

MAASTRICHT COMPREHENSIVE CANCER CENTER VISION 2025



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FOREWORD

Building on years of successful collaboration, GROW-School for Oncology and Developmental Biology and Maastricht UMC+ Oncology Center have decided to join forces to form the Maastricht Comprehensive Cancer Center. This will unite patient care, research, education and training together in one centre.

This gives us the opportunity to pave our own path, combine forces, utilise synergies and work even more intensively together with our partners in Maastricht. In this document we feature the voices of our major partners CAPHRI-Care and Public Health Research Institute, NUTRIM-School of Nutrition and Translational Research in Metabolism, Clinical Trial Center Maastricht and Maastricht Radiation Oncology, as well as most importantly, our patients.

We are convinced that by bringing together our expertise and focussing on the needs of our patients and the inhabitants in our region, we can achieve a great deal for the health of our population and for the survival with preservation of function of our patients from both inside and outside the region.

This vision document shows you what we stand for now and where we see ourselves in five years.

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INTRODUCTION

Maastricht Comprehensive Cancer Center (MCCC) is a collaboration between Maastricht MUMC+ Oncology Center (OC) and the Oncology division of GROW – School for Oncology and Developmental Biology, of the Faculty of Health, Medicine and Life Sciences of Maastricht University. We work together with our partners inside and outside Maastricht UMC+ (MUMC+) to provide the best possible oncological care, scientific research and education and training.

We provide patient-oriented, multidisciplinary care for oncology patients and study ways to improve the outcome of oncological (pre-)care along the continuum of prevention, diagnostics, treatment, nursing and care, and rehabilitation/post-care with a strong focus on 'survival with preservation of function'.

MCCC cooperates with all other partners of MUMC+ that are involved in oncologic care and scientific research, those being other research schools including: NUTRIM-School of Nutrition and Translational Research in Metabolism, CAPHRI-Care and Public Health Research Institute, and other schools, Maastricht Radiation Oncology), Kankeronderzoekfonds Limburg (Cancer Research Fund Limburg), and support facilities such as: Clinical Trial Center Maastricht (CTCM) and other partners. Here alignment of the strategy and oncologic research and clinical activities takes place.

Within OncoZON – Oncologisch Netwerk Zuidoost-Nederland (Oncologic Network Southeast Netherlands), MCCC cooperates with eight other regional hospitals and one radiation therapy institute in the south eastern part of the Netherlands. The purpose of OncoZON is to provide the best possible oncologic care for all patients of the region regardless of the hospital where patients enter. To this end, MCCC functions as an academic centre for the collaborating oncology clinics in the OncoZON region, with the participation of the research schools involved in the oncology research conducted by Maastricht University's Faculty of Health, Medicine and Life Sciences (FHML).

The transformation of the current OC into an CCC has implied the integration of all outpatient, clinical, educational, and scientific oncology activities. The CCC concept is based on the idea that all relevant competencies/skills, sources, capacities, and instruments regarding oncological care and scientific research have been brought together.

Achieving and keeping the Organisation of European Cancer Institutes' (OEI) accreditation as 'Comprehensive Cancer Centre' and maintaining a continuous 'plan-do-check-act' circle offers the opportunity and necessity to further elaborate and sharpen our substantive developments. This document sets out the general strategy for the further development of the MCCC in general and the related organisation of oncological care, scientific research, education and organisation in particular. Its aim is to describe as complete and clear a picture as possible of the final result to be achieved within the next five years. With that picture in mind, the path towards realising our ambitions is clearer and more concrete and helps to achieve right things, carried out in the right way.



OUR PURPOSE

Mission

“Providing the best possible oncological care and improving health in the region through the integration of patient care, scientific research and education.”

Vision

“We are an internationally recognised Comprehensive Cancer Centre in an integrated network and have achieved an excellent level in the area of survival with preservation of function.”

Core values

Leading the way in healthcare, scientific research and education

In addition to tertiary referral care and top clinical patient care, our core tasks are scientific research, education and training, and knowledge utilisation.

Driven in our pursuit of excellence

We distinguish ourselves nationally and internationally by focussing not only on restoring people to health but also on helping them stay healthy and improve their health.

Empathic in our relationships

We work together on our strategic focus of Healthy Living, based on four programme priorities that offer everyone the opportunity to contribute to our shared aims within their own context:

- Connecting research, education and healthcare;
- The future of our healthcare;
- Partner in networks;
- Organisational development.

Unifying for our environment

In cooperation with our network partners, we are uniquely equipped to deliver healthcare services from baseline to tertiary level and thus offer precisely the right care where it is needed, but also to investigate and implement new sustainable and affordable prevention and healthcare models.

At MCCC, care, education and training and scientific research are closely intertwined. The concept of a Comprehensive Cancer Centre is based on the idea that all relevant competencies/skills, sources, capacities and instruments regarding oncological care and scientific research are brought together. A Comprehensive Cancer Centre profiles itself in the areas of education, scientific research and oncological care.

MCCC brings together existing institutes in Maastricht: the OC and the Oncology division of GROW as a basis which has strong links with NUTRIM, CAPHRI and Maastricht. This is an important basis and infrastructure for the further development and integration of oncological care, scientific research and education, contributing to (inter)national profiling.

PATIENT CARE

At MUMC+, organisational development has been initiated with the aim of improving patient experiences (adding value) and the quality of care. To this end, new centres have been formed based on care pathways instead of medical departments aimed at promoting patient-oriented multidisciplinary cooperation and efficiency of care processes. The OC also integrally organises oncological care from the patient journey. As a result, care is now organised around our patients with their conditions, while medical departments facilitate the lines of care by providing the necessary medical staff and specialistic expertise within the lines of care.

Maastricht Radiation Oncology (Maastricht) is its own legal entity and works in close cooperation with MUMC+ for oncological care and scientific research. Some of the Maastricht staff members (the Radiotherapy Department) fall under MUMC+ and are part of the OC. These employees have been seconded from the Oncology Center to Maastricht. Radiotherapists are involved in all care pathways and participate in all multidisciplinary consultations. MUMC+ is partly owner and shareholder of the Zuid-Oost Nederland Protonen Therapie Centrum (Proton Therapy Centre Southeast Netherlands).



PATIENTS AND STAFF ARE OUR CORE

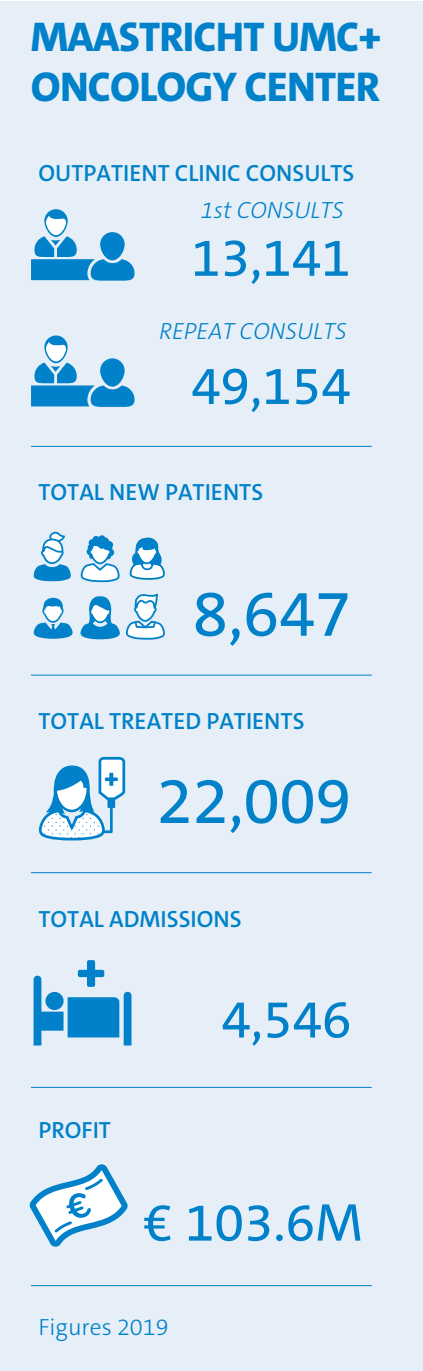
- We pay attention to each human being as a whole;
- We see the person behind the patient;
- Each patient plays an important role in their own treatment plan, considering the options, deciding the strategy and evaluating the progress;
- Each patient is treated with respect and empathy;
- Each member of staff is able to carry out their tasks in a safe working environment;
- Protocols are adhered to, however each healthcare professional retains a critical perspective and makes an active contribution to the culture of safety in the working environment.



EXCELLENT CARE

- Staff members work systematically, according to the principles of methodical action in order to provide an excellent level of care. Each staff member makes an active contribution to the optimisation of work processes;
- We work together, as one team. Excellent care can only be achieved by working together. In terms of both interdisciplinary and multidisciplinary care. Improving cooperation within one's own department and the rest of the organisation is everyone's responsibility.

FACTS & FIGURES



RESEARCH

The Schools' scientific research themes are directly linked to academic patient care. In doing so, the Schools work closely with the relevant centres and departments on the patient care side of the hospital. Clinical studies are carried out in close cooperation with Clinical Trial Center Maastricht (CTCM).

GROW-School for Oncology and Developmental Biology aims to prevent cancer, improve cancer diagnosis, increase survival rates, improve quality of life and maintain optimal functional abilities for cancer patients. Our researchers work in an environment where reliable and reproducible research is the gold standard, and where young researchers are being trained to become independent and critical professionals.

All clinical professors have affiliate positions with Maastricht University. As a result of these affiliations, they have full responsibility for patient care, for management and also for (clinical) scientific research and teaching activities.

We also collaborate closely with Affiliation Professors working in other non-academic hospitals in the OncoZON region. They are the linking pins between the MCCC and the non-academic partners in the region. Their scientific research is aligned with – and connects with – the MCCC research lines. This collaboration increases the inclusion of patients in clinical trials in the region, unlocks partners' expertise and contributes to the further academic participation of the whole network.

RESEARCH

MUMC+'s research is housed in research school and institutes. Each School/Institute covers its own field of research:

- GROW-School for Oncology and Developmental Biology;
- CAPHRI-Care and Public Health Research Institute;
- NUTRIM-School of Nutrition and translational research in metabolism;
- CARIM-School for Cardiovascular Diseases;
- MHeNs-School for Mental Health and Neuroscience;
- SHE-School of Health Professions Education;
- M4I-Maastricht MultiModal Molecular Imaging Institute;
- MERLN-Institute for Technology-Inspired Regenerative Medicine.

TRAINING AND EDUCATION

Maastricht University is internationally known for its **Problem-Based Learning** (PBE) approach to teaching. Within this tradition, MUMC+ trains professionals who think independently and adapt well to changing circumstances. Professionals who have lifelong learning and an integral view of health and healthcare.

The Faculty of Health, Medicine & Life Sciences has a varied range of programmes in Biomedical Sciences, Medicine and Health Sciences, which reflect the integral approach to healthcare from molecule to society. Visions and experiences from all over the world come together in small-scale 'international classrooms'. It is precisely "the differences that make the difference". The programmes are also internationally oriented.

Within the faculty, the Bachelor's and Master's programmes are organised within the Education Institute; the programmes for the medical specialisms and fellowship programmes are designed within the medical departments; PhD education is organised within the research schools and therefore also within GROW's Oncology division. Specialist nursing programmes for nurses in oncology take place within the Oncology Center and are provided by the **Maastricht Academy**.

LEARNING, RESEARCH TRAINING AND INNOVATION

- Employee development is necessary for providing excellent care now and in the future. Every member of staff takes responsibility of their own professional and personal development and is also willing to learn from their colleagues;
- We inspire our colleagues, and rightly, we also want to be inspired. We are open to new insights and techniques and eager to integrate them into our work processes.



LOCAL, REGIONAL EUREGIONAL AND INTERNATIONAL COLLABORATIONS

MCCC positions itself as a network organisation that works closely with its partners at local, regional and international levels.

LOCAL COLLABORATIONS

Locally, under the banner of 'Maastricht Oncology', MCCC collaborates with NUTRIM, CAPHRI and other research schools in Maastricht, Maastricht Radiation Oncology, Kankeronderzoekfonds Limburg (Limburg Cancer Research Fund), and utilises the supporting infrastructure of CTCM, MEMIC (Center for Data and Information Management), BioBank Maastricht, DataHub and Brightlands Health Campus Maastricht. The aim of Maastricht Oncology is to optimally inform and coordinate each partner's activities in order to work together in cancer prevention and care and scientific research aimed at greater vigour and effectiveness in Maastricht and the surrounding area. This collaboration is a form of internal oncological network medicine that is playing an increasingly prominent role in translational research, education and patient care. The focus is on good cooperation within this network in terms of care and scientific research. These collaborations are formalised and take place on a structural basis, with contractual agreements in place if necessary.

REGIONAL COLLABORATIONS

Regionally, oncological care is shaped within the oncological network OncoZON, in which MUMC+, Maastricht and eight regional hospitals cover a region which is home to approximately 2 million inhabitants. There are regional tumour working groups for all types of tumours where care content and organisational coordination take place.

OncoZON is the only oncology network in the Netherlands in which all partners' Boards of Directors have signed an overarching contract for the entire oncology. The contract contains a number of essential agreements:

- Work is carried out in regional tumour working groups for all types of tumours;
- All the institutions concerned participate in said tumour working groups;
- In the tumour working groups, joint treatment protocols are drawn up;
- These treatment protocols are binding on all local tumour working groups;
- In the regional tumour working groups, outcome measures are shared and discussed and best practices are drawn up;
- These best practices are implemented in all institutions;
- All partners participate in (patient-related) scientific research.

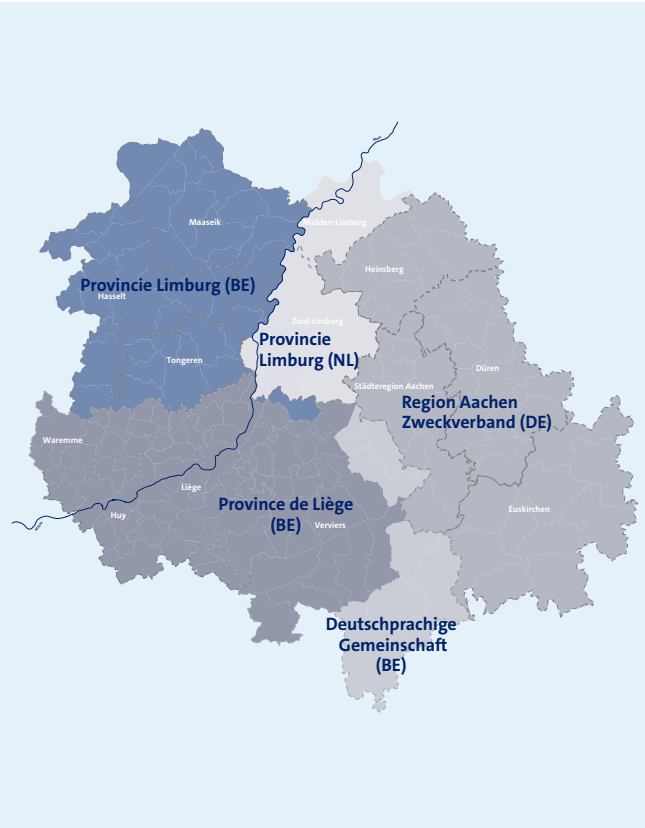
In this way, it can be ensured that all patients in the region, regardless of where a patient is admitted, are assured of the same quality of care. In 2019, all regional tumour working groups were set up and functional protocols were drawn up and outcome measures discussed. With these ground-breaking steps, OncoZON took a pioneering role in the Netherlands.

EUREGIONAL COLLABORATIONS – EUREGIO MEUSE-RHINE

Scientists and researchers from MCCC work in close collaboration with their peers across the **Euregio Meuse-Rhine**, especially with the universities of Liège, Aachen, and Hasselt. The Euregio Meuse-Rhine is border region covering more than 11,000km2 across the Netherlands, Belgium and Germany encompassing five regions and three languages and four million inhabitants.

Uniklinik RWTH Aachen

Within this collaboration the cooperation between MUMC+ and **Uniklinik RWTH Aachen** (University Hospital Aachen) occupies a special position. Both university clinics have been working together since 2004 in health-care provision, scientific research and education. Not only is expertise between staff exchanged, patients can be referred for specialised treatments between the two hospitals and also a number of specialists/departmental heads have been appointed to posts in both Maastricht and Aachen. This collaboration clearly demonstrates the opportunities and challenges of cross-border collaboration.



NATIONAL COLLABORATIONS

Maastricht UMC+ and Radboudumc

Ratified on 25 September 2018 the cooperation between Maastricht UMC+ and **Radboudumc** (Nijmegen University Medical Center) – the ‘Academische Alliantie’ (Academic Alliance) – set a solid foundation for healthcare innovation in the Southeast Netherlands. For oncology patients in the south and east of the Netherlands, the Academische Alliantie means that they can obtain highly specialised care in their own region. For some treatments, this means a reduction in waiting times. For the healthcare sector as a whole, this means greater cost efficiency through better deployability of expensive infrastructure and equipment. Both university medical centres work in many networks with other hospitals, institutions and healthcare providers.

MUMC+ has numerous collaborations in the field of care and especially scientific research with other centres in the Netherlands, not all of which are listed here.

INTERNATIONAL COLLABORATIONS

MCCC clinicians and researchers collaborate individually with colleagues worldwide.

Since 2005, **The European Fine Art Fair** (TEFAF) supports cancer research by appointing a personal chair in the field of Oncology in the Faculty of Health, Medicine and Life Sciences at Maastricht University. The visiting (international) professor organises workshops and lectures and initiates collaborations with MCCC researchers. The TEFAF fellowship, initiated in 2019, enables young researchers to perform a research fellowship in the laboratory of the TEFAF chair thereby stimulating long-term collaborations between GROW researchers and TEFAF chairs.

GROW is a full member of the **Cancer Prevention Europe** (CPE) consortium, a consortium of organisations across Europe aiming to reduce morbidity and mortality from cancer in European populations through prevention and earlier diagnosis of the disease.



COLLABORATION WITH UNIKLINIK AACHEN

The collaboration has five main goals:

- Achieve critical mass in patient care and research;
- Attract more patients, scientists, physicians and industrial partners;
- Consolidate clinical and scientific focus areas;
- Lead the way in networks within the Euregio Meuse-Rhine; and
- Garner international exposure.

From an academic perspective, through this collaboration a wider range of academic care through cooperation is achieved for example: HPB surgery/liver transplants and joint departments within (paediatric) surgery. The same is the case for nuclear medicine and joint research projects in various other fields such as rare diseases and oncology which are conducted within EU and Interreg programmes. Over the last five years, an average of more than 150 joint publications per year have been published and joint training initiatives such as hepatobiliary and vascular surgery have been conducted which are recognised in both countries.

Departmental management	<ul style="list-style-type: none">• Surgery• Nuclear medicine• Vascular surgery
Centres of expertise	<ul style="list-style-type: none">• HPB Centre• Paediatric surgery• Paediatric cardiology / heart surgery• European Vascular Centre / Venous Centre
Collaborative portfolio	<ul style="list-style-type: none">• Rare diseases• Telemonitoring KNF• Member of Aachen Trauma Network• Knowledge exchange, research collaborations
Projects	<ul style="list-style-type: none">• Oncology (Interreg)• Data exchange (EU Horizon 2020, NICTIZ)• Heart failure e-Health (Interreg)

HOW WE WORK TOGETHER

MCCC's organisation and clinical protocols are focussed on patient orientation, multidisciplinary, optimal cooperation between different professional groups (doctors, nurses, paramedics), continuous learning and maximum patient involvement.

Therefore, our clinical care is no longer organised around medical disciplines, but rather around patient pathways in which the patient's condition and their treatment are central. For all types of tumours, there are multidisciplinary tumour working groups in which not only the medical specialisms involved contribute to the treatment of the patient, but also paramedics and (specialised) nurses. The patient is assessed in a multidisciplinary manner at the time of intake, then undergoes the diagnostic procedure and is discussed in a multidisciplinary tumour board, resulting in treatment recommendations on behalf of the tumour board. The working method within our tumour teams is characterised by the equality of all partners (doctors, nurses, paramedics) involved. Treatment is preferably multidisciplinary if applicable.

Discussions within and advice from the multidisciplinary team are aimed at taking maximum account of the patient's state of health and personal preferences. Subsequently, the treatment options are discussed with the patient together with a specialised nurse/case manager and shared decision making takes place, whereby the patient is in control regarding their choice of treatment.

In addition to the patient's control over their own treatment, patient participation is guaranteed at all levels in the MCCC. Depending on the governing body and the subject, all levels of patient involvement are achieved, from being informed to being facilitated by the doctor. At the Board of Directors level of the hospital, the client council has an advisory role laid down by law, whereby, depending on the subject, the consent of the client council is required for decisions by the Board of Directors. MCCC is supported by a patient panel, which can give solicited and unsolicited advice to the management of the centre. The chairperson and a second member of the panel are full members of the local oncology committee, which prepares clinical policy. Patient representatives in all tumour lines are present in an advisory capacity at the quarterly policy meetings. MCCC-wide strategic meetings take place in the presence of members of the patient panel. This applies to both clinical and scientific meetings.

For us, cooperation goes much further than just in-house collaboration. To this end, we have set up OncoZON, the regional oncology network for the south-east of the Netherlands. Regional tumour working groups have been set up for all types of tumours, in which uniform treatment protocols are drawn up, regional care pathways established and best practices shared. Equivalence and learning from each other are principles of our cooperation with others. In addition to working groups for the different tumour types paramedical and nursing tumour type transcendent working groups are in place as well.

Clinicians in the tumour working groups often have a part-affiliation with GROW – School for Oncology and Developmental Biology, are members of GROW's research lines and some are members of the GROW Management Team. This means that clinical activities and scientific research are already linked at the individual level. Within the research lines, clinicians and researchers work closely together, questions are discussed from various perspectives, projects are being developed and mutual inspiration takes place.

The **circles of innovation** developed at Maastricht UMC+ make this link between research and clinic visible. In the upper right quadrant, we show how we acquire new basic knowledge; in the lower right quadrant, how we translate this knowledge into the clinic (translation); in the lower left quadrant, how this knowledge is implemented in the clinic; and in the upper left quadrant, how this contributes to improving health in the region or to a product that can be put on the market (knowledge utilisation). Drawing up a circle of innovation makes researchers and clinicians even more aware of how their activities are connected and dependent on each other.

In recent years we increased the incorporation of nursing and paramedical research in our (oncologic) research school(s). Examples are our 'Better In – Better Out' and 'high in protein nutrition' research programme in our oncology nursing wards. With the establishment of an own nursing department in our organisation in 2021 it is intended to extend nursing research and to implement an own nursing research line.

To further improve the connection between clinicians (doctors and nurses) and scientists and also to make our scientific research as patient-centred as possible, a number of conferences were organised during the preparatory phase of the establishment of MCCC, at which the wishes and needs of the patient were central. Patients from various tumour lines, together with researchers and clinicians, set out to determine what the added value of our research is and should be. This led to a focus on 'survival with preservation of function'. The ultimate goal is that, irrespective of the treatment they have to undergo, patients can be confident that, after their treatment, they will remain the same person they were before their treatment, as far as possible and in all respects. According to the new definition of health, this concerns not only bodily functions but also mental well-being, daily functioning, social participation, meaning and quality of life.

We continuously invite our clinicians and researchers to visualize their scientific results in circles of innovation. The more than 40 **circles of innovation** at MCCC show how we contribute to 'survival with preservation of function' from primary to tertiary prevention and from diagnostics to aftercare.

We believe that fruitful cooperation is not only based on rationality through shared questions and projects, but especially on emotional attachment. That is why we started the programme 'Kijken door de bril van een ander' (gain perspective from someone else's point of view). In this programme, (basic) scientists visit clinicians during their clinical activities and clinicians visit scientists in their laboratories. The effect is emotional commitment, understanding each other's activities, understanding clinical needs, and a focus on improving the lives of our patients.



This programme will be launched for our PhD students, in doing so we want to strengthen the orientation towards the clinical relevance of their research. For decades, the basic medical training programme at Maastricht University has been a leader in the field of problem-based learning. The teacher is more of a mentor and facilitator than a classical teacher. The student acts as an active learner and problem solver. All medical and scientific staff involved in basic training are trained and certified for this style of teaching. The attitude of lifelong learning is a basic principle of our work.

MCCC researchers, clinicians and students regularly meet during research meetings and symposia, the GROW Annual Science Day and TEFAF chair events to collaborate, discuss science and to visualise the collaborations in circles of innovation.



THEMES & AMBITIONS

The four themes defined in this vision document are firmly anchored in our mission, vision, daily clinical care and research questions that are being addressed. By 2025 they will also maintain a prominent position in all communications: website, vision and strategy documents, (scientific) presentations of employees of the MCCC, publications and will feature in communications via social media channels and professional networks. Furthermore, the themes will be incorporated in our teaching activities.

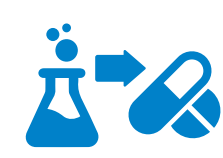
The themes also provide our framework of ambitions that have been formulated to guide our progress over the next five years and into the future beyond. The overview given below is not an exhaustive list but will be renewed and extended in due course.



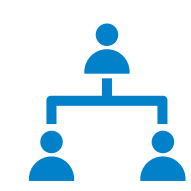
BEST POSSIBLE CARE



SURVIVAL WITH PRESERVATION OF FUNCTION



TRANSLATIONAL RESEARCH



NETWORK FUNCTION



BEST POSSIBLE CARE

The MCCC is faced with the major challenge of continuously improving oncological care and at the same time making it more sustainable, so that it remains affordable and accessible. Place, time and demand for care are changing: taking place close to home if possible, in the hospital if necessary. Improving the patient experience and the outcomes of care are central.

We design our care pathways together with the patient and from their perspective. We take responsibility for the entire chain, from home and back home. Working on person-centred care, patient participation and a service model with more attention and time for the patient. We pay attention to lifestyle, nutrition and exercise and determine the treatment advice interdisciplinary and in consultation with the patient. We apply new technological developments and scientific insights. Continuous cooperation between physicians and (basic) researchers enables us to translate new knowledge into clinical practice and to offer innovative (treatment) concepts.

Utilising opportunities for digital innovation, we implement initiatives such as e-coaches for measurement and monitoring, dashboards and good information provision for the patient and care partners throughout the chain. Together with our partners, we opt for good data registration and the use and sharing of relevant data. At the same time, we aim to reduce the burden of registration.

Organising our care with proven concepts and care innovation, we use continuous improvement programmes and projects in the field of quality, safety, value-based health care and operational excellence. The aim is to strengthen the improvement culture and the continuity of the quality and safety of care.

In addition, we are looking for more sustainable models for the continuity of care, making use of task reallocation and job differentiation. Sharing expertise helps us to provide optimal care and an excellent patient experience. In addition, we encourage care to be provided outside the hospital whenever possible.

AMBITIONS

Patient orientation becomes standard practice

- Patient participation in all oncological tumour lines, MCCC advisory board, and oncology commission (2023).
- Establishment of a chain of care 'from home, back home (Head & Neck tumour line until 2023, then roll out to at least one tumour line per year)
- Constant consumer satisfaction of at least 8.0, measured by PREMs and included in the MCCC dashboard (2022)
- Establishment of a Survivorship Programme (announced in 2020) with the aim to start an integral and coordinated programme in 2022
- Implementation of lifestyle programmes for citizens, patients, and staff (stop smoking programme for staff fully implemented in 2021, participation of MCCC in regional preventive CAPHRI programmes (see ambitions 'preservation of function').

Pioneer in innovative care

- Expansion of care models in which oncological care is provided at home (injections at home realised in 2021, infusion therapies at home pilot in 2022, if successful implementation in the following years).
- Improving the overall condition of our patients by expanding innovative nutrition- and movement concepts in our clinical care (e.g. pilot nutritional concept for nursing department completed in 2021, if successful roll out to all oncology nursing departments until 2025, results of pilot 'Better in -Better out' known and published until 2022, if successful start follow-up programme in 2023).
- Participation of MCCC in NUTRIM movement and nutrition programmes.

Continuous organisational development

- Task reallocation and job differentiation (strategic personnel planning completed in 2021, three-yearly update).
- Completion of PDCA cycle training programme oncology nurses (2022).
- OECI accreditation (2021).
- Implementation of dashboards to monitor quality of care (from 2021).



SURVIVAL WITH PRESERVATION OF FUNCTION

Our focus is preservation of health for the community and restoration of health for patients with cancer. We look beyond survival, but aim to achieve preservation and/or restoring of all functions determining health, being bodily functions, mental well-being, daily functioning, social participation, meaning, and quality of life.

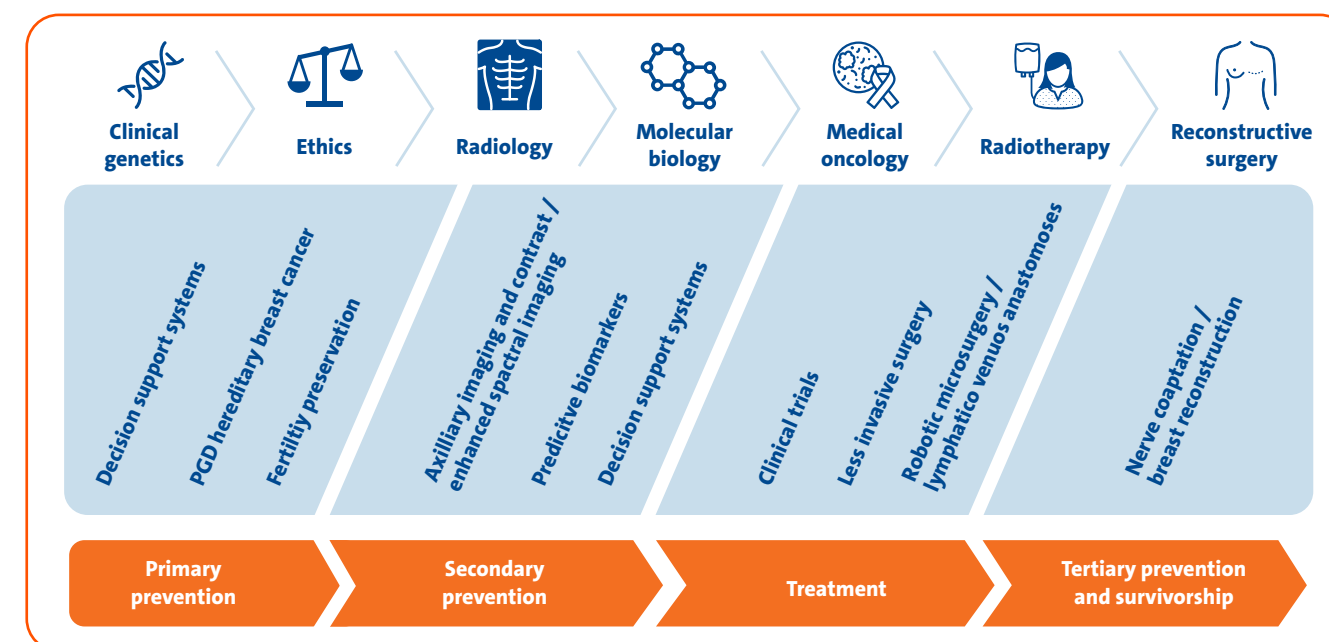
Clinical care and research performed by MCCC medical specialists and scientists addresses all the aspects of survival with preservation of function covering the complete spectrum of cancer management, from prevention (the ultimate preservation of function) to aftercare. Most of our research is directly or indirectly linked to survival with preservation of function and translation from new (basal) scientific knowledge to clinical care contributes to a better daily functioning of our patients. Our circles of innovation illustrate this focus and link between clinicians and (basic) researchers.

One representative example of such a research line is our breast cancer research line. The spectrum of research and clinical care reaches from developing prenatal genetic diagnostic tests for BRCA affected families in order to enable selection of BRCA wildtype embryos for IVF transfer, to the development of new surgical nerve coaptation techniques for sensible restoration in breast reconstructions.

AMBITIONS

Expand position and output in patient care and scientific research

- Survival with preservation of function has a prominent position in patient care (role of medical and nursing staff and other healthcare professionals, treatment of and communication with patients, shared decision making). (Training of staff during starting conference (2022) and teaching activities (2023, 2024), evaluation in 2025).
- Survival with preservation of function has a prominent position in research: from cancer prevention by studying the role of genotype, environment and lifestyle and improving management of the disease by development of better cancer diagnostics and treatments with less side effects to developing post treatment modalities that will preserve function and quality life of cancer survivors.
- Establishment of a Survivorship Programme (announced in 2020) with the aim to define an integral and coordinated programme in 2022.
- Strengthen the cooperation with CAPHRI to improve our impact on primary prevention of cancer in our region (inventarisation of ongoing projects in 2021, analysis which programmes can be implemented in MCCC (2022), start implementation (2023).
- Strengthen the cooperation with NUTRIM to improve the use of our knowledge in the field of (tumour) metabolism for oncologic research and increase the impact on patient care (inventarisation of ongoing projects in 2021, analysis of which programmes can be implemented in MCCC (2022), start implementation (2023).





TRANSLATIONAL RESEARCH

The translational research performed in the MCCC applies fundamental biological and technical knowledge into novel prevention, diagnostic and treatment solutions that address critical medical needs. We aim to implement these solutions in clinical practice and society as soon as possible.

For example, GROW Oncology research has resulted in dietary advice for cancer prevention, lifestyle recommendations for cancer patients and survivors, tailored rehabilitation and clinical guidelines, shared-decision making tool for multiple cancer types, advanced diagnostic imaging approaches, biomarkers and innovative surgical procedures.

As discussed in the previous section, this translational research is being visualised in the circles of innovation.

AMBITIONS

Innovation of care

- Stable increased percentage of academic patients from 51% in 2020 to 55% by 2025.
- Increased yearly inclusion of patients in clinical trials by 1%.

Increase position in patient care and scientific research

- Contribute to prevention and clinical guidelines.
- Actively stimulate the filing of patents and starting of spin-off companies.
- Actively stimulate funding from industry and public-private consortia.

Continuously improve conditions for translational research

- Provide a scientific environment where young researchers are being trained to understand the needs of the cancer patients and the treating physicians.
- Continuously offer courses and provide support for translation and knowledge utilisation.



NETWORK FUNCTION

As an academic cancer centre our catchment area extends from South Limburg to South-East Brabant (with a population of approximately 2 million inhabitants). It is our responsibility to contribute to the aim to offer every oncological patient in the region the best possible oncological care and to improve health and innovate healthcare in the region.

To fulfil this ambition, we cooperate with all other hospitals in the region. We are the initiator of and academic partner in OncoZON, the regional oncological network. The goal is that every patient can count on receiving the right care, in the right place, by the right professional and at the right time. In scientific research we work together with affiliation professors who work in our partner hospitals but also have an appointment as professor at MCCC. Their research is matched to the vision and strategy of MCCC and connects us with our partners. They reinforce our research with their knowledge, give us access to larger and different patient collectives, contribute to the innovation in the region, and increase the number of patients included in studies.

Other networks help us to combine forces, to give us access to more and better facilities, to realise strategic goals, and to learn from each other. Locally we work together with other research schools and (research) facilities, in the Netherlands with other university medical centres (with Radboud UMC Nijmegen as a strategic partner) and within the Euregio Meuse-Rhine with another three university medical centres, Uniklinik RWTH Aachen being the most important one).

AMBITIONS

Operationalise Maastricht Oncology network

- Consultation structure Maastricht Oncology implemented in 2021.
- Common vision and strategy of all partners within Maastricht Oncology established (2023).

Strengthen OncoZON Network

- Contract of OncoZON signed by all partners in 2021.
- Survival with preservation of function adopted by OncoZON (2023).
- All partners of OncoZON meet national volume- and quality criteria, centralization of care when required. (ongoing)
- Preparation of OncoZON network OEI accreditation.
- Strong interaction with affiliation professors in the OncoZON network.

Sustain collaboration with Radboud UMC Nijmegen and Universitätsklinikum Aachen

- Continue existing cooperation.
- Increase number of shared projects and studies.



A photograph of two professionals in an office setting. On the left, a man with grey hair, wearing a dark blue suit jacket over a light blue shirt, is seated at a white desk and smiling towards a woman. On the right, a woman with dark curly hair, wearing a white long-sleeved shirt, is standing and pointing at a laptop screen. The laptop is a silver Apple MacBook. In the background, there is a white cabinet with a row of colorful books on top and a small vase with dried flowers. The overall atmosphere is professional and collaborative.

Prof. dr. Manon van Engeland & Prof. dr. Bernd Kremer

When asked about how the concept for Maastricht UMC+ Oncology Center and GROW to collaborate and form Maastricht Comprehensive Cancer Center, co-founder Professor Bernd Kremer proudly holds up a framed memento of the moment on 1 July 2016 where his vision, along with former GROW director Frans Ramaekers, was born.

Bernd: "It all started because of our strong wish to bring oncologic care together with research, to the next level. We worked together regularly but we were not used to forming a common team. We brought scientists and researchers together through the "Kijken door de bril van een ander" programme (gain perspective from someone else's point of view). We wanted to meet each other on an emotional level, not only on an actionable one. This was an important start. People are essential to achieving this kind of collaboration. When Manon and I work together in a positive way, we provide a solid example to all our staff, and that has played a crucial role in all our activities.



Manon: In GROW there has always been a very strong connection to the clinical side. From the moment Bernd started working with Frans there were discussions on how to intensify this collaboration and how to make it more official. From there the main discussion was about the focus. How could we align that within the research school and Maastricht Oncology? Bernd and Frans already made a beautiful start, a very brave start – by posing a question to all clinicians and researchers involved, this is what we suggest: “survival with preservation of function”. We had some meetings to discuss the topic, and it was heavily debated. Initially it was met with some scepticism. The discussions we had were incredibly useful and from there we started working together and that is when Bernd suggested to apply for the OECl accreditation.

The construction of a complex organisational structure such as the Maastricht Comprehensive Cancer Center requires inspiration so when Bernd and Manon were defining the identity of the centre they utilised a number of different tactics.

Bernd: When we were searching for the best way to structure our organisation we looked to OECl. We were used to functioning as a part of the hospital. The challenge was to become our own centre with our own board of directors, our own budget, outpatient departments, inpatient departments – that isn’t what we had before.

Manon: I think that brought us a lot. It showed us where we had to work on but from the scientific perspective it also brought awareness that we have to consider all the oncology research and care that is being provided in Maastricht, and not only the part that is in GROW, not only the part that is in Maastricht Oncology, but all partners that are working on oncology. I think that has been a major change the way that we look at this topic.

Bernd: It was the concept of discovering your own identity. That is what we were doing. We were able to give it an identity: survival with preservation of function. We know that we have a strong focus on translation of scientific knowledge, though we had to discover what is different in our centre compared to other centres in the Netherlands. What is our additional value? That has been a strong development in the last few years for me.

Manon: Especially because it made us sit down and think: What are we doing? What are our strong points? Where can we make the difference for patients? We have been doing it all along, but now we are seeing it again from a different angle. For me it has been a game-changing experience.

A Comprehensive Cancer Centre aims to deliver a more comprehensive approach to traditional cancer treatment methods. In the Netherlands a more modern, patient-oriented focus has been the norm for decades, however the team at Maastricht Comprehensive Cancer Center aim to improve even further on successful Dutch protocols and continues to innovate.

Bernd: For me the most important difference between other Comprehensive Cancer Centres and Maastricht Comprehensive Cancer Center is the focus on innovation. On translation of research. It’s not enough to deliver the best possible care. We are responsible for improving care. That is our task as an academic centre. A task for the whole community, not only for our institute.



We rely on our researchers to be able to improve. If you look at it the other way around, researchers need to deliver knowledge which improves reality. It is not enough to do something in the lab which is not translated to patient care.

Manon: We also feel propelled to talk to other institutes and use their expertise. For example in prevention. Prevention is the very first thing that you can do to help the community. To try to make sure that we actually manage the burden of this disease. If there are other institutes that have the expertise on that I think that it is our job to work with them, to implement those collaborations in the MCCC.

The focus on survival with preservation of function sets MCCC apart from other Comprehensive Cancer Centres because it is applied in the broadest sense. It can differ from one patient to another, not every patient's concept of 'survival' is the same, nor is their concept of 'function'.

Manon: We prioritise asking the patient: What is important for you? What is 'survival with preservation of function' to you? Over the last couple of years it has become more important. It is not the doctors themselves who determine what treatment a patient will receive, it's the discussion with the patient that determines treatment.

Bernd: Why do we focus on survival with preservation of function? Because we have learned to listen to our patients. That's it. Also because our staff have a very strong desire to have that focus. When we took a step back and reviewed our processes, we discovered that our people are doing just that. It's the nature of our people.

Manon has personally witnessed that when clinicians and scientists focus together on survival with preservation of function, and clinicians actually provide their needs to the scientists, the best research is conducted and the best results can be achieved for the patients.

Manon: "For example, I have been working with clinicians wondering whether we could come up with biomarkers that could complement or even replace an invasive sentinel lymph node procedure. This was a question from clinicians, and that is what we started working on in the pathology labs. This is just one example that has occurred in MCCC.

Bernd: We have a lot of people being both clinicians and researchers. The same person is carrying out both functions.

Manon: These people are the linking pins between the clinical questions that need to be answered and in turn need to be asked to the scientists.

Another characteristic of the Maastricht Comprehensive Cancer Center that sets it apart from other Comprehensive Cancer Centres is their network. There's no other Comprehensive Cancer Centre with a network like the OncoZon network anywhere else in the world.

Bernd: Through OncoZon we are offering our knowledge to our partners. We have regional working groups for all types of cancers, and we are developing protocols for treatment of patients. We deliver our knowledge to our



partners and treatment in the region is therefore standardised. Independent of where patients start their treatment, they will get the same treatment because of our working groups and protocols. We distribute our knowledge and that is very important for us.

Manon: And vice-versa. The affiliation professors which are now in very close contact with researchers, they also collaborate because they have their own expertise they have their own research, that is being combined now as well.

Bernd: And they have patient cohorts. So many more patients are included in studies because of our connections with partners in the region. Large numbers of patients are required to obtain valid results and to carry out a high standard of research so we are able to attract many more patients for studies. We are trying to reach the Euregio Meuse-Rhine, it is much more difficult because of the legislation, difference in culture, differences in politics so it gets quite complicated. We work together with Aachen and with Liège but the collaboration is not so intensive, it is more difficult to make large steps.

As much as the field of oncology and the treatment of cancer is rapidly changing on its own, the recent developments due to the global corona pandemic have seen a shift in perspective that only supports the necessity for oncology centres to collaborate with research institutes such as is the case with Maastricht Comprehensive Cancer Center.

Manon: In the last twenty years in the field of research, the focus and large amounts of funding has gone to novel treatments. Finally, also thanks to COVID, there is more and more attention for lifestyle, for prevention. There is a lot to gain in that area – it was not very "sexy" to study because there was no money to be made. That is the "prevention paradox". We now see, thanks to COVID, that lifestyle and prevention is becoming more appreciated. This is crucial because the expectations for cancer diagnoses for the next twenty years are dramatic. We can't just treat cancer away. So finally prevention and lifestyle is getting the attention that it deserves.

Bernd: Air pollution. Lifestyle. Smoking. Aging. The risk of getting cancer increases dramatically as we age. In my own career I have seen more elderly patients with multi-morbidity – patients with not only cancer but also cardio-vascular diseases, pulmonary diseases. So the overall condition of our patients is worse than years ago, because a lot of patients that we are seeing are older.

Manon: This is exactly why we need to collaborate with a research institute like CAPHRI, to use their expertise on prevention and help people stop smoking.

With prevention playing a larger role in the overall management of cancer, Maastricht Comprehensive Cancer Center is poised to engage their partner's expertise to ensure they contribute to cancer prevention.

Bernd: We play a crucial role in cancer prevention by delivering knowledge of other institutes. In our case it is CAPHRI and NUTRIM.

Manon: GROW also has their own research programme, it is called "prevention". We have toxicologists and epidemiologists working together to identify novel risk factors and implement that as soon as possible.



A lot of discussion is centred around research, conducting research that will have impact, funding the right research, progressing it to clinical trials or conducting follow-up studies, however once the lengthy research process is completed, the critical part is to communicate it to the people that need to hear it.

Manon: First of all you need to generate the scientific evidence. Once the scientific evidence is established it needs to be confirmed in other studies. Then that evidence needs to be reviewed by special committees. Then you need campaigns to make the public aware. Again you need the expertise of institutes like CAPHRI and NUTRIM to help people to adapt their lifestyle. This is process of years and years, maybe decades. We are trying to communicate this as clearly as possible, we want to find the experts to help us communicate that message, because that is a specialty of its own.

Bernd: That is the reason why we started to develop a new communications strategy for MCCC. It is one of the main focus points in our improvement plan for the coming years. It starts with the website, brochures, patient information via email, via social media. Our societal task has been under-represented in our activities, we are changing it but it is far from optimal.

Maastricht Comprehensive Cancer Center also has research aspirations of its own, with the intention to invest in the researchers of the future.

Bernd: We have identified a number of young talents. We want to give these team members more time to do research and carry out more innovative work.

Manon: This will be the next very important discussion within GROW. We have recently appointed new programme leaders and together with them we are going to decide where to invest our research allocated funding. We can do that in several directions. I think investing in smart, young, bright scientists will actually be the smartest thing to do because they not only attract funding, they will transform the life of patients.

For all the research programmes, organisational structure, communication strategy and administration that is involved, the crux of the Maastricht Comprehensive Cancer Center always comes down to “patient-oriented, multi-disciplinary care”.

Bernd: This is how we organise our care. The optimal case would be starting at home (GP), to hospital and then back home. Conducting check-ups not here in the hospital but in other locations. Patients being able to carry out diagnostics at home or in their own region, not only in our hospital. Involving patients in all steps that are made and creating a plan together with them. Having patients involved in the research we do, to ask patients what is relevant for you – that is patient oriented for me.

Manon: As a scientist, I would add, where possible open more clinical trials to patients for participation.

Bernd: By focussing on survival with preservation of function we are convinced that our focus is patient-oriented.



OUR PARTNERS

CAPHRI Care and Public Health Research Institute

“Improving the individual’s quality of life and improving general public health and healthcare from the common thread that runs through our research. We work together with and for the region. Our focus is on interventions throughout the care spectrum, from prevention and primary care to aftercare and rehabilitation. Our aim is to gain insight into the effectiveness of the various interventions, with their relevance to society being of prime importance. We take account of inequality, participation and globalisation.”

NUTRIM School of Nutrition and Translational Research in Metabolism

“We contribute to the full range of general and personalised promotion of human physical and mental health. This includes research on the underlying mechanisms of age, acute and chronic organ failure, lifestyle and other environmental factors and their influence on metabolism. We study the effectiveness of new diet and exercise interventions in test subjects in a controlled laboratory environment. In addition, we develop and evaluate metabolic interventions as an integral part of the treatment of chronic diseases and in the oncological treatment process. Our research is characterised by a translation approach in multidisciplinary terms.”

MAASTRO Maastricht Radiation Therapy Clinic

“Maastricht is a nationally and internationally renowned radiotherapy clinic that explicitly aims to link patient care, education and effective scientific research.

We want to offer patients a treatment aimed at maximising the chance of a cure – with as few side effects as possible. Our patients are central to this mission, as are their families, of course. Our starting point is that the patient remains in control. We do this in a socially responsible manner in cooperation with our partners in radiotherapy, with ground-breaking scientific research, training and education. We are committed to this, with passion for each patient and professional drive.”

CTCM Clinical Trial Center Maastricht

“The main goal of CTCM is to professionally facilitate research involving human subjects. We strive to gain valuable results in academic research, together with our partners. Our extensive services cover all aspects of supporting this kind of research. They meet all the highest quality standards and guidelines.

Our team consists of highly educated and motivated specialists, who deliver high quality service. In case your corporation, organization or investigators need support or assistance in conducting (mono / multi centre) research, we are your designated partner. Additionally, CTCM is a key player in research involving human subjects (within the MUMC+), as well as other parties. CTCM is a subsidiary company of the MUMC+.”





Prof. dr. Maurice Zeegers

“At CAPHRI we are not necessarily the clinicians, or the oncologists; we don’t invent a new drug therapy for cancer; however we do identify lifestyle or genetic factors that patients can utilise.” Professor Maurice Zeegers is Head of School at CAPHRI Care and Public Health Research Institute and believes that CAPHRI’s role as partner of Maastricht Comprehensive Cancer Center provides a crucial link between his institute and the clinic.

That link is research, which translates into knowledge, and that goes a long way to empowering a patient in their own treatment programme. Maurice sees CAPHRI’s role in the collaboration as two-fold: the research itself and the influence the research can have on a patient, giving the patient more control over their own prognosis.

“We want our knowledge to be used, to be translated. For example: when the doctor speaks to patients, they can talk about lifestyle interventions, such as stopping smoking. That our research is being used, that is important.”

CAPHRI researchers are specialised in shared decision making. This is also relevant when collaborating on patient treatment protocols and ensuring best possible care is achieved and the results are focussed on survival with preservation of function.

“There is this knowledge available in academic literature, how do you get that to the patient? You see that patients are getting more individualised treatment, more responsibility for their own health, so this whole theory about shared decision making, shared education, behaviour change that is also part of what we do.”

As a school for public health, CAPHRI is officially a care and public research institute. Their research is not necessarily always directly cancer-focussed, however the wider perspective that their research brings a complex disease such as cancer makes it make sense that an institute like this connects with Maastricht Oncology.

According to Maurice, partnership with the Maastricht Comprehensive Cancer Center will see an improvement of research, training and expertise for CAPHRI.

“That is one of the reasons we need an MCCC. I think that, although, there are some examples where we really see that ‘translation to clinic’ is not yet the case. I think that education is an example of that.”

Simply put: “We have a different toolbox.” The more that the Maastricht Comprehensive Cancer Center can make use of these diverse tools, the more effective the treatment plans, the better patient outcomes will be and the more essential research can be carried out – so the cycle improves on itself over and over again.



Prof. dr. Daisy Jonkers

The translation element is a strong point for Maurice, something that he sees providing added value not only to research but also society when collaborating within Maastricht Oncology.

“In CAPHRI we have tools that are not necessarily applied to oncology as yet. Health economics is an example, health report outcomes, behaviour change, we have that expertise, nursing is another example.”

A recent trend is where care, sometimes cure but mainly care, is moving back from the hospital into society and specialised treatment centres appear – that transition is something that is typically researched by CAPHRI. This is where CAPHRI is able to support MCCC’s aim to provide best possible care. Taking responsibility for the entire chain, ‘from home and back home’, working on person-centred care, patient participation and a service model with more attention and time for the patient.

“Seeing oncology research in the wider perspective”, that is what Maurice feels CAPHRI can bring to the table. Placing oncology in a wider perspective includes prevention. He asks: “What can we do so that people don’t go to the hospital?”

“Some of our research (e.g. stopping smoking) applies to oncology, however it equally applies to cardiovascular diseases, and the same with movement or sleep – so we are really about this healthy lifestyle, so I see CAPHRI as being across all these disease centres, we want to link both prevention and region to multiple diseases.”

Alongside prevention, region plays a major role. This means local geographical region in society. In nursing homes, GP’s – this connection with the hospital to its surrounding society is also the field in which CAPHRI operates.

“So now we see oncologists going into the neighbourhoods to provide care, that is where we operate, where we can help, where our expertise is.”

The change that Maastricht Comprehensive Cancer Center will bring? New ideas. These new ideas will be created due to the network function that will be cemented.

“Now of course researchers find each other, however once you have more of an organisation, it is likely that you get more connections and with more connections (especially within a common theme such as oncology) across different disciplines; new ideas will arise.”



NUTRIM is a graduate school for nutrition and translational research in metabolism, known for translational research looking into the role of nutrition and metabolism in chronic, metabolic and inflammatory disorders. More specifically prevalent disorders in which lifestyle factors play a key role in either in the development or the progression of the disorder – of which cancer is one. Scientific director of NUTRIM Professor Daisy Jonkers leads a team who believes that by combining basic human intervention studies, they will further understand the underlying mechanisms, identifying targeted therapies for people to either prevent these diseases or to impact their disease’s course.

What role does NUTRIM play in Maastricht Oncology? Daisy is of the opinion that nutrition and metabolism actually play a major role in cancer management.

“On the one hand nutrition is a quite well-known risk factor for the development of several cancers, but we also see that in cancer patients, especially if they are in a progressive state of their disease, loss of weight, loss of muscle function, and muscle mass (cachexia) is not only prevalent, it also has a large impact on the quality of life and daily function. It can also impact their response to therapy. Within NUTRIM, conducting research into the role of cachexia in cancer patients is one of the key points. It is very important to link the work that we do to the work of GROW for example.”

There is also another side to the impact of nutrition and metabolism on cancer and cancer patients. When talking about nutrition one can think about supporting it, optimising it, so that the immune system is functioning well, which in turn helps with cancer therapy.

“We are also focussed on prevalent chronic metabolic disorders. Patients of these disorders are at increased risk of developing cancer. Liver disease is one of the consequences of obesity, it is a progressive situation of inflammation of the liver, then it develops to cirrhosis of the liver, and ultimately you develop cancer. That’s not treatable. I think we can learn a lot from the cancer research and there are also a lot of opportunities to collaborate.”

Daisy is confident that NUTRIM’s involvement in Maastricht Comprehensive Cancer Center will benefit both parties:

“I think that it also will boost NUTRIM’s research, which will bring the interaction between metabolic diseases and cancer to a higher level. It will also offer new opportunities for collaboration in this field, either locally or nationally and internationally.”

“In general, we have to make more use of our strengths, combining them and really try to improve the preventative and expected outcomes for patients.”

Looking ahead to the future of the collaboration, Daisy is eager for her School to participate in potential shared training courses, to enable NUTRIM’s young researchers to expand on their skills through the “Kijken door de bril van een ander” programme and she is hopeful that there will be more opportunities for NUTRIM researchers to collaborate with GROW researchers.



“GROW is strong in oncology research – looking into the combination of the impact of nutrition and metabolism on cancer patient’s well-being on the one hand but also on the outcome and prevention. I think that this is a rather unique opportunity, that we clearly collaborate on that part, because I think that is not something you see so often worldwide.”

The unique traits that NUTRIM bring to the table is their detailed research on metabolism. The outcomes of which are threefold. “This will hopefully help to understand the potential deterioration of the patient’s condition and thereby can increase their well-being, as well as their response to therapy. Nutrition is not always the primary cause of the cancer but it has a lot of impact for the patient.

NUTRIM wants to understand what the risk factors are for cancer, and in knowing that lifestyle plays such a significant role, the institute is experienced in health promotion and setting up studies on how to stimulate people to have a healthy lifestyle.

The emphasis that Maastricht Comprehensive Cancer Center places on ‘survival with preservation of function’ rings true with the NUTRIM’s vision.

“It is good to stress that on the one hand we have prevention, to prevent cancer to develop, but I think that it would be also be helpful to set up more focussed programmes for people with cancer, or who are in remission to prevent the cancer coming back. Quite often people have dietary habits that aren’t easy to change, and if you are ill you quite often fall back into old habits, so about secondary prevention, I think it could be very relevant to set up education programmes help cancer survivors make better nutrition decisions to prevent remission.”

Daisy is aware that the structure of the Maastricht Comprehensive Cancer Center is crucial to its success:

“There will be a platform in place to even better support collaboration. I think we know that from each other, and we have the intention to collaborate, but I think this step will make things more concrete. Also because of this combined approach we can then also together partner in international research consultancy, which is a very important step I think.”





Prof. dr. Carmen Dirksen

CTCM-Clinical Trial Center Maastricht is an independent organisation, although affiliated with MUMC+ and provides support in human research. Not scientific support however, support regarding the compliance of human research. Professor Carmen Dirksen leads a team providing project-specific services whose objective is, together with the other partners, to provide support for the research objectives and ambitions of MCCC.

“We prepare the electronic data capture systems, we also provide monitoring, and a planning and control programme where we take a broad view on how the project is doing on all the compliance issues and the risks. Up front we also provide support to the researcher in the planning phase, before the study starts. We basically provide compliance support in the whole chain of research, starting from an idea, to the final part in a project (archiving the data).”

CTCM is still in a phase of connecting with the partners within Maastricht Comprehensive Cancer Center.

“For researchers it can be hard to know where they should be going for specific research support”

One of CTCM’s short term goals is to provide more broad communication regarding the research chain and all the partners and support organisations that are in that research chain.

“The researchers with lots of experience know where they have to go. I think a lot of information is already out there. However, it is not necessarily put in one place. Of course, we have the intranet and there’s a lot of support services there. Researchers don’t always know which support service they need to connect with for specific questions. Sometimes there is overlap in support activities.”

Carmen wants a broad understanding across CTCM of what each of the partners does and how we can be of benefit for each other. They have hospital-based support departments as well as faculty-based support departments. They both have a different history, and are now joined in MUMC+.

What MCCC wants is in line with the vision of CTCM, that they work together to create partnerships, and together and jointly provide the best support possible to researchers.

The collaboration between CTCM and Maastricht Oncology results in the improvement of not only compliance adherence but also compliance support.

“Our knowledge and expertise are mainly driven by laws and regulations, so that is what is pushing our people forward. We are constantly learning and keeping up with laws and regulations, in order to provide the best compliance support we can.”



“I think we will learn more about other areas within MUMC, but not with the aim to gain that expertise ourselves at the same level. Why would we do that? There is an internal partner that will do it better, because they already provide that support. I think we can learn from each other, and then also guide a researcher in the best direction, because we just know better what the other partner is doing, and what the other partner is not doing.”

Carmen sees the positive impact of the continued collaboration for society:

“Better research in all aspects will benefit society more. If better ideas can result in better research proposals with better earning power this will eventually bring better results that we can deliver to the patient.”

The act of bringing a more formal approach to years of general cooperation will only contribute to a uniquely positive atmosphere across the collaboration:

“CTCM is not alone, we have to work together on this. From what I have seen so far, through their positivity everyone is really trying to work together, we will try to make this a success. Who doesn't want to work together with positive people? People who are positive and try to engage with you as a person or engage with your organisation and people who see the benefits and added value of your organisation and they want to you engage in their plans, of course it is wonderful. I really see that we can make a step up to a higher level collaborating with each other within the broader MUMC+ but specifically also for MCCC.”

Further to the concept that this collaboration is just for oncology, Carmen sees the potential for this kind of cooperation in a broader sense across different disciplines:

“It may well be an exemplary case for other centres in which the collaboration between the hospital, the faculty, patient centre and the schools is solidified. Sometimes it is better to start a little bit small and have a specific example and then take it to a broader level. Instead of trying to solve all problems for the organisation at once.”



Prof. dr. Maria Jacobs

CEO of the Netherlands' only radiotherapy clinic to be recognised as a Top Specialist Institute by the Dutch government, and one of only three radiotherapy clinics in the Netherlands authorised to administer proton radiation therapy – Maria Jacobs is excited about the prospect of further collaborations with Maastricht Oncology and being a partner of the Maastricht Comprehensive Cancer Center.

“Maastricht is a ‘Focus Factory’. Every staff member is focussed on improving the radiation process.”

As much as Maria's team works day-in and day-out to ensure they are up to date on the latest research and developments on radiation, Maria is acutely aware that "cancer is a disease that must be treated with a multi-disciplinary approach". This is why Maastrro positions itself to collaborate closely with other oncology disciplines, and why Maastrro's participation in Maastricht Comprehensive Cancer Center is so important.

"We believe we have a leading position in cancer treatment in the region, however we can't do that without MCCC. We need each other. MCCC needs us because if radiation therapy is not part of the treatment plan they do not have the complete treatment portfolio – we need them because patients need to involve all perspectives in their treatment. Maastrro provides a radiation focussed function that forms part of the total 'helicopter view'."

It is this 'helicopter view' that Maria feels is crucial to the potential success of the MCCC partnership, and therefore the potential improvement of patient outcomes. Maastrro already has a solid collaboration with MCCC on a patient/clinic level and on a management level, Maria feels that establishing a collaboration that works with more of a helicopter view with the aim to stimulate the integration of research, patient care, training and education the MCCC collective will achieve even better results.

"There are a lot of individual initiatives, if we collaborate on a 'helicopter level' we can inform each other and we can enhance those initiatives, connect those initiatives and also see where we have to find things that are not yet done, to set goals and targets for the future."

Maastrro has a reputation for being across the latest literature and latest developments. It is a Maastrro tradition to be totally up-to-date, as such their staff are welcomed at other institutes, research and medical centres for this precise reason. "It is in the genes of the organisation to be across all literature, research and the latest developments. The majority of people working at Maastrro have ambition to conduct high level research," and have specifically come to Maastricht, come to Maastrro to do so.



It is proven that continually researching new possibilities improves the outcome for the patient. The challenge is to facilitate that research being implemented. A great deal of research does not progress to clinical practice, nor does it receive follow-up studies. Maastrro's track record for improving the figures on research continuation is something she feels is of added value to the MCCC collaboration and therefore also of added value to society.

"We can help each other in implementing the results of the research, in the clinical practice, so patients will actually benefit from that research. We can figure out together: what are the barriers? How can we reduce barriers? Researchers are grant-driven, and sometimes that isn't what is being addressed in the clinic. Researchers have to write documents that can't be transferred to clinical practice, however it is essential to talk to each other, understand each other and select the grant possibilities that are better matched to clinical needs."

Maria feels the aims and vision of the MCCC and Maastrro are 100% aligned.

"We have the same mission. We both want to improve patient outcomes, and we both want to be an international leader in our fields."

The word that Maria uses to describe the future with Maastrro as a partner of MCCC is 'synergy'.

"I think more synergy will take place. That is the key. We have already good relationships with UM and MUMC+, if we can collaborate further there will be more synergy to find the best ways to improve treatments. At present individual doctors meet other individual doctors and they discuss initiatives and something wonderful happens, but with MCCC this can happen on a larger scale, and more often."





Henryk Starosciak

Henryk was diagnosed in 2013 with a tumour in his colon. His partner at the time had personal experience with the symptoms he was showing and encouraged him to visit his GP in Maastricht.

His GP immediately referred him to the Oncology Center at MUMC+. In the first week he faced a battery of tests, and then had an extensive meeting with the doctor where he informed that he not only had cancer of the colon, he also had some spots on his lungs. Initially it seemed that treatment was not an option, in that case he was given six months to a year to live. Fortunately for Henryk it transpired that the colon cancer and the spots on his lungs were not related.

“This radically changed my point of view towards cancer and towards treatment. From that point I started to fully engage myself in my treatment, I felt that I only had one chance to get this right, so I had to take it. I started the chemo radiation treatment which lasted for eight weeks. After that I was booked in for surgery.”

After the first round of chemo radiation the surgeon told him they were so pleased with the results that they wanted to postpone the surgery and monitor the progression of the chemo radiation treatment. A study was being conducted at MUMC+ Oncology Center and he was fortunate enough to be considered to take part. They felt that under the guidance of the study they could take the chance not to operate because the tumour had shrunk to the point that there was little to no risk anymore.

“For me it turned out to be a good decision because my quality of life is much better now, compared to what it could have been. If I would have had surgery, I might have had to have a colostomy bag. I was 52 in 2013, which is too young to face the future with a colostomy bag.”

Henryk started his patient journey at the diagnosis stage, he felt was not privy to information that could have prevented his type of cancer.

“You can’t always pinpoint the cause of cancer. You can change some of your behaviours / habits to try and positively influence the situation, however in some cases you can’t say exactly what you need to do or not do to prevent cancer.”

After the treatment stage of his patient journey Henryk faced a lack of advice and information on rehabilitation and maintenance.

“As I went through the process I progressed fairly well. I was able to keep on playing tennis, I went on a few trips that year which was beneficial, it helped me a lot. At the end, the MUMC+ Oncology Center said “We are finished with your treatment, we wish you well” and that was it. I felt that I had made it through this process and now I would like to have some sort of rehabilitation to get in shape again.”



For Henryk and many other patients, it's not only a physical process, it is also a mental one. He felt I needed to recover fully and asked for help. He was eventually put in touch with some physiotherapists, and they in turn suggested a mindfulness course.

“I think after you have had cancer, you have to check all your boxes again, and see where you are standing. That is the problem that a lot of patients have, that they are treated, and then they always remain a patient. They hope that they get better, but they are still weak, they are still feeble. It is very important that programmes such as these are positioned more prominently for the patients who are finished their medical treatment, so they get more time to recover emotionally and mentally from their disease.”

This point is crucial to the ongoing needs of the healthcare system as the pressure on the system can only be reduced if patients stop being patients and they can start being treated as people again.

“You can see the physical process one goes through, you can feel it every day, and you can do something about it. The mental part is a very important one. It shouldn't mean that if you have cancer that you have to be a patient all your life. Of course there are patients who have cancer and must continue treatment, but they also have to learn how to live with this, physically, mentally and emotionally.”

Henryk believes that there are many benefits of a combined and collaborative approach to cancer in our society such as what is offered by the Maastricht Comprehensive Cancer Center.

“The main thing is that the MCCC is focussing on survivorship with preservation of function, because cancer is becoming less of a fatal disease and more a chronic one. The things they are combining right now are important, such as GROW's ambition to speed up the process between research results to clinical trials. That way you can have a pin-pointed treatment for your cancer that is more accurate and will deliver better results.”

Being also of the opinion that there are far reaching benefits for cancer research and treatment development, Henryk believes that the collaboration between GROW and Maastricht UMC+ Oncology Center will help the effectiveness of the studies.

“The Oncology Center can help GROW to choose between studies. It doesn't make any sense to have a study that is not followed-up. They put in a lot of work, with great research results, but when nothing is done with it, the research is ineffective. We want a system which enables research to be carried out where it gets followed-up and utilised in treatment programmes.”



When asked if he feels fortunate to have been treated and advised by OC & GROW his answer is a resounding “yes”.

“Firstly I noticed that I was able to communicate with the medical team on a co-decision level. They were very open and provided me with information about my diagnosis and treatment. The discussions I had with the doctors and nursing staff made it possible for me to have a say in my treatment. I stayed in contact with the surgeon after my treatment because I had to decide how to carry on with my life, how to carry on with my career.”

This was only possible because the Maastricht UMC+ Oncology Center made it so. In my situation there was very little distance between patient and doctor. Other people may have different experiences, but MCCC is trying very hard to keep as little distance between doctor and patient as possible.”

In Henryk's situation, along with many other cancer patients, survival with preservation of function is not just about the end result, it is also relevant for the duration of the medical treatment process. MCCC's aim to focus and prioritise survival with preservation of function runs through the entire patient journey, from home, to the hospital and back home again.

As a former patient propelled by his experiences to join and now sit as chair of the Patient Panel at MUMC+, Henryk's advice to other patients is simple, yet profound.

“Talk to your doctor as you would a friend. When I talk to my friends and I am open about my situation, my friends are more likely to give me honest advice. We can have conversations with our friends on an equal level. They listen to you and they let you know their perspective on your options, they can give you more insights about how you can solve the challenges you are facing. That should be the type of relationship you have with your doctor.”

His thoughts and ambitions for the Patient Panel are inspired and help to shape the patient journey for each individual facing their own challenges with cancer as they come to MCCC for advice and treatment.

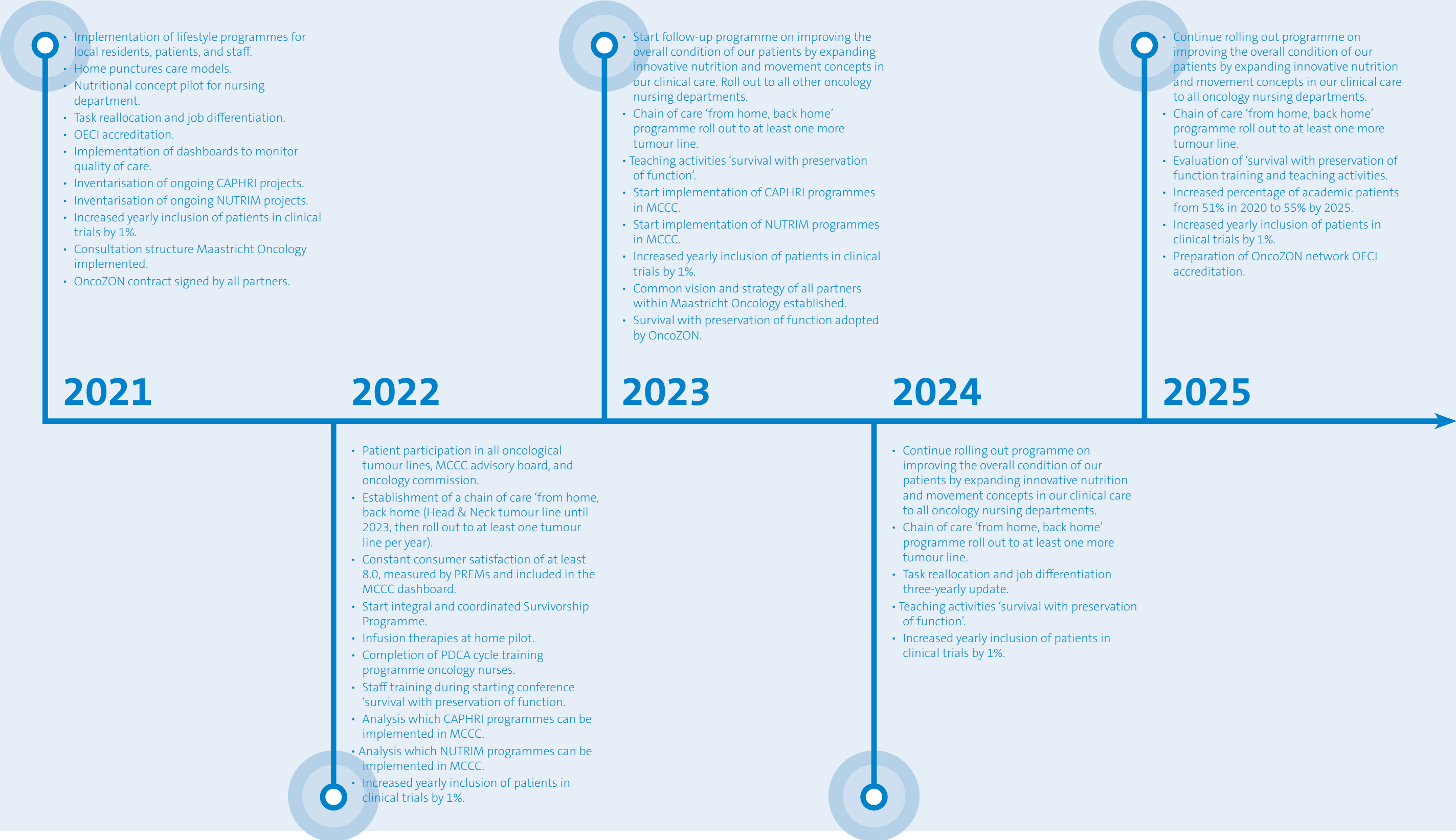
“The patient journey in oncology is very complex. It is always moving forward; it is not stationary. The Patient Panel is currently looking into how patients can be treated at home. We are also asking: how can the follow-up treatment can be optimised? How can the patient have an easier process going through the treatment for cancer?”

As chair of the Patient Panel Henryk feels their task is to seek out the topics that are the most important.

This way we can add to MCCC's vision to help develop processes more quickly, or bring innovation into the organisation from the patient point of view. I think that patient involvement in MCCC at this point is progressing incredibly well and there is a solid cooperation between the Patient Panel and MCCC in this regard. We are very happy with that.”



TIMELINE



ABBREVIATIONS

- CAPHRI
Care and Public Health Research Institute
- CARIM
School for Cardiovascular Diseases
- CTCM
Clinical Trial Center Maastricht
- FHML
Maastricht University Faculty of Health, Medicine and Life Sciences.
- GROW
School for Oncology and Developmental Biology
- M4I
Maastricht MultiModal Molecular Imaging Institute
- MUMC+
Maastricht University Medical Centre
- Maastro
Maastricht Radiation Therapy Clinic
- MERLN
Institute for Technology-Inspired Regenerative Medicine
- MHeNs
School for Mental Health and Neuroscience
- OC
Maastricht UMC+ Oncology Center
- NUTRIM
School of Nutrition and Translational Research in Metabolism
- OECI
Organisation of European Cancer Institutes
- OncoZON
Oncologisch Netwerk Zuidoost-Nederland
- SHE
School of Health Professions Education



COLOFON

- Copywriting & translations
empowered ★
- Layout & design
empowered ★
Grafische dienst Maastricht UMC+
- Photography
A. J. H. Derks
Servicebedrijf Communicatie Maastricht UMC+



