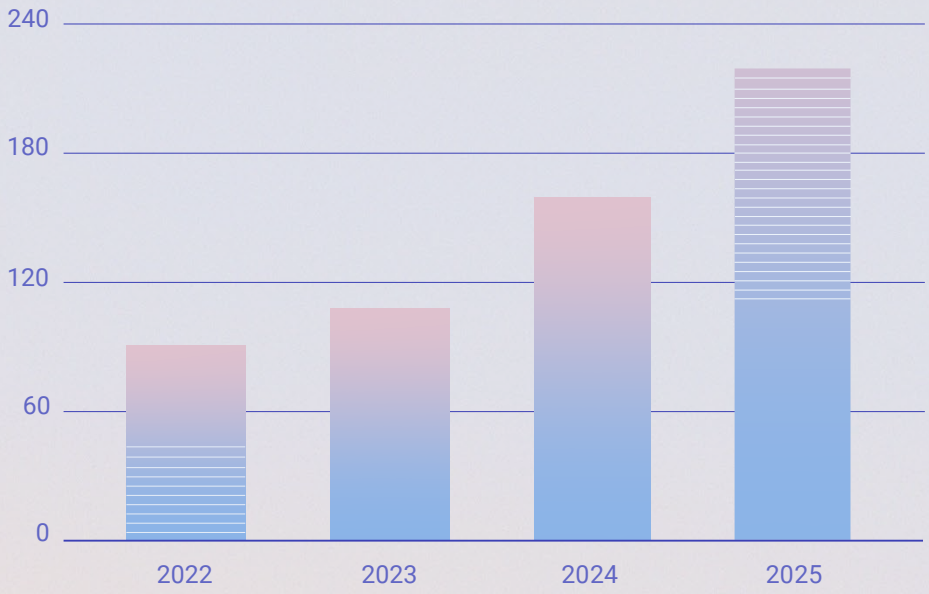
For 2022 and 2025, the totals have been approximated.

Numbers of publications in D1



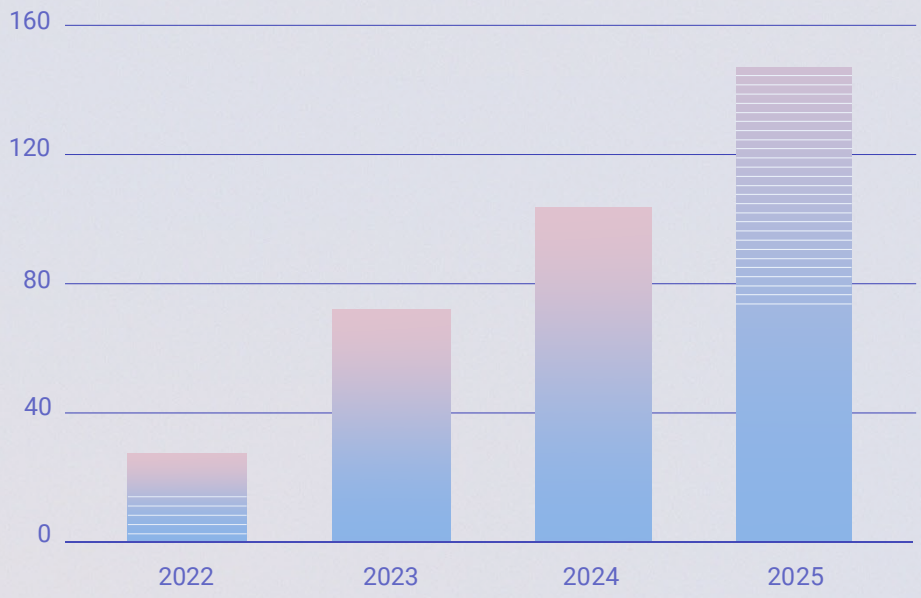
For 2022 and 2025, the totals have been approximated. For 2025, classification of Q1 and D1 is based on JCR – Clarivate values in the previous year.

Numbers of publications in Q1



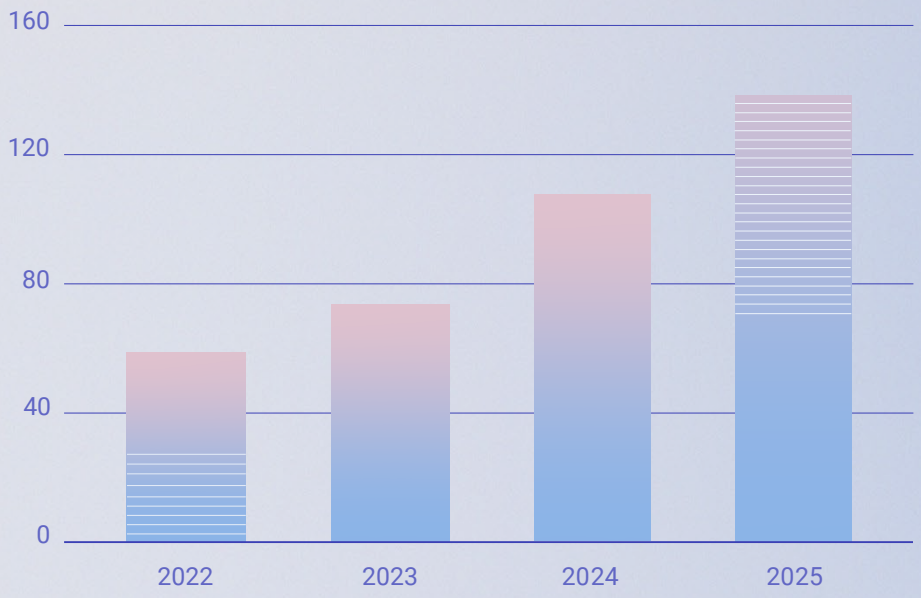
For 2022 and 2025, the totals have been approximated. For 2025, classification of Q1 and D1 is based on JCR – Clarivate values in the previous year.

Numbers of publications resulting from inter-regional cooperation



For 2022 and 2025, the totals have been approximated.

Numbers of publications in cooperation with international experts



For 2022 and 2025, the totals have been approximated.

Clinical trials and non-commercial clinical trials

Support of clinical trials and non-commercial clinical trials is a strategic priority of NICR. That is why NICR covers the entire chain of innovation, from basic and pre-clinical research through the translational phase and all the way to proof-of-concept clinical studies and advanced clinical trials. This creates a unique environment for systematic development of innovations and their transfer to clinical practice. To make sure that the results of this work are rapidly reflected in care for cancer patients, we also actively support clinical trials and non-commercial clinical trials of pharmaceuticals.

Clinical trials are crucial for verifying the contribution of new diagnostic methods, biomarkers, or therapeutic methods for real patients. Non--commercial trials, meanwhile, often answer questions which commercial clients tend to overlook, such as optimalisation of treatment algorithms, comparison of and with standard approaches, evaluation of the quality of life, long-term effects of the treatment, or the contribution of individualised medicine in clinical practice. By looking into these issues, they can generate highly relevant data which reflect the needs of Czech patients and support the creation of national treatment guidelines.

Thanks to being a network, NICR links leading research and clinical teams across the Czech Republic and creates ideal conditions for multi-disciplinary cooperation, standardisation of protocols, and effective involvement of multiple centres. This significantly contributes to the quality, speed, and international competitiveness of the realised studies. Integral to this ecosystem is also close cooperation with national research infrastructures, which provide key capacities for individual stages of the research cycle:

EATRIS-CZ is an infrastructure for translational medicine which covers pre-clinical evaluation, development of modern diagnostic methods and pharmaceuticals, and supports early clinical evaluations;

CZECRIN is an infrastructure for academic clinical studies which provides expert, methodical, and operative support to advanced clinical studies, including management of projects, regulation, monitoring, and data services;

BBMRI-CZ is an infrastructure for biobanking of biological material, standardisation of its collection, and guaranteeing the quality of samples and data for research and clinical studies.

Integration of these infrastructures into NICR activities helps link the entire process together – from acquiring high-quality biological material through pre-clinical testing all the way to comprehensive academic clinical trials. This interconnectedness significantly improves effectivity and scientific value of the outputs and forms a solid foundation of a modern, competitive cancer research.
A number of projects of this type are already taking place within the consortium: from observation studies and prospective validation projects, through translational studies at the intersection of molecular biology and clinical oncology all the way to non-commercial clinical trials of pharmaceuticals focused on innovative diagnostic and therapeutic methods. Such activities clearly show that connection between basic research, clinical expertise, and infrastructure support is a key precondition of effective cancer research that directly benefits patients.

Selected clinical trials realised within NICR

Combined anti-tumour therapy with ex vivo manipulated dendritic cells producing interleukin-12 in children, adolescents and young adults with progressive, recurrent or primarily metastatic high-risk tumours.
EudraCT Number: 2014-003388-39
Sponsor: Masaryk University, Brno
Principal investigator: Prof. MUDr. Jaroslav Štěrba, Ph.D.

The primary goal of this study was to evaluate the safety of autologous vaccines made from dendritic cells producing interlukin-12 used as part of a combined therapy in patients with progressing, relapsing, or primary metastatic high-risk malignities. Evaluation took the form of analysing the prevalence of adverse events of special interest (AESI), which form the primary combined endpoint of safety. The second goal of the study was to conduct an exploratory evaluation of vaccine effectiveness by assessing time until progression, overall survival, objective treatment response (RECIST), and clinical benefit rate (CBR) evaluation. A total of 52 patients were included in the assessment, the recruitment has ended, and the study is in the follow-up stage. Preliminary results were published in the International Journal of Cancer.
Kyr M, Mudry P, Polaskova K, Dubska LZ, Demlova R, Kubatova J, Hlavackova E, Pilatova KC, Mazanek P, Vejmelkova K, Dusek V, Tinka P, Balaz M, Merta T, Kutt-nerova Z, Turekova T, Pavelka Z, Pokorna P, Palova H, Mlnarikova M, Jezova M, Kellnerova R, Kozakova S, Slaby O, Valik D, Sterba J. "Personalized dendritic cell vaccine in multimodal individualized combination therapy improves survival in high-risk pediatric cancer patients." Int J Cancer. 2024 Oct 15;155(8):1443-1454. doi: 10.1002/ijc.35062. Epub 2024 Jul 3. PMID: 38958237.

Study of early cancer biomarkers in breath condensate in population of individuals with high-risk of lung cancer undergoing LDCT screening.
ClinicalTrials.gov ID: NCT06016569
Sponsor: Institute of Molecular and Translational Medicine of the Faculty of Medicine of Palacký University and University Hospital Olomouc
Principal investigator: Doc. MUDr. Marián Hajdúch, Ph.D.

The general goal of the study to verify the accuracy of newly identified biomarkers in breath condensate in diagnosing lung nodules. When their presence is verified, they could help diagnose lung cancer comparably well as the CT. It is a fast and non-invasive method that could provide an early diagnosis of lung cancer, which would significantly improve the likelihood of full recovery. The primary goal of the study will be validation of the multiplex protein signature in breath condensate and an evaluation of efficiency of the screening procedure in terms of lowering lung cancer mortality and overall mortality. Secondary goals include evaluation of the time required to reach a definitive diagnosis of a solitary lung nodule in positively screened patients, screening costs, and effectiveness of anti-smoking intervention. The study will also assess the number of newly detected interstitial lung processes. Participants will be followed for five years with check-ups once a year or more frequently depending on the results of low-dose CT examination. The study is multicentric and takes place in Olomouc, Prague, Brno, Ostrava, and Brandýs nad Labem.

Prevalence of human papillomavirus (HPV) in a healthy population: a feasibility study of oropharyngeal cancer screening.
ClinicalTrials.gov ID: NCT07033091
Sponsor: Institute of Molecular and Translational Medicine of the Faculty of Medicine of Palacký University and University Hospital Olomouc
Principal investigator: Mgr. Vladimíra Koudeláková, Ph.D.
Infection with human papillomavirus (HPV), especially type 16, is currently the main cause of the growing number of tumours in the mouth part of pharynx, i.e., so-called oropharyngeal carcinomas. These tumours affect mainly the

tonsils, soft palate, and the root of the tongue. In the Czech Republic, about 800 new cases are diagnosed each year, mainly in middle-aged and older men. The incidence had already exceeded the incidence of cervical cancer, and it keeps increasing. The primary goal of the study is to determine the prevalence of oral infection by high-risk types of HPV (hrHPV) in persons over 40 years of age using a non-invasive gurgle test. This information would lead to a more accurate assessment of population threatened by oropharyngeal carcinoma and support the creation of targeted preventive and diagnostic strategies. Another goal of this study is to create an effective method of screening for oropharyngeal carcinoma and optimise related the testing procedure. Participants will be therefore divided in two pre-defined cohorts: the first consisting of healthy volunteers recruited by collaborating dentists' offices, the other will be formed of persons selected from available databases (databases of clinical studies, commercial databases, records of health insurance companies, etc.) who will be invited by mail and sent a self-testing kit for gurgle test.

Non-invasive brain tumour molecular diagnostics and monitoring.
ClinicalTrials.gov ID: NCT06501521
Sponsor: Institute of Molecular and Translational Medicine of the Faculty of Medicine of Palacký University and General Hospital Olomouc
Principal investigator: Doc. MUDr. Marián Hajdúch, Ph.D.

This prospective multicentric observation study evaluates the potential of non-invasive molecular diagnostics and monitoring of brain tumours by analysing biological materials acquired from proximal fluids. The study includes patients with glioblastoma (GBM) and low-grade gliomas, and a control cohort with no central nervous system cancer.
In patients with GBM, samples of peripheral blood are taken prior to their surgery and three months post-surgery. The aim is to detect circulating tumour cells and analyse the transcriptomic profile of extracellular vesicles. The goal of the study is to evaluate the prognostic and monitoring significance of these biomarkers in relation to the course of the disease, treatment effectiveness, emergence of resistance, and tumour progression. At the same time, we analyse proteomic profiles typical of gliomas in the blood and eye secretions in patients with GBM and low-grade gliomas, and in the control group of persons without a brain tumour. The aim of these analyses is to identify new protein biomarkers suitable for diagnosing and monitoring the disease. The study also tests an innovative approach to monitoring GBM patients using detection of GBM-specific fragments of nucleic acids in the urine, which is a highly non-invasive source of information about the presence and activity of a tumour.

Large investments

NICR had significantly contributed to a modernisation of research infrastructure and technological facilities of the institutions involved, thus improving the conditions for conducting cancer research in the Czech Republic. Investments in state-of-the-art instruments and technologies led to an expansion of capacities in the area of molecular biology, genomics, proteomics, or cell analyses.

Newly acquired technologies offer the potential of a deeper understanding of the mechanisms of emergence and development of cancers and open the way to the development of more accurate diagnostic and therapeutic approaches.

The project had also contributed to a mutual interconnection and coordination of research between the individual nodes of NICR. Sharing of technologies, expertise, and specialised knowledge results in a more efficient use of available capacities, supports inter-institutional cooperation, and contributes to a higher effectivity of research across the consortium. The realised investments thus form an important step in boosting the competitiveness of Czech cancer research and its further development within the European context.

350+ million CZK invested

(including anticipated spending until the end of 2025)

14+ million

invested in building alterations and infrastructure

336+ million

invested in technologies

300+ million

invested in **44 technologies**
worth over **1+ million CZK** each

129+ million

invested in the Prague node

95+ million

invested in the Brno node

76+ million

invested in the Olomouc node

Investment examples — Prague node

LABORATORY OF PROTEOMICS OF THE FIRST FACULTY OF MEDICINE CU
Institute of Biochemistry and Experimental Oncology
Total investment 32+ million CZK

LC-MS/MS system with timsTOF HT mass spectrometer
This is a key proteomic analyser for identification and quantification of proteins (peptides) in biological samples. It is equipped with Trapped Ion Mobility (tims) technology and linked to the nanoHPLC system, which enables extraordinarily effective separation of peptides prior to analysis. This results in a highly comprehensive coverage of the proteome. This mass spectrometer is widely used in the project to determine and compare protein profiles of different types of samples, such as cell lysates, tissues, body fluids, or cultivation mediums.

1,850+
measurements
(between December 2023 and now)

obtained quantification

~ 10,000
proteins in cell lysates

~ 7,000 proteins
in extracellular vesicles

capacity shared with **11 research units** (from NICR and outside it)

measurements used for **8 publications** (4 submitted, 4 in progress)

measurements were used for **7 grant applications** (3 submitted, 4 in progress)

1st installation in the Czech Republic

470+
measured samples (between August 2023 and now)

170+
quantified analytes (between August 2023 and now)

capacity shared between **6 research units** (from NICR and outside it)

measurements used **for 3 publications** (in progress)

measurements used for **2 grant applications** (submitted)

xMAP Intelliflex DR-SE multiplex analyser
This device is used for precise quantification of growth factors, chemokines, cytokines, trophic factors, stress hormones, angiogenic factors, matrix metalloproteinases and their tissue inhibitors, etc. These proteins function as key regulators of essential processes linked to the development of cancers, such as cell survival, proliferation, migration, differentiation, apoptosis, and immune response. Due to their very low concentration in biological samples, these substances are often difficult to detect by mass spectrometry.

~ 500+
hours of
operation a year

capacity shared
across **4 NICR**
research units

Azure 600 documentation system
This is an imaging system for Western Blot with chemiluminescence and fluorescence detection ability. It enables fluorescence detection in the RGB spectrum and in the near-infrared range (NIR), which is especially suitable for analysing biological samples since at this wavelength, biological molecules exhibit minimal autofluorescence. Depending on the analysed protein, sample type, and research question, the Azure system offers a highly sensitive and highly qualitative detection.

sequencing
human genome in
24 hours

48
human genomes in
2 days

hundreds of genomes of patients included in research projects have been analysed

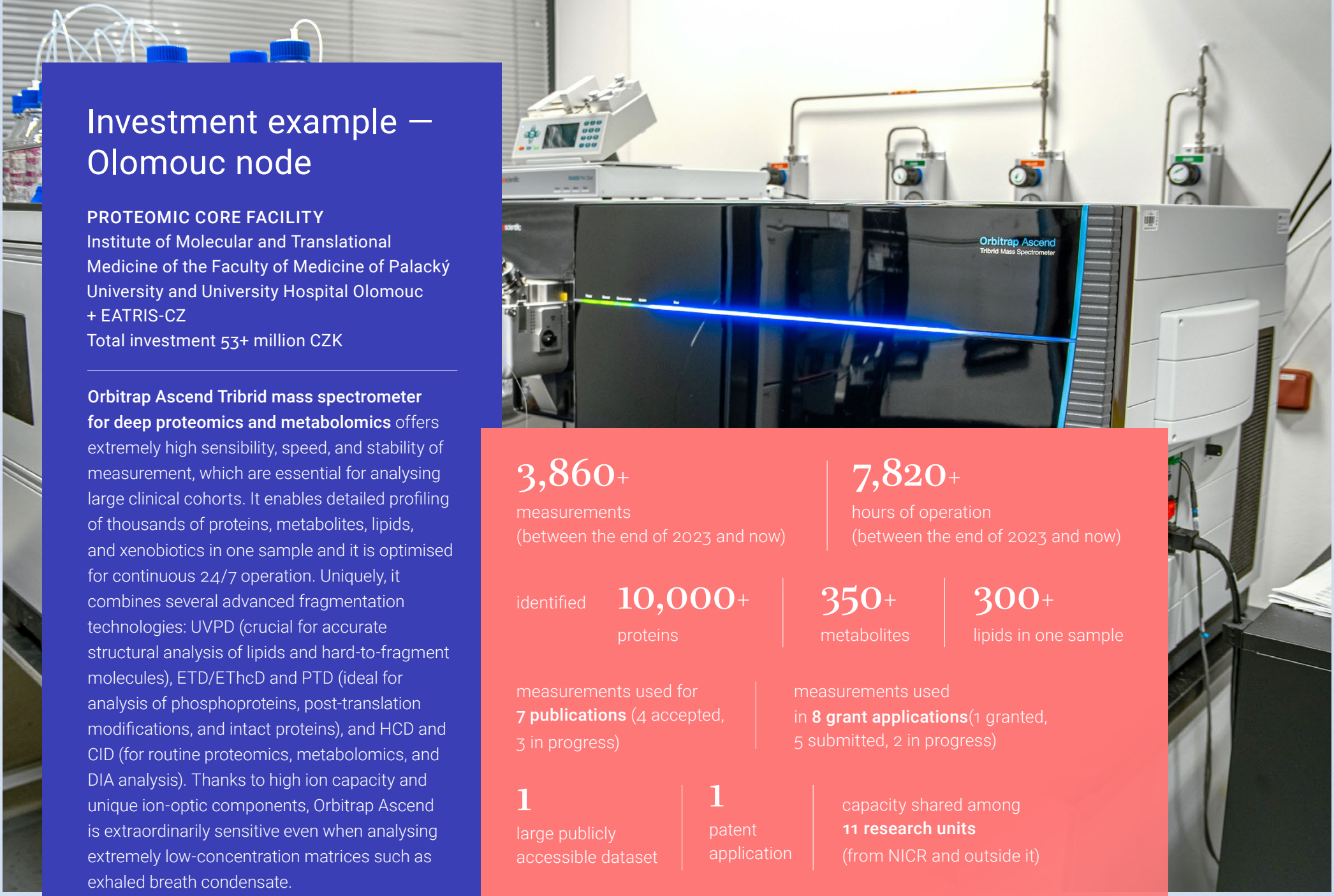
capacity shared by **4** NICR research units

Investment example — Brno node

CEITEC MU
Total investment 25+ million CZK

NovaSeq 6000 sequencing system provides a state-of-the-art platform for comprehensive genome and transcriptome analysis of tumours. It enables rapid and highly accurate whole genome, exome, and RNA sequencing with a great depth of coverage, which is essential for detecting somatic mutations, gene fusions, amplifications, and changes in gene expression. Thanks to its capacity, it is ideal not only for large cohort studies but also for highly accurate characterisation of individual tumours in precision oncology. It can also be used for liquid biopsies, where it enables detection of tumour DNA in the blood and monitoring of minimal residual disease or early signs of a relapse.

NovaSeq 6000 can sequence a whole human genome within about 24 hours and with suitable settings, one can sequence up to 48 human genomes within about two days. The system thus provides a unique combination of speed, accuracy, and data range for modern cancer research.



Investment example — Olomouc node

PROTEOMIC CORE FACILITY
Institute of Molecular and Translational Medicine of the Faculty of Medicine of Palacký University and University Hospital Olomouc
+ EATRIS-CZ
Total investment 53+ million CZK

Orbitrap Ascend Tribrid mass spectrometer for deep proteomics and metabolomics offers extremely high sensibility, speed, and stability of measurement, which are essential for analysing large clinical cohorts. It enables detailed profiling of thousands of proteins, metabolites, lipids, and xenobiotics in one sample and it is optimised for continuous 24/7 operation. Uniquely, it combines several advanced fragmentation technologies: UVPD (crucial for accurate structural analysis of lipids and hard-to-fragment molecules), ETD/EThcD and PTD (ideal for analysis of phosphoproteins, post-translation modifications, and intact proteins), and HCD and CID (for routine proteomics, metabolomics, and DIA analysis). Thanks to high ion capacity and unique ion-optic components, Orbitrap Ascend is extraordinarily sensitive even when analysing extremely low-concentration matrices such as exhaled breath condensate.

3,860+
measurements
(between the end of 2023 and now)

7,820+
hours of operation
(between the end of 2023 and now)

identified **10,000+**
proteins

350+
metabolites

300+
lipids in one sample

measurements used for **7 publications** (4 accepted, 3 in progress)

measurements used in **8 grant applications** (1 granted, 5 submitted, 2 in progress)

1
large publicly accessible dataset

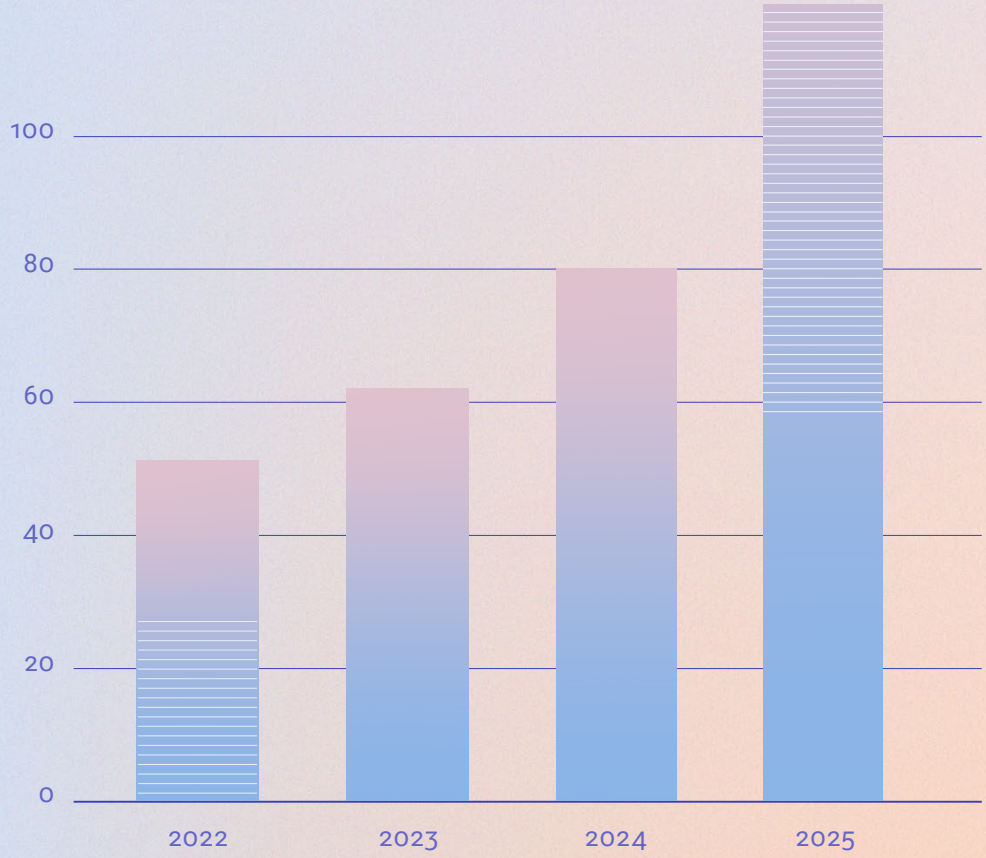
1
patent application

capacity shared among **11 research units** (from NICR and outside it)

Research collaboration using large research infrastructures

NICR has been actively developing collaboration with several large research infrastructures, both national and international ones, with the aim of strengthening its expert capacities and accelerating progress in cancer research. These strategic partnerships provide the research teams involved with access to advanced technologies, shared resources, and specialised know-how, which significantly contributes to the development of excellent research and innovation with high added value for both preclinical and clinical applications. Institutions participating in NICR moreover actively participate in managing and developing some of these infrastructures. This mutual interconnection enables an effective coordination of available data, prevents duplication, supports the sharing of data and findings, increases effectivity of research activities, and helps create a real added value for the entire ecosystem of Czech research.

Numbers of publications in collaboration with large research infrastructures



For 2022 and 2025, the totals have been approximated.

Selected key collaborations

EATRIS-ERIC and EATRIS-CZ
NICR uses the European and national infrastructure for translational medicine – EATRIS-ERIC and EATRIS-CZ – to shorten the time elapsed between discovery in a laboratory and its clinical application. This infrastructure is essential for preclinical and early clinical development of promising therapeutic substances ranging from small molecules and radiopharmaceuticals all the way to in vitro diagnostics and software applications.

BBMRI-ERIC and BBMRI.CZ
Thanks to the European and national depository of biological samples – BBMRI-ERIC and BBMRI.CZ – NICR can access a large collection of biological materials which are essential for cancer research.

ECRIN and CZECRIN
Cooperation with this European and national infrastructure for clinical research – ECRIN and CZECRIN – enables NICR to conduct multicentric clinical studies and thereby increase the reliability of research results.

ELIXIR and ELIXIR CZ
Collaboration with this European and national infrastructure for biological data – ELIXIR and ELIXIR CZ – enables NICR to manage and analyse large datasets, which in turn facilitates bioinformatic oncology research.

ISBE and C4SYS
Thanks to partnership with the European and national infrastructure for systems biology – ISBE and C4SYS – NICR can integrate comprehensive biological data, which leads to a better understanding of the mechanisms of cancer.

EU-OPENSCREEN and CZ-OPENSCREEN
NICR cooperates with the European and national infrastructure for chemical biology – EU-OPEN-SCREEN and CZ-OPENSCREEN – on identification and development of new chemical compounds with potential anti-tumour therapeutic effects. This includes screening of libraries of targeted or repositioned pharmaceuticals as well as newly patented compounds.

Euro-BioImaging and Czech-BioImaging
Through the European and national infrastructure for biological and biomedical imaging – Euro-BioImaging a Czech-BioImaging – NICR has access to state-of-the-art imaging technologies, which are of key significance for visualisation of tumours on cellular and molecular levels.

National Centre for Medical Genomics
NICR cooperates with the National Centre for Medical Genomics on investigating genetic variants linked to cancers to assess their potential use in personalised medicine.

INFRAFRONTIER and CPP
Thanks to collaboration with European and national infrastructure for functional genomics of mouse models – INFRAFRONTIER and the Czech Centre for Phenogenomics – NICR can study genetic factors involved in cancers using advanced animal models.

Instruct-ERIC and CIISB
Thanks to collaboration with the European and national infrastructure for structural biology – Instruct-ERIC and the Czech Infrastructure for Integrative Structural Biology – NICR can investigate 3D models of biomolecules related to cancers, which helps guide the design and development of pharmaceuticals.

Videos on collaboration between NICR and selected large research infrastructures

Strategic partnerships

Thanks to partnerships and collaborations with important institutions which around the world engage in cancer research, researchers from NICR can work together with leading experts in their fields and contribute with their discoveries or findings to worldwide fight against cancer. Memoranda of cooperation or understanding with institutions such as Dana-Farber Cancer Institute or Uniklinik Köln, as well as active involvement of representatives of NICR in the work of European scientific boards and committees all contribute to the position of Czech cancer science in international context. Such activities moreover create a solid foundation for sustainability of results and continuation of NICR's activities.

Research teams of NICR cooperate with dozens of partner organisations across the academic, clinical, industrial, and non-profit sphere – from universities and research institutes to hospitals and clinical centres all the way to biotech companies and technological partners.

Our most important international partners include universities and research institutes such as the University of Oxford, Harvard Medical School, Karolinska Institutet or Deutsches Krebsforschungszentrum. Notably represented are also clinical centres and hospitals such as the Mayo Clinic or Royal Marsden Hospital and, in the Czech Republic, university hospitals in Prague, Brno, Olomouc, Ostrava, Hradec Králové, or Pilsen.

Important is also our cooperation with industrial partners, especially those who are active in biotechnologies, laboratory diagnostics, or in the development of pharmaceuticals and digital medical technologies.

Active presence of NICR representatives in European science boards and committees strengthens the position of Czech cancer science in international context.

This large and varied network of partnerships reaffirms the open and international nature of NICR and its ability to effectively link academic research with clinical practice, technological innovations, and social responsibility. Thanks to these links, we were able to attract numerous researchers from abroad into the Czech Republic and create a solid foundation for sustainability of results and continuation of NICR's activities.

Selected memoranda

Memorandum of Understanding with the Harvard Medical School – Dana-Farber Cancer Institute

This memorandum was signed by Rector Milena Králíčková on behalf of the Charles University as the recipient of NICR funding, Michel L. Cox of the Dana-Farber Cancer Institute, Vice-President for Research Operations, and by guarantors of the scientific content: Aleksi Šedo, Director of NICR, and Jonathan Duke-Cohan, Principal Research Scientist of Dana-Farber Cancer Institute.
This partnership is grounded in previous long--term cooperation of the two researchers. Codified cooperation is important not only for research done at NICR but also because it provides inspiration in other areas, such as sharing good practice in project organisation and management, and leads to a broadening of contacts or higher mobility of Ph.D. students and postdocs affiliated with NICR.

Memorandum of Understanding with Uniklinik Köln

NICR had concluded a memorandum of understanding with the University Hospital Cologne, in particular with its Institute of Virology. This took place in part thanks to the Laboratory of tumour cell architecture of the Institute of Biochemistry and Experimental Oncology (First Faculty of Medicine, CU), which is part of NICR and successfully cooperates with this institute.

Memorandum of Cooperation with the Institute of Health Information and Statistics of the Czech Republic

With the support of Charles University, NICR has concluded a Memorandum of Mutual Support and Cooperation with the Institute of Health Information and Statistics of the Czech Republic. This cooperation focuses on preparing joint publications, development of health literacy, and communication with current and future students of biomedical sciences. Other goals include support of public awareness of importance of cancer prevention, sharing of data for research projects where both parties are involved, and collaboration on specialist education.

Memorandum of Mutual Scientific Cooperation Between Four EXCELES Projects

This memorandum was signed by directors of four projects of Programme of support of excellent research in priority areas of public interest in healthcare (EXCELES) – the National Institute for Cancer Research (NICR), the National Institute for Research on Socioeconomic Impact of Diseases and Systemic Risks (SYRI), the National Institute of Virology and Bacteriology (NIVB), and the National institute for Neurological Research (NINR).

Memorandum of Cooperation with the Centre for Precision Medicine of the University Hospital Brno

This memorandum affirms the two parties' interest in sharing their findings, research capacities, and information about projects in order to contribute to further improvement of quality of cancer research in the Czech Republic and in the global context. The two partners have agreed that they will create space for the development of young researchers, conduct joint activities such as lectures, seminars, or research projects, and popularise or medialise their findings with respect to both the academic community and the general public.

Memorandum of Cooperation with the PIGMOD Centre

The PIGMOD (Pig Models of Diseases) Centre had launched its activities in 2013 at the Institute of Animal Physiology and Genetics of CAS. It studies serious human diseases using a biomedical model of miniature pigs. One of the areas it focuses on is a unique pig model of hereditary skin melanoma. In this memorandum, the two partners have agreed to cooperate and support each other in cancer research and to jointly participate in selected scientific or popularising events.

Czech Annual Cancer research meeting

The Czech Annual Cancer Research Meeting (CACR Meeting), which NICR has been co-organising since 2022, traditionally in Olomouc, is a unique interdisciplinary platform for exchange and dissemination of knowledge. Its programme always focuses on the most recent topics in cancer research, molecular pathology, and predictive oncology. Thanks to its expert quality and wide scope, which attracts leading experts in cancer research from the Czech Republic and abroad, this conference contributes both to advances in cancer research and improvements in clinical practice. The conference takes place mainly in the English to accommodate the growing numbers of international participants and presenters.
An integral part of the programme are parallel meetings of all five research programmes of NICR and a meeting of its International Science and Advisory Board (ISAB).

4
meetings

65+ hours
of scientific programme

230+
presentations

40+
international presenters

1,300+
participants

230+
posters

6,000+
cups of coffee consumed

NICR Edu workshop

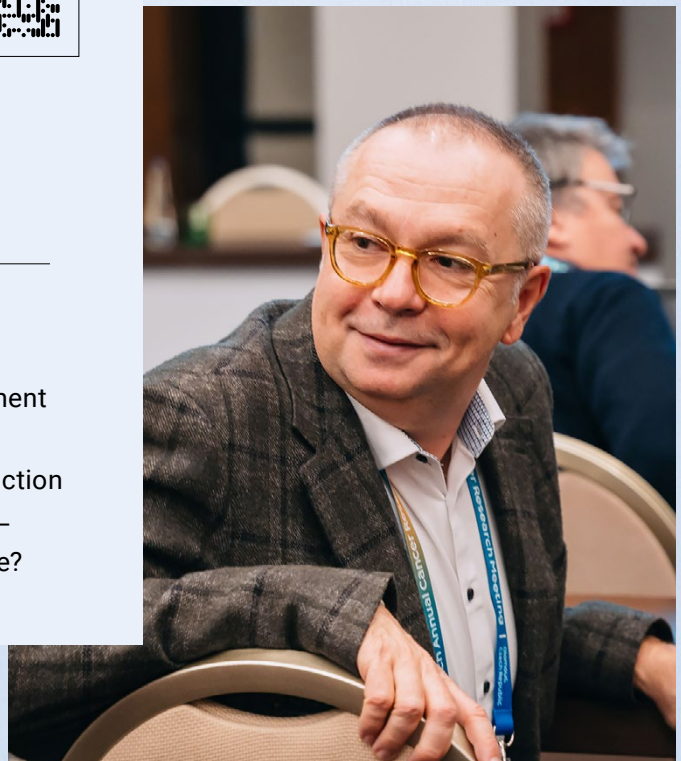
A novelty during the past two CACR Meetings are education workshops, which take place before the conference proper. Their aim is education in subjects linked to wider societal, communication, economic, or legal aspects of scientific work.

2024

- Iveta Bayerová: Gender aspects in cancer research
- Marián Hajdúch: Open science in cancer research: Opportunities and threats
- Jan Kubáček: How do media function and why?

2025

- Martin Fusek: Drug development and technology transfer
- Vítězslav Bryja: Setting up a drug development spin-off in the Czech academic reality
- Linda Lososová: Intellectual property protection
- Jan Kubáček: Communication with media – a necessary evil or a natural part of science?




NH COLLECTION
OLOMOUC CONGRESS

Congresses and conferences

Congresses, conferences, and education events in which NICR is involved, be it by providing its patronage, co-organising, or by participation of researchers who belong to NICR-affiliated research teams, are an important part of NICR's scientific and social mission. They are a place where experts from the academic and clinical sphere meet, a space for education of future scientists and their development.

NICR is therefore involved in organising not only international meetings of researchers and summer schools, but also in events aimed at popularisation of research and linking science with clinical practice and patient public. Such activities provide a platform for sharing the most recent findings about the biology of tumours, immunotherapy, and new analytical and imaging methods. They importantly contribute to the development interdisciplinary approaches and to strengthening cooperation between research institutions in the Czech Republic and abroad. Participation of NICR-affiliated researchers at prestigious international conferences moreover boost the visibility of Czech cancer research within global context. Such expert platforms moreover help create networks of contacts, provide a space for sharing experiences, and bring opportunities for developing joint projects. Thanks to them, NICR becomes not only a centre of excellent research but also an active partner in the education of a new generation of scientists.

Selected events co-organised by NICR and under its patronage

Prague Meeting on Tumor Therapy and Imaging
An international conference organised by the Institute of Macromolecular Chemistry of CAS which focused on the most recent findings related to cancer diagnostics and treatment. It covered findings on a range of subjects including the metabolism of tumours, theranostics, photodynamic therapy, or new materials.
2023 | Prague

Summer School on Tumor Microenvironment and Immunity
A specialised programme for scientists, physicians, and especially postgraduate students, which covers a range of topics pertaining to links between the tumour microenvironment and the immune system, the current potential of targeted treatment, or new findings related to the immunometabolism of tumours, microbiome, or myeloid suppressor cells.
2023, 2024, 2025 | Nové Hrady

Onko Pacient
A patient conference organised by the Foundation for Cancer Research CR aims at popularising the most research findings from cancer research, prevention, diagnostics, and treatment.
2023, 2024, 2025 | Prague

4EU+ Against Cancer Summer School
A summer school of the European university alliance 4EU+, which brings together 8 renowned European universities, including the Charles University. An international team of tutors was supplemented by colleagues from the Sorbonne and Warsaw University, while the Czech part of the scientific programme was provided by NICR scientists.
2023 | Mariánské Lázně 2025 | Paris

What did the two years with NICR bring?
Evaluation of results and discussion about the future of the National Institute for Cancer Research were the main topics of a conference attended by representatives of the Chamber of Deputies of Parliament of the Czech Republic, the Czech Ministry of Education, Youth, and Sports, the Research, Development, and Innovation Council, and the Prague Magistrate.
2024 | Prague

European Oncology Conference
The second annual conference brought together cancer researchers, patients, and representatives of health insurance companies and the Czech Ministry of Health.
2024 | Prague

Introduction to Structural Biology with Focus on X-ray Crystallography
Workshop 'Become a crystallographer in one day', organised by the IOCB Prague, was dedicated to analysis and interpretation of published and in silico modelled protein structures and practical experience of protein crystallography.
2024 | Prague

Introduction to NMR in Drug Design and Discovery
Workshop 'Become an expert in nuclear magnetic resonance (NMR) in one day', organised by the IOCB Prague, focused on the use of NMR in the development and discovery of pharmaceuticals, analysis and interpretation of NMR datam and basic hand-on work with NMR equipment.
2024 | Prague

10th European Testicular Tumor Workshop
European workshops focused on testicular tumours are the only international event worldwide dedicated to the research and treatment of testicular tumours.
2024 | Prague

Current Challenges in Neuro-Oncology: Meet the Young Neuro-Oncology Experts
This international conference was organised by Masaryk Memorial Cancer Institute to enable sharing of experiences between experienced specialists and young neuro-oncologists.
2024 | Brno

Annual meeting of EuroMRD board
The international EuroMRD consortium focused on the technology of measuring residual disease in haematological malignities. Its board's annual meetings take place outside the regular meetings and are dedicated to formulation of new topics in research and practice.
2024 | Prague 2025 | Prague

When Science in Czechia Works Together
A balancing conference of EXCELES programmes: NICR, NIVB, NEUR-IN, and SYRI was also attended by representatives of the political bodies and state authorities of the Czech Republic.
2025 | Prague

Barriers and Challenges in Cancer Prevention: An Interdisciplinary View
A meeting of representatives of biomedicine and social sciences was the outcome of a logical interdisciplinary intersection which opens possibilities for further research cooperation between NICR and SYRI.
2025 | Brno

Emerging Analytical Methods and Cancer Research
Workshop of the Institute of Photonics and Electronics of the CAS for early-career researchers and doctoral students on new findings, current challenges, and future directions in analytical sciences and oncology.
2025 | Prague

4th Prague Symposium on Cancer Metabolism
The main subject of this meeting organised under the auspices of NICR at the Second Faculty of Medicine CU were new findings about metabolic processes in tumours and their therapeutic targeting.
2025 | Prague

Selected events with participation of NICR-affiliated researchers

American Association for Cancer Research (AACR) Annual Meeting
AACR is the first and largest organisation worldwide that focuses on cancer research. Its annual meetings are a key place for presenting the most important results of cancer research from all over the world.
2023 | Orlando 2024 | San Diego 2025 | Chicago

European Association of Neuro-Oncology (EANO) Meeting
EANO is a European multidisciplinary neuro-oncological organisation representing all medical and scientific fields that deal with the prevention, diagnostics, and treatment of tumours of the central nervous system.
2024 | Glasgow 2025 | Prague

Brno Oncology Days (BOD)
A traditional and largest national scholarly event of international significance organised by the Masaryk Memorial Cancer Institute brings together specialists in all fields that deal with oncology.
2024 | Brno 2025 | Brno

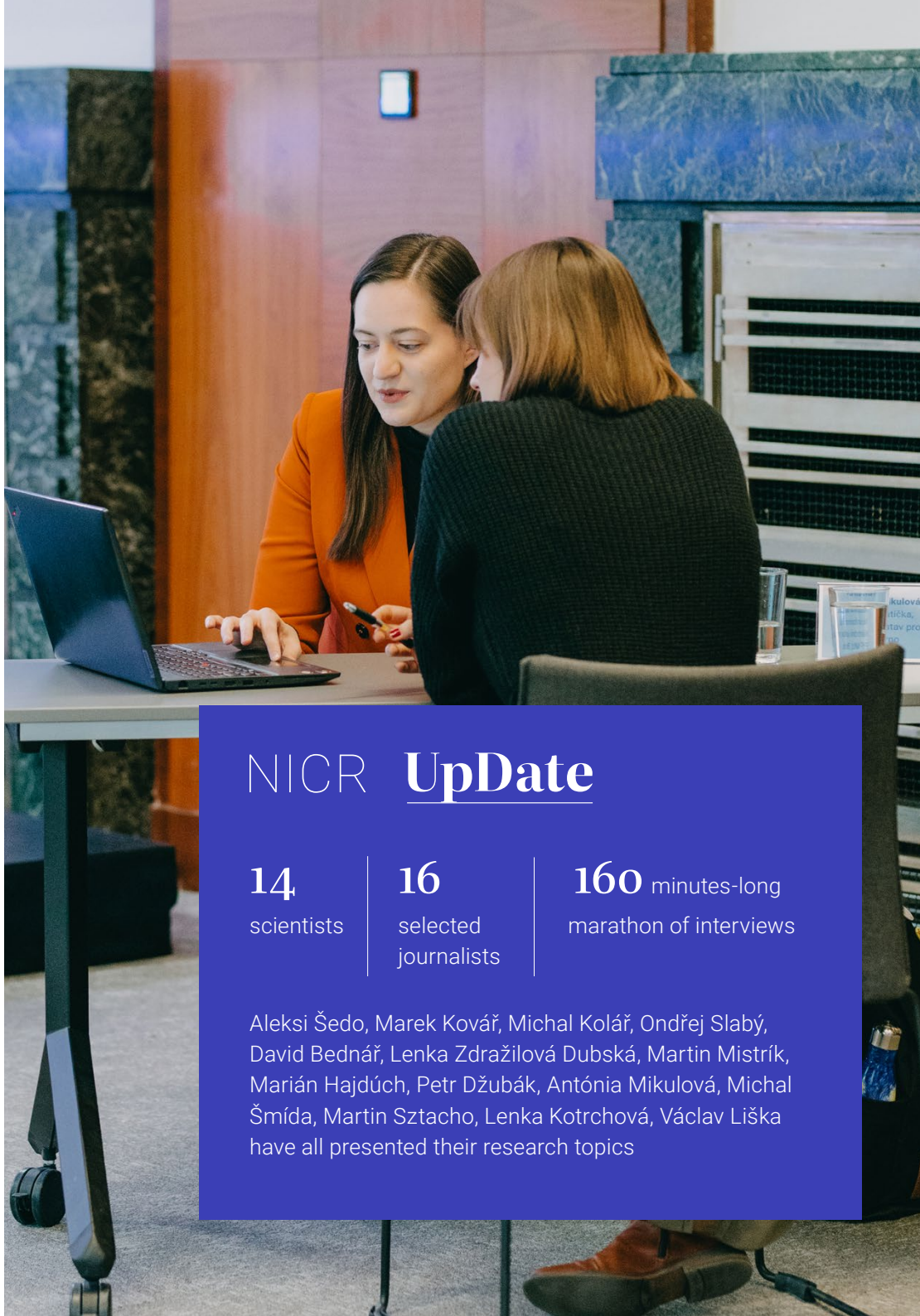
Accelerating Cancer Research and Innovation in CCI4EU
Conference organised by the Comprehensive Cancer Infrastructures for the EU project, which is part of one of the calls of the Horizon Europe programme.
2025 | Brussels

PragueONCO
This international interdisciplinary colloquium is one of the most important conferences focused on cancer research in the Czech Republic.
2025 | Prague

Media and communication activities

NICR has opened the world of science and research to the general public. Through its media and communication activities, it links researchers with a broad audience, bringing stories of discoveries and faces that stand behind them. Thanks to partnership with selected Czech media, increasingly visible presence in social media, and its own formats such as podcasts, videos, and newsletters, NICR is trying to boost among the general population confidence in science and build awareness of the contribution of cancer research to both the prestige of the Czech Republic and the health of its population.

For quick orientation of science and healthcare-oriented journalists, NICR has been using a non-traditional but popular format of ‘speed dating’, where journalists can acquire numerous interviews on a number of topics in one place and within a short time.



NICR UpDate

14 scientists

16 selected journalists

160 minutes-long marathon of interviews

Aleksi Šedo, Marek Kovář, Michal Kolář, Ondřej Slabý, David Bednář, Lenka Zdražilová Dubská, Martin Mistrík, Marián Hajdúch, Petr Džubák, Antónia Mikulová, Michal Šmída, Martin Sztacho, Lenka Kotrchová, Václav Liška have all presented their research topics

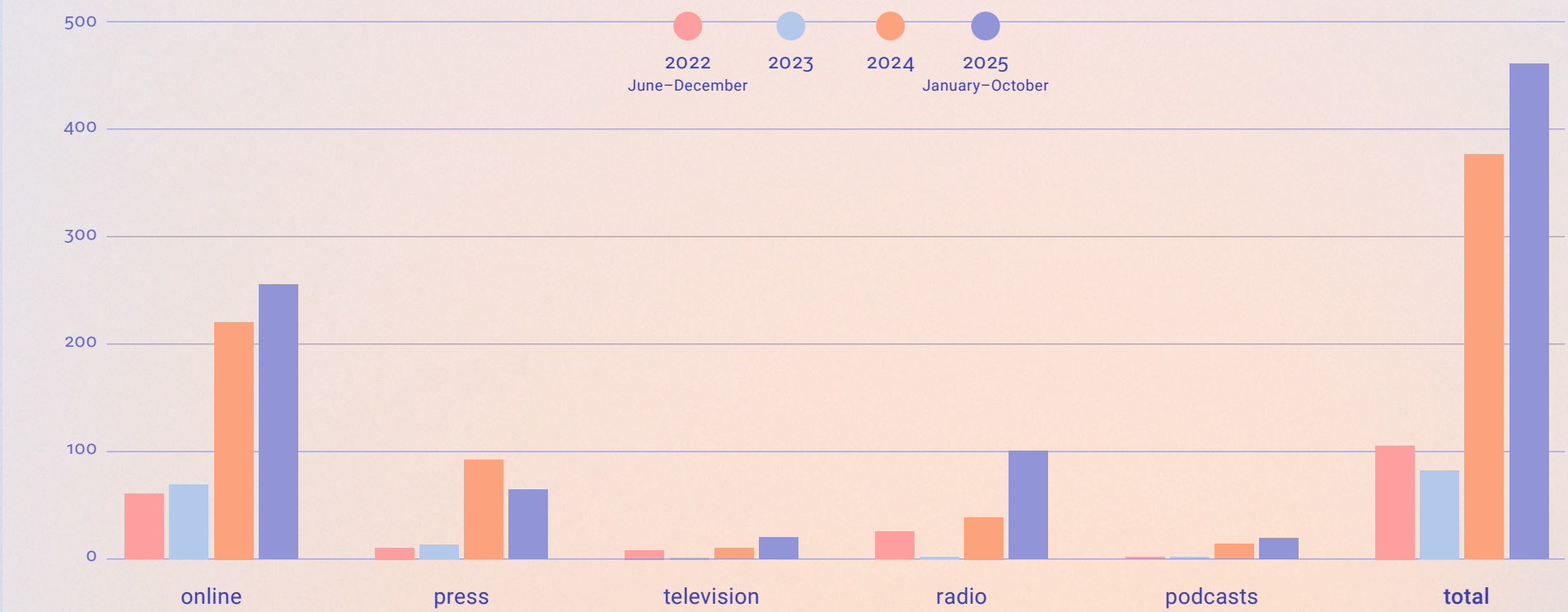
Media (June 2022 – October 2025)

NICR is regularly presenting the world of cancer research to the general public. By introducing the faces of its research teams and their results, NICR contributes to a positive image of Czech science and scientists, highlighting that their contribution is something the society is right to be proud of. The interest of media in NICR and cancer research has been, in recent years, steadily growing.

1,020+ media outputs in total

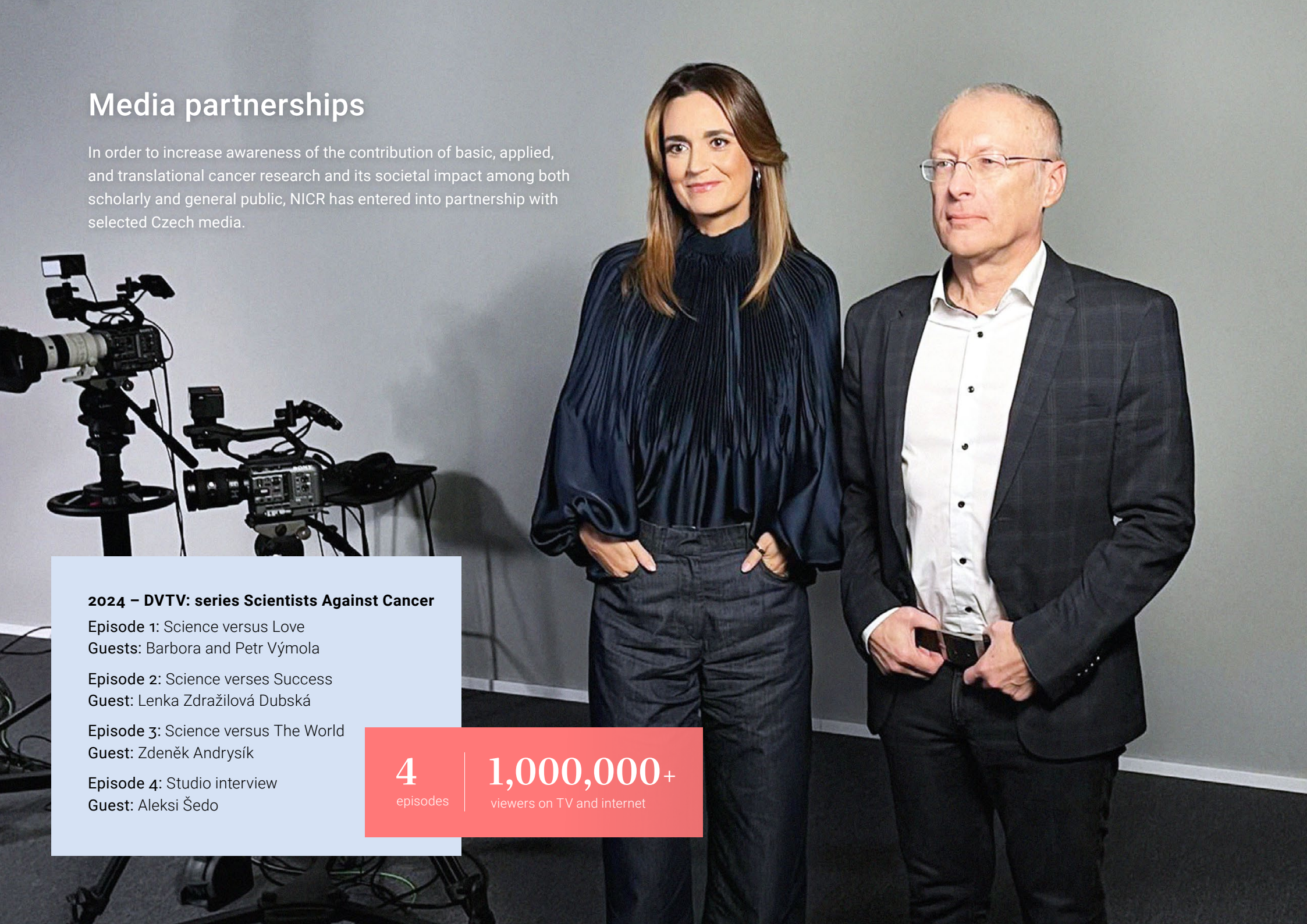
107+ million is how many times the outputs were viewed read, or listened to

online	press	radio	television	podcasts
600+ articles	180+ articles	165+ contributions	35+ contributions	30+ programmes (other than own)



Media partnerships

In order to increase awareness of the contribution of basic, applied, and translational cancer research and its societal impact among both scholarly and general public, NICR has entered into partnership with selected Czech media.



2024 – DVTV: series Scientists Against Cancer

Episode 1: Science versus Love
Guests: Barbora and Petr Výmola

Episode 2: Science verses Success
Guest: Lenka Zdražilová Dubská

Episode 3: Science versus The World
Guest: Zdeněk Andrysík

Episode 4: Studio interview
Guest: Aleksi Šedo

4
episodes

1,000,000+
viewers on TV and internet

2024 – Vesmír: 10 thematic pages dedicated to cancer research

Ondřej Slabý: The birth of a supervillain – The formation of tumours through the lens of molecular and cell biology

Ondřej Slabý: What is precision oncology? Master Sun and the molecular war on tumours

Jan Brábek, Daniel Rösel: Even cancer can be taught polite behaviour – From killing to 're-education' of tumour cells

Cyril Bařinka: Structural biology in the fight against cancer – The story of PSMA and prostate cancer

David Bednář: Bioinformatics and cancer treatment – An important part of personalised medicine

2024–2025 – Clinical oncology – a regular column in Breaking News from NICR

A regularly published selection from recent publications by NICR-affiliated research teams in the official journal of Czech Society for Oncology CzMA.

2024–2025 – Medical Tribune

Exclusively published interviews and reports about NICR-affiliated research teams and their research results.

2024–2025 – ŽENA-IN

Exclusively published popularising interviews and reports about the research teams participating in NICR and information about the results of their scientific work.

Social media (January 2024 – October 2025)

Aside from traditional nationwide media such as the press, radio, and television, our researchers have also been active in social media, where the number of views and followers is significantly increasing every year.

Facebook

1,580+	740,000+
followers	views of content on NICR profile

X (formerly Twitter)

240+	500+
followers	contributions

Instragram

1500+	630,000+
followers	views of NICR profile

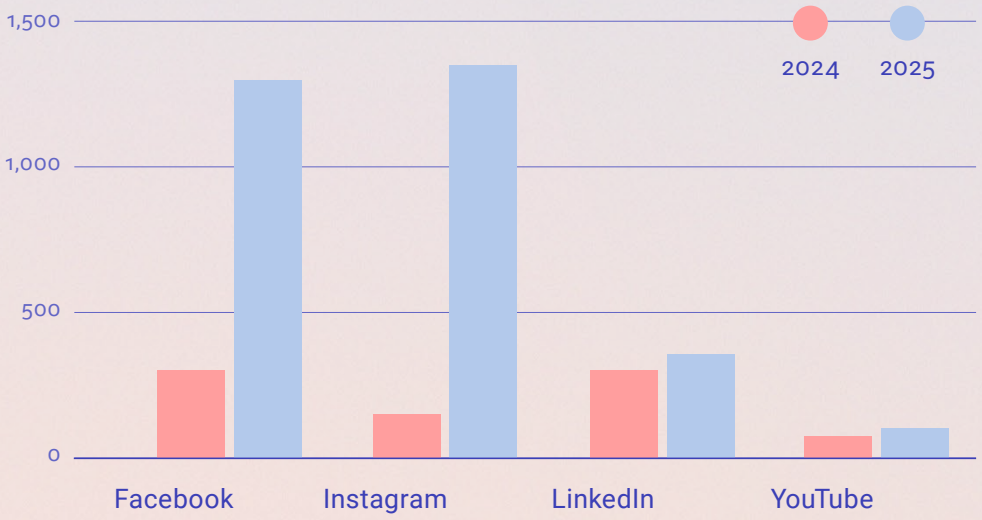
YouTube

160+	98,000+
subscribers	views of NICR channel

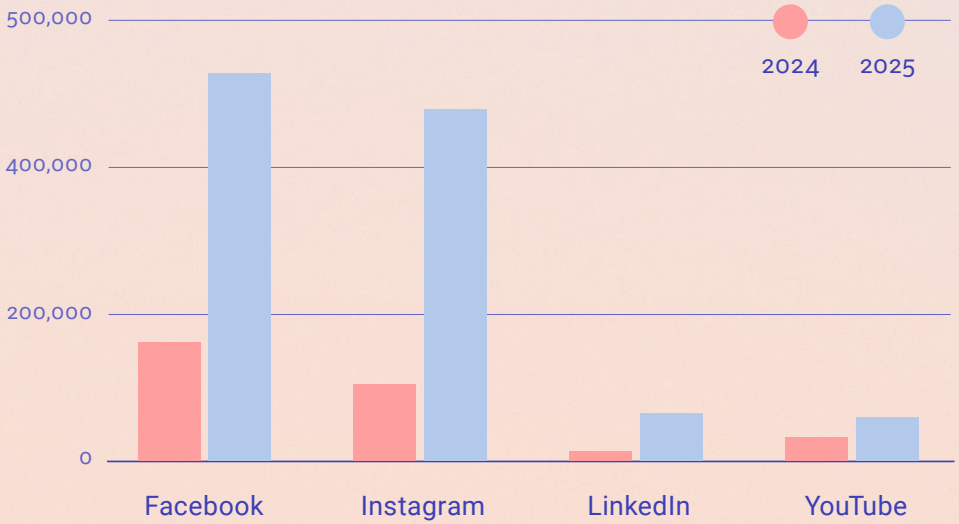
LinkedIn

650+	85,000+
followers	views of content of NICR profile

Numbers of followers and subscribers



Numbers of views



Podcast „In-Amongst the Cells“

In a podcast about science against cancer Martin Tyburec interviewed not only researchers from NICR but also other personalities of the world of science and rising stars of Czech biomedicine.

2,100+
downloads in Spotify and Apple Podcasts

2024 — 9 episodes

Episode 1
Guest: Aleksi Šedo
Episode 2
Guest: Petr Džubák
Episode 3
Guests: Barbora and Petr Výmola
Episode 4
Guest: Lenka Bešše
Episode 5
Guest: Antónia Mikulová
Episode 6: ***Special issue from the Summer School on Tumor Microenvironment and Immunity***
Guest: Luca Vannucci
Episode 7: ***Young scientists***
Guests: Zuzana Zelenková, Adrian Svoboda, Martin Nedecký
Episode 8: ***How to stress cancer cells and why is it a good idea?***
Guest: Martin Mistrík
Episode 9: ***How to launch a controlled suicide of cancer cells?***
Guest: Zuzana Kečkéšová

2025 — 11 episodes

Episode 1: ***How expensive is science?***
Guests: Jan Konvalinka, Aleksi Šedo
Episode 2: ***How to tailor precision medicine***
Guests: Ondřej Slabý, Jaroslav **Štěrba**
Episode 3: ***How to find the future stars of science***
Guests: Michal Kolář, Petr Mazouch
Episode 4: ***Popularisation of science. Hope vs. reality in cancer research***
Guests: Tereza Ormsby, Adéla Šimková
Episode 5: ***Science, business, and billions. How are the drugs of tomorrow created?***
Guests: Marián Hajdúch, Radek Špíšek
Episode 6: ***How do large research infrastructures shape future treatments?***
Guests: Regina Demlová, Roman Hrstka
Episode 7: ***Bridging Minds: Science Beyond Nations***
Guests: Viktor Umansky, Luca Vannucci, Aleksi Šedo
Episode 8: Alternative medicine and oncology. ***Where does hope end and danger begin?***
Guests: Luboš Petruželka, Vojtěch Mornstein
Episode 9: ***Screening saves lives. Numbers, myths, and research that simplifies prevention***
Guests: Jana Halámková, Ladislav Dušek
Episode 10: Inspiring curiosity: ***NICR Summer School and the future generation of scientists***
Guests: Tomáš Etrych, Petr Flachs, Magdaléna Jurková
Episode 11: ***What would not have been without NICR***
Guests: Aleksi Šedo, Marián

Newsletter inSCIder

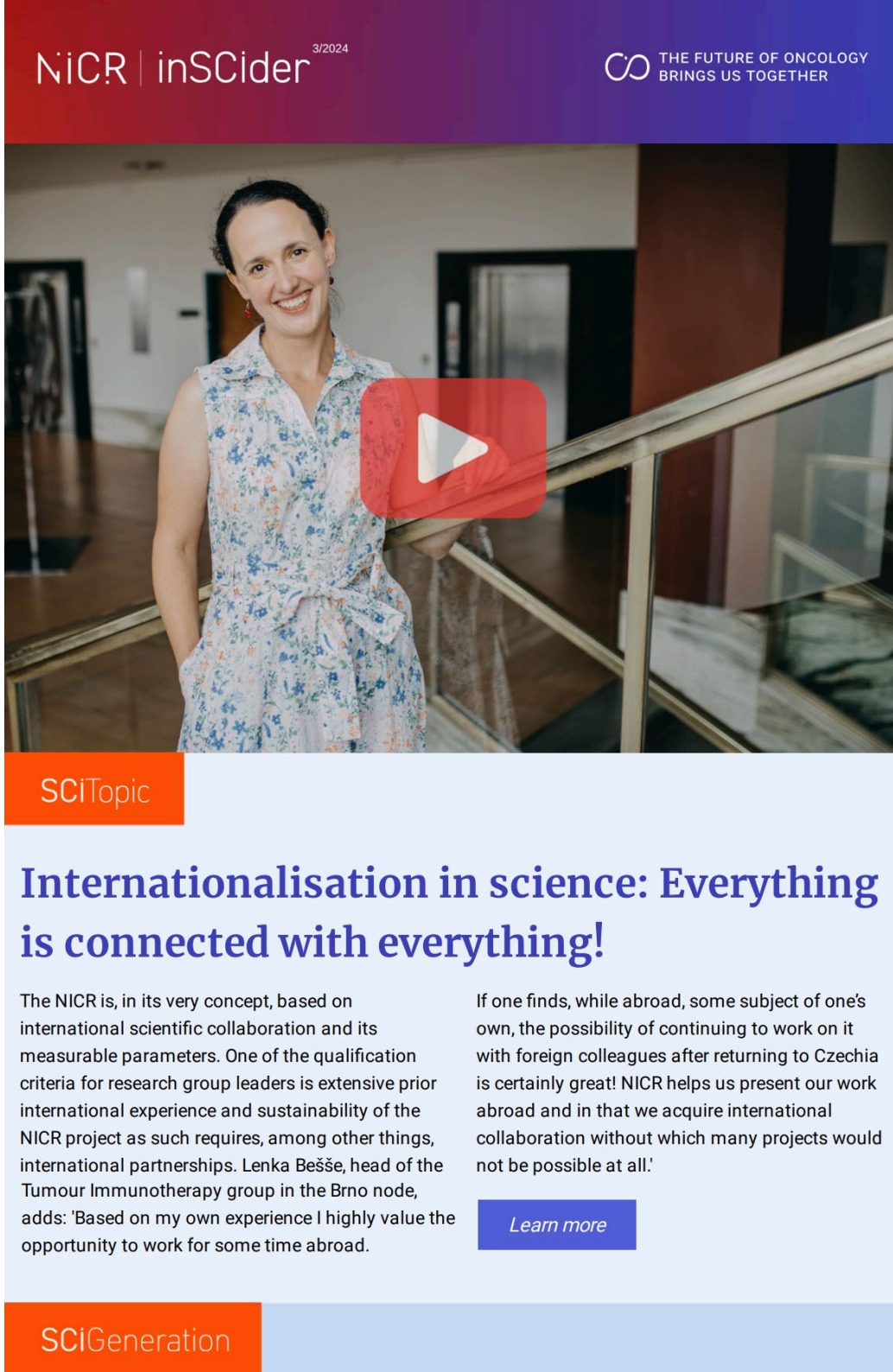
Regular electronic newsletter called inSCIder is intended both for communication within the consortium and for persons interested in cancer research who work in state administration, the academic community, but also the general public. The newsletter brings information ‘from the life’ of NICR, interviews with interesting personalities, views of experienced but also early-career researchers, and texts on current topics. Extended versions of several key sections are available on NICR website.

2024 — 5 issues

April – SCITopic: Introducing two new Ph.D. programmes
June – SCITopic: And they say there’s no school in the summer!
August – SCITopic: Internationalisation in science – everything is connected with everything else!
October – SCITopic: Talented juniors into science!
December – SCITopic: Looking at NICR from the outside

2025 — 5 issues

February – SCITopic: Different land, same customs!
April – SCITopic: Sustainability of national institutes – or ‘après nous, le déluge’?
June – SCITopic: How are we doing on threshold indicators
September – SCITopic: Contribution of NICR to the society and the state
November – SCITopic: What would not have been without NICR



A series of videos

In short video interviews, scientists from various NICR-affiliated institutes present their work. This series captures the great variety of cancer research, its multidisciplinary nature, and collaboration across fields and institutes, which is a characteristic feature of NICR. All videos are available on the social media of NICR.

Meritxell Alberich Jordà (IMG CAS)
Jan Brábek a Daniel Rösel (FSci CU)
Vítězslav Bryja (FSci MU)
Petr Džubák (FMed PU)
Tomáš Etrych (IMC CAS)
Martin Gregor (IMG CAS)
Marián Hajdúch (FMed PU)
Vendula Hlaváčková Pospíchalová (FSci MU)
Michal Hocek (IOCB CAS)
Petr Chytil (IMC CAS)
Milan Jakubek (First FMed CU)
Tomáš Kazda (MMCI)
Michal Kolář (IMG CAS)
Vladimír Kořínek (IMG CAS)
Lenka Kotrchová (IMC CAS)
Vladimíra Koudeláková (FMed PU)
Václav Liška (FMed CU in Pilsen)
Marek Mráz (CEITEC MU)
Petr Müller (MMCI)
Miloš Petřík (FMed PU)
František Sedlák (First FMed CU)
Helena Kupcová Skalníková (First FMed CU)
Ondřej Slabý (CEITEC & FMed MU)
Karel Smetana (First FMed CU)
Josef Srovnal (FMed PU)
Júlia Starková (Second FMed CU)
Tomáš Stopka (First FMed CU)
Martin Sztacho (First FMed CU)
Jiří Šána (CEITEC & FMed MU)
Aleksi Šedo (First FMed CU)
Michal Šmída (CEITEC MU)
Jaroslav Štěrba (FMed MU)
Jan Trka (Second FMed CU)
Stjepan Uldrijan (FMed MU)
Karolína Vaníčková (IMG CAS)
Petr Výmola (First FMed CU)
Lenka Zdražilová Dubská (FMed MU)

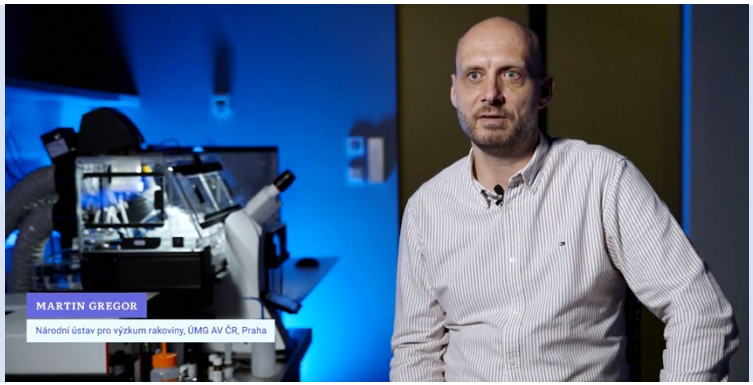

JOSEF SROVNAL
Národní ústav pro výzkum rakoviny, ÚMTM LF UP a FN Olomouc
potom najít, vychytat,


MICHAL HOCEK
Národní ústav pro výzkum rakoviny, ÚOCHB AV ČR, Praha
of nucleic acids and their components.


JÚLIA STARKOVÁ
Národní ústav pro výzkum rakoviny, CLIP, 2. LF UK, Praha

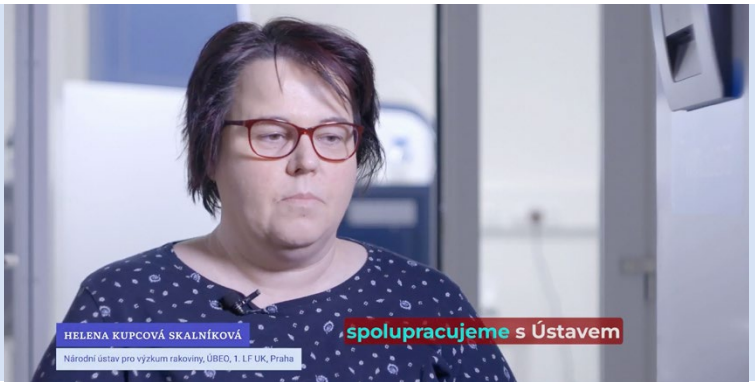

is to serve
the scientific community.


MAREK MRÁZ
Národní ústav pro výzkum rakoviny, CEITEC MU, Brno
Chronic lymphocytic leukaemia
is the most common type of leukaemia in adults.


MARTIN GREGOR
Národní ústav pro výzkum rakoviny, ÚMG AV ČR, Praha


Námi vyvíjené polym

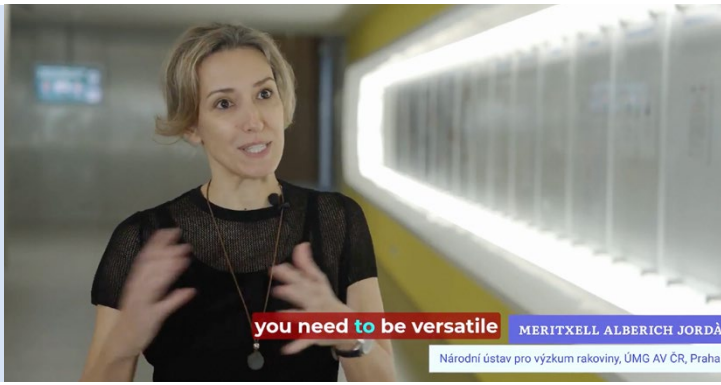

MILOŠ PETŘÍK
Národní ústav pro výzkum rakoviny, ÚMTM LF UP a FN Olomouc


HELENA KUPCOVÁ SKALNÍKOVÁ
Národní ústav pro výzkum rakoviny, ÚBEO, 1. LF UK, Praha
spolupracujeme s Ústavem


Jaroslav Štěrba
LF MU a FN Brno
Paediatric oncology suffers from a major lag in the uptake


My team is made up of PhD students
STJEPAN ULDRIJAN
Národní ústav pro výzkum rakoviny, LF MU, Brno


VÁCLAV LIŠKA
Národní ústav pro výzkum rakoviny, Biomedicínské centrum LF UK v Plzni
because science must be guided


you need to be versatile
MERITXELL ALBERICH JORDÀ
Národní ústav pro výzkum rakoviny, ÚMG AV ČR, Praha


ery jsou
TOMÁŠ ETRYCH
Národní ústav pro výzkum rakoviny, ÚMCH AV ČR, Praha


VLADIMÍRA KOUDELÁKOVÁ
Národní ústav pro výzkum rakoviny, ÚMTM, LF UP, Olomouc
V rámci projektu NÚVR vznikla


PETR MÜLLER
Národní ústav pro výzkum rakoviny, MOÚ, RECAMO, Brno
Studium proteotoxického stresu je


data manipulation in


LENKA ZDRAŽILOVÁ DUBSKÁ
Národní ústav pro výzkum rakoviny, CREATIC, LF MU, Brno


ale samozřejmě i v rámci projektu NÚVR
PETR DŽUBÁK
Národní ústav pro výzkum rakoviny, ÚMTM, LF UP, Olomouc

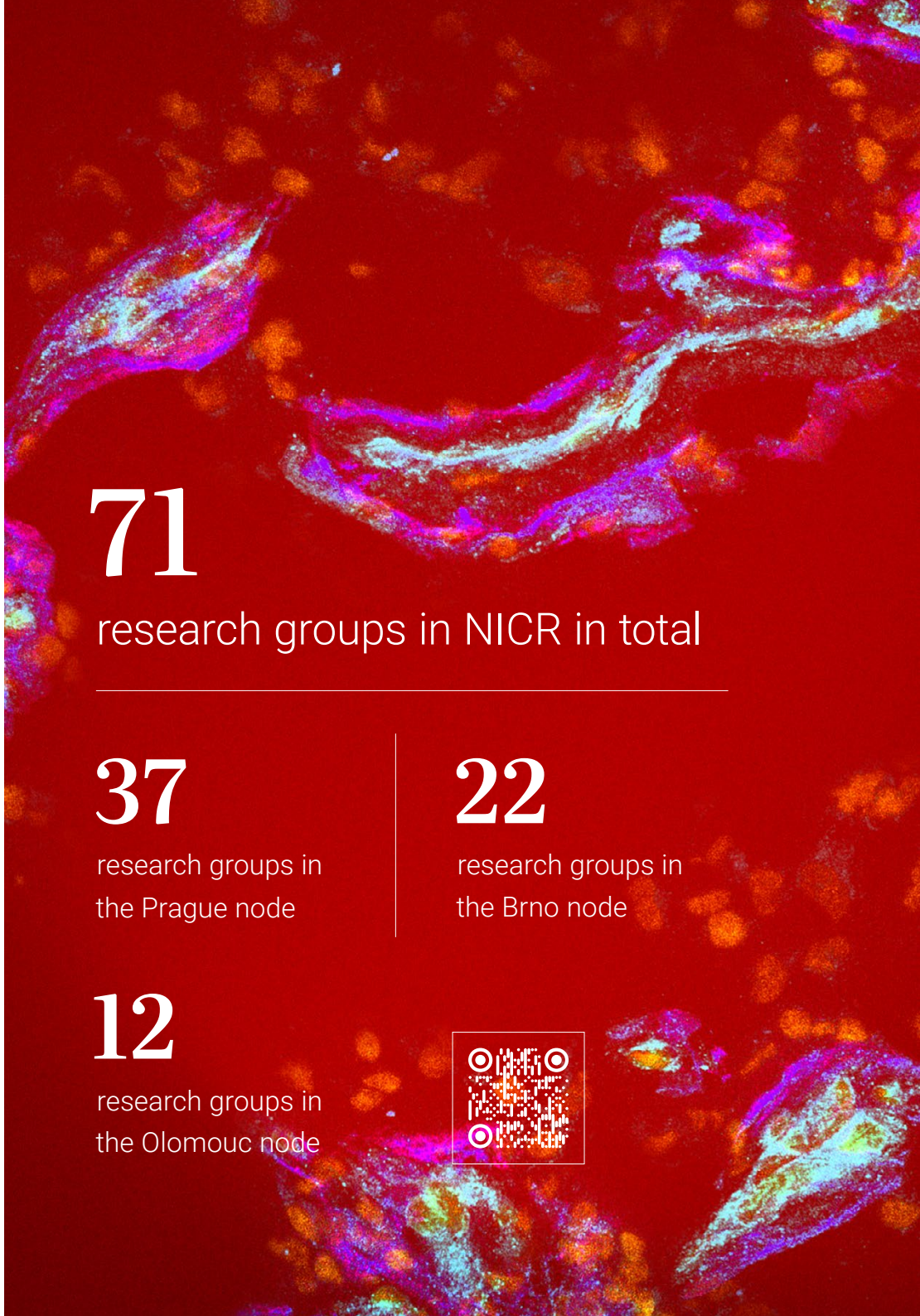

MICHAL ŠMÍDA
Národní ústav pro výzkum rakoviny, CEITEC MU, Brno

Book about NICR

So far the largest project of academic oncology in the Czech Republic, which NICR is, has in early 2025 also issued a representative publication. Within the space of nearly 300 pages, this book presents to the academic public, partners, large media houses, and political representation of this country all the research groups involved in NICR and their leaders from all three hubs within which NICR is active.

In the past, Czech cancer research has been criticised for lack of coordination and fragmentation in numerous institutes, which moreover often did not sufficiently and effectively use the available research infrastructures and expert potential. This publication attests to the fact that there now exists a logical and rational network connecting the potential which Czech cancer research can offer.

This is why this large ‘catalogue’ of research teams is available now also on the internet in an interactive form. Persons looking for potential project partners (or just curious individuals) can browse the teams not only according to their focus and research subjects but also for instance based on which team can provide a particular type of expertise or share particular technologies. One can even search based on the teams’ involvement in an infrastructure or based on their collaboration with other research centres and teams affiliated with NICR. And, naturally, presentations of the teams also include lists of selected publications.




NATIONAL INSTITUTE
FOR CANCER RESEARCH

Activities for secondary school students

In order to ensure long-term sustainability of the research environment and development of modern society, we must support young people's interest in science and research. NICR therefore views educational and popularising activities aimed at secondary school students as an integral part of its mission. Thanks to interactive workshops, a summer school, series of lectures, and participation in the Expert Activities for Secondary Schools programme, we have established contact with dozens of secondary schools and hundreds of young people and supported their interest in science, thus hopefully influencing their future choice of profession.

By mediating an authentic experience with research environment, contact with experts, and providing the opportunity to look into the functioning of modern laboratories, NICR is challenging stereotypical images of science and opens the way to its better understanding. Such experiences often have a crucial impact on young people's future choice of further education and profession. By motivating young people's interest in scientific knowledge, NICR contributes not only to education of future experts but also to the formation of a culture that values knowledge, critical thinking, and cooperation. In the long term, such initiatives thus amount to an investment into human potential, which forms the foundation of a sustainable development of Czech science and research.

50
workshops

150+
hours spent in labs

440+
participants

18
participating secondary schools

What was really great about the workshop was that we were able to practically try out many things in a real lab with real instruments.

What surprised me the most is how long and complicated is the process from an idea to a drug that is available to patients.

NICR Summer School

4
leading institutions

5
days spent in labs

6
participants

15
lectures

I was decided I wanted to study medicine, but the summer school convinced me to seriously consider other natural sciences as well!

600+
participants

Interactive workshops

NICR has prepared 3 thematic interactive workshops, where secondary school students interested in natural sciences could learn about some new findings from cancer research, try out various laboratory techniques, and acquire practical experiences that might influence their future career choice.

Topics and participating institutes

A microscopic view into cancer cells
Institute of Biochemistry and Experimental Oncology of the First Faculty of Medicine CU
Tutors: Martin Sztacho, Claudia Carrera Bravo, Agnieszka Chytła

Quo vadis, (cancer) cell?
Institute of Biochemistry and Experimental Oncology of the First Faculty of Medicine CU
Tutors: Petr Výmola, Barbora Výmolová, Ivana Matrasová

A mysterious species under the looking glass: Is sequencing more accurate than the microscope?
Institute of Molecular Genetics of the CAS
Tutors: Michal Kolář, Jana Šáchová, Miluše Hradilová

2024	pilot run	**10** workshops	**90+** participants from 3 secondary schools
2025	full version	**40** workshops	**350+** participants from 18 secondary schools

NICR Summer School

Six selected students from the third year of secondary schools, highly motivated and interested in studying natural sciences, took part in a five-day NICR Summer School in August 2025. The aim was to offer them an authentic experience of work in a leading laboratory – from an initial hypothesis and experimentation all the way to data interpretation, while highlighting the key role of multidisciplinary approach in biomedicine.

Topics and participating institutes

Tumour cells on the move: How do we catch them in the act?
Institute of Biochemistry and Experimental Oncology of the First Faculty of Medicine CU
Tutors: Martin Sztacho, Petr Výmola

One day in the life of a medicinal chemist
Institute of Organic Chemistry and Biochemistry of the CAS
Tutor: Michal Tichý

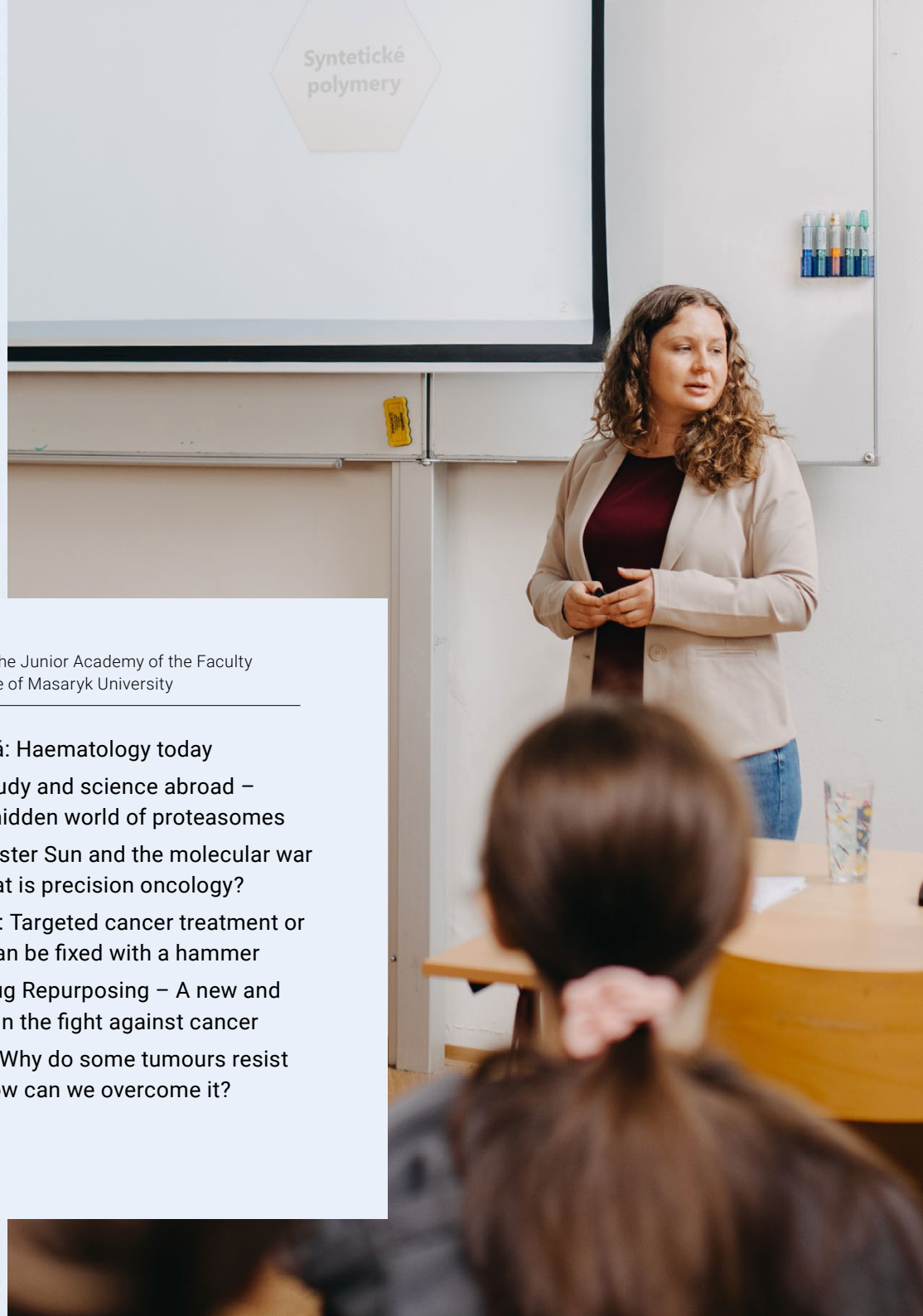
The journey of polymer pharmaceuticals
Institute of Macromolecular Chemistry of the CAS
Tutor: Tomáš Etrych

Changes in the genome: Looking for traces of tumours
Institute of Molecular Genetics of the CAS
Tutor: Michal Kolář


Náplň workshopu
Co si sami vyzkoušíte (experimentální část):
Izolaci DNA z buněk
Přípravu sekvenační knihovny
Kontrolu množství a kvality získané DNA knihovny kapilární elektroforézou
Sekvenaci genomové DNA
Bioinformatické zpracování sekvenačních dat
CNV analýzu k rozlišení buněčných linií
Co se naučíte
Jak se „čte" genom
Jak navrhnout experiment pro rozlišení buněčných linií
Jak se liší genom nádorové buňky od zdravé
A hlavně: zažijete skutečnou vědeckou nejistotu – ani my nevíme, jak to dopadne!
Přijďte najít rozdíly mezi genomem zdravé a nádorové buňky. Zažijte napětí skutečného výzkumu.

Lectures online or on-site

For over 600 secondary school students and their teachers, researchers from NICR have prepared lectures on research in cancer prevention, diagnostics, and treatment.



2024–2025 (selection)

- Martin Mistrík: How do tumour cells cope (or not) with different kinds of stress and how can we use it?
- Pavel Rössner: Cancer and the Environment – What do we know and what do we want to know?
- Petr Výmola: Watch out, tumours are not just tumour cells!
- Ivan Melezínek: How are new drugs tested? The secrets of clinical research!
- Antónia Mikulová: Deciphering the biological Enigma: How do cells communicate and how it changes their behaviour
- Lenka Kotrchová: How can we treat patients using polymers without polluting the natural environment?

2025 as part of the Junior Academy of the Faculty of Medicine of Masaryk University

- Sabina Ševčíková: Haematology today
- Andrej Bešše: Study and science abroad – Discovering the hidden world of proteasomes
- Ondřej Slabý: Master Sun and the molecular war on cancer or What is precision oncology?
- Zdeněk Andrysík: Targeted cancer treatment or Not everything can be fixed with a hammer
- Lenka Bešše: Drug Repurposing – A new and alternative hope in the fight against cancer
- Stjepan Uldrijan: Why do some tumours resist treatment and how can we overcome it?

Secondary School Expert activities: NICR Award

As part of a nationwide presentation of Secondary School Expert Activities (SOČ in Czech), NICR as awarded those students whose work focused on cancer research.

SOČ 2024 in Pardubice

- Zuzana Zelenková
  (Gymnasium Brno–Řečkovice): The use of 3D organoids in investigating brain tumours
- Adrian Svoboda
  (Gymnasium of Božena Němcová, Hradec Králové): New inhibitors for overcoming anthracycline resistance in cancers
- Martin Nedecký
  (Gymnasium of Jiří Orten, Kutná Hora): Epithelial organoids as a model of cancers initiated by mutations of Apc and Kras genes

SOČ 2025 in Teplice

- Marek Mikšánek
  (Gymnasium of Ladislav Jaroš, Holešov): Optimisation and innovation of approaches to the cultivation of leukaemia cells
- Adam Vašíček
  (Gymnasium Třebíč): Synthesis and characterisation of monofunctional derivatives of cisplatin-carrying oxygenated functional groups
- Valentýna Straková
  (Gymnasium Brno, Slovanské Square): The function of extracellular vesicles in intercellular communication in lung tumours


4. místo
Název práce: Úloha extracelulárních vezikul v mezibuněčné komunikaci u nádorů plic
Autor: Valentýna Straková
Škola: Gymnázium, Slovanské náměstí 1804, Brno
Video: https://youtu.be/zEwGW7-pjAE
Kraj: Jihomoravský
Zvláštní cena: Cena Národního ústavu pro výzkum rakoviny (vybrané práce věnované onkologickému výzkumu)
9. místo
13. místo


UDĚLUJE OCENĚNÍ
Adriánu Svobodovi
UDĚLUJE OCENĚNÍ
Zuzaně Zelenkové

Public awareness activities

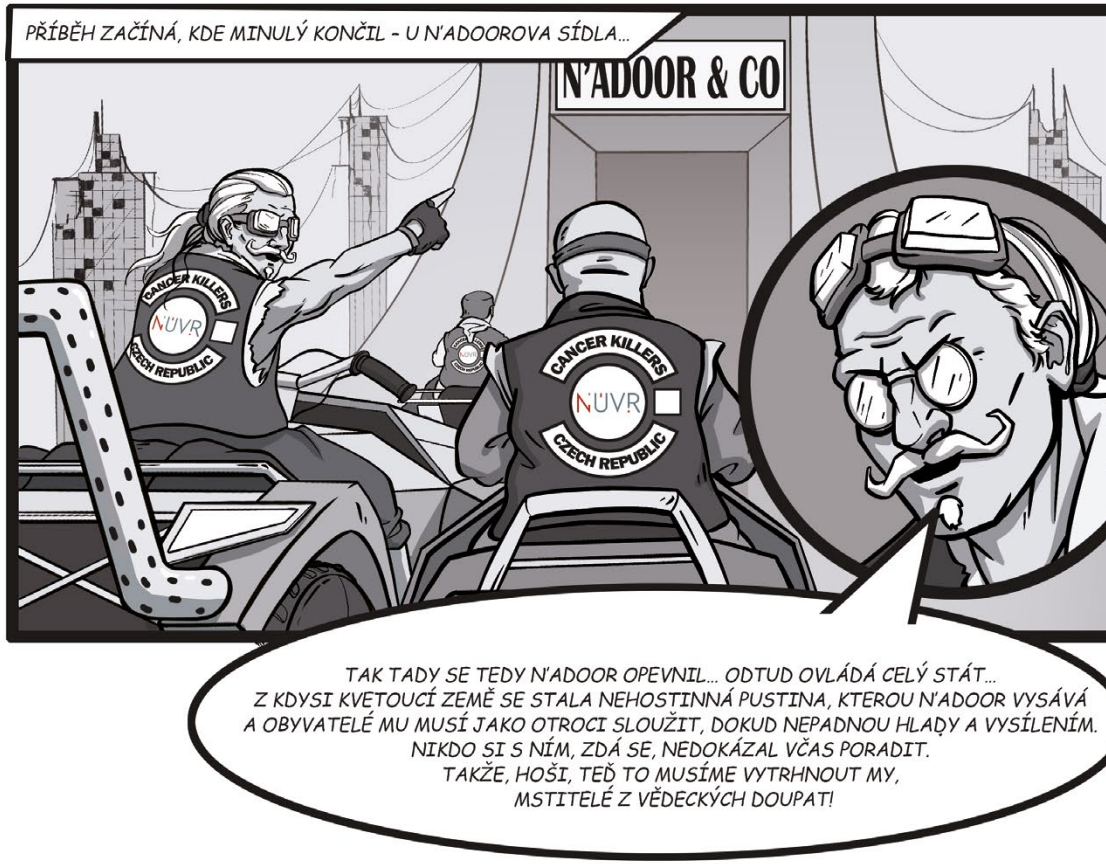
‘Science isn’t finished until it’s communicated.’ This statement by Sir Mark Walport, former chief science advisor to the government of Great Britain, reminds us that work in science does not end with the publication of results: it ends when the results are appropriately shared with the general public. If science is to have a real social impact, it must be communicated – openly, understandably, and in the context of daily life.

Scientists gathered in NICR follow this principle to the letter. They actively present at public events, in schools, media, and social networks, wherever there is public interested in science and willing to listen and ask questions. Public awareness activities of NICR are not limited to traditional lectures or press releases – they use also modern forms of communication, such as educational comics about cancer or its animated version, which communicate complex issues understandably and in an attractive form. The aim of such activities is not only to inform but above all to strengthen public confidence in science and research. Open communication helps dispel myths, supports prevention, and increases awareness of the importance of scientific knowledge for health and quality of life. Thanks to such initiatives, NICR is becoming not only a scientific but also socially responsible institution that links the world of science with people’s daily lives and shows that even complicated subjects from cancer research can be explained in understandable and relatable terms and set in their proper context.

A malignant tumour is like a surprisingly smartly organised city that was taken over by a villain…

ZHOUBA N'ADOOR

DÍL DRUHÝ: DEN PRVNÍHO ZÚČTOVÁNÍ



… but mysterious avengers from the Dens of Science bring weapons that can bring the scoundrel and his helpers behind the bars!

Researchers' Night

A traditional Europe-wide event that brings to life, for one night a year, hundreds of facilities where research is conducted and most people never visit.

2024 on the theme of TRANSFORMATION

- Petr Výmola: Tumour is not just cancer cells
- Michal Kolář, Hana Hanzlíková, and Pavel Rösner were the guests of talk show 'Nuclear science after dark'

2025 on the theme of WEALTH

- Karel Černý: Journey into the depths of time: In-between alchemy and spagyrist pharmacy – The beginnings of chemistry at the Prague faculty of medicine
- Karel Smetana: Journey into the depths of tumour cells: Have we invested in future wealth?

A Week of the Czech Academy of Sciences

The largest science festival in the Czech Republic for the general public with focus on secondary school students.

2024

- Pavel Rössner: The environment and cancer – What we know and what we want to find out
- Lenka Kotrchová: How to use polymers in cancer treatments without polluting nature

2025

- František Sedlák: Blood tumours and DNA – From the first mutations to targeted treatment

Week of the Brain

A festival for the general public which every year informs about the most recent findings and trends in brain research and neurosciences in a popular form.

2024

- Ivan Melezínek: Brain tumours and modern technologies
- a series of thematic videos about collaboration in brain tumour research

2025

- Petr Bušek: How (and why) do we make brain tumours shine?
- mini exhibition ‘Brain through the lens of biomedicine’ (how a molecular biologist, experimental oncologist, radiologist, radiotherapist, or neurosurgeon view healthy and sick brain and its cells)

Academia Film Olomouc 2025

Festival of popular science films.

- Marián Hajdúch, Jaroslav Štěrba, Ondřej Slabý, and Tomáš Kazda attended a discussion about changes in understanding cancer and its treatment over the past 70 years (after a screening of film *Before It Is Too Late*)
- Pavel Klener as an invited expert in discussion with creators of *Burkitt*, one of the competing films

Solstice Festival 2025

A multi-genre festival where music, literature, theatre, and inspiring debates meet.

- Jiří Drábek and Josef Srovnal were the guests of talk show Nuclear Science Stage on the subject ‘Genetics in the leading role: Our helper in investigating crime and an instrument for predicting cancer’

DNA Day 2025

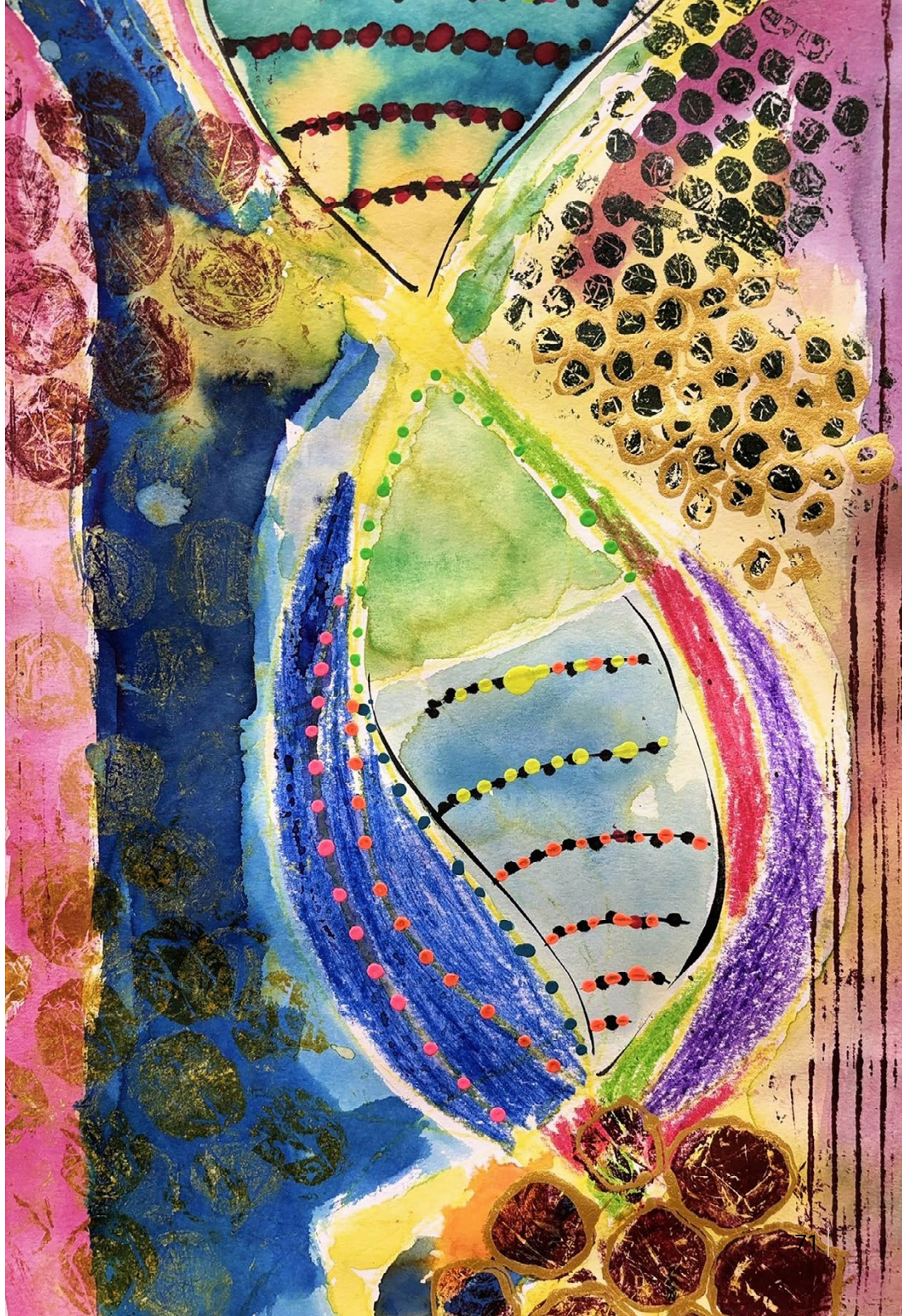
An afternoon full of learning, competitions, and games for the whole family at the occasion of World DNA Day, the basic building block of life.

- Tomáš Venit: DNA, the Jurassic park, and several Nobel prizes
- Michal Šmída: Molecular scissors CRISPR/Cas or How to cut genes
- Vladimíra Koudeláková: HPV, an unremarkable DNA virus with a great impact
- Lenka Hajgajda: When science brings hope – The journey from diagnosis to research
- Radka Václavíková: How genetics influences (not only) anti-tumour treatments

Art competition

Announcing winners of creative competitions ‘Children draw the DNA’ and ‘What is the villain Too’mour going to do next?’

- Nearly 270 pictures, 5 comics, 2 videos, and 1 story from preschoolers, school children, and secondary school children from all over the Czech Republic.



NiCR CZECH REPUBLIC NATIONAL INSTITUTE FOR CANCER RESEARCH

Project National Institute for Cancer Research (no. LX22NPO5102), whose main coordinator and recipient of the subsidy is the First Faculty of Medicine of the Charles University, is financed by the European Union – Next Generation EU as part of the National Plan of Renewal through EXCELES, a programme of support of excellent research in priority areas of public interest in healthcare of the Ministry of Education, Youth, and Sports of the Czech Republic.

Funded by the European Union
NextGenerationEU

CZECH RECOVERY PLAN

MINISTRY OF EDUCATION, YOUTH AND SPORTS

350+ million CZK
invested
(including anticipated spending by the end of 2025)

14+ milllion
invested in building alterations and infrastructure

336+ million
invested in technologies

300+ milionů
invested in **44 technologies**
worth over **1 million CZK** each

129+ million
in the Prague node

95+ million
in the Brno node

76+ million
in the Olomouc node

1,020+
media outputs in total

107+ million
times viewed, read, listened to

online	press	radio	television	podcasts
600+ articles	180+ articles	165+ contributions	35+ contributions	30+ programmes (aside from own)

10+
cooperations with large research infrastructures

4
annual CACR Meetings

65+ hours
of academic programme

230+
lectures

40+
lecturers from abroad

1300+
participants

230+
posters

6,000+
cups of coffee

2
NICR Edu workshops

Facebook

1,580+
followers

740+ thousand
views of content on NICR profile

X (formerly Twitter)

240+
followers

500+
contributions

YouTube

160+
subscribers

Instragram

1,500+
followers

630+ thousand
views of content on NICR profile

LinkedIn

650+
followers

85+ thousand
views of content on NICR profile

50
workshops

150+
hours spent in labs

440+
participants

18
secondary schools involved

1
NICR Summer School for selected secondary school students

15+
on-line/on-site lectures for secondary school

600+
participants

2,000+
participants of clinical studies

www.nuvr.cz