One step ahead



of cancer

The Danish Cancer Society's Research Policy

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Thanks to the population's trust, support and voluntary work, the Danish Cancer Society can support cancer research with approximately DKK 400 million annually.

The Danish Cancer Society's overall contribution to research must constantly increase the scientific understanding of cancer and improve the possibilities for preventing and treating cancer and its consequences. The Danish Cancer Society's mission is to ensure that as few people as possible get cancer, that as many as possible survive cancer, and that life with and after cancer is as good as possible for patients and their relatives. The goal for all cancer patients and relatives is that cancer has as little impact as possible on the individual's life. The Danish Cancer Society supports research in all stages of the cancer trajectory, from prevention and diagnostics to research within all treatment areas, as well as health service research that aims to improve the healthcare service for the benefit of the population.

Through all research areas, the Danish Cancer Society strives to ensure that tomorrow will be a better place that today for all people affected by cancer.

Ambitions

The research policy forms the basis for the Danish Cancer Society's overall contribution to research.

The Danish Cancer Society sees great potential in building on the positive results research in personalised medicine and treatment has achieved in recent years. The Danish Cancer Society will continue to support research that further develops the healthcare system towards meeting the needs of the individual citizen and the cancer patient.

The Danish Cancer Society's overall research supports three lines: independent research, strategic research, and the Danish Cancer Institute. The overall research funded by the Danish Cancer Society is expected to have both scientific and clinical impact. The Danish Cancer Society wants the research results to make a difference, for example, by being implemented in the clinic, included in the offers and processes in the healthcare system, or to change the population's behaviour so that cancer is prevented.

The Danish Cancer Society's contribution to research must cover many areas. Research support can be given to research within the cancer trajectory, prevention research, and research that aims to improve the healthcare system. The Danish Cancer Society focuses on the involvement of cancer patients in research. The perspective of the cancer patients is valuable and must always be considered.

The collaboration between researchers is crucial. This applies, for example, to collaboration within and outside DCCC (Danish Comprehensive Cancer Center), DMCG.dk (Danish Multidisciplinary Cancer Groups), and international research collaboration. The Danish Cancer Society backs research collaborations, and the Danish Cancer Society's research support can be given to this type of collaboration, including international cooperation.

Openness and transparency in the Danish Cancer Society's overall contribution to research is a matter of course. The dissemination of the Danish Cancer Society's research to colleagues, other stakeholders, and the population will be prioritised.

The Danish Cancer Society strives to ensure that the framework for Danish cancer research supports research in the best possible way.

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The Danish Cancer Society will ask the researchers to relate to and, where relevant, contribute to transferring the supported research results to the clinical practice and changed behaviour in the population.



A KNOWLEDGE-BASED ASSOCIATION

The Danish Cancer Institute has an associational significance to the Danish Cancer Society. The institute contributes to the professional cohesion that characterises the Danish Cancer Society. The Danish Cancer Society draws daily on the researchers' knowledge in our professional work, in communica-

tion, and fundraising, just as the scientific evidence that the researchers contribute or translate from the international research front, forms a solid platform for some of the cancer policy results that the Danish Cancer Society succeeds in achieving.



Advances in cancer research

T-cell therapy can give terminally ill cancer patients a second chance

T-cell therapy is a special type of immunotherapy where the patient is treated with his/her own immune cells. In 2022, Dutch and Danish researchers published results showing that T-cell therapy can give terminally ill melanoma patients a second chance if standard treatment does not work. One in five patients in the trial were declared cancerfree.

The research is supported by the Danish Cancer Society and Knæk Cancer and carried out for instance at the National Center for Cancer Immunotherapy, which has been established with support from Knæk Cancer.



FUNDING OF RESEARCH ACTIVITIES AT THE DANISH CANCER INSTITUTE

The Danish Cancer Society funds the Danish Cancer Institute, and the institute's researchers have the opportunity to apply for and receive external funding and research support from the Danish Cancer Society's Scientific Committees.

KILDE: Rohaan MW et al.: "Tumor-infiltrating lymphocyte therapy or Ipilimumab in advanced melanoma". N ENGL J Med 2022; 387:2113-2125

Research lines and correlation

The Danish Cancer Society's strategy for research support has three lines: Independent research, strategic research, and the Danish Cancer Institute. Altogether, the three lines meet the ambitions of the research policy. Correlation between the lines gives research political scope and optimal conditions to achieve the best possible results for the benefit of the Danes and the people globally.



Independent research is a basic principle defined as research exposed to competition where research grants are awarded to the applicants who have achieved the best scientific assessment. The experience and expectation are that research support, granted in free competition, results in breakthroughs in understanding cancer and cancer treatment. Strategic Research research is prioritised to gain knowledge in areas of strategic importance. The strategic research also contributes to a broader support profile The Central Board of the Danish Cancer Society decides which themes will be supported. The strategic research funds are allocated according to scientific assessment.



The Danish Cancer Institute

delivers research of the highest international standard. The institute has two research lines integrated to a great extent: biological research and epidemiological research. The institute's researchers generate crucial new knowledge which contributes to developing cancer treatment. In the epidemiological field, Denmark and thus the Danish Cancer Society have a particular position of strength internationally, which must be utilised and expanded in the coming years. The institute has been and must continue to be a central factor in making Danish research a leading part of several research areas through its research results and the training of young researchers who later establish their own research groups

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From 2012-2022, Knæk Cancer has contributed more than DKK 1.4 billion to, among other things, cancer research.

Quality

The Danish Cancer Society strives for the highest research quality based on the grounds that different research traditions and research disciplines have for excellent research. Research supported by the Danish Cancer Society must be relevant, innovative, and impactful. Publication of research results in the very best recognised journals internationally is an indicator of research quality. It is expected that researchers whom the Danish Cancer Society supports strive to publish research results in the highest-ranked journals within their respective research fields.

Good research is also characterised by independence for the Danish Cancer Society, so research supported by the Danish Cancer Society must comply with the current guidelines and ethical research codes.

QUALITY IS A PREREQUISITE FOR GOOD RESEARCH

The research must aim to achieve such a high quality in both material and choice of method that the obtained results are trustworthy and accurate. Good cancer research is research that produces new knowledge that is or proves to be important for the development in the cancer field.



Advances in cancer research

Improved treatment of late effects of bowel cancer

More and more people survive bowel cancer, but many suffer late effects. Danish researchers have developed a tool to find patients who need help with late effects from colorectal cancer the so-called LARS score. The LARS score has been translated into 35 languages and is used worldwide today. In 2017, the Centre for Research on Survivorship and Late Adverse Effects after Cancer in the Pelvic Organs was established. In 2022, the centre reached a milestone when it was able to publish the first clinical guidelines on how to best treat patients with late effects from colorectal cancer.

The LARS score is based on a grant Professor Søren Laurberg received in 2007. The Centre for Research on Survivorship and Late Adverse Effects after Cancer in the Pelvic Organs was established with support from Knæk Cancer, and the work on the clinical guidelines is also supported by the Danish Cancer Society.

KILDE: Emmertsen KJa, Laurberg Sa. "Low anterior resection syndrome score: development and validation of a symptom-based scoring system for bowel dysfunction after low anterior resection for rectal cancer". Ann Surg 2012; 255(5):922-8.



Breadth of research

The breadth of research is essential to the Danish Cancer Society because the Society's research and research support profile must reflect the complexity of the cancer course. The focus of broad support must also be reflected in the composition of research-related committees for the scientific assessment of research applications.

Research advertisements must be broadly formulated to appeal to researchers with different backgrounds, experiences, and educational profiles, as there is a need for new knowledge in many different areas.

The Danish Cancer Society strives for diversity and variety in the research field. The Danish Cancer Society stimulates and supports research environments throughout the country, just as there is a willingness to take risks in promoting and supporting young researchers, new research environments, and research in underexamined fields.

Inequality in health is unfair. The Danish Cancer Society supports research on inequality and cancer and wants the results to be disseminated so that other patient groups can also benefit from this. The Danish Cancer Society will expand the research geographically and support budding and promising research environments.

Through research, the Danish Cancer Society will contribute to increasing survival after cancer – not least for those cancers where the prognosis for survival is the worst.



RESEARCH AREAS

Examples of research areas that are essential to support; early diagnostics, inequality in cancer, use of new technology, new methods to ensure the right treatment for the individual patient, artificial intelligence and other digital solutions, cancer treatment of the elderly, mental health in cancer patients in the years after a cancer diagnosis, research on multimorbidity, connection between the environment and cancer risk, research on existential and spiritual issues, research on new and more gentle treatment, research on alternative treatment, etc.



RESEARCH DISCIPLINES

Examples of research disciplines that are essential to support; health service research, psychosocial research, epidemiological and biological research, including basic research, clinical research, translational research. behavioural research, etc. The Danish Cancer Society will also focus on implementation research. There is a need for new knowledge about how research results are translated into changed behaviour in the population, among healthcare personnel and among administrators in the healthcare system.

Involvement

The ambition is for cancer patients to be involved in and contribute to the Danish Cancer Society's research as relevant and systematically as possible. In some contexts, it is evident that patients and relatives contribute to the design of research projects. In other cases, it may be more apparent that the involvement relates to implementing the research results. The involvement of cancer patients in all parts of the research process brings the research closer to the cancer patients. It ensures that the Danish Cancer Society's research contributions are always relevant for cancer patients and their relatives.

 Scientific development of PRO
Patient Reported Outcome – and the use of patients' experiences in the healthcare system must be strengthened.

Collaboration

Research collaboration must contribute to an evidence-based development of the cancer field and contribute to research results that can improve clinical practice being implemented as quickly as possible. Partnerships must help to ensure that far more patients participate in clinical trials. The Danish Cancer Society will help Danish cancer research gather around positions of strength and joint efforts that can propel Danish cancer research forward.

The Danish Cancer Society supports collaborative initiatives with international participation. National and international collaboration is essential to achieve the desired research quality. Researchers at the Danish Cancer Institute are and will continue to be included in many international research projects and professional networks where research is precisely optimised through interaction between national and international efforts.

International research collaborations in all the research lines of the Danish Cancer Society must be supported and expanded in the coming years, partly to ensure research of the highest quality and to continue attracting research funding from the EU and foundations.

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Cancer research must reach out to and collaborate with other disciplines where there is a need for special research efforts, such as in psychiatry. Cancer patients with mental illness manage significantly worse than other cancer patients.



Advances in cancer research

Optimum radiation therapy after breast cancer

Radiation therapy for cancer is a balancing act between providing sufficient radiation to kill cancer cells while avoiding side effects. In Denmark, breast cancer doctors have developed radiotherapy through many years of research in which thousands of women have participated and which the Danish Cancer Society has supported. Research has led to the standard treatment that is currently given to women who are offered radiotherapy after surgery for breast cancer.

The research is possible du to a number of grants given to Consultant and Professor Birgitte Vrou Offersen and has been carried out under the auspices of the Danish Breast Cancer Group.

KILDE: B.V. Offersen et al: Hypofractionated Versus Standard Fractionated Radiotherapy in Patients with Early Breast Cancer or Ductal Car-cinoma in situ in a Randomized Phase III Trial: The DBCG HYPO Trial. Journal of Clinical Oncology,



DCCC

DCCC – Danish Comprehensive Cancer Center – has a significant role in collaboration in Danish research. The Danish Cancer Society will work to ensure that DCCC's position is clarified and strengthened, among other things, to create strong research communities and, thus, even higher quality in Danish cancer treatment. The Danish Cancer Society sees great potential in DCCC in creating binding nationwide collaboration on research and development that benefits all cancer patients. This applies not least to the goal that many more cancer patients must be offered participation in clinical research studies.

DMCG.DK

DMCG.dk – Danish Multidisciplinary Cancer Groups – constitutes a strengthening factor for Danish Cancer research and treatment. The Danish Cancer Society will continue the close relationship and the fruitful collaboration with the DMCGs.





Advances in cancer research

Puffs of acid are vital for healthy cells

Researchers from the Danish Cancer Institute have shown that there is a hitherto completely hidden part of cell division. The research concerns lysosomes which are small organs filled with acid and enzymes in the interior of cells. The results show that when cells divide, the lysosomes release a puff of acid that helps to separate the new and the old copy of the DNA. This knowledge may be important for research into a number of diseases, ranging from cancer, which can be caused by errors in the division of DNA, to neurological deseases, which are caused by errors in the cells' lysosomes.

The research was carried out by researchers at the Danish Cancer Institute, headed by Professor Marja Jäättelä.

Openness

To create the greatest possible openness, transparency, and the opportunity to apply new knowledge, all research results supported by the Danish Cancer Society must be published and made available to authorities, decision-makers and colleagues and communicated to the general public. The Danish Cancer Society publishes an annual report with descriptive key figures and science journalism dissemination of research efforts and research results from the Danish Cancer Institute. The key statistics reflect selected performance indicators, including the number of published scientific articles and the citation index.

KILDE: Hämälistö S. et al.: Spatially and tempo-rally defined lysosomal leakage facilitates mitotic chromosome segregation. Nature Communica-tions 11, 1–15, 2020

Research political commitment

The researchers must have optimal framework conditions. The Danish Cancer Society will actively work to ensure that cancer research is prioritised politically and contributes to solving central issues in the research area. The Danish Cancer Society will clarify its research political and strategic commitment in selected areas of significant importance for cancer research, both in Denmark and in the EU.

The Danish Cancer Society sees with concern the increasing bureaucratisation of the research area by the authorities and recommends timely care to ensure the rapid development of new research to benefit patients.

There is a need for GDPR regulations to be coordinated among the authorities, for clear guidelines to be drawn up for the interpretation of the legislation in the research area, for the authorities to draw up the guidelines and provide specific advice to researchers, and for approval processes for research projects to be made more flexible

LESS ADMINISTRATIVE HASSLE

The requirements for documents to be completed and legal issues to be resolved before a research project can begin have become disproportionately burdensome. Access to data must be made more flexible. In addition, the waiting times at the authorities that must grant permission for a research project to begin and data to be provided must be shortened considerably.

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The research was carried out by researchers at the Danish Cancer Institute, headed by Professor Susanne Krüger Kjær.

KILDE: Susanne K Kjaer et al.: Real-World Effec-tiveness of Human Papillomavirus





Framework

The Danish Cancer Society has organised its overall research efforts, including research support, to fulfil the research policy's ambitions in the best way possible. \bigtriangledown

The Danish Cancer Society's research support structure ensures flexible support options, so our desire to support the cancer research that Denmark needs can be realised.

Structure

In connection with the annual budgets, the Central Board decides what proportion of the Danish Cancer Society's income must be allocated to research. The Central Board appoints the Danish Cancer Society's Research Strategy Committee to advise on research strategic issues. The committee discusses and advises on the Danish Cancer Society's overall research efforts. The advice from the committee contributes to forming the basis for the Central Board's decisions on the budget and direction for the Danish Cancer Society's research effort.

To manage the allocation of research funds for independent and strategic research, the Central Board appoints two scientific committees: The Danish Cancer Society's Scientific Committee – Biology & Clinic and the Danish Cancer Society's Scientific Committee – People & Society. The CEO ensures that follow-up actions are carried out on the overall research of the Danish Cancer Society.

After a discussion with the Danish Cancer Society's Research Strategic Committee and the research director, the CEO appoints a scientific panel with international participation which evaluates the research and organisation of the Danish Cancer Institute.

The research director compiles a plan for activities at the Danish Cancer Institute. The plan reflects the overall ambitions and priorities of the research policy.





Means and assessment

Research professorships, establishment of national research centres, support for research groups, PhD courses, etc., can be used in selected fields to promote the realisation of the Danish Cancer Society's objectives. Continuation of research grants, including established professorships, research centres, and projects, will not, as a rule, be prioritised. Research support from the Danish Cancer Society is granted based on scientific assessment.

As a rule, research support is granted based on broad, open advertisements that ensure exposure to competition. The Danish Cancer Society's Scientific Committees assess received applications according to internationally recognised scoring principles. The composition of the Danish Cancer Society's Scientific Committees must reflect the broad research perspective, which is one of the ambitions of the research policy.

In a few cases, scientific assessment can be done differently following a political decision by the Danish Cancer Society's Executive Committee or the Central Board. This will often be based on associational or patient-related considerations where it is assessed that a particular type of research must be undertaken to generate necessary new knowledge.



Follow-up

The Danish Cancer Society will systematise follow-up actions on research supported by the Danish Cancer Society. Research follow-up must provide knowledge about new discoveries and scientific advances. The purpose of research follow-up is to make it possible to communicate achieved results to the Danish Cancer Society's Central Board, members and supporters as well as to healthcare employees, health actors and society in general.





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