

# Executive summary

Self-evaluation report 2017 – 2022

*Amsterdam Gastroenterology Endocrinology Metabolism (AGEM) research institute*

## Introduction

The *Amsterdam Gastroenterology, Endocrinology and Metabolism (AGEM)* research institute unites the research at Amsterdam UMC (appendix 1.1) involved at the intersection of digestion, metabolism, endocrinology microbiology, cancer and public health. Together, we aim to improve gastrointestinal, endocrine and metabolic health and to connect our efforts to major societal and healthcare challenges, thereby preventing and reducing the burden of common and rare diseases.

The AGEM institute consists of approximately 700 Amsterdam UMC researchers working in the fields of gastroenterology, endocrinology and metabolism. The multidisciplinary nature of the AGEM research institute is amply illustrated by the diversity of the participating (sub-)departments and reflected accordingly in the diversity of our AGEM research board.

The last six years, research within the institute has been divided into *four programs*: (1) re-generation and neoplasms of the digestive system; (2) digestive function and pathology; (3) endocrinology, metabolism and nutrition, and; (4) inborn errors of metabolism. In order to guide the evaluation, the institute has defined ten focus areas.

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## Mission, vision, aims and strategy

The AGEM mission is: to perform research that promotes healthy nutrition and metabolism, prevents or cures gastrointestinal, endocrine and inherited and acquired metabolic disease and improves the outcomes for our patients. The AGEM vision and goal is: to unite the Amsterdam UMC research on gastrointestinal, endocrine and metabolic health and disease into a single research organization. To achieve this mission and vision, five strategic aims were formulated:

1. Talent development and retention: recruit, train and retain the next generation of excellent researchers for research programs of AGEM;
2. Promote and foster multidisciplinary research approaches within the institute between different research programs and amongst scientists from bench to bedside;
3. Provide an attractive platform for preclinical and clinical development for external partners active in our disease areas, thereby strengthening partnerships to generate societal and healthcare impact;
4. Create a sense of belonging within the institute. This involves i) creating an atmosphere of intellectual excitement and cross-fertilization that encourages researchers to expand their

understanding of biology and disease processes, in order to make important contributions to modern medicine, and ii) a safe, social and inclusive environment where individuals all contribute to team-science with their own strength;

5. Develop a branding & communication strategy, which is used to target the general public, patients, press, academic colleagues and charities. For this aim, we focus on those areas of research where the full chain of translational research is at an international top level and multiple PIs collaborate in teams.

In order to work towards these five aims, the institute has chosen the following strategy: 1) distribute annual grants; 2) organize symposia and lectures; 3) stimulate collaborations; 4) hire a business developer; 5) contribute to talent development; 6) communicate science to the scientific and general public; and 7) foster research integrity.

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## Evidence

### *Research quality*

The AGEM institute has been active in the biomedical and health sciences fields for several years, and its researchers have produced a diverse range of research output. Collaboration, both internal and external, has been an essential component of the research produced. A significant proportion of AGEM's publications have been made available to the public and 20% of its publications have been ranked in the top 10% most cited in their field in their respective year. AGEM's research efforts have yielded notable scientific outcomes, resulting in publications in high-impact journals and an increasing number of collaborations with external institutions. Next to these scientific collaborations, the use of AGEM research products is demonstrated by the numerous (systematic) reviews published by AGEM researchers as well as the relatively high Mean Normalized Citation Score. Despite the challenge of balancing data sharing with participant privacy, many research groups within AGEM are actively promoting data sharing within their respective fields. The AGEM institute is dedicated to producing high-quality research that is highly valued and well recognized by the scientific community. Many research groups within the institute play a crucial role in patient care and research in their respective disease areas at both regional and international levels: researchers are part of international consortia, received prestigious awards and grants and participate in various editorial boards and scientific organizations.

### *Societal relevance*

Next to the impact of AGEM research on filed patents, research conducted within the AGEM institute has gathered significant media attention over the last six years. AGEM research also has a significant impact on patients and patient care, particularly through its influence on clinical guidelines: the majority of AGEM focus areas scores above the world average with regards to the uptake of research in clinical guidelines. In addition to the impact of AGEM research on policy documents, the AGEM institute actively collaborates with non-academic hospitals, companies, and patient organizations. The impact of co-authorship

collaborations between the AGEM institute and non-academic hospitals was observed to be above world average for all AGEM's research focus areas. These collaborations are crucial in bridging the gap between academic research and clinical practice, ultimately resulting in better patient outcomes. The AGEM institute also communicates its research to society by publishing news articles and research highlights on its website. And, despite AGEM's primary focus on research rather than education, which is entrusted to the graduate schools and the Doctoral School, AGEM researchers actively contribute to the education of undergraduate, graduate, and PhD candidates in diverse roles. The public has shown appreciation for research conducted by AGEM researchers through public awards and prizes, as well as appointments of AGEM researchers in the boards or advisory committees of societal organizations or patient associations.

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## Accomplishments

### *Research quality and societal relevance*

The chosen case studies reflect the broad range of research conducted within the AGEM institute and demonstrate that the AGEM institute excels at fundamental, clinical and translational science. The high quality of AGEM research is shown by the fact that research has led to well-cited publications in top journals as well as invitations to prestigious international scientific meetings. Further, the AGEM institute houses some unique research projects such as those about newborn screening. Despite the fact that some of AGEM's research projects are primarily geared towards the scientific community, the societal relevance of research conducted within the AGEM institute is apparent. A prominent example of this, is the improvement of the Dutch newborn screening program by adding second-tier testing for congenital adrenal hyperplasia.

### *AGEM's contribution to the four SEP-specific aspects*

The AGEM institute shares Amsterdam UMC's commitment to be an organization in which research staff with diverse backgrounds flourish and jointly contribute to excellent team science. Despite AGEM's limited influence on HR-related aspects due to its role as network institute, the institute aims to contribute to this aim in whatever ways it can, e.g. through the AGEM Talent Development Grant and the AGEM International Student Fellowship. Second, AGEM aims to promote scientific integrity in several ways, e.g. through its Responsible Research Dinner Debate. Third, even though PhD policy is the main responsibility of the Amsterdam UMC Doctoral School and Amsterdam UMC departments, AGEM aims to provide extra support to PhD candidates, for instance by organizing an annual PhD candidate retreat and the AGEM PhD candidate course. Last, in addition to fostering Open Science, the AGEM institute aims to create a transparent environment with regards to its policies and choices and places great emphasis on stakeholder involvement.

## Strategy for the next six years

Based on the AGEM-wide SWOT analysis, it was concluded that redefining AGEM's four research programs into three research programs reflected in AGEM's name (gastroenterology, endocrinology and metabolism) will help researchers better identify themselves with the programs, thereby increasing their sense of belonging and commitment. In addition, AGEM should make clear what the centers of excellence are within the institute and actively stimulate interdisciplinary collaboration. This will benefit further internal and external positioning of AGEM. It is important to continue to develop the aspects that we are good at, namely offering a safe and enthusiastic environment for young investigators and PI's alike.

This analysis, together with the ones conducted for AGEM's three newly defined research programs, led to the conclusion that the institute is making commendable progress towards achieving its five strategic aims. Since these aims accurately represent the core mission and vision of AGEM, the institute will continue to prioritize these five aims over the next six years. While these aims will serve as the overarching framework for AGEM's strategy, this self-evaluation has highlighted specific focus points that can further refine the institute's alignment with its mission and vision:

### *1. More focus on PI level to stimulate involvement and interdisciplinary research within AGEM*

It was identified that there are opportunities to enhance cohesion among PIs working in similar research fields. A comprehensive inventory of all AGEM research will be conducted to identify common interests. Further, the institute will organize events specifically designed to stimulate interaction and collaboration among Principal Investigators, organized top-down and centered around specific research themes. These events will play a vital role in fostering a spirit of cooperation and knowledge exchange within the AGEM community. Lastly, an AGEM database will be made and updated, to enhance communication and facilitate connections between researchers. This will contribute to a more streamlined research environment and encourage fruitful collaborations.

### *2. Strengthen and further define AGEM talent policy.*

Aligned with our strategic objectives, talent development and retention hold significant importance within the institute's mission. AGEM has taken the initial steps to establish Young AGEM, a board comprising early- to mid-career researchers who will offer advice and support to the AGEM research board. Furthermore, the institute is committed to furthering the implementation of an Amsterdam UMC-wide mentoring program. Lastly, AGEM aspires to assume a more prominent role in Amsterdam UMC-wide talent policy, e.g. through the Committee for Talent and Appointments and by making a strategic talent management plan.

### *3. National and international positioning.*

To provide strategic direction for the institute, AGEM aims to strengthen its positioning within the national and international research landscape. It is crucial to identify the specific research areas in which AGEM currently holds a leading role, both on a national and international level. This determination will serve as a compass for future decision-making and enable the institute to establish a unique and appealing profile for collaboration.