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Introduction

The Lifelong Learning, Education & Assessment Research Network, commonly known as LEARN, is a research programme that participates in the research Institute School of HeAlth REsearch (SHARE) and the Graduate School of Medical Sciences (GSMS) of the University Medical Center Groningen (UMCG). LEARN was founded in June 2016 as a result of the initiative of Professor Debbie Jaarsma.

Debbie Jaarsma was appointed in the UMCG as a (full) professor in Innovation and Research in Medical Education in April 2014. The Dean, prof. Kuipers, gave her the assignment to connect all researchers with an interest in and experience with healthcare education research with the purpose of becoming one collaborative research group. Under her leadership, LEARN is currently an established group with 2 program leaders (academic directors), 8 Principal Investigators, 19 (cross-appointed) senior researchers, 38 PhD-students who will graduate their doctoral program at the University of Groningen and >13 PhD-students who will graduate at different universities and are co-supervised by LEARN PI’s or senior researchers.

LEARN established an extensive network of collaborating and visiting researchers at an institutional, national and international level. Some PI’s and senior researchers have their primary research appointment within LEARN and combine their research responsibilities with important educational, administrative or clinical responsibilities. Others have their primary appointment within the broader UMCG/University of Groningen.

LEARN is supported by an information specialist.

Historical perspective

2014–2015: relationships were build, exploration of existing expertise in research, getting to know the organisation
2015–2016: contours of LEARN were formed; first drafts of mission and vision were written, research programmes were explored, PI’s and researchers identified, PhD students attracted, collaborations intensified. Started with educational rounds to connect to teachers, educators.
June 2016: official foundation of LEARN
2016-2017: organization of LEARN better established, administrative support, deepening of mission and vision with PI’s and senior researchers, outreach to new members and PhD-students/master students, LEARN annual conferences, LEARN research meetings.

The mission of LEARN

The first mission of LEARN was drafted in the beginning of 2016 as follows:

LEARN is to contribute to excellent and safe healthcare by improving and advancing health professions education across the continuum of education and practice from first-year (medical) students to experienced healthcare professionals in the final stage of their careers. Central to this mission is high quality multidisciplinary research and teaching within the broad domain of health professions education, ranging from undergraduate programmes in medicine, dentistry, pharmacy and nursing through PhD programmes, to workplace-based learning for all kinds of health professionals.

Since LEARN is strongly linked to both undergraduate and postgraduate activities, it serves as a resource to support best practice in educational programme design and delivery including assessment, within the UMCG and its affiliated teaching hospitals. The LEARN programme nourishes the concept of lifelong learning. LEARN views the concept of lifelong learning as being integrated in a learning culture or learning organization, serving as a basis for continuously improving quality and safety in health care.

Continuous educational innovation is a core component of the missions of the Research Institute SHARE, the University Medical Center Groningen and the University of Groningen. Educational research is essential for finding new and better ways to educate health professionals and prepare them to fulfill the UMCG Healthy Ageing mission. The relevance of the LEARN research programme and its members’ expertise for Healthy Ageing is threefold. By educating health professionals in the best possible way, supported by the best available scientific evidence, we strive to prepare (future) health professionals who are able to work and learn in alignment with the UMCG Healthy Ageing mission. It is becoming increasingly clear that medical care for elderly people should focus on person-centred instead of disease-centred care, medical-technical care. This insight not only requires a paradigm shift in the training of healthcare students and the house staff of a hospital, but also indicates a need for the existing faculty to engage in lifelong learning activities in order to accommodate both patients and learners with new needs.

The second mission of LEARN was established and shortened in the beginning of 2017 after deliberations among the PI’s and senior researchers:

The second mission of LEARN was established and shortened in the beginning of 2017 after deliberations among the PI’s and senior researchers:
The mission of LEARN is to contribute to excellent healthcare by advancing the broad domain health professions education through high quality multidisciplinary research. LEARN will help shape theories, learning activities and learning culture in the domain of health professions education by (1) creating new knowledge through research and informed innovation; (2) building scholarly capacity through faculty development and mentorship activities; and (3) fostering a culture of collaboration and scholarly thinking. The LEARN programme nourishes the concept of lifelong learning, which is viewed as being integrated in a learning culture or learning organization, serving as a basis for continuously improving quality and safety in health care. Since LEARN is strongly linked to both undergraduate and postgraduate activities, it serves as an inspiration to support best practices in education, within the UMCG, the affiliated (teaching) hospitals and beyond.

**In the beginning of 2018 a new mission and vision was drafted as input for the strategic plans for LEARN for the next three years 2018-2020:**

**Vision of LEARN (Lifelong Learning, Education & Assessment Research Network)**

To be a global, transformative leader in advancing healthcare education and practice through research. Our research in healthcare education informs practice and research in the practice of healthcare informs education.

**Mission of LEARN**

The mission of LEARN is to impact on healthcare delivery through innovative and transformed healthcare education, clinical practice, and research. By solving real-world problems that are of concern to stakeholders such as educators, clinicians, students, and patients alike.

LEARN will:
- Create new knowledge through research and informed innovation relevant to advancing healthcare education and practice.
- Foster translation of new knowledge by promoting creative synergy between diverse theoretical perspectives, and between theory and practice.
- Build scholarly capacity through faculty development and mentorship activities to cultivate future research leaders in healthcare education and practice.
- Foster a culture of collaboration, academic thinking and freedom.

**Core values of LEARN:** Engaged, Open, Creative, Empowering, Stimulating positive health and well-being

**Core qualities of LEARN:** Approachable, Collaborative, Practical, Personal, Humble

**The LEARN programme**

The first research programmes of LEARN were drafted in the beginning of 2016 as follows:

Research in health professions education aims to deepen and enrich the understanding of teaching and learning practices and culture. The scope of research ranges from the processes of admission into a health professions programme to the development and maintenance of competence and continuing professional development and identity processes engaged throughout a professional’s career.

There are three main themes which are closely aligned with educational development within the undergraduate and postgraduate medicine and health professions curricula:

1. **Lifelong Learning, Learning Environments and Assessment**
   The first theme is concerned with research of learning environments and culture and assessment practices that challenge learners to become active, self-directed/self-regulated learners throughout their professional careers (lifelong learning). It also covers the impact of the educational environment on the learners’ wellbeing and the mutual relationship between educational climate and faculty wellbeing and development. This also involves developing a learning culture in which striving for continuously improving quality and safety of healthcare is a central theme.

2. **Medical Skills Acquisition, Simulation and (Team)training**
   The second theme focuses on researching professionals’ skills acquisition, simulation and training, such as:
   - instructional design for skills training and development of simulation/games.
   - health care professional-patient communication, with a focus on patient-centred communication, person-centred care and patient safety and interprofessional collaboration.

3. **Curriculum Development, Implementation and Evaluation**
   The third research theme is concerned with the (decision-making) change processes related to innovation and development of curricula, curriculum implementation and quality assurance and evaluation. Studies within this theme typically focus on:
• leadership in educational change projects
• specific innovations, such as programmatic assessment, longitudinal professional development courses, learning communities.

In the beginning of 2018 a new outline for the research programmes was drafted as input for the strategic plans for LEARN for the next three years 2018-2020:

LEARN’s research programme focuses on three main themes:

1) Non-technical competency development and the relation to CBE and workplace-based learning
2) Motivation, well-being and performance of (future) healthcare workers/adaptation to and prevention of stress
3) Innovative and transformed educational design and the complexities of curriculum change

These themes are closely aligned with developments within the undergraduate and postgraduate health professions curricula and with the vision and mission of continuing professional (faculty) development in the UMCG and its region.

The first theme focuses on the development of non-technical (‘generic’) competencies and the role of the social-cultural environment. Excellent non-technical competencies in (teams of) healthcare workers, such as (interprofessional and intercultural) communication, collaboration, compassion, shared-decision making, patient-centeredness, health advocacy, critical reflective behaviour, self-regulation and self-direction, lifelong learning abilities, (personal) leadership and a well-developed professional identity, all play a crucial role in their performance in practice and on long-term career success. Emphasis in this theme lies on the interaction between the individual, the team the individual is learning/working in, and other social and contextual factors (e.g. other co-workers, patients, supervisors, curriculum and assessment characteristics, the learning climate) within the learning and/or work environment.

Theory-driven, empirical (both quantitative and qualitative) research is conducted to better understand how non-technical competency development can be best supported through education, training and clinical practice, what barriers and facilitators exist to this development and what relations exist between competency development and individual , team and organizational performance, such as the improvement of quality and safety of healthcare. This theme is set in the current movement of competency-based education, taking place in undergraduate, postgraduate and continuous education/faculty development programs.

The second theme focuses on researching the psychological and social-cultural factors influencing motivation and well-being of (future) healthcare professionals. Emphasis lies on the interaction between the individual and the socio-cultural study- and/or work environment, and the relation between motivation, well-being and performance.

Theory-driven, empirical (both quantitative and qualitative) research is conducted to better understand the different stressors and resources, and the motivational and health erosion processes in relation to the well-being and performance of students, teachers, and healthcare workers in their social environment. Ultimately these insights are used to design and test and refine psychological (at the individual level), social (at the educational/curriculum, department level), and cultural (at the educational, department, hospital level) interventions aimed at preventing unhealthy stress, improving psychological outcomes, healthy behavior and better performance of (future) healthcare workers.

Within SHARE, this theme has emerged logically from the research programs Health Psychology Research (HPR), Ethical, Legal, and Social Issues in Genetics (ELSI) and LEARN.

The third research theme is concerned with innovative and transformed educational design and the complexities of translating and implementing these designs, through change processes, into actual practice. Current educational/instructional designs that have our interest are, among others, gamification, serious games, simulations, EBM-training, social media, e-portfolio, assessment instruments, learning communities, learning in the operating theatre and extracurricular honours programs.

Research focusses on 1) learning processes, in particular looking at learners’ basic needs, user/learner-centeredness, expertise flow, technology acceptance, learners’ attitudes and mindset towards innovations, and on 2) learning outcomes and how this can be best evaluated and assessed.

Innovations and transformations in education need change processes that succeed. Changing education is a recurring and complex process with many stakeholders involved making it a resource-intensive activity for health professions schools. With our research we aim to better understand the challenges and strategies involved in change processes, the enabling and inhibiting factors of bringing about actual change in practice and the potential discrepancies between design, the curriculum in action and the learned curriculum and the role of governance related to this. These insights are used to enhance meaningful curriculum change (processes) and empower its leaders and stakeholders involved.
The LEARN team

Between 2015-2016 the LEARN team was established as an multidisciplinary group of researchers in composition which includes (medical) educationalists, medical specialists, nurses, social scientists (psychology, sociology, business and economics), linguists, basic and applied health scientists, teachers and students. Professionals of different departments and faculties participate in the team to collaborate across areas. Both the total program and the team members maintain close links with the educational organizations within the UMCG and the affiliated teaching hospitals. Besides, links are established and maintained with health care practices (departments, care trajectories) within the UMCG. These collaborations will strengthen educational exchanges in both the undergraduate and postgraduate settings and provide routes for the implementation of research findings into practice. In particular, most research is explicitly undertaken in collaboration with the educational organizations and the affiliated teaching hospitals and, therefore, often initiated and informed by (medical) practice.

The LEARN team has several related responsibilities, such as: providing guidance, information and recommendations with respect to educational development and quality, quality of care and conducting research; developing positive academic mindsets among staff members of the UMCG and its affiliated hospitals; and increasing the reputation and international visibility of LEARN in the field of research in (health sciences) education.

Programme leader of LEARN is professor dr. Debbie Jaarsma, and since 2018 she finds in prof. dr. Paul Brand a co-programme leader.

Between 2015-2017, LEARN consists of a team with:

- Professor emeritus: prof. dr. Janke Cohen-Schotanus
- Postdoctoral fellows: dr. Mirjam Klaassens, dr. Marco Antonio de Carvalho Filho (Brazil), dr. Joke van der Mark-Wouden.
- PhD-students, who gain their doctorate at the University of Groningen: Marieke Adema; Robbert Bosker; Elvira Coffetti; Dario Cecilio Fernandes; Kirsten Dabekaußen; Elco Draaisma; Ids Dijkstra; Anne van Gaalen; Wieke van der Goot; Rodrigo Gonzales Alvarez; Petra van Heugten; Yvonne ten Hoeve; Marianne van Houten-Schat; Petra Huizinga-de Jong; Lisanne Hut-Mossel; Abdul Satar Khan; Mirjam Kaisjer; Annette Keuning-Plantinga; Tamara Köhler; Kelvin Kramp; Luppy Kiulman; Derek Kuipers; Nico Leenstra; Jolise ‘t Mannetje; Patrick Nieboer; Fundhy Prihatanto; Nienke Renting; Laura Smids; Lodewijk Schmit Jongbloed; Nienke Schriepsmea; Kiki Spanjers; Yoyo Suhoyo; Gepke Veenstra; Floor Velthuis; Stefan van Vendelloo; Martha van der Wal; Yan Zhou and Tom van Zwieten.
- PhD-students, who gain their doctorate at another university and are co-supervised by LEARN researchers: Irén Alders, Joost van den Berg, Joris Berkhout, Marloes Duitsman, Ada Kool, Jennita Meinema, Annemarie Moll-Jongerius, Andrea Oudkerk Pool, Nelleke Poel, Tamara van Woekiz. International: Adilson Donizete Ledubino [Campinas University Brazil], Diego Lima Ribeiro [Campinas University Brazil], Evangelie Stubbing [University of Aberdeen, Scotland].

Fostering academic mindsets & academic freedom

LEARN has a focus on developing academic thinking and promote academic freedom among its members as well as the teaching staff of the UMCG and its affiliated hospitals. LEARN aims to bring communities together and create a platform to share knowledge, expertise, experience, research findings and to learn from each other.

To that end, we started the following initiatives in 2016:

- Establishing a library for researchers and teaching staff with medical education books, theses and journals (coordinator: Tineke Bouwkamp-Timmer)
- Six times a year, LEARN organises 3-hour educational rounds on a broad range of topics related to the research themes and beyond. The rounds are open for all interested in (evidence-based) education (in the UMCG and the affiliated hospitals) to attend.
- Twice a year, all PI’s and senior researchers gather for a half-day meeting, chaired by the programme leaders, in order to review research progress, anticipate submitting collaborative grant applications and network.
Once a year, a LEARN symposium is organized where the entire group of PI’s, senior researchers, PhD students and collaborating researchers meet to share ideas and to engage in constructive controversy to stimulate creativity and innovation. In December 2016 the first LEARN symposium was organized (see: Launch of LEARN), in January 2018, the second LEARN symposium was held.

Every month, subgroups of LEARN organize research meetings in which PhD students and their supervisors discuss their work and relevant topics in the field of interest.

Membership of the Dutch Medical Education Association (NVMO) and participation in special interest workgroups on different medical education topics. The NVMO has an institutional membership of the Association for Medical Education in Europe (AMEE), which includes all its members.
Annual LEARN event

The launch of LEARN involved a full-day symposium discussing various health sciences education topics from different perspectives. On 16 December 2016, the first Lifelong Learning, Education & Assessment Research Network (LEARN) symposium took place in the UMCG Education Center. The goal of the symposium was twofold. First, to present our research work to a broader audience. Second, to create a platform to share knowledge, expertise, research findings, experiences with evidence-based education and to learn from each other. We invited all interested in medical and health professions education to participate. Swedish and Belgian delegations from our U4 partners the universities of Uppsala and Ghent also attended the symposium.

We were honoured to welcome the keynote speakers: prof. dr. Ralph MacKinnon from the Manchester Children’s Hospital and prof. dr. Paul Brand from Isala, Zwolle. The number of attendees was 132.
All workshops were hands-on and interactive. The LEARN members presented their research through quick and short communications (5 and 15 minutes per presentation to discuss research that is still in progress and completed studies, respectively).

Evaluations of the symposium revealed that the attendees appreciated the content of the active program, the keynotes and the enthusiastic keynote speakers, the interdisciplinary character, the variety of topics, the networking possibilities, the workshops, the informative character of the short and quick communication sessions, the positive atmosphere and the good organization. In addition, some suggestions for future symposia were given, like the timing of the symposium. The feedback encouraged us to continue organizing similar symposia.
On 26 January 2018, the second LEARN symposium took place in the UMCG Education Center. This symposium represented the collaboration of all teaching hospitals involved in postgraduate education in our region (OOR-NO). To celebrate the participation of the OOR-NO in the LEARN symposium, the joint directors of the teaching hospitals endorsed an annual lecture by an international keynote speaker at this symposium. We are proud that this lecture bears the name of professor Rein Zwierstra, the first dean of Medical and Postgraduate Education at the UMCG.
At the LEARN symposium 2018, the Rein Zwierstra lecture was held by professor Lorelei Lingard from the Western University, London Ontario, Canada.

We also welcomed professor Erik Driessen from Maastricht University as a keynote speaker. Similar to the first LEARN symposium, all workshops were hands-on and interactive and the LEARN members presented their research through quick and short communications. The number of attendees was 115. We thank all the attendees for making the second LEARN symposium a great success!

**PhD research 2015-present**

**PhD student: Bosker RJI (Robbert)**  
Implementation of laparoscopic colon surgery in daily practice  
(Teaching/Learning)  
PhD position: 2009-  
Supervisors: - prof.dr. JPEN Pierie  
- prof.dr. RJ Ploeg  

**PhD student: Yoyo Suhoyo**  
Providing feedback in clerkships: the role of culture  
PhD position: 2010-2017  
Supervisors: - prof.dr. JBM Kuks  
- (emeritus) prof.dr. J Cohen-Schotanus  
- prof.dr. Ova Emilia  
Co-supervisors: - dr. J Schönrock-Adema  
- dr. EA van Hell  

**PhD student: Wal MA van der (Martha)**  
Leadership in residency training  
PhD position: 2011-2016  
Supervisors: - (emeritus) prof.dr. J Cohen-Schotanus  
- prof.dr. F Scheele  
- prof.dr. ADC Jaarsma  
Co-supervisor: - dr. J Schönrock-Adema  

**PhD student: Dijkstra IS (Ids)**  
Preparedness for practice after postgraduate medical education  
PhD position: 2012-2016  
Supervisors: - prof.dr. PLP Brand  
- prof.dr. ADC Jaarsma  
Co-supervisor: - dr. J Pols  

**PhD student: Huizinga-de Jong P (Petra)**  
Learned and perceived professional roles of a new type of nurse specialized in gerontology and geriatrics  
PhD position: 2012-2017  
Supervisor: - prof.dr. PF Roodbol  
Co-supervisor: - dr. E Finnema
PhD student: Hoeve Y ten (Yvonne)
Shaping of professional identity of nurses
PhD position: 2012-2017
Supervisor: - prof.dr. PF Roodbol
Co-supervisors: - dr. GJ Jansen
- dr. S Castelein

PhD student: Renting N (Nienke)
CanMEDS roles in residency training
PhD position: 2012-2016
Supervisors: - prof.dr. ROB Gans
- prof.dr. JCC Borleffs
- prof.dr. ADC Jaarsma

PhD student: Schmit Jongbloed LJ (Lodewijk)
Physicians’ job satisfaction throughout their career
PhD position: 2012-2017
Supervisors: - (emeritus) prof.dr. J Cohen-Schotanus
- prof.dr. JCC Borleffs
- dr. J Schönrock-Adema

PhD student: Schripsema NR (Nienke)
From lottery-based admissions to selection: what does it add?
PhD position: 2012-2017
Supervisors: - (emeritus) prof.dr. J Cohen-Schotanus
- prof.dr. JCC Borleffs
- dr. AM van Trigt
Co-supervisor: - dr. J Schönrock-Adema

PhD student: Cecilio Fernandes D (Dario)
Medical knowledge and skills development from a cognitive perspective
PhD position: 2013-2017
Supervisor: - prof.dr. ADC Jaarsma
Co-supervisors: - dr. RA Tio
- dr. F Cnossen

PhD student: Kuilman L (Luppo)
Ethical decision making among Physician assistants
PhD position: 2013-
Supervisors: - prof.dr. PF Roodbol
- prof.dr. FA Hindriks
Co-supervisors: - dr. GJ Jansen
- dr. LJ Middel

PhD student: Kuipers DA (Derek)
Serious gaming in medical education (Teaching/Learning)
PhD position: 2013-
Supervisor: - prof.dr. J PEN Piere
Co-supervisor: - dr. J Prins

PhD student: Leenstra NF (Nico)
Human factors in trauma care and ICU handovers
PhD position: 2013-
Supervisors: - prof.dr. JE Tulleken
- prof.dr. A Johnson
Co-supervisor: - dr. O Jung

PhD student: Fundhy Prihatanto
Students’ self-directed learning development in the Indonesian context
PhD position: 2014-2018
Supervisors: - (emeritus) prof.dr. J Cohen-Schotanus
- prof.dr. ADC Jaarsma
- prof.dr. NM Rehatta
- dr. H Dekker
- dr. E Helmich
Co-supervisor: - dr. M Westerman

PhD student: Heugten PAM van (Petra)
Excellence in international business students
PhD position: 2014-2018
Supervisor: - prof.dr. ADC Jaarsma
Co-supervisor: - dr. MVC Wolfensberger
- dr. M Heijne-Penninga

PhD student: Köhler TC (Tamara)
Development and socialization of the pharmacy technician
PhD position: 2014-2018
Supervisor: - prof.dr ADC Jaarsma
Co-supervisor: - dr. M Westerman

PhD student: Adema M (Marieke)
Professional identity formation of clinical clerkship students
PhD position: 2015-2019
Supervisors: - prof.dr. ADC Jaarsma
- prof.dr. DHJM Dolmans
- prof.dr. F Scheele
Co-supervisor: - dr. E Helmich
PhD student: Velthuis F (Floor)
The complexity of medical curriculum renewal in practice; a change agent perspective
PhD position: 2015-2019
Supervisor:  - prof.dr. ADC Jaarsma
Co-supervisors:  - dr. H Dekker
                - dr. L Varpio
                - dr. E Helmich

PhD student: Vendeloo S van (Stefan)
Educational climate, burnout and quality of life among medical residents
PhD position: 2015-2019
Supervisors:  - prof.dr. PLP Brand
             - prof.dr. SK Bultstra
Co-supervisor:  - dr. CCPM Verheyen

PhD student: Spanjers KR (Kiki)
Serious Games and eHealth
PhD position: 2015-
Supervisors:  - prof.dr. SEJA de Rooij
             - prof.dr. ADC Jaarsma
Co-supervisor:  - dr. HHM Hegge

PhD student: Nieboer P (Patrick)
Task complexity and operation theatre dynamics between surgeons and assistants / supervisors
PhD position: 2016-2020
Supervisors:  - prof.dr. ADC Jaarsma
             - prof.dr. SK Bulstra
Co-supervisors:  - dr. F Cnossen
                - dr. M Huiskens
                - dr. M Stevens

PhD student: Smids LR (Laura)
Honours students: preferences for autonomy and structure
PhD position: 2016-2020
Supervisor:  - prof.dr. ADC Jaarsma
Co-supervisors:  - dr. J Schönrock-Adema
                - dr. JM van der Mark-van der Wouden

PhD student: Kaijser (Mirjam)
Learning and teaching in bariatric surgery
PhD position: 2016-2020
Supervisor:  - prof.dr. JPEN Pierie
Co-supervisors:  - dr. B van Wagensveld
                - dr. G van Ramshorst

PhD student: Veenstra GL (Gepke)
Clinical governance & motivation
PhD position: 2015-2018
Supervisors:  - prof.dr. E Heineman
             - prof.dr. HBM Molleman
Co-supervisor:  - dr. GA Welker

PhD student: Zhou Y (Yan)
The contribution of learning communities to transformative learning, identity formation and profiling future health professionals
PhD position: 2016-2020
Supervisors:  - prof.dr. NA Bos
             - prof.dr. ADC Jaarsma
Co-supervisor:  - dr. J Pols

PhD student: Zwieten T van (Tom)
Independence-scaled procedural assessment of surgical skills: why, when and how
PhD position: 2016-2020
Supervisor:  - prof.dr. JPEN Plierie
Co-supervisor:  - dr. MJ van Det

PhD student: Houten-Schat M van (Marianne)
Family practice residents’ self-regulated learning
PhD position (aiotoho): 2016-2017
Supervisors:  - prof.dr. ADC Jaarsma
             - prof.dr. MY Berger
Co-supervisor:  - dr. A Diemers

PhD student: Hut-Mossel PA (Lisanne)
Personal resources in honours students
PhD position: 2016-2020
Supervisor:  - prof.dr. ADC Jaarsma
Co-supervisors:  - dr. M Heijne Penninga
                - dr. MVC Wolfensberger
                - dr. M Gellevij

PhD student: Veenstra GL (Gepke)
Clinical governance & motivation
PhD position: 2015-2018
Supervisors:  - prof.dr. E Heineman
             - prof.dr. HBM Molleman
Co-supervisor:  - dr. GA Welker

PhD student: Zhou Y (Yan)
The contribution of learning communities to transformative learning, identity formation and profiling future health professionals
PhD position: 2016-2020
Supervisors:  - prof.dr. NA Bos
             - prof.dr. ADC Jaarsma
Co-supervisor:  - dr. J Pols
PhD student: Gaalen AEJ van (Anne)
Education in the dissection room
PhD position: 2016-2020
Supervisor: - prof.dr. ADC Jaarsma
Co-supervisor: - dr. JO Georgiadis

PhD student: Goot WE van der (Wieke)
The context of PGME - the complex social environment and its influence on resident motivation
PhD position: 2016-2020
Supervisor: - prof.dr. ADC Jaarsma
Co-supervisor: - dr. E Helmich

PhD student: Kool L (Liesbeth)
The wellbeing of newly qualified midwives
PhD position: 2016-2022
Supervisor: - prof.dr. ADC Jaarsma
Co-supervisors: - dr. F Schellevis
               - dr. E Feijten

PhD student: Draaisma (Eelco)
Learning Evidence-based Medicine
PhD position: 2017-2021
Supervisors: - prof.dr. PLP Brand
               - prof.dr. ADC Jaarsma
Co-supervisor: - dr. JO Georgiadis

PhD student: Dabekassien K (Kirsten)
The significance of health care professionals’ attitudes and behaviour in patient safety
PhD position: 2017-2021
Supervisors: - prof.dr. E Heineman
               - prof.dr. MJMH Lombarts
               - prof.dr. ADC Jaarsma
Co-supervisor: - RA Scheepers, PhD

PhD student: Khan AS (Abdul Satar)
Factors affecting giving & receiving peer to peer feedback within the context of problem based learning.
PhD position: 2017-2021
Supervisor: - prof.dr. ADC Jaarsma
Co-supervisors: - dr RA Tio
               - dr J Schönrock-Adema

PhD student: Coffetti E (Elvira)
Nursing and the adoption of technology
PhD position: 2017-2023
Supervisor: - prof.dr. PF Roodbol
Co-supervisor: - dr. W Paans
              - dr. J Zuidersma

PhD student: Keuning-Plantinga ZJ (Annette)
Caring for elderly with dementia in the hospital setting
PhD position: 2017-2023
Supervisor: - prof.dr. PF Roodbol
Co-supervisor: - dr. EJ Finnema

PhD student: Gonzales Alvarez VR (Rodrigo)
Burnout in medical students and its treatment
PhD position: 2018-2022
Supervisors: - prof.dr. AV Ranchor
             - prof.dr. ADC Jaarsma
Co-supervisors: - dr. J Fleer
               - dr. M Janse

Prospective PhD students:
- Tineke Kingma
- Evelyn Schaafsma
- Pauline Bakker
- Naomi Boyd

PhD-students, who gain their doctorate at another university and are co-supervised by LEARN researchers:
[A comprehensive list is under construction]

PhD student: Kool A (Ada) [Universiteit Utrecht]
Sirius bachelor project, Excellence in higher education
Completed in: 2016
(Breukelmans, van Breukelen, Jaarsma, Mainhard)

PhD student: Berkhout JJ (Joris) [AMC - UvA]
Self-regulated learning of clerks
Completed in: 2017
(Jaarsma, van der Vleuten, Teunissen, Helmich)
PhD student: Berg JW van den (Joost) [AMC - UvA]
Work-engagement of medical teachers
Expected completion: 2018
(Jaarsma, Scherpbier, Lombarts, Verberg)

PhD student: Meinema JG (Jennita) [AMC - UvA]
Cultural sensitive education in hypertensive African-Dutch population
Expected completion: 2018
(van Dijk, Haafkens, van Weert, Jaarsma)

PhD student: Duitsman M [UMC St Radboud, Nijmegen]
Assessment and evaluation of resident’s performance
Expected completion: 2019
(de Graaf, Jaarsma, ten Kate, Fluit)

PhD student: Oudkerk Pool A (Andrea) [MUMC - Universiteit Maastricht]
Learning strategies relevant for lifelong learning
Expected completion: 2019
(Driessen, Govaerts, Jaarsma)

PhD student: Woezik T van (Tamara) [RadboudMC]
Validity of the competence-based portfolio
Expected completion: 2020
(van der Wilt, Koksma, Reuzel, Jaarsma)

PhD student: Alders I (Irèn) [UMC St Radboud, Nijmegen]
Patient coaching in patients with chronic health conditions
Expected completion: 2019
(van Dulmen, Brand)

PhD student: Poel N (Nelleke) [VUmc]
Tinkering supervision, patient safety and quality of care in general practice and elderly care medicine residency training
Expected completion: 2022
(Hertogh, van Dijk, de Bruijne, Smalbrugge, Helmich)

PhD student: Moll-Jongerius A (Annemarie) [LUMC]
Developing a caring identity
Expected completion: 2022
(Kramer, Achterberg, Helmich)

International:

PhD student: E. Stubbing (Evangeline) [University of Aberdeen, Scotland]
An exploration of feelings experienced as medical students’ negotiate the development of a professional identity
Expected completion: 2020
(Cleland, Helmich)

PhD student: Lima Ribeiro D (Diego) [Campinas University Brazil]
An exploration of feelings experienced as medical students’ negotiate the development of a professional identity
Expected completion: 2022
(Antonio de Carvalho Filho, Helmich)

PhD student: Donizete Ledubino A(Adilson) [Campinas University Brazil]
Making the implicit explicit - Contributions of Improvisational Theater to Medical Education
Expected completion: 2022
(Antonio de Carvalho Filho, Helmich)
PhD theses 2015-2017

Kramp KH
Education in laparoscopic surgery: All eyes towards in vivo training. [Groningen]: University of Groningen 2016.

Schripsema NR
Embargo ends: 25/10/2018

Schmit Jongbloed L

Theses from PhD-students who gained their doctorate at another university and were co-supervised by LEARN researchers

Kool A
Excellence in higher education: Students’ personal qualities and the effects of undergraduate honours programmes. [Sirius bachelor project]. [Utrecht]: Utrecht University 2016. (Breukelmans, van Beukelen, Jaarsma, Mainhard) file:///X:/My%20Downloads/Kool%20(1).pdf

Berkhout JJ
Medical students’ self-regulated learning in clinical contexts. [Amsterdam]: AMC - University of Amsterdam 2017. (Jaarsma, van der Vleuten, Teunissen, Helmich)
Embargo ends: 13/4/2019

Next to the PhD projects, several (collaborative) research initiatives have been established within the LEARN community:

Brand PLP, Schönrock-Adema J
How to measure the quality of the educational environment in (postgraduate) medical education

Fleer J, Jaarsma ADC, Schönrock-Adema J
Juggle study: a longitudinal prospective cohort study on goals, well-being and academic performance of medical students

Helmich E, in collaboration with: dr. Sayra Christiancho, dr. Laura Diachun, prof. dr. Lorelei Lingard, Schulich School of Medicine & Dentistry, Western University, Ontario Canada
Facing complexity in medical education

Helmich E, leading a research network named the European Centre of Excellence in Qualitative Study and Inquiry in Training and Education (EXQUISITE)

Venhorst V, van den Berg A, ter Beek FAJM, Pols J
The spatial mobility of medical students, post graduate trainees and medical specialists

Versluys MAC, Tio RA, Muntinghe FLH, Horst ICC van der
Assessment of the CanMEDS competencies scholar and communication using a standardized approach

Welker GA
The role of change agents in continuous quality improvement
LEARN PI’s and senior researchers are also supervising undergraduate students’ research projects – 2015-2017:

Student: Melissa Bolier, Medicine (AMC) 2016-2017
Emotional development throughout medical school: a longitudinal qualitative study
Supervisor: dr. E Helmich

Student: Kristel van den Eerenbeemt
Een kwalitatieve studie over de meningen van huisartsen in opleiding over hun kennisverwerving in de opleidingspraktijk.
Supervisor: dr. AD Diemers

Student: Myrna Molema, Sociology (RUG)
The role of being trained in a profession on the collaboration between doctors and nurses
Supervisors: dr. D van Tol & dr. J Pols

Student: Wendy Olsder, MSc Industrial Engineering and Management (RUG)
Optimizing the scheduling of resident and patient care programs in radiology
Supervisors: dr. DJ van der Zee & T Hoogstins/dr. J Pols

Student: Eva Schaafsma, Onderwijskunde (RUG)
First-year residents’ tasks: how they are mastered
Supervisors: dr. J van der Linden & dr. J Pols

Student: Lonne Milou Stegeman, HRM (Hanzehogeschool)
Influence of the nursing and medical curricula on collaboration between doctors and nurses
Supervisors: prof.dr. F Rink & dr. J Pols

Student: Lieke Stokkers, Sociology (RUG)
Societal factors influencing questions from patients during outpatient visits

Student: Ilse Vos, HRM (RUG)
Medical and nursing students preparation for collaboration: the role of professional identity, out-group threat, willingness to collaborate and perceived status differences
Supervisors: prof. dr. F. Rink, dr. J. Pols

Student: Pieter Walstock, Medicine (RUG)
Entertrustable Professional Activities (EPAs) in undergraduate education: how supervisors make entrustment decisions about medical students
Supervisor: prof.dr. ADC Jaarsma, in collaboration with the University of California, San Francisco

Student: Eline Wijnhoud, Strategisch Human Resource Management (Universiteit Utrecht)
First-year residents’ tasks: how stressful the learning process is experienced

Student: Estelle Evers, Cultural Geography (RUG)
Wandel mee door het UMCG: een onderzoek naar de beleving van de ruimtelijke ziekenhuisomgeving

Student: Esther van der Mark, Orthopedagogiek (RUG)
Pediatricians are speaking: knowledge acquisition and task beliefs of pediatricians about the development and learning of the chronically ill child

Student: Naomi Boyd, Medicine (RUG)
A cross-cultural comparison between medical students’ self-regulated learning challenges and the influencing socio-cultural factors.
Supervisors: prof. dr. ADC Jaarsma & dr. E Helmich

Student: Dominique Cirkel, Mathematics, Science, Business and Policy (RUG)
(Toegangs)Tijden veranderen: onderzoek naar het komen en gaan op de Polikliniek Dermatologie, Interne Geneeskunde en het Groninger Transplantatiecentrum van het UMCG
Supervisors: dr. A.P. van Beek & dr. J Pols

Student: Varja Loef, Hospitality management (Hotelschool The Hague)
Shared decision-making, information provision and expectation management: patient experiences with and performance of the rehabilitation centre

Student: Sanne Mulder, Orthopedagogiek (RUG)
Ziek zijn maar toch blijven bewegen: Een explorerend onderzoek naar de determinanten voor fysieke activiteit onder jongeren met en zonder een oncologische aandoening
Student: Thom Ronde, Master Health Sciences, Health Services and Management (University of Twente)
A patient satisfaction study based on the results of the Consumer Quality Index: The outpatient clinic for Neurology in the University Medical Centre Groningen
Supervisors: dr. JJ de Vries & dr. J Pols

Student: Willem Sol, Communication & Multimedia Design (NHL)
Onderzoek naar inzet en functioneren van patiëntenwebsite urologie

Student: Paulien Harms, Research internship; collaboration Faculty of Arts (RUG) and Medicine UMCG
Language and Agency in talking about medical educational change: a linguistic discourse analysis on expressing agency through pronoun use by medical educational change agents
Supervisors: prof. dr. AJ Koole & prof.dr. ADC Jaarsma

Students: Bram de Vries, Milou Rozeman, Kalle Major, Jasper van de Pol, Bachelor project medicine (RUG)
Patient feedback in medical education – development of a patient feedback tool to improve patient-centered care.
Daily supervisor: prof.dr. ADC Jaarsma

Student: Raymond van den Busken, MBA thesis Nyenrode
Virtual Reality in training physicians on new technology in Transcatheter Heart Valve Implantation.
Supervisor: prof.dr. Misa Džoljić
External supervisor prof.dr. ADC Jaarsma
Grants 2015-2017

2017 – 2020  **Prof.dr. ADC Jaarsma**
Erasmus+ (Nuffic) IMPACCT ‘IMproving PAatient-centred Communication Competences: To build professional capacity concerning health literacy in medical and nursing education’ (2017-1-NL01-KA203-035290. 449.956,- euro; Partners: Netherlands, Germany, Ireland, Italy, Slowakia, Belgium/ UMCG, NUIG, EURASHE, ARS, UPJS, RUG, Jacobs University)

2017 – 2019  **Prof.dr. ADC Jaarsma**
On being a female full professor: An international study exploring the experiences of women working in medical education. (Ottawa, Canada; Aberdeen, UK; Bethesda, USA; UMCG). Medical Education Research / Medical Innovation Project Application ($15.580 Canadian dollars)

2017 – 2018  **Prof.dr. ADC Jaarsma**
Studievoorschotmiddelen; t.b.v. onderzoek van onderwijs. Detaching dr. Huiskes van RUG Letteren naar UMCG (21.000 Euro)

**Dr. J Pols & dr. M Huiskes**
Van onderzoek naar trainingsmogelijkheden voor arts-patiënt communicatie.
Regiofonds € 45.980,-

**Prof.dr. PLP Brand**
Training for doctors and nurses in shared decision making: effect on patient safety (‘Scholing van artsen en verpleegkundigen in gedeelde besluitvorming: effect op patiënttevredenheid’). Vereniging Nederlandse Ziekenhuizen in het kader van het Beslist Samen! Project € 55.000,-

**Dr. J Schönrock-Adema & dr. JM van der Mark van der Wouden**
Research into the honours teaching community. Honours college project grant € 81.000,-

Development, implementation and evaluation of an intervention to optimize the quality of both supervision and the learning climate in JSM Pilot Projects
Fellowship for Innovation of Teaching (FIT) € 3.500,-

2016-2018  **Prof.dr. PLP Brand & dr. J Schönrock-Adema**
Development of a brief instrument to assess teacher and supervisor performance in postgraduate medical education (‘Ontwikkeling van een opleiders- en supervisorenthermometer voor medische vervolgopleidingen’). Regiofonds subsidie van de Regionale Centrale Opleidings commissie(ReCOc) OOR Noord&Oost € 50.000,-

**Prof.dr. H van der Wiel & dr. JKG Wietasch**
Evaluation of a training program fostering resilience for anesthesiology residence (‘Evaluatie van cursorisch onderwijs aan AIOS Anesthesiologie ter bevordering van mentale weerbaarheid’). Regiofonds subsidie van de Regionale Centrale Opleidings commissie (ReCOc) OOR Noord&Oost € 47.487,-

**Dr. J Schönrock-Adema & dr. JM van der Mark van der Wouden**
Research into the honours teaching community.
Honours college project grant € 81.000,-

2016  **Prof.dr. PLP Brand**
Learning complex EBM skills through deliberate practice.
Regiofonds subsidie OOR Noord en Oost € 50.000,-
Zorginstituut Nederland € 50.000,- and Innovatie- en Wetenschapsfonds Isala € 5000,-

2015-2019  **Prof.dr. ADC Jaarsma, dr. J Schönrock-Adema & dr. JM van der Mark van der Wouden**
The project Practice-oriented research on excellence in institutions of further and higher education (Praktijkgericht onderzoek Excellentie MBO & HO: ‘Excellentie door doceerstrategie: vrijheid en structuur in balans voor elke student’). Partners: UMCG/RUG, Hanzehogeschool Groningen,
Windesheim Zwolle and Utrecht University, Netherlands
Initiative for Education Research (NRO) € 625.144,-

2014-2020  **Dr. E Helmich**
Tinkering supervision, patient safety and quality of care in general practice and elderly care medicine residency training.
ZonMW funding: € 194.853,-

2014-2018 **Dr. E Helmich**
Cross-cultural differences in professional identity development of medical students. AMEE Research Grant: € 10.632,40.

2014 – 2017 **Prof.dr. ADC Jaarsma**
NFU Project Dedicated Schakeljaar; deelproject onderzoek. (in total 1.650.000 Euro; Partners: MUMC, RadboudMC, UMCG: 3 PhD students and 1 postdoctoral scientist)

2014 – 2016 **Prof.dr. ADC Jaarsma**
EU project Lifelong Learning Program ‘Culturally Competent in Medical Education / C2ME’. (370.000 Euro; Partners: Netherlands, UK, Belgium, Germany, Ireland, Scotland, Switzerland, Spain, Denmark, Hungary, Norway)
International publications 2015-2017


Articles 2015-2017

2015


23. Zee M, de Boer M, Jaarsma ADC. Acquiring evidence-based medicine and research skills in the undergraduate medical curriculum: three different didactical formats compared. Perspectives on Medical Education 2014;3(5):357-70. DOI 10.1007/s40037-014-0143-y

2016


29. Cecilio-Fernandes D, Kerdijk W, Jaarsma ADC, Tio RA. Med Teach. Development of cognitive processing and judgments of knowledge in


49. Schripsema NR, van Trigt AM, van der Wal MA, Cohen-Schotanus J. How different medical school selection processes call upon different


2017


National publications 2015-2017

Books & book chapters


Reports


Articles


Valorisation & outreach

Dissemination of educational research (LEARN) with teachers, educators and students in the UMCG

Initiator and organiser of educational rounds/seminars

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<tr>
<th>Date</th>
<th>Topic</th>
<th>Presenter(s)</th>
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<td>01-04-2015</td>
<td>Human errors and the emotional impact of calamities on clinicians and how we can support clinicians after such calamities</td>
<td>Jo Shapiro, Director of the Center for Professionalism and Peer Support and Chief of the Division of Otolaryngology in the Department of Surgery at the Brigham and Women’s Hospital (BWH) in Boston and an Associate Professor of Otolaryngology at Harvard Medical School. Honorary Professor of Professional Behavior and Peer Support in Medicine through the academic track at our University Medical Center Groningen</td>
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<td>09-06-2015</td>
<td>The cognitive science of medical skill acquisition – How should medical skills be instructed?</td>
<td>Fokie Cnossen &amp; Dario Cecilio Fernandes, the Institute of Artificial Intelligence &amp; Cognitive Engineering in the Faculty of Mathematics and Natural Sciences</td>
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<td>09-11-2015</td>
<td>“Kids these days”: Reconsidering our conversations about Generation ME, Fields and disciplines, phenomena and theories: Considerations in defining ‘good’ scholarship in health professions education</td>
<td>Glenn Regehr, Professor at the Department of Surgery and Associate Director (Research) at the Centre for Health Education Scholarship of the University of British Columbia</td>
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<td>12-01-2016</td>
<td>Bouwen aan een onderwijscultuur</td>
<td>René Tio, Hanke Dekker &amp; Debbie Jaarsma, UMCG</td>
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<td>16-02-2016</td>
<td>Zelfgestuurd leren op de werkplek in de gezondheidszorg</td>
<td>Irene Slootweg, AMC</td>
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<td>24-05-2016</td>
<td>Ben ik een lerende docent of docerende leraar?</td>
<td>René Tio, UMCG</td>
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<td>05-07-2016</td>
<td>The Juggle Study: een 6-jarige prospectieve cohortstudie bij geneeskundestudenten – Over de inhoud en implementatie van deze studie binnen het G2020 geneeskundecurriculum</td>
<td>Joke Fleer &amp; Roland van Mossel, UMCG</td>
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<td>15-09-2016</td>
<td>Complexities of curriculum change</td>
<td>Debbie Jaarsma, Hanke Dekker &amp; Floor Velthuis, UMCG</td>
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<td>19-01-2017</td>
<td>Tomorrow’s Education. The landscape of traditional, blended and online learning</td>
<td>Harold van Rijen en Rianne Bouwmeester, professor of Innovation in Biomedical Education and Director of Biomedical Sciences at UMC Utrecht and the second part by Rianne Bouwmeester, PhD, who graduated at the University of Utrecht on November 3rd 2016.</td>
</tr>
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<td>12-09-2017</td>
<td>Small group teaching: beneficial for all?</td>
<td>Jasperina Brouwer, RUG</td>
</tr>
<tr>
<td>17-10-2017</td>
<td>Health communication in different contexts</td>
<td>Claire Penn, University of the Witwatersrand in Johannesburg, South Africa &amp; Tom Koole, RUG</td>
</tr>
<tr>
<td>13-12-2017</td>
<td>The use of video for (formative) assessment purposes, as part of the toolbox of workplace-based assessment/programmatic assessment</td>
<td>Paul Ram &amp; Cees van der Vleuten, Maastricht University and EBMA (European Board of Medical Assessors: <a href="https://www.ebma.eu">https://www.ebma.eu</a> ), of which UMCG is also a member.</td>
</tr>
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</table>

[415x528] 05-07-2016 | Zelfgestuurd leren op de werkplek in de gezondheidszorg | Irene Slootweg, AMC |
| 24-05-2016 | Ben ik een lerende docent of docerende leraar? | Joke Fleer & Roland van Mossel, UMCG |
| 15-09-2016 | Complexities of curriculum change | Debbie Jaarsma, Hanke Dekker & Floor Velthuis, UMCG |
| 19-01-2017 | Tomorrow’s Education. The landscape of traditional, blended and online learning | Harold van Rijen en Rianne Bouwmeester, professor of Innovation in Biomedical Education and Director of Biomedical Sciences at UMC Utrecht and the second part by Rianne Bouwmeester, PhD, who graduated at the University of Utrecht on November 3rd 2016. |
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| 17-10-2017 | Health communication in different contexts | Claire Penn, University of the Witwatersrand in Johannesburg, South Africa & Tom Koole, RUG |
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Major national and international collaborations 2015-2017

In line with the mission of LEARN to bring communities together and serve as a resource to support best practice in educational program design and delivery, the LEARN team collaborates with researchers and educationalists from many departments of the UMCG and its affiliated teaching hospitals.

Current collaborations outside the UMCG are related to supervising PhD students with colleagues from other faculties of the University of Groningen or from other universities:

Close collaborations with faculties and platforms of the University of Groningen are, among others, with the Faculty of Arts; the Centre of Expertise Healthwise, Faculty of Economics and Business; the University College; the Faculty of Behavioural and Social Sciences; the Faculty of Science and Engineering; and the Health Communication Platform of the University of Groningen.

On a national level, close collaborations with other universities are, among others, with the Faculty of Health Medicine and Life Sciences, Maastricht University Medical Center; the Academic Medical Center of the University of Amsterdam; the Free Medical Center, Free University Amsterdam; Utrecht University; Leiden University Medical Center; Faculty of Medical Sciences, Radboud University Nijmegen; and the Applied Universities Hanze Hogeschool, Saxxion and Windesheim.

Collaboration at an international level includes Ghent University, Belgium; University of Göttingen, Germany; Carl von Ossietzky University, Oldenburg, Germany; University of Uppsala, Sweden; Stockholm University, Sweden; University Hospitals of Leicester, UK; University of Aberdeen, Scotland, UK; Queens University, Belfast, Ireland; McGill University, Montreal, Canada; McMaster University, Hamilton, Canada; Schulich School of Medicine & Dentistry, Western University, Ontario, Canada; Uniformed Services University of the Health Sciences (USU), Maryland, USA; Campinas University, Brazil; and National Taiwan University, Taipei, Taiwan.

PhD students from abroad are also supervised in close collaboration with supervisors from their home university Airlangga University, Surabaya, Indonesia and Gadjah Mada University, Yogyakarta, Indonesia.

Furthermore, PI’s of LEARN work closely and lead projects with the following organisations: NFU (dedicated schakeljaar, admission/selection, consortium on Quality and Safety in Healthcare); National Health Care Institute (Zorginstituut Nederland – ihb Kwaliteitsinstituut); The Netherlands Organisation for Health Research and Development (ZonMw); IQ Healthcare – Radboudmc; and the Institute of Health Policy & Management (iBMG) – Erasmus University Rotterdam.

Faculty development initiatives are local (Teach the Teacher programmes), national (Dutch Association for Medical Education) and international (AMEE, Ottawa conferences, Leadership in Medical Education for U4 partners).

Delegations of U4 partners from the Universities of Ghent and Uppsala who visited the UMCG and attended the LEARN symposium together with a delegation of the UMCG
Hosting visitors/visiting institutes

- Maastricht University: Institute for Medical Education, Faculty of Health, Medicine, and Life Sciences and Department of Educational Development and Research.
  This collaboration led to numerous peer-reviewed international publications, congress contributions, PhD supervision and dissertation(s), shared organisation of the project group Research in Medical Education of the Netherlands Association of Medical Education (NVMO), opportunities for educational management training and educational research training.  
- University of Twente: department of Educational and Human Resources sciences and faculty of Technical Medicine. This collaboration led to a student research project and to one shared peer-reviewed international publication.
  **Invited visitors:** dr. Maaike Endedijk, 2016
  *Visiting in exploration of collaboration in simulation-based education (Tulleken & Jaarsma), 2017*
- Faculty of Social and Behavioural Sciences and Centre for Education and Teaching, Utrecht University. This collaboration led to two granted research projects; Sirius bachelor and master and has led to shared peer-reviewed international publications and dissertations, 2009–2015
- Close collaborations with faculties and platforms of the University of Groningen are, among others, with the Faculty of Arts; the Centre of Expertise Healthwise, Faculty of Economics and Business; the University College; the Faculty of Behavioural and Social Sciences; the Faculty of Science and Engineering; and the Health Communication Platform of the University of Groningen, 2014 – present
- On a national level, collaborations with other universities are, among others, with the Academic Medical Center of the University of Amsterdam; the Free Medical Center, Free University Amsterdam; Leiden University Medical Center; Faculty of Medical Sciences, Radboud University Nijmegen; and the Applied Universities Hanze Hogeschool, Saxxion and Windesheim.
- Collaboration at an international level includes Ghent University, Belgium; University of Göttingen, Germany; Carl von Ossietzky University, Oldenburg, Germany; University of Uppsala, Sweden; Stockholm University, Sweden; University Hospitals of Leicester, UK; University of Aberdeen, Scotland, UK; Queens University, Belfast, Ireland; McGill University, Montreal, Canada; McMaster University, Hamilton, Canada; Schulich School of Medicine & Dentistry, Western University, Ontario, Canada; Uniformed Services University of the Health Sciences (USU), Maryland, USA; Campinas University, Brazil; and National Taiwan University, Taipei, Taiwan.
- PhD students from abroad are also supervised in close collaboration with supervisors from their home university Airlangga University, Surabaya, Indonesia and Gadjah Mada University, Yogyakarta, Indonesia.

- The following visitors were hosted:
  - prof. dr. Lorelei Lingard, January 2018 (Schulich School of Medicine & Dentistry, Western University, Ontario, Canada)
  - prof. dr. Claire Penn, October 2017 (University of the Witwatersrand in Johannesburg, South Africa)
  - prof. dr. Harold van Rijen & dr. Rianne Bouwmeester, June 2017 (UMC Utrecht)
  - dr. Irene Slootweg, February 2016 (AMC)
  - dr. Harold Bok, May 2015 (Faculty of Veterinary Sciences, Utrecht University)
  - prof. dr. Ralph MacKinnon, December 2016 (the Manchester Children’s Hospital, UK)
  - prof. dr. Glenn Regehr, November 2015 (the Centre for Health Education Scholarship of the University of British Columbia, Vancouver, Canada)
  - dr. Anna Macleod, January 2015 (Faculty of Medicine, Dalhousie University, Halifax, Canada)
  - dr. Marco Antonio de Carvalho Filho, two-year sabbatical at LEARN/CEDAR, 2017-2018 (Faculty of Medicine, Campinas University, Brazil)

- The following institutes were visited with the purpose of understanding their research vision and organisation:
  - Maastricht University: Institute for Medical Education, Faculty of Health, Medicine, and Life Sciences and Department of Educational Development and Research, April 2014
  - Center for Health Education Scholarship (CHES), UBC Vancouver, Canada, April – May 2014
  - Centre for Medical Education, Faculty of Medicine, McGill University, Montreal, Canada, May 2014
  - Prideaux Centre for Research in Health Professions Education, Flinders University, Adelaide, Australia, February – March 2016
Website

https://www.umcg.nl/EN/Research/InstitutesProgrammes/SHARE/Programmes/Paginas/LEARN.aspx

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