Cancer Center Amsterdam

Mission-vision document

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Content

Mission

"Our research of today is the treatment of tomorrow"

Cancer is currently the leading cause of death in the Western world and still a growing medical and socio-economical problem. The treatment of patients with cancer and the development of new therapies will require a multidisciplinary approach that benefits from a close collaboration between clinicians and researchers. The cancer centers of VU Medical Center (VUmc) and Academic Medical Center (AMC) acknowledge this need for an integrated approach and appreciate the added value of joining forces to create the largest cancer center in the Netherlands in order to provide the best care for patients with cancer, combined with a strong commitment to innovative research and the education of clinicians and researchers. The fusion of these two major centers will lead to an improvement in the treatment and quality of life of patients with cancer and will reduce the impact of cancer on health care and society.

Vision

It is our ambition to be an international leading Academic Cancer Center that is aimed at improving cancer therapy, life expectancy and quality of life for patients with cancer by focusing on (early) detection of cancer and to provide an optimal personalized treatment.

We share the belief that an integrated, multidisciplinary approach is necessary for the best and most innovative care, but also to bring findings from the laboratory into clinical practice and to provide the best training of the next generation of students, doctors, nurses and researchers, paying attention to the latest developments in the field of oncology.

To realize these goals, AMC and VUmc join their expertise in building the Amsterdam Academic Cancer Center and thereby provide a platform for excellent care, research and education. Continuous quality improvement and innovation with high benefit for the patient is a common ambition.

Working together provides us with the opportunity:

- To bring together our knowledge, strength, expertise and infrastructure to provide the best treatment and care for all patients
- To create a center of excellence with adequate size in treatment and research for each patient group
- To offer our patients the most modern techniques for diagnosis and individualized therapy
- To give patients access to new drugs by initiating and participating in clinical trials
- To provide excellent care to our patients through full integration within a University Medical Center (also with non-oncological specialties)
- To work more efficiently and effectively
- To have experts and state-of-the-art facilities in the complete span of oncology
- To take a leading and innovative role regarding cancer care, research and education
- To provide education at an excellent level by an extended team of experts

In our view, a better understanding of the underlying pathophysiology, combined with technical advances and patient-tailored novel combination therapies, is key to improve outcome for our patients. To significantly improve life expectancy and quality of life for patients with cancer, we therefore recognize the need to focus on excellent research programs (Centers of Excellence; CoE) in which we connect fundamental and translational research with clinical studies and clinical care.

Core values

"Our research of today is the treatment of tomorrow"

We are .....

Innovative

We offer the best available care to patients and we innovate through research

We attract creative and ambitious employees who want to contribute to innovation

We are focused on improvements within the organization

Integrated

We have one integrated vision for care, research and education & training

We work together in multidisciplinary oncology teams

Oncology is a connecting theme within the University Medical Center where all disciplines are available

We have a coordinating role in a regional network and integrate care and research

Patients, caregivers and researchers work together to achieve the best treatment for cancer

Personal

We strive for personalized treatments

We listen to the needs and desires of our patients and employees

We are available for our patients 24/7

We aim to let our employees thrive

Patient participation in care, education and research makes us stronger

Relevance for…

Care

Vision

As an Academic Cancer Center, it is our task to provide the full spectrum of cancer care with strong focus on the best available and innovative care. Every patient is welcome in our center, where treatment and care are provided on location, or in collaboration with one of our regional partners. Our center is a specialized academic referral center for specific cancer types and treatments. Whether it concerns diagnostics, curative care or palliative care; we always provide patient-centered care and encourage patient participation.

Organization

Multidisciplinary teams provide optimal treatment and care on an individual basis for each patient. In cooperation with our partners in the region, we always provide the best available treatment and care for every patient with cancer, in our oncology center if necessary, or close to home if possible.
The Cancer Center Amsterdam is a fully integrated part of the larger University Medical Center, making use of all the necessary expertise of top specialists and nurses (oncological and non-oncological) within one organization. Treatment and care is provided by multidisciplinary teams in which doctors, nurses and paramedics work closely together. We deliver the best possible treatment and care to our patients, and involve additional non-oncological expertise when needed.
We are able to provide all available treatments for patients with each cancer type, because we closely collaborate with our regional partners. This means that our innovative care and (translational) research opportunities are available to all patients.

Conditions for success

- Patient-centered care: treatment remains personally within the large cancer center, we strive for the benefit of small-scale care within the capabilities of a large center of excellence
- proper alignment of care pathways with regional partners
- For each patient group interaction with patients associations is required.

Relevance for…

Research

Vision

Research within the Cancer Center Amsterdam is focused on acquiring deep understanding of the causes of cancer, its detection and treatment, by fundamental, translational and clinical research. We are strongly committed to improve treatment possibilities, life expectancy and quality of life for patients with cancer. We strive for maximum patient participation in our research.

Organization

Our research organization is built on three large and focused programs, namely 1) ***cancer biology and immunology***, 2) ***imaging and biomarkers***, 3**)** ***treatment and quality of life***. Within these programs, specific themes are defined. These research lines focus on clinical needs, but also relate to prevention and early diagnosis and aim to combine mechanistic insight and technical advances to optimize patient outcome. Each program and each theme is under dual supervision of a pre-clinical and clinical researcher to preserve and strengthen our translational research expertise. Becoming a world-leading institute will require visionary leadership with a mandate to steer the Institute and investments in focused areas of excellent research (centers of excellence: CoE).

Conditions for success

To excel in research a number of requirements are essential:

- Excellent facilities, such as a laboratory animal facility, OMIC facilities, bioinformatics, clinical research units and imaging facilities closely located and linked to the research units are crucial.
- A good link between clinical research units, laboratories and facilities is invaluable for translational research.
- Patient participation in clinical trials and pre-clinical research, also through optimal partnerships in the region, is essential.
- To attract, stimulate, guide and retain talent is a crucial value.
- Selecting, facilitating and investing in CoE.
- The organization of multidisciplinary care teams offer important opportunities for clinical, translational and fundamental research.
- Research eventually has a social purpose, the clinical application of research in regular care and valorization of knowledge are supported and encouraged.

Relevance for…

Education

Vision

The increasing focus on cancer treatment and care within the university medical center provides multiple opportunities for education & training. By intensifying the (current) collaborations with our regional partners in care, research, education and training, we will be able to continue education of new generations of care and research professionals, including highly specialized training in the Cancer Center Amsterdam. We provide training and education possibilities both for employees inside and outside our organization.
The joint Cancer Center Amsterdam provides comprehensive post-graduate opportunities with highly specialized fellowships. This will attract both ambitious researchers and care-takers in the field of cancer.

Organization

We distinguish within the center several different target groups for education & training:

Bachelor and Master students (medicine, medical biology, health sciences): *theme Oncology in basic training*. The complete range of oncological diseases in the education portfolio will be offered, so that students can develop a broad view and interest in cancer. The education is supported by a specific study coordinator for oncology to preserve and further develop the program.

Resident: *general part of training for oncology and further differentiation per discipline*. In the general part of the educational program, oncology will take a central position, so that residents will receive solid basic cancer knowledge and are able to get a good impression of oncology in order to make an informed decision for an oncological specialization. In addition, combined fellow-programs will be developed in which clinical training and (translational) research are integrated.

Fellow: *specialized part of training for oncology.* The Cancer Center Amsterdam will provide high level training for the specific highly specialized oncological disciplines. This program will be very attractive for (inter) national fellowship within this (sub) disciplines.

Researcher: *Medicine, medical biology and other studies.* Within the research domain there will be great attention for training of researchers by means of career development programs through tenure tracks and mentoring by senior coaches. Furthermore, an education program for pre-clinical and clinical PhD students organized by the Oncology Graduate School Amsterdam (OOA) is in place. Since research and hospital are fully integrated, the cancer center will be attractive for both clinical as well as basic researchers.

Nursing staff: the specialized training for oncology nurses can be further developed under the direction of the oncology center. Last but not least, several educational programs for laboratory technicians, (research)nurses and other paramedics (life-long learning) will have a prominent place within the cancer center.

Conditions for success

To offer education and training of the highest level a number of requirements need to be fulfilled:

- Multiple different disciplines are involved in the education and training within a general theme as oncology. To ensure a good organization between all disciplines involved in oncology education, a central coordinator ‘education & training’ is needed.
- Sufficient financial resources must be available for optimal organization of high level, attractive education and training in oncology.
- Expert trainers dedicated trainers within the different (sub-) specializations.
- Interaction with other Oncology education programs pathways in VU/UvA/HvA/NKI

General conditions for success

Organization

Each medical specialty within the Cancer Center Amsterdam is involved in multiple themes and with multiple patient groups. Recognizing that close connection between oncological and benign patient care is crucial within a medical discipline for maintaining and further developing the expertise by specialty, the clinical cancer center will be structured on basis of specializations.

However, for optimal organization of the Cancer Center a management structure with sufficient control over strategy and financial resources for oncology is needed. We propose to install an oncology board for the center consisting of 3 members, 1 member per core task. Each of these will have a daily management board, responsible for the design and implementation of the key tasks.

This structure is required to improve integration and organization of the 3 core tasks in order to excel at an international level.

Within the central task 'care', multidisciplinary cooperation is organized together with the researchers and clinicians in order to provide the best care to our patients.

For research, focus is created by organizing programs and themes, and by selecting and supporting specific CoE as described above.

For education and training an oncology coordinator will be appointed.

In order to achieve our mission-vision objectives, our performance will be structurally evaluated and adjusted when required. We will benchmark our cancer center and work towards an international top position in research, diagnosis and treatment of cancer.

Interaction with other research institutes

The Cancer Center Amsterdam is part of the University Medical Center, which also hosts multiple other research institutes with common interests. As part of the University Medical Center we work together with other research institutes to strengthen and develop the shared programs. In addition, multidisciplinarity is a crucial aspect of modern clinical care and we therefore have strong ties outside the theme of oncology to provide the best care for each patient.

Role in external environment

International

Given our focus on innovation, size, and excellent infrastructure in terms of cancer care and research, we expect to become a very attractive institute for both national and international talent (fellows, top clinicians and top researchers).
For further improvement of our research lines we want to extend our collaborations with (inter)national institutes. As a result of our good research facilities, a central research office and access to our regional network we are an attractive partner for collaboration, which will contribute to the realization of our mission.

- As center of excellence we want to take an active leading role in innovation of care and development of new guidelines (' opinion leader ').
- Within our research institute, we have a number of CoE that are leading within their discipline.
- Finally, we are a partner for several pharmaceutical and technical companies and together we implement the results of research in diagnostics and treatment according to international guidelines for contract research.

National

We offer the full spectrum of oncological patient care; the most innovative and best proven care is available for all patients within our (regional) network. For all patient groups we aim to offer the possibility to participate in clinical trials. Vice versa, we strive to engage patients to contribute to the improvement of care.
Due to our state-of-the-art (translational) research facilities, we are an attractive partner for collaboration.
We act as referral center for specific patient groups for other oncological centers.
The Cancer Center Amsterdam and other oncological centers in The Netherlands have (in part) a common region in which they operate together. Our ambition is a close cooperation and collaboration to provide the best possible oncological care for the patient.

Regional

Our Cancer Center Amsterdam has various forms of cooperation with partner hospitals and research institutes (The Netherlands Cancer Institute (NKI), VU, University of Amsterdam). We strive for excellent cooperation in the region with exchange of knowledge and skills in care, education and research.
In the field of care, we are a partner for other hospitals and doctors through multidisciplinary consultation and one on one contact. The level of collaboration varies between the different patient groups.
In research, our center offers a guiding role and we facilitate clinical research in the region. Furthermore, we aim for optimal cooperation with partners in the area of pre-clinical research.
For education & training, we work closely together with our partners to provide a broad training and education program for the new generation of care takers and researchers.

Cancer Center Amsterdam

1. Mission, vision, aims and focus

History

Both AMC and VUmc have a long-standing tradition in Oncology and are recognized as important players in cancer research and care in the Netherlands. With a focus on translational research, both centers are trying to bring new discoveries into the clinic and, vice versa, to take clinical problems into the laboratory to obtain better understanding of cancer biology with the aim to improve cancer care. In specific areas the centers are at the international forefront and are leading the way in cancer detection, the understanding of the underlying biology and the development of new treatment strategies. Areas of special interest are not limited to, but include Gastrointestinal, Hematological, Head and Neck, Neurological and Lung cancer. Research in these areas focusses on translating basic knowledge into clinical practice using an interdisciplinary approach. Combined the centers attract significant funds from government, non-profit organizations and private sources and employ close to 1000 researchers in Oncology, including more than 400 PhD students. The joint output per year averages around 1500 papers and 70 PhD theses. Over the years several investigator-driven as well as institute-driven collaborations between the two centers have led to successful research programs and have optimized clinical care for patients. In addition, a joint KNAW accredited graduate research school (the Oncology Graduate School Amsterdam), which also includes PhD students from the NKI/AvL, has been active for more than two decades and provides high level courses to PhD students. With the alliance both medical centers express their joint ambition to develop this institute further and become world leader in several key areas of oncology research.

Formation of the research institute

The formation of a joint Academic Cancer Center will lead to the largest oncology research center in the Netherlands. To accommodate all researchers the aim is to initially build a network organization that allows researchers to interact more closely and to expand on existing collaborations and initiating new ones where possible. To facilitate the interaction, joint research meetings will be organized in specific research areas and mutual interests will be identified. The unique interaction between pre-clinical and clinical scientists combined with high quality patient care is extremely valuable and forms the basis of excellent science now and in the future. Translational research is therefore one of the pillars flanked by both basic research, fueling innovation, as well as clinical studies and quality of life and care programs. To become a world-leading institute we have to focus on several key areas as we realize that research excellence cannot be achieved over the complete span of Oncology. The creation of such excellent research units also implies that investments will be made in line with this focus and that re-allocation of part of the institutional funds should be considered to facilitate excellent research and to attract top-level researchers. Next to our primary role in research, we also strive to provide top-level education to train the next generation of researchers in oncology.

1.1. Mission/vision see above

1.2. Overall Aims

Based on our general aim to be an internationally renowned Academic Cancer Center improving treatment, life expectancy and quality-of-life of patients with cancer by optimizing (early) detection and personalizing care, we focus our research efforts on the following specific topics:

- *Early diagnostics* in order to detect cancer in an earlier phase that improves the likelihood of curing a patient.
- *Personalized medicine strategies* to (1) determine the optimal treatment for an individual patient based on the characteristic biology of the disease and individual characteristics of a patient by genetic, proteomic or imaging biomarker evaluation and/or selection profiling tools and (2) develop new patient-tailored treatment options that derive from increased understanding of cancer biology.
- *To improve the quality of life* of patients with cancer at diagnosis, during treatment or post-treatment, by individualized programs to ensure the best suitable physical and mental care.

We believe that the key to improve therapy for our patients lies on one hand in better (basic) understanding of the underlying (patho)physiology and on the other in the translation of this knowledge into optimized therapies. To make a significant impact on improving life expectancy and quality-of-life of patients with cancer, we recognize the need to focus on research excellence programs in which we combine basic fundamental and translational research with clinical studies and top-reference clinical care.

1.3. Specific aims of the Cancer Center Amsterdam

The first main short-term goal of the Cancer Center is to align oncology research in both AMC and VUmc, incorporating current research efforts into a network organization that ranges from basic research to clinical and quality-of-life studies. To eventually fulfill our mission and to foster excellent research programs, we believe it is essential to focus our research efforts. The further development of innovative research and consolidation of existing research excellence is a major aim of our Cancer Center. This implies that smaller or less successful areas of research should over time re-align to the programs. Arriving at a world-class institute will require a dedicated leadership with a mandate to steer the Cancer Center and investments in focused areas of excellent research (centers of excellence: CoE). Combined we therefore envision that the Cancer Center Amsterdam has several short and long-term tasks to fulfill and these are outlined below.

Early phase

- Define research programs and structure research
- Provide a platform to organize meetings enhancing interaction between fundamental/basic scientists and clinical researchers
- Define centers of research excellence
- Identify crucial research facilities
- Identify gaps in research programs and novel areas of research
- Provide a liaison between scientists and supporting joint research programs
- Continue Graduate training in OOA

Long-term goals

- Organize research in a set of research programs and initiate CoE
- Provide excellent facilities to allow the research programs to prosper
- Support multidisciplinary research
- Identify, attract and guide talent specifically in the focus areas of research
- Provide Graduate training (OOA) and career mentorship
- Ensure an academic culture and support within the medical center (financial resources, biobanking, ICT-support)
- Support (large consortium) project proposals (embedded in a larger research support unit)
- Maintain contact with stakeholders (Patients, KWF, NWO, Alpe d'HuZes, community) and promote research programs to general public.
- Evaluate all research programs and CoE
- Maintain research focus and facilitate innovation
- Support high risk, proof of concept, studies in preclinical and clinical setting
- Stimulate excellent translational research and clinical trials that will benefit cancer patients.
- Entice and support valorization

2. Research programs

In order to first align our research efforts and to foster collaboration between basic and clinical researchers in similar areas in the Cancer Center we envision the following specific research programs and themes as our main areas of cancer research:

1. Cancer biology and immunology

In this program, basic cancer research on cancer biology and immunology is aimed at developing novel insight into the (patho)physiology of cancer and the immune system. Identification of novel targets for therapy and subgroup analysis will be a major goal and used to develop biomarkers and novel therapeutic modalities. The acquired biological and immunological insight will drive pre-clinical therapy development.

For this program the following themes are identified:

- *Cancer biology*
- *Cancer immunology*
- *Target discovery & Pre-clinical therapy development*

2. Imaging & biomarkers

In this program, the focus of research is on translation of potential diagnostic and predictive biomarkers and imaging techniques that serve our mission to detect cancer early and to personalize cancer medicine.

For this program the following themes are identified:

- *Imaging*
- *Biomarkers*

3. Treatment and Quality of Life

In this program, the research is focused on clinical implementation and evaluation of new leads for treatment strategies, in part based on

discoveries from both program 1 and 2, and on improving quality of life. Therapy development also includes technology-driven research in Radiology and Radiotherapy and is supported by a phase I-II clinical trial unit. In addition, this program features our continued efforts to improve therapy as an (initiating) partner in large multi-center clinical trials.
For this program the following themes are identified:

- *Clinical therapy development*
- *Evaluation of cancer care*
- *Quality-of-life*

Basis for the development of research programs:

The three different research programs are organized according to specific research domains to foster interaction between scientists with similar types of research programs and to allow for concentration of research facilities. Interaction between basic, translational and clinical researchers working on specific diseases is stimulated within the departmental structure, through the care programs and where possible within specific CoE. The focus of the Cancer Center Amsterdam will on one hand logically follow from current high profile research efforts, which will be consolidated and further supported, but on the other hand be determined by a vision on future developments essential for the ambition to become a world-leading Cancer Center, facing the challenges in oncology for the next decades.

These identified areas of research will be accommodated in dedicated centers of excellence (CoEs) and will be supported strongly by the institute. CoE are likely to incorporate different research units as excellence requires a multidisciplinary approach. The priority position of CoE also implies that the quality of both output and acquisition power will have to remain excellent and this will be evaluated on a regular basis.

Importantly, CoE and themes of these 3 research programs are not fixed forever and new opportunities or needs will be identified within the institute to allow for continuous innovation.

Focus on tumor types

Our current scientific output, research projects, and our internationally acknowledged expertise as well as our acquired financial support, are predominantly linked with the following tumor types:

- Gastrointestinal Oncology
- Head and Neck Cancer
- Hemato-Oncology
- Lung Cancer
- Neuro-Oncology

Similar excellent, but smaller, research activities are being performed for other tumor types including (hereditary) breast cancer, gynaecological and urological cancers, retinoblastoma and melanomas.

Detailed description of research programs

Program 1: Cancer Biology and Immunology

Cancer arises by epigenetic and genetic changes in genes acting in cellular signaling pathways steering a plethora of cell biological effects, such as DNA maintenance, apoptosis, cell division, senescence, differentiation, invasion, dissemination and metabolism. Besides these tumor cell intrinsic alterations, micro-environmental changes occur that can facilitate or

dampen tumor development. Shaping the tumor environment and escape from immune-mediated control is key for cancers to develop. Although recent clinical advances have shown the potential power of both biological and immunological knowledge in therapy improvement, the current challenge remains to understand how the recognized alterations modulate cancer development, relapses and/or metastasis and above all therapy resistance.

The theme cancer biology aims to understand how (epi-)genetic changes in combination with micro-environmental and metabolic alterations result in the induction of cancer (carcinogenesis) and change the biology of a tumor cell and a cancer tissue as a whole. Detailed insight into the biology will provide leads for novel therapies, diagnostics, but also in stratification approaches for existing therapies.

The theme cancer immunology combines research on immunotherapy as well as cancer development in the immune system. Whereas the latter is closely related to the theme cancer biology, the former is aiming to understand and employ the immune-component of cancer. A main obstacle in cancer treatment is immune suppression and micro-environment induced immune resistance and a major effort within the theme aims at dissecting and counteracting the (micro-environment-related) immune suppression and resistance mechanisms used by cancers. The major goal of this theme are to progressively acquire knowledge of the homeostatic control of the immune system and its subversion in cancer.

The theme target discovery and pre-clinical therapy development is aimed at utilizing immunological, (epi)-genetic and biological insight in cancers to identify targets and synergistic strategies for therapy and overcoming (immune) therapy escape. In addition, profiling of clinical tumor samples from large patient sets are used to identify subgroups or individual traits using distinct “omic” approaches. Identification of clinically exploitable targets and biological relevant insight is combined with patient prognosis and therapy outcome for the development of novel therapies and biomarkers. Such novel compounds and targeted agents will be developed and/or tested in optimized cellular and pre-clinical model systems.

Combined these themes entail a large part of our pre-clinical research programs on cancer and will house several excellent research units.

Program 2: Imaging and Biomarkers

Identifying the alterations in each tumor’s complete set of DNA – the genome and its epigenetic features – and its functionally relevant transcriptome and proteome, is expected to increase our understanding of how such changes interact to drive the disease. This global molecular information will lay the foundation for improving cancer prevention, early detection and treatment. To achieve these goals reliable imaging and omics-based diagnostics and biomarkers are required. This program therefore covers translational research to develop assays for new molecular determinants for diagnosis, prognosis and tailored treatment for oncological diseases.

The theme imaging covers the effective use of existing modalities and the development of novel diagnostics to detect cancer in its earliest stage. In addition, this theme entails excellent translational research on the development of diagnostic tools based on state-of-the-art imaging combined with multi-disciplinary technical expertise and based on biological insight to identify patient-specific tumor characteristics. Imaging is a crucial part of diagnostic research and the aim is to have an

imaging infrastructure available that spans the entire range from molecule to preclinical to clinical research.
The theme biomarkers focusses on the development of omics-based tumor profiling and (multi-parameter) assay development for novel markers that allow for optimized prediction and detection of therapy efficacy. Imaging modalities, circulating protein, RNA or DNA markers will be developed and validated to monitor and predict therapy response. In addition, biomarkers for therapy stratification will be based on biological and immunological insight and developed to optimize patient-tailored therapy.

Program 3: Treatment and Quality of Life

Novel therapies are urgently needed to fulfill our mission to reduce mortality of cancer. Biological targeting of key pathways and insight into immune modulating agents have taken center stage, but are still hampered by suboptimal patient selection and effective clinical trial settings. Within this program we envision to provide a platform for investigator-initiated trials as well as for partner- or leadership in large phase III clinical trials. Next to therapy development, this program studies quality of life and care, improving therapy decision making and enhancing knowledge on the quality measures to improve care for our patients.

The theme clinical therapy development encompasses translational and clinical cancer research analyzing new developments in targeted therapy and systemic therapy, radiotherapy, surgery and immunotherapy. Not only randomized phase III clinical trials but also ground-breaking and high risk early phase I/II clinical trials will be initiated and performed preferably with translational side studies to gain optimal biological and pharmacological insights from these studies to accelerate further development.
The theme evaluation of cancer care covers monitoring and evaluation of clinical care, e.g. regarding side-effects, long-term effects and implementation of treatment protocols. Furthermore it encompasses health-services research, for example research to optimize the cooperation between medical specialists and nurses.
The theme quality of life encompasses research within the field of quality of life of childhood and adult patients with cancer. The program is focused on patient and proxy reported outcome, allied health services and lifestyle, rehabilitation, psycho-oncology, and palliative care. This last program ultimately aims to get a better understanding of the factors that determine quality of life of patients at diagnosis, during and after treatment to further improve their quality of life. In addition, age-related aspects of therapy choice and efficacy are a crucial part of this theme.

Timelines

In order to set up these programs and organize these themes we envision the following time lines and actions to be taken per research program and themes:

1. Detailed description of research of programs and themes by PIs/research leaders involved in the programs
2. Selection of program and theme leaders (key researchers)
3. Identify and describe focus of research for the coming 5 years (theme leaders)
4. Identify and describe research infrastructure requirements (theme leaders)

5. Identify program/theme members and organize joint research meetings
6. Planning of actions to be taken for organization of joint research programs
7. Identification of CoE by program and theme leaders in close collaboration with other research institutes.

- Timeline for planning of the research programs and identifying the members: 3 months
- Timeline for actual implementation of the program including meetings and support: 4 months (June 2016)
- Timeline for implementation of CoE (November 2016)

3. Participating departments, PI/research groups

The major pitfall for a Cancer Center is the enormous diversity in departments that perform oncology research. A precise overview will have to be generated in the coming months, but at this point it is clear that practically all clinical departments involved in oncological care also perform or participate in (pre-) clinical research and will thus be part of the research institute.

For AMC, an additional number of pre-clinical research departments exist that comprise a large body of oncology research. These include, LEXOR, Oncogenomics, EXIM, the Tytgat Institute, Cell Biology and Histology and Biomedical Engineering and Physics. A total of 55 PIs are currently active within the theme oncology in the AMC. Importantly, a strong interrelation exists between the AMC themes Oncology, Gastroenterology, Infection and Immunity and Public Health and several PIs operate in multiple themes. Similarly, facilities are shared between research domains.

In the VUmc the organization is distinct and centralization of pre-clinical research has been achieved in the VUmc CCA, which houses researchers of close to 30 VUmc departments. In total, more than 250 researchers are active in VUmc CCA, which also holds some of the research facilities. Research within the different departments is frequently interrelated with other research domains partly because of a mixture of benign as well as cancer care within a certain disease area or because of overlapping research areas. For instance, important multidisciplinarity exists with the GI/Metabolic and Immunology and Infection research institutes. In addition, a large overlap exists between Public Health and the Quality-of-life and care programs. In all cases these intersection points provide a platform for excellent research and should be treasured.

The total number of cancer researchers within these departments and their group structure will be analyzed in the coming months upon which they will be invited to participate in one or more of the research programs and themes. The goals is to completely cover cancer research that is being performed in the alliance institute within the three major programs. Allocation to a theme will be performed on a project-basis allowing PIs/research leaders to participate in multiple themes. The final list of researchers active in the Cancer Center Amsterdam will be generated in the next months and will depend on PI nominations in VUmc, the choice of PIs to participate in distinct institutes and the request of PIs to join a distinct program.

Planning and timing:

1. Identification and allocation of participating departments, PI's and research groups focusing on cancer research: (March 2016)
2. Invitation to join specific research programs and teams: (April 2016)
3. Involvement of all cancer researchers within the three programs for the start of the full program activities (May 2016)

4. Description of strategic partners, regional, national and international

Strategic partners for the new Cancer Center Amsterdam are based on longstanding collaborations with (cancer) institutes in the Netherlands and abroad, including university medical centers (8 in The Netherlands) and regional hospitals (such as Amstelland, Flevoziekenhuis, Esperanz-hospitals and Medisch centrum Alkmaar (MCA) as well as cancer research institutes such as the Netherlands Cancer Institute and the Hubrecht Institute. International collaborative centers include The Gustav Roussy Cancer Center (Paris, France), The Johns Hopkins Institute (Baltimore, USA), Harvard Medical Center and Dana Farber Cancer Institute (Boston, USA) among others.

5. Talent development

The Cancer Center Amsterdam aims to provide students and professionals with an excellent educational environment and to encourage (young) researchers from the Netherlands and abroad to perform research at the highest level. At both AMC and VUmc, a number of talent programs are already available. Cancer Center Amsterdam will combine best practices of both institutes to develop a talent track starting right from the beginning of the academic career, involving bachelor's, master's and PhD students to the level of Assistent Professor (UD), Associate Professor (UHD) and professorship.

We will continue to actively participate in the Honours program and Topmaster's program, specifically designed for outstanding Bachelor's and Master's students who would like to undertake their own research project besides their regular Bachelor's and Master's program.

In 2013, NWO awarded the Oncology graduate school Amsterdam (OOA) with a grant to initiate the 'Diamond Program'. This program is specifically designed for outstanding Master's (of Science) students who have the ambition to write and undertake their own PhD research project. Students that complete the rotation program and successfully write a research proposal can decide on a PhD position in one of the participating groups. The AMC graduate school scholarship program is similar to the Diamond program and allows the top Master students to obtain a 4 year scholarship in a self-initiated PhD program. The aims to continue this talent program.

At the next level, a fellowship program will be initiated. Prestigious fellowships will be made available to attract outstanding, internationally recognized researchers, who are able to develop their own research line and to set up their own research group. The candidates must have the potential to acquire VIDI and ERC grants and advance to full professorship within eight years. Although the focus of our research is in part guiding the selection of talent, care will be taken to also attract innovative potential with these prestigious fellowships.

Finally, a tenure track program will be part of the Cancer Center in order to foster talent and allow for a new generation of scientists to move into tenured positions based on clearly defined goals. The tenure track program should be part of a larger AMC-VUmc wide program to align and balance criteria.

A crucial part of the tenure track and talent program is the provision of mentorship by more senior researchers. We envision a coaching program to make sure that talent is nurtured and maintained for the institute, but also allowed to prosper by pointing out opportunities and pitfalls.

Academic education in Oncology

The Cancer Center Amsterdam will provide education and training for new generations of students, physicians and scientists with focus on the latest developments in oncology and aiming to prepare the new generation for becoming internationally recognized researchers and clinicians. The already established Oncology Graduate School Amsterdam (Onderzoekschool Oncologie Amsterdam – OOA) plays an important role in this educational program for young career scientists. The Cancer Center will host about 400 PhD students, which will be member of the OOA. The OOA is a joint graduate school run by VUmc ('penvoerder'), AMC and NKI. The OOA, which has already been accredited by the KNAW since 1993, has a longstanding tradition of providing an education program made up of high quality courses on a wide range of topics in oncology. A highlight of the educational program is the three-day annual PhD student retreat, which focuses entirely on the research conducted by the students themselves, contributing significantly to active networking between groups. The oncology-specific courses will be supplemented with courses organized by amongst others, VUmc Centre for Training and Education and the AMC graduate school.

Next to providing a training and education program to PhD students, the Cancer Center Amsterdam will continue to organize the already established courses on oncology for (bio)medical and health sciences bachelor's and master's curricula of both universities. Currently, VUmc offers a Master's program in Oncology, which is research-oriented and has a multidisciplinary character. Students are trained in state-of-the-art techniques in cancer research and therapy. At the UvA, the Master's program in Biomedical Sciences offers an Oncology track, covering topics such as basic cell and molecular biology, genetics, development of novel strategies for cancer diagnosis and treatment. These tracks will be incorporated in our research institute and provide an influx of young talent.

A committee for education and training will be installed within the larger cancer center and be part of the board (see organization) to initiate and supervise all training and educational activities within the Cancer Center Amsterdam. Furthermore, the interest of PhD students and Postdoctoral fellows will be represented by a PhD/postdoc council.

6. Quality policy: promotion, control and monitoring

The Cancer Center Amsterdam will adopt the quality policy as laid out by the research board of the AMC/VUmc. Research evaluation is a crucial aspect of the research institute and will be orchestrated by the management board of the Cancer Center (see below) and will be performed on a 3-yearly basis in line with national requirements. Importantly, the evaluation will be based initially on PI units according to the score determined by the AMC/VUmc research board. In addition, themes and programs will be evaluated and every program will perform a site-visit with external reviewers of international stature. The management board will use the outcome of the site-visit and evaluation to make strategic decisions and implement investments. Finally, the CoE will be evaluated separately.

Promotion of researchers within the institute is to a large extent a departmental prerogative. The management board should be consulted for promotion and be used as instrument in the appointment of new professors and PIs.

7. External Finance and acquisition

Currently the oncology research groups in AMC and VUmc acquire more than 60 million euro in external funding per year. This highly successful acquisition is likely to be enhanced upon the formation of the Cancer Center Amsterdam. This is due to a bigger exposure to the public and therefore a better possibility of private fund acquisition. In addition, we will become the largest Cancer Center in the Netherlands and as such automatically become an important partner for societies such as the KWF, but also an important partner for companies involved in cancer research. Finally, we believe the funding position of the Cancer Center will also improve due to better opportunities for funding from the EU. The size of the institute will automatically make us an attractive partner and the research institute will also promote consortium leadership and support applicants.

8. Societal Impact and Valorization

Cancer has a major societal impact affecting a large part of society either directly or indirectly via social or work-related connections. As such, the societal interest in cancer-related research and the associated willingness to donate funds for cancer research are invariably high. This is especially true for translational research programs in which patients are directly involved, contributing to the success of research. The Cancer Center Amsterdam will have, as largest Cancer Center, a clear responsibility, but also visibility to generate societal impact. This impact is in part a result from the research endeavors that are aimed to improve patient care, but will also be strongly enticed by public outreach programs to involve and inform society. Furthermore, the societal impact will be evident from the organization of (international) symposia and conferences.

Valorization of our findings is a crucial aspect of our Cancer Center and will in part be supported by internal and national funding programs for valorization. Of course several important industrial and pharmaceutical partners are also established partners of the institute. Finally, research

implementation, specifically in the theme evaluation of cancer care, will have immediate valorization possibilities.

9. Internal and External Communication

Web-based information about the Cancer Center Amsterdam will be generated in the coming year to inform both public and (research) specialists about the Center and its activities. In addition, outreach events, funding rally's and Cancer Center Amsterdam symposia will be organized to generate awareness. More direct communication will be organized with the larger funding bodies of our research.

For internal communication within the institute, program-specific seminars and theme-based work discussions are planned. In addition, a yearly retreat for PhD students as well as for senior scientists will be organized to facilitate communication between scientists. A clear point of attention is to facilitate communication between the two locations that house our Cancer Center and this will involve newsletters as well as joint seminars.

10. Cancer Center specific facilities and infrastructure

Excellence in research requires several key components that allow an institute to flourish. The first is obvious and that is talented people. However, modern medical research more and more depends on highly specialized equipment and knowledge as well as big data compilation. To achieve excellent research programs one therefore also needs high-end facilities that support the talented researchers. Analysis of the institutes that currently thrive in oncological research indicates that these have invested strongly in their facilities. An important lesson from these organizations is that facilities should be very accessible to the researchers, and should be run by a researcher as well in order to stay on top of the latest developments. Facilities therefore always balance between their research tasks and facility function. We therefore envision that our facilities should be incorporated into the research programs with dedicated research lines, but should also be held accountable for the facility they provide. Another crucial lesson to be learned is that facilities should combine access with a proper evaluation of quality of the research output, as well as the capacity to follow up on the outcome of the research performed in the facility. This is especially relevant for the facilities that generate big data for which the actual generation of data is no longer the bottleneck, but the interpretation and use of data becomes the main hurdle for success. Facilities should therefore be structured in a way that facilitates excellent research and follow-up.

The facilities that are crucial for the success of the Cancer Center Amsterdam are the following:

1. Genomics: Genomic analyses, such as NGS, CHIPseq, RNAseq, microarray, CGH, microRNA analysis and mutation profiling should all be in place and, importantly, should be supported by a bioinformatics pipeline to analyse data properly. The facility should also provide knowledge and support in the initiation phase in order to minimize conceptual and practical failures and to provide a low threshold for access.
2. Proteomics: Protein quantification using mass-spec technology, phospho-proteomics and targeted proteomic analyses should all be provided by a core facility that also provides the peptide identification

and bioinformatic analyses of the data. Like is the case for genomics, support for the initiation phase and sample preparation is crucial to enhance the quality of the data generated and should be provided by the facility.

3. Mouse facility: Animal experimentation remains a cornerstone of pre-clinical oncology research. To provide an optimal setting the facility should be close to the laboratories and the clinic to allow for the frequent measurements and the effective transfer of tumor material from clinic to lab to facility. In addition, the unit should host a state-of-the-art transgenic facility that is capable of freezing embryos, sperm and re-deriving animals. More importantly, generation of novel lines through state-of-the-art transgenesis should be provided, potentially in collaboration with partner institutes. Finally, laboratory animal imaging should be available.
4. Clinical research unit/Trial bureau: to fulfil our ambition on the execution of phase1/2 clinical trials and to effectively participate and lead phase 3 clinical trials a clinical research unit should be available for support on legal matters, ethical applications and the logistics around clinical trials. Database management and statistical support should be provided as well. Partly institute-specific aspects can be served within this facility, but also decentral clinical research units are essential for appropriate support of specific clinical research programs (such as phase I trials).
5. Pre-clinical and clinical imaging facility: Imaging is a crucial part of our Cancer Center and in fact a research program by itself. This encompasses imaging from cellular to clinical applications. The cellular imaging facility should contain spinning disk confocal imaging, Electron microscopy, confocal time lapse imaging and FACS coupled microscopy (Imagestream) and OCT are needed to provide information at the (sub)cellular level. For the clinical high end imaging modern state-of-art CT and MRI-machines enable imaging of anatomical details with high precision are essential. In addition, imaging techniques like SPECT, PET, PET-CT, PET-MRI and optical imaging must be available to provide, non-invasively, unique molecular and biological in vivo information at the tissue level ("molecular imaging"). To develop the novel reporter probes (tracers) that are used for these purposes facilities like cyclotrons and GMP facilities are essential.
6. FACS facility: The fluorescent-associated cell sorting and analysis is an essential part of pre-clinical research, but is becoming increasingly important for clinical analysis as well. The cancer immunology theme is largely dependent on the quality of this facility. Cell sorters with multiple lasers are crucial for the multicolour sorting and analysis of immune as well as tumor populations for research.
7. For specified phase 1/2 studies there is extensive experience and expertise. Over the past decade more than 200 phase 1/2 studies have been performed. An expert team of clinical researchers, research nurses and data managers have specific expertise and motivation to guide and help patients to participate according to Good Clinical Practice guidelines in these type of studies. For these studies, a high quality facility with basic life sign monitors, centrifuges, freezers etc. is crucial for adequate performance. Included are specific requirements for stem cell and vaccination strategies, such as leucophorese machines.
8. Pharmacokinetic and dynamic analyses the efficacy of any therapeutic drug is determined by its pharmacology. Knowledge of the mechanism of action of a drug and optimization of its pharmacological properties is therefore essential to improve treatment and prevent and manage toxicity. Pharmacokinetics and the pharmacodynamics of a drug has been a successful approach in

the past decades of the institute. Pharmacokinetic and dynamic studies are focused on targeted agents including protein kinase C inhibitors, various receptor tyrosine kinase inhibitors (targeting EGFR, Ras or mTOR), proteasome inhibitors as well as inhibitors of cellular apoptotic pathways. The success of this research is the result of a close interplay between the laboratory and a number of clinicians. Essential for this type of research is up-to-date Liquid chromatography–mass spectrometry (LCMS) machines and know-how. For future planning, a more intensified collaboration with the experimental pharmacy is envisioned.

9. Bioinformatics and statistics: Big data has taken center stage in cancer research and the analyses pose new challenges on the computational needs and statistical toolbox of researchers. Dedicated bioinformatics and statistic support is crucial for the optimal use of large datasets that are either generated by our researchers or is already publically available. This facility should be intimately connected to omics facilities to ascertain excellent data use.
10. Biobanking: Tumour Sample collection as well as normal tissue and bodily fluids from patients with cancer is becoming increasingly important for both diagnostics as well as tumor biological research and therapy development. Biobanking and the necessary legal embedding of such a biobank is of crucial importance and will be provided as a core facility in our Cancer Center.

11. Organization, management and finance

11.1 Organization

The Cancer Center Amsterdam will accommodate close to 1000 researchers ranging from basic laboratory scientist to clinicians and QoL researchers. In addition, the research areas are spread over different tumor types and multiple specialties, such as tumor profiling, therapy design and cancer biology. To incorporate all distinct areas of research the Institute will initially become a network organization structured along the defined programs and themes. In addition, to foster excellence the Cancer Center will identify key research areas that are expected to excel and maintain or take a world-leading position.

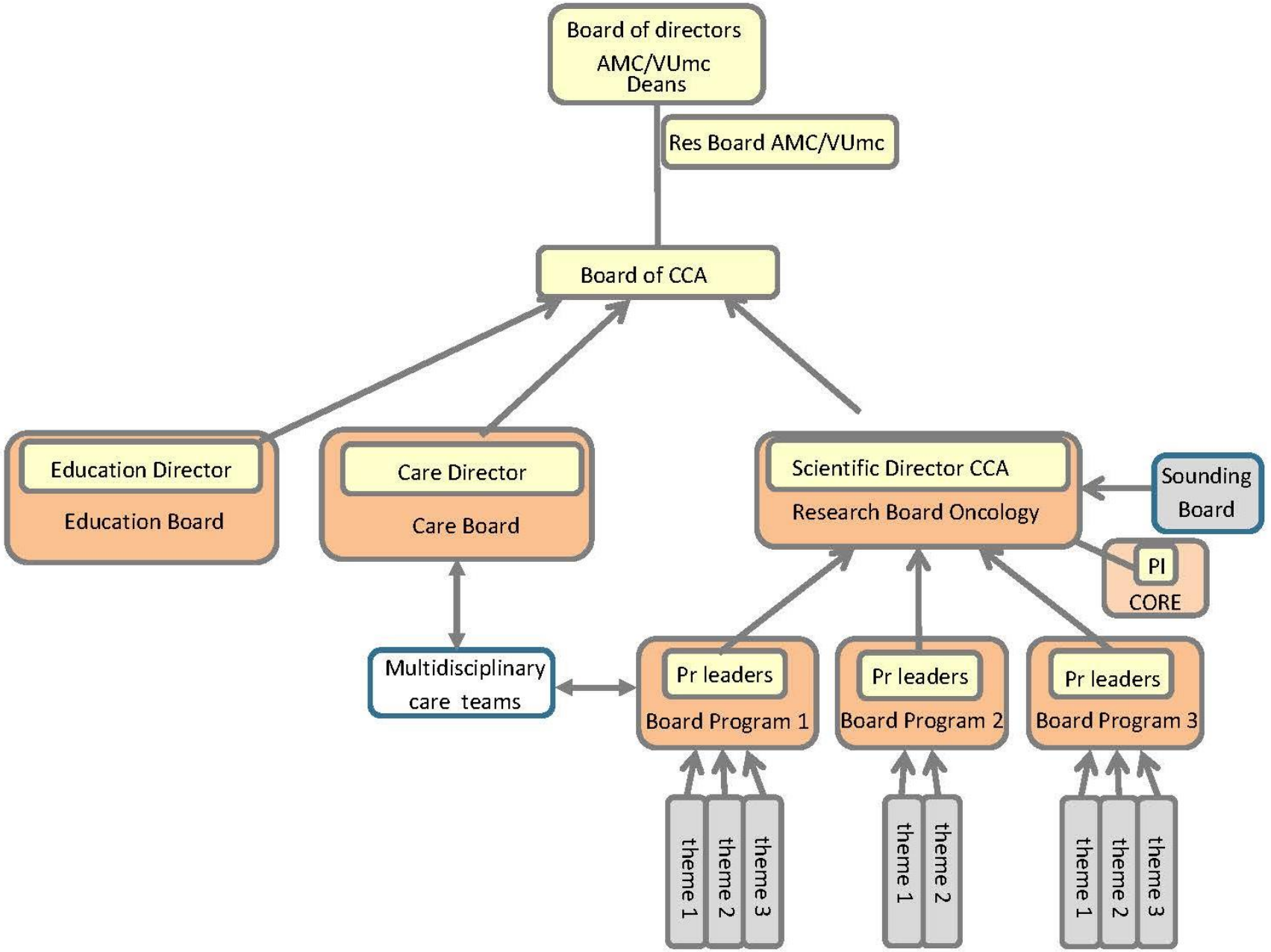
The structure of the institute organization is shown in the figure and described in detail below. Of note: the description of the organization is focused on the research institute. A detailed description of the organization of the board of the Cancer Center Amsterdam (including education and care) will follow.

The initial phase is characterized by the fact that research will be performed on two different locations, that is within the two medical centers. To ascertain involvement and representation of both locations in the themes, we aim to appoint four theme leaders, equally divided over the two location. Programs will thus be run by 8-12 theme leaders. The theme leaders will together nominate two of them to participate in the research board of the Cancer Center.

This board will be headed by two scientific directors that will be directly appointed by the Board of Directors of the currently two University Medical Centers. Theme leaders will be nominated bottom up, by the participants of the theme, and/or be approached directly by the scientific directors.

Importantly, leaders of themes that overlap with other research institutes such as Public Health, Infection & Immunity and Gastroenterology & Metabolism are envisioned to be responsible for this theme in both research institutes to facilitate interactions. Appointment of theme leaders is at the discretion of the scientific directors, but will follow after a transparent interview round in which candidates can motivate their application. Initially, theme leaders are appointed for a period of three years and preferably we envision to appoint both clinical and pre-clinical researchers in all three programs to facilitate translational research. Within their research theme, the leaders are at least responsible for:

- Stimulating interaction between individual researchers/research groups
- A vision about the short and long term research strategy within their theme
- Stimulate focus of research projects within the theme
- Nominating potential CoE
- Identification of the necessary research facilities (both equipment and accommodation
- Initiation of symposia and seminars
- Encouraging and initiating fundraising activities
- Identifying talent and fostering their development
- Preparing theme evaluation and quality assessment


Board of directors
AMC/VUmc
Deans
Res Board AMC/VUmc
Board of CCA
Education Director
Education Board
Care Director
Care Board
Scientific Director CCA
Research Board Oncology
Sounding Board
PI
CORE
Multidisciplinary care teams
Pr leaders
Board Program 1
Pr leaders
Board Program 2
Pr leaders
Board Program 3
theme 1
theme 2
theme 3
theme 1
theme 2
theme 1
theme 2
theme 3

The success of a theme should be carried and made visible by the theme leaders. This means they are in part responsible for their theme, but will also receive the recognition of their success.

The program leaders, nominated by and from the theme leaders will be appointed by the scientific directors and be responsible for voicing the needs, requests and progress of their program. They are mandated by the theme leaders and are appointed for a three year period. During the initial phase a balance between University Medical Centers and pre-clinical and clinical researchers is of crucial importance. Program leaders are at least responsible for:

- The communication between themes and research board
- A vision of the program to be generated with the other theme leaders
- The nomination and decision of CoE
- Allocation of institutional funds to specific programs or CoE
- Coordinating of seminars and symposia
- Evaluation and representation of the program
- Promotion of talent

Directory of the Cancer Center Amsterdam

It is envisioned that one scientific director with a strong translational cancer research track record will be appointed and will be supported by a daily manager of the Cancer Center and by the research board of the Cancer Center Amsterdam, while participating in / chairing the board of the Cancer Center Amsterdam. A specific profile will be developed.

For the coming period (1-3 years), two scientific directors (one from each location) are directly appointed by the Board of Directors of the two University Medical Centers and they will be responsible for the initiation of the Cancer Center. In addition, they are financially responsible for the innovation funds allocated to the Cancer Center and together with the program leaders decide on the nomination of CoE. The scientific directors are also responsible for the overall quality of the institute and represent the Cancer Center in the Research Board AMC/VUmc. In addition, the directors are responsible for the evaluation of the research conducted in the Cancer Center and will communicate with individual departments and divisions on research strategy. Finally, one of the scientific directors is member of the overall board of the Cancer Center Amsterdam, which also features members that are responsible for care and for education.

The scientific directors will be supported by a program manager who is responsible for the organization of research board meetings, communication within and outside of the Cancer Center supporting and enticing symposia and retreats and will be crucial for the initiation of the Cancer Center and the organization of the research programs.

General considerations

Translational research is fully dependent on an intimate link between clinical practice and research units. In the Cancer Center Amsterdam multidisciplinary clinical care is provided at the highest level guided by the chairs of the multidisciplinary teams. To facilitate translational research, an optimal communication and interaction between multidisciplinary care teams and pre-clinical researchers is required. On the other hand, pre-clinical research flexibility and excellence is achieved by independence of laboratory departments, allowing for more bottom-up innovation. To accommodate both, we envision independent research laboratories with dedicated positions for clinical researchers. In addition, one representative chair of the multidisciplinary care team will be part of the research board bringing the number of members to 9.

The nomination of both pre-clinical and clinical theme leaders and the integration of care professionals ascertain a multidisciplinary research board providing a platform for translation of new laboratory discoveries to the clinic.
The organization along the three research programs allows for an incorporation of all research. However, to facilitate excellent research, CoE are chosen as a means to funnel research investments and enhance exposure and interaction. CoE are selected by the research board oncology based on current excellence and on future needs and fall under the direct responsibility of the research board oncology. CoE will be nominated for 6 year, but evaluated on a 3- year basis and renewal of the priority position is solely dependent on the excellence of the collaboration measured by output, which can be publication, valorization or clinical care advances.
Facilities that serve the research within the institute are in part specific to the research institute oncology and in part shared with other institutes. Top-level facilities are crucial for the success of our research programs and, when specific to the oncology institute, will report directly to the management board. Facilities will be aligned towards the focus chosen in the CoE.
The Cancer Center will have a scientific research committee that advises about the research policy and about the feasibility of new research projects. For patient-related research that need permission of the ethical committee, the scientific research committee advises specifically about the scientific quality and the feasibility of the clinical protocol.
For project proposals that are submitted to external funding organizations (like KWF and NWO), the scientific research committee judges on scientific quality, relevance and feasibility and gives advice to improve the project proposal. All PhD projects will also be reviewed by the scientific research committee on the above mentioned aspects, to ensure that the PhD student can successfully finish the project with a PhD thesis.
The research committee consists of a maximum of 15 members, with a clear distribution between pre-clinical and clinical researchers and junior and senior scientists and with a good coverage of expertise, research areas and approaches.

11.2 Finances

The institute will eventually require core funding for a scientific director, an operational manager and a total of 2 part-time policy officers to provide support in organizing meetings, internal and external communication, collection of data for yearly reports and to prepare and support meetings of the different program and management boards. In addition, we aim to appoint a policy officer that will take care of legal matters concerning ethical and legal issues of our research endeavors, including METC and national animal ethical committee applications as well as genetic modified organism acts.

In the initial phase of the formation, the research institute will be divided between two locations. During this time the seeding money provided by the board of directors to initiate the research institute will be used on one hand to initiate joint innovation and on the other hand to organize the interaction within the institute. Both efforts are specifically directed to spur collaboration and entice joint research efforts in order to increase the likelihood to attract external funding.
Specifically, the seeding money is divided into 4 distinct parts. (see attached financial scheme).

1. The largest fraction of the funding will be allocated by means of a competition. CoE will be solicited to provide plans for funding at a maximum of 100.000 euro to create a research platform that will support multiple researchers within the CoE. Plans can involve research tools, biobanks, platforms, cohorts or dataset generation. Although the plans are in principle not intended to provide for cost for personnel, in special cases attraction or facilitation of excellent talent can be considered.
2. To facilitate interaction between the scientists in both centers joint research meetings per program and theme will be organized and supported by a limited amount of funding. In addition, funding for retreats of the programs will be provided.
3. To increase the visibility of the new research institute and to attract external funding a small budget will be allocated to outreach, which is aimed at involving patients and professional partners, which will be crucial to achieve our mission.
4. Finally, to support all efforts and to allow for an effective organization of the research institute we aim to appoint a part-time policy marker/support staff member.

In the long run we aim to use externally acquired funds for a selected number of additional activities that all are aimed to increase our research excellence and to achieve our translational research goals.
These schemes are as follows:

1. Attract young promising talent: Young talent that is likely to be successful in VENI and VIDI schemes will be scouted and approached to join our Cancer Center. A competition for an Cancer Center Amsterdam scholarship for three years will be initiated to allow these researchers to initiate their research line and attract personal funding.
2. Although we do not envision our facilities to be free of cost for users, central funding will likely be required to lift all facilities to the level of “excellent” and seeding money will be used to achieve this.
3. Next to the seeding money, additional funding will be used to invest in the CoE to allow for the acquisition of specific instruments, dedicated research tools or other CoE-specific needs. Importantly, seeding money that is allocated to scheme 1 and 2 is envisioned to also serve the formation of the CoE.
4. Research fellowships will be offered to allow highly talented and motivated clinicians to spend more of their time in research. The fellowship in principle allows the recipient to buy time to execute research and invest in improving links between pre-clinical and clinical practice.

Conditions for Success

The Cancer Center Amsterdam can be made a success as long as several conditions are met. These can be grouped into financial, organizational and scientific conditions and in some cases are dependent on the researchers within the center and in other cases on the organization of the Cancer Center Amsterdam or the mandate given by the Board of Directors and Divisions/Departments that provide the resources (personnel and other) that constitute the Cancer Center.

The conditions for success are the following;

- Focus, focus, focus! Not all topics can excel and the key research lines should really obtain a preferred position.
- Defining the essential CoE programs for a world-leading cancer center and excepting that this has consequences for other programs including re-allocation of budget.
- Support of PIs/Research leaders for plans
- Concentration of excellent laboratory research in a research building with high end (core-)facilities. Close interaction with MDL and Immunology is essential.
- Mandate from Departments/Divisions and Board of Directors
- Finances to support structure and necessary investments
- Interaction with stakeholders
- Evaluate CoE programs and define innovative programs
- Identify, attract and nurture talent

Financial page

1. Interne calls						
Omschrijving	*€ begroot 2016*		*€ begroot 2017*		*€ begroot totaal*	
	AMC	*VUmc*	*AMC*	*VUmc*	*AMC*	*VUmc*
Call voor support van Centers for Research Excellence (COREs). Support is possible for joint investments into equipment, scientific resources (such as biobanks, generation of datasets) that will evidently support the core and will benefit the research conducted by multiple members within the core. Generation of acquisition power with the use of the investments needs to be clarified. A max of 4 investments will be made per year. Of note calls will be judged internally by the program and theme directors	175000	175000	175000	175000	350000	350000
b					0	0
...					0	0
som interne calls	175000	175000	175000	175000	350000	350000

2. Personeel in loondienst								
type ondersteuning	*aantal fte*		*€ begroot 2016*		*€ begroot 2017*		*€ begroot totaal*	
	AMC	*VUmc*	*AMC*	*VUmc*	*AMC*	*VUmc*	*AMC*	*VUmc*
Gitta Kuipers: Gepromoveerde wetenschappelijke Beleidsmedewerker ter Ondersteuning Amsterdam Oncology Institute. Inventarisatie, communicatie, organisatie besprekingen en retraites, voorbereiding van vergaderingen en schrijven beleidsstukken (Salaris gebaseerd op huidig salaris). Part time gedetacheerd in AMC	0,5	0,5	42871	42871	44.157	44.157	87028	87028
secretariele ondersteuning schaal 6	0,15	0,15	5768	5768	5941	5941	11709	11709
som personeel			48639	48639	50098	50098	98737	98737

3. Materiele kosten (zoals o.a. bureaukosten, organisatie van symposia, uitnodigen sprekers)						
Omschrijving	*€ begroot 2016*		*€ begroot 2017*		*€ begroot totaal*	
	AMC	*VUmc*	*AMC*	*VUmc*	*AMC*	*VUmc*
Joint yearly research retreats per program	8000	8000	8000	8000	16000	16000
Organization of joint symposia/workdiscussion/seminars per theme (2000 euro per theme)	12000	12000	12000	12000	24000	24000
...					0	0
som materiele kosten	20000	20000	20000	20000	40000	40000

4. Overige kosten (alle overige kosten die niet vallen onder innovatie/stimuleringsgelden voor onderzoek(spersoneel) of personeel ter ondersteuning)						
Omschrijving	*€ begroot 2016*		*€ begroot 2017*		*€ begroot totaal*	
	AMC	*VUmc*	*AMC*	*VUmc*	*AMC*	*VUmc*
Outreach van het onderzoeksinstituut om investeerders aan te trekken en stakeholders te informeren	5000	5000	5.000	5.000	10000	10000
b					0	0
...					0	0
som overige kosten	5000	5000	5000	5000	10000	10000

	AMC			VUmc		
	2016	2017	totaal	2016	2017	totaal
SUBTOTALEN AMC en VUmc (som categorie 1 t/m 4)	248639	250098	498737	248639	250098	498737

	AMC & VUmc		
	2016	2017	**totaal**
TOTALEN	497278	500196	**997474**