

5 million euros for medical innovation

Dutch government invests in the pearls of previous research

Eindhoven – April 23, 2015 – The Dutch Ministry of Economic Affairs has granted 2.5 million euros to extend seven promising research projects aimed at medical innovation. The projects, which are focused at debilitating and life-threatening diseases such as breast cancer, prostate cancer and thrombosis, are part of the Dutch CTMM (Center for Translational Molecular Medicine) research programme. CTMM’s mission is to accelerate the introduction of medical innovations to patients via public-private partnerships collaborations. The companies and academic institutions involved in the seven projects will jointly contribute a matching 2.5 million euros, making a total of 5 million euros available over the next two years.

“Medical innovation takes a long time. We are delighted that the Dutch government is investing in these research pearls,” says Peter Luijten, CTMM Chief Scientific Officer. “Through their support, we can take the last step needed to translate the research results achieved over the last five years into concrete medical applications. This is very good news for patients as well as an important economic boost for the Netherlands.”

All seven research projects are in line with the roadmap of the Dutch Top Sector ‘Life Sciences & Health’ (LSH), one of nine sectors defined by the Dutch government to boost innovation. They are all extensions of previous high-quality research programmes started in 2008 within the CTMM institute.

“In 2008, the Dutch government, along with industry and universities, invested heavily in innovative medical research with the aid of revenue from the Dutch natural gas reserves,” says Luijten. “With today’s additional funding, the government is giving a positive signal that it recognizes the need for long-term investment to capitalize scientific knowledge into medical applications and benefit the whole society.”

Note to editors:

For more information please contact Marjoke Kortas, CTMM Communications Manager, marjoke.kortas@ctmm.nl, +31 62 94 09 770.

About CTMM

The CTMM (Center for Translational Molecular Medicine) is a Netherlands-based public-private partnership. It is dedicated to the development of technologies in molecular medicine that enable early diagnosis and personalized treatment for the main areas of disease causing mortality and diminished quality of life in the western world. Its focus lies on oncology, cardiovascular, neurodegenerative and infectious/auto-immune disease. CTMM operates by inviting, assessing and funding multidisciplinary projects that involve active participation by Netherlands-based academia and industry. All CTMM projects are judged by an independent International Advisory Board and approved by a Supervisory Board based on their significant potential to translate research knowledge into clinical practice. The CTMM is funded by the Dutch government (50%), academia (25%) and industry (25%). Additional funding is provided by supporting foundations on behalf of patients.

Key figures CTMM: 133 partners, M€ 321 allocated budget, 32 projects/consortia. As of January 1, 2016, CTMM will be merged with TI Pharma.

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About the research projects:

<p>1</p>	<p>MARS&MORE Development of a Point-of-Care test for a rapid and sensitive detection of bloodstream infections</p> <p>MARS&MORE is an extension of the MARS project. MARS = <u>M</u>olecular <u>D</u>iagnosis and <u>R</u>isk Stratification of <u>S</u>epsis</p>  <p>Principal Investigator: Paul Savelkoul, Microbiome</p> <p>Partners: Microbiome Maastricht UMC AMC UMC Utrecht Biocartis</p>	<p>In the MARS project a novel assay for rapid and sensitive detection of bloodstream infections (BSI) is being developed, consisting of a sample preparation and a sensitive multi-target assay. With this combination the most relevant bacterial and fungal pathogens causing BSI can be detected within two hours after taking a blood sample from a patient. This constitutes a significant improvement as compared to the current clinical procedures as the results of traditional blood cultures can often take between 24 and 48 hours. Since it is of paramount importance that appropriate antibiotics are administered as soon as possible to a patient with sepsis, rapid diagnostics of BSI will likely improve outcome for the patient. At the end of the MARS project, the BSI test was technically operational. However, the goal was to integrate the sample preparation and the detection assay in one platform, bringing the test closer to the point-of-care. This will actually be made possible with the current MARS project extension, Mars&More, which makes it possible to add several optimizations to the test that are required before it can be introduced to the market and be used for patients.</p>
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2	<p>VOLTAVALO Thermal therapies of breast cancer using MRI-guided High Intensity Focused Ultrasound</p> <p>VOLTAVALO is an extension of the VOLTA project.</p>  <p>Principal Investigator: Chrit Moonen, UMC Utrecht</p> <p>Partners: Royal Philips UMC Utrecht</p>	<p>The VOLTA project aimed at the development of a technology platform for non-invasive treatment of cancer using MRI guided high intensity focused ultrasound (MR-HIFU), with applications in breast and liver. A major result in VOLTA is the development of a prototype of a dedicated MR-HIFU system for the breast. This system has currently been used successfully for a first clinical proof-of-concept ablation study in VOLTA on 10 patients. This VOLTAVALO project is dedicated to the valorization of this newly developed breast cancer MR-HIFU platform prototype by using the results from the first clinical feasibility studies. A phase II clinical trial will be performed using the refined MR-HIFU system aimed at complete tumor ablation, and is therefore a logically next step in the development process.</p>
3	<p>PROCAMOLMED Validation of two novel molecular markers for prostate cancer</p> <p>PROCAMOLMED is an extension of the PCMM project.</p>  <p>Principal Investigator: Chris Bangma, Erasmus MC</p> <p>Partners: Radboudumc UMC Groningen NovioGendix Research BV Royal Philips Erasmus MC</p>	<p>Prostate cancer is the most commonly occurring solid tumor in men in Western countries. There is a strong clinical need for better diagnostic tools to reduce currently ongoing over-diagnosis due to unnecessarily performed biopsies, and for improved prognostic tools to avoid over-treatment of indolent tumors, in this way preventing serious side effects such as impotence and incontinence. The PROCAMOLMED project focuses on the clinical validation of two novel promising molecular markers arising from the PCMM project. The ultimate goal is a unique head-to-head comparison of these markers with MRI outcome and novel histological markers in a prospective cohort of 750 men.</p>

<p>4</p>	<p>CHOICE Computer-aided prediction of breast cancer therapy response by means of multimodality imaging</p> <p>CHOICE is an extension of the Breast CARE project.</p>  <p>Penvoerder: Kenneth Gilhuijs, UMC Utrecht</p> <p>Partners: UMC Utrecht NKI – AVL Royal Philips</p>	<p>Breast cancer is a very heterogeneous disease characterized by high variability of response to chemotherapy. It is currently unknown which breast cancers will respond and which will not. Methods to differentiate at an early stage would provide physicians with the unique opportunity to switch to a different type of chemotherapy when an insufficient response can be anticipated. Hence, potentially ineffective therapy can be stopped, and the patient may be offered a second chance. The <u>CTMM project Breast Care</u> aimed to find early endogenous markers of tumor response to neoadjuvant chemotherapy using MRI and PET/CT. In this project we will adapt and integrate a prototype imaging workstation for response monitoring in the clinic and use it to prospectively test the computer models for response monitoring.</p>
<p>5</p>	<p>MICRO-BAT 2014 Microscope-independent thrombus formation to assess bleeding and thrombosis risks.</p> <p>MICRO-BAT 2014 is an extension of the INCOAG project.</p>  <p>Penvoerder: Johan Heemskerk, Maastricht UMC+</p> <p>Partners: Maastricht UMC+ Synapse BV</p>	<p>MICRO-BAT 2014: Microscope-independent thrombus formation to assess bleeding and thrombosis risks. Major bleeding or impaired haemostasis is a life-threatening condition, which can be caused by congenital (genetic) or acquired (medication) impaired activity of blood platelets, von Willebrand factor (VWF) or the coagulation process. MUMC+ and Synapse BV will employ their expertise for further development of a microspot flow device for the measurement these blood activities, in order to offer a compact and easy-to-use whole-blood platform for the detection of bleeding risk in patients due to aberrations in platelet, VWF and coagulant functions.</p>

<p>6</p>	<p>ECAF Development of a Tool for Non-invasive Classification of AF using AF Complexity Analysis of the Esophageal Electrogram</p> <p>ECAF is an extension of the COHFAR project</p>  <p>Principal Investigator: Ulrich Schotten, Maastricht University</p> <p>Partners: Maastricht UMC+ YourRhythmics i.o.</p>	<p>Atrial fibrillation (AF) is the most common sustained arrhythmia in adults. Currently, more than 240,000 adults in the Netherlands have AF (>6 million in Europe). MUMC+ together with a new spin-off company will clinically validate a device for non-invasive classification of AF to identify the optimal treatment in individual AF patients. The device enables the assessment of the complexity of the substrate of AF by a combination of a multichannel ECG and a transesophageal ECG.</p>
<p>7</p>	<p>deAGEpyr The effects of pyridoxamine on insulin sensitivity and vascular function; a trial in obese subjects.</p>  <p>Principal Investigator: Casper Schalkwijk, Maastricht University</p> <p>Partners: Maastricht UMC+ DiagnOptics Technologies Hycult Biotech</p>	<p>In the Netherlands, one million people have diabetes which is predicted to rise to 1.3 million in 2025. The burden of disease is mainly determined by cardiovascular disease, in which accumulation of advanced glycation endproducts (AGEs) plays an important role. MUMC+, DiagnOptics Technologies and Hycult Biotech will collaborate to investigate whether an interventional strategy with a compound interfering with accumulation of AGEs leads to an improvement of insulin resistance and vascular function.</p>