### **Annual Report 2022**

# Data Science Center in Health (DASH)

Embedding data science in the DNA of the UMCG

#### **KEY HIGHLIGHTS**



#### **COLLABORATIONS INCUBATOR**

- Getting more than 200 people to discuss AI in Healthcare using our serious game AI Hospital
- Active participation in key partnerships such as <u>HTRIC</u> & <u>AI Hub North Netherlands</u>
- ELSA AI Lab Northern Netherlands successfully set up and launched



#### **IMPACT & OUTREACH**

- Many media appearances by DASH experts on radio, newspapers and TV
- <u>LinkedIn account</u> expanded to 2000+ followers
- Much-attended machine learning workshop for children during Zpannend Zernike



#### **EDUCATION**

- Follow-up educational project <u>AIProHealth</u> launched with face-to-face course in the works
- Exploratory project for <u>UMCG learning line Data Science</u>, AI and eHealth launched
- Successful edition of <u>Summer School Data Science & Al in Healthcare</u>

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#### **PROJECT SUPPORT**

- Two selected projects promoting the use of Al in healthcare
- Support provided to a further eight innovative proposals
- Effectively supported the 'Sensing and monitoring' and 'Robotics in Healthcare' working groups



#### **FUNDING OPPORTUNITIES**

- 1.2 million euro grant awarded to establish ELSA Lab Northern Netherlands
- 40 thousand euro grant awarded to faculty-wide learning line 'Digital healthcare'
- Contributed to the project 'My robot colleague will be with you in a moment'



### Preface

Embedding data science in UMCG's DNA is our dream. At DASH, our ambition is for UMCG to be an international leader in data-driven healthcare innovation, because we believe that this is essential in reaching our goal of building the future of health. Data driven innovation has the potential to transform health and healthcare. This may be an ambitious vision, but a clear goal is needed to keep up with the promising and stormy developments in data science, Al and eHealth, but above all to stay ahead.

Over the past year, we have taken several steps in this direction. For example, by developing education ourselves, but also by working with education professionals to see if we can get more attention to this topic at both undergraduate and graduate level.

In terms of research support, we continued to supervise projects and studies. Together with many UMCG employees as a sounding board, an eHealth vision was developed.

Another milestone is the establishment of an ELSA lab in the Northern Netherlands, with a grant from the Dutch AI coalition and NWO. Within this lab (focused on healthcare), the ethical, legal and societal aspects of AI are investigated. This is of utmost importance, because the application of humane AI in healthcare can only take place if all ELSA aspects are met.

In May, DASH successfully passed the UMCG-wide external ISO audit. The auditors particularly complimented DASH's goal-oriented way of working, derived from our newly developed vision and mission.

You can read about this and the rest of our activities in our annual report.

Frank Schröer, Programme Manager



Embedding data science in the DNA of the UMCG

### Introduction

DASH is a UMCG-wide programme designed to accelerate the deployment of data science activities in UMCG and optimise their impact. DASH supports UMCG in its vision to work with diverse partners in regional, national and international networks to continuously improve and push boundaries for a sustainable future of health.

### **Our mission & vision**

The exponential growth in the amount and diversity of available health data offers new opportunities to uncover relevant and useful information that can be used by researchers, doctors, patients, healthcare providers and the general population. Collecting, analysing and interpreting this data requires increasingly complex data science techniques that push the boundaries of current hardware, software and networking technologies. This is why we believe that data science and data-driven innovation can have a transformative impact on healthcare and is the reason why DASH was founded in 2019.

DASH's vision is for UMCG to become an international leader in data-driven healthcare innovation. At DASH, we aim to unlock the full potential of data-driven innovation in prevention and care by sharing knowledge, building communities and through project development activities. We provide synergistic support to research, education and clinical implementation in the field of data science, AI and eHealth and embed it in the DNA of the UMCG.

Our activities and facilities are state-of-the-art, have a strong regional base and an international scope. We are experts in population and patient-based cohort data. We aim to enable UMCG researchers and clinicians active from basic research through to implementation in clinical practice to be a linking pin for external stakeholders who wish to collaborate in this domain.



### **Strategic Lines**

To translate that vision into activities, we work along four strategic lines. Each strategic line is led by a DASH expert, who is committed to moving UMCG forward in his or her specific area. These experts are seasoned researchers and opinion leaders in their field.



The Machine Learning line focuses on advanced machine learning technologies and various analytical strategies such as federated learning and synthetic data to enable collaboration with both internal and external partners. <u>Peter van Ooijen</u> is our DASH expert on Machine Learning. His educational background is technical computer science with a specialisation in computer graphics. He works with machine learning, federated learning and synthetic data in medical imaging and leads the Machine Learning Lab.

**Clinical Application of AI** brings technical, organisational and legal challenges. These require implementation roadmaps that provide workflows for our professionals. Job Doornberg is an orthopaedic trauma surgeon, and his scientific focus is on the clinical application of AI.

To bridge the gap between the development and use of data science by patients and healthcare providers, **eHealth** plays an essential role. It enables effective and accessible regional and clinical embedding of data-driven healthcare innovations. <u>Esther Metting</u> is a psychologist and epidemiologist. She has scientific and practical experience in organisational innovation management. Her experience in clinical, behavioural and implementation science has led to a solid and multidisciplinary basis for eHealth research.

Finally, the basis for data science is, of course, high-quality data. The UMCG has a long history of developing highly characterised **Cohorts** of diverse populations, both clinically and population based. <u>Rozemarijn Vliegenthart</u> is a radiologist and professor of cardiothoracic imaging. She is involved in several clinical and population-based cohort studies.



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To put the strategic lines into daily practice, DASH carries out numerous activities. We bring together multidisciplinary collaborative partners in sustainable consortia and provide selected project support. To embed data science, we are involved in education programmes and to create awareness and showcase the impact of data science, we organise various events, webinars, social media outings and newsletters. Furthermore, we constantly scout for funding opportunities in both the public and private sectors. Below (and on the first page) there is a summary of the activities that DASH organised and participated in. An extensive list of activities can be found in the Appendix.



#### **Collaborations Incubator**

We bring together multidisciplinary cooperation partners in sustainable consortia that are synergetic and result-oriented. DASH is a partner of the AI Hub North Netherlands launched in 2021. This hub is a spin-off of the Dutch AI Coalition. Recently, Michiel Hooiveld was asked to join as strategic advisor in the field of healthcare on behalf of DASH/UMCG.

On May 30th, the collaboration with Hanzehogeschool resulted in a pitch event with a keynote speech by Esther Metting.

Another example is the 'Text mining in Dutch medical text' project, in which UMCG, UMCU, RadboudUMC and Erasmus MC are working together to install and validate open source technology (CogStack platform) in the UMCs. Amsterdam UMC also joined during the project. In addition, DASH is involved in a number of small and large collaborative projects with Bytesnet, Novartis, Infervision and other companies.

#### **Project Support**

We provide selected project support, both in the pre-award phase and in the implementation phase.

Since DASH's establishment in 2019, we have supported several successful projects, some of which have already been delivered and others are ongoing. Our growing project portfolio allows us to expand our activities and facilities and demonstrate the purpose of our existence.



Once a year, it is possible to apply for a DASH Project Grant and thus receive targeted support from the DASH team in starting a research project. DASH Project Grants are open to UMCG-researchers, working in (pre)clinical UMCG departments, who perform promising research that involves challenges regarding (big or complex) data, research IT, eHealth or data science. Approved projects are adopted as 'DASH projects' and receive dedicated data science support from the DASH team.

#### DASH projects 2022:

- Automatic Recognition of Distal Radial Fracture (In)Stability: Integration of Convolutional Neural Network in EPIC by Koen Oude Nijhuis. The aim of this project is to implement a convolutional neural network (CNN) algorithm for automatic recognition of distal radial fracture (in)stability in the electronic medical record of patients (EMR, EPIC in UMCG) for clinical validation.
- FAIR use of oncological treatment data as registered in Beacon (EPIC) by Petra Vinke. The aim of this project is to develop an automated method for generating datasets from UMCG's electronic medical record (EMR) EPIC and/or EPIC modules.

#### **Needs Assesment**

DASH records needs, challenges, bottlenecks and other inputs related to data science to enable appropriate solutions to improve the level of research projects in data science, AI, eHealth and machine learning. As an example, robotics can facilitate healthcare in many ways. It is not yet entirely clear how. Several initiatives were launched in 2022. Besides a Sparkle event on social robots, self-learning robots and surgical robots, we helped write a research proposal 'My robot colleague will be with you in a moment' by Prof. Jenny van Doorn (UG) and supported the Robotics working group.

#### Education

To embed knowledge about data science, we are involved in educational programmes aimed at medical and biomedical engineering students, healthcare professionals, researchers and advanced data scientists.



DASH has received funding to translate the Massice Online Open Course 'How AI can support healthcare', which we developed within the European AIProHealth consortium, into Dutch and to develop a face-to-face course. This project targets healthcare professionals and enables them to immerse themselves in the interesting world of AI in healthcare. Using lessons from leaders in thinking about AI in healthcare, learners build their knowledge and confidence in the key areas of AI in healthcare, before learning how to implement it in their own workflow. The online course has already been completed by over 2,000 participants.

In addition, a grant has been awarded in 2022 to explore what should be included in Data Science, AI and eHealth (digital health) in UMCG's undergraduate and graduate courses. The collaboration between MiCompany and UMCG resulted in a bootcamp of two times three weeks for UMCG employees who want to dive deep into AI. This bootcamp will take place in 2023.

#### **Impact & Outreach**

To create awareness and showcase the impact of data science, we organise various events, webinars, social media posts and newsletters. The DASH team is constantly scouting for funding opportunities in both the public and private sectors. There has been significant investment in DASH's impact and reach.

Our followers on social media have grown considerably and, in addition, our website is in the most visited pages of the UMCG research website. Furthermore, our newsletter continuously reaches more people. Researchers and doctors (regional, national and international) know how to find us, which often results in great research and education collaborations.

#### **Funding Opportunities**

The 1.2 million for the ELSA Lab North Netherlands was a great start for 2022. This is the only ELSA lab in the field of healthcare to receive funding from NWO. Funds were also awarded on a smaller scale, for example for eHealth (Aletta Jacobs School of Public Health) and education (FKOO grant for AlProHealth).





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### **Facilities**

To support our strategic lines and activities, we have developed a number of facilities.

#### AI Think Tank

Our <u>AI Think Tank</u> gathers thought leaders in the field of AI. They provide solicited and unsolicited ideas and advice on the policy and application of AI in research and clinical practice. Four Think Tank meetings took place in 2022. The initiative for the IT Lab originated in the Think Tank and the chairmanship of the exploration of expanding the collaboration with Siemens Healthineers on AI was handed over to Think Tank chair Job Doornberg.

#### Machine Learning Lab

The Machine Learning Lab unites a vibrant and growing community of around 100 data science enthusiasts consisting of PhD students, postdocs, data science experts and staff from the UMCG and the University of Groningen. The lab exchanges knowledge, experience and technical solutions to machine learning challenges during biweekly MLL meetings. For key milestones, see the appendix.

#### ELSA lab Northern Netherlands (ELSA-NN)

<u>ELSA-NN</u> was launched on 1 September. This lab is a consortium focusing on Ethical, Legal and Societal aspects of AI and on developing knowledge that is important for the responsible development and application of AI in the context of healthcare. By researching cultural, ethical, legal, socio-political and psychological aspects of using AI in different decision-making contexts. Twenty-four quadriple helix partners are involved in this project, which is based at DASH with project leader Mirjam Plantinga.

#### • IT-Lab

The IT Lab is where DASH deploys state-of-the-art, flexible and advanced data science software and hardware solutions, suitable for data scientists pushing the boundaries of what is currently technically possible.

#### • Communities

DASH recognises that progress in data science should not be made in perfect isolation, but is something that happens in different communities, each with its own focus. Communities can connect people and facilitate knowledge sharing and co-creation. By ensuring that DASH is (well) visible at various meetings, conferences and symposia. This facilitates connections and expansion of networks so that anyone with an interest in data science can join UMCG-wide communities.

### The DASH team

The different team members work part-time for DASH, as they are also involved at the UMCG in various other roles. With the limited amount of time available, many things were accomplished throughout 2022.

- Frank Schröer Programme manager / Manager
- Michiel Hooiveld Liaison and Policy Officer
- Jan Jurjen Uitterdijk Project Portfolio Manager
- Mirjam Plantinga Project Leader ELSA lab Northern Netherlands
- Johanneke Wijbenga Secretary
- Femke van der Bij Communication Officer
- Eline Meijer Data Scientist
- Thijmen Kupers Data Scientist
- Rosa Verhoeven Content Developer AlProHealth
- Bart Scheerder Business Developer AI
- Natasha Maurits Advisor
- Peter van Ooijen Expert Machine Learning | Machine Learning Lab Coordinator
- Esther Metting Expert eHealth
- <u>Rozemarijn Vliegenthart</u> Expert Clinical Cohort Data
- Job Doornberg Expert Clinical Implementation of AI

#### Get in contact with us:





## **Appendix - List of DASH activities 2022**

#### **COLLABORATIONS INCUBATOR**

- 19 Jan Webinar on 'AI out of the (black) box' together with Dell Technologies for the Hanze Machine Learning Community
- 16 Feb DASH Webinar 'eHealth: Implementation in Healthcare. What does it mean for you as a healthcare professional?' As part of the national Smart Care Relay 2022. (Esther Metting)
- March Provided a presentation on 'Citizens Science' for the Dutch organisation for epidemiology. (Esther Metting)
- 3 March Provided a presentation on 'AI in healthcare' at the Dutch Association for Safety Studies (NVVK). (Rosa Verhoeven & Eline Meijer)
- 15 March Delivered a presentation at a meeting of the Novartis Netherlands Patient Academy on 'The benefits and barriers of Artificial Intelligence (AI).' (Peter Van Ooijen)
- 17-19 March Esther Metting chaired a session on 'Advances in digital technology in respiratory medicine, the potential to better outcomes for patient' at the 7th Respiratory Effectiveness Group (REG) Summit
- 17-19 March Poster presentation 'Effectiveness of Telemonitoring for Respiratory and Systemic Symptoms of Asthma and COPD: A Narrative Review' at the 7th Respiratory Effectiveness Group (REG) Summit (Esther Metting)
- 18 March Provided a presentation at the Data Science Network of UMCs on DASH and the ELSA-NN AI Lab (Frank Schröer & Mirjam Plantinga)
- 13 April Present at national NLAIC event on 'Algorithms that work for everyone.' (Mirjam Plantinga & Frank Schröer)
- 14 April Provided a presentation on the evaluation of the CoronaCheck application at the respiratory effectiveness group in Lisbon (Esther Metting).
- 5-7 May Provided a presentation on 'How AI can support GPs in the future at the IPCRG conference in Málaga. (Esther Metting)
- 12 May Present at the festive launch of the strategic agenda 2022-2024 of the Akkoord van Groningen at Forum Groningen. (Frank Schröer)
- 17 May Guest lecture on Machine Learning during Course R for UMCG staff. (Eline Meijer)
- 19 May Workshop provided with the AIProHealth serious game board game during the LEARN symposium. (Peter van Ooijen)
- 20 May HTRIC Innovation booster provided on 'AI and Imaging' (Peter van Ooijen & Frank Schröer)
- 30 May Symposium/Networking event organised by DASH/Hanze Hogeschool (Michiel Hooiveld)
- 31 May Keynote presentation at EMP Conference 2022 on 'Innovation through collaboration Data Science in Health.' (Peter van Ooijen)
- 8 June KI Work lab in Forum Groningen. (Mirjam Plantinga)
- 15 June Participated in roundtable discussion on 'Digital skills and educational needs for the future of healthcare' at the DES Show in Málaga. (Rosa Verhoeven)
- 17 June Workshop ELSA-NN/AIProHealth board game during HTRIC kick-off at Forum Groningen. (Mirjam Plantinga)
- 17 June Keynote presentation during HTRIC kick-off at Forum Groningen. (Bart Scheerder)
- 23 June Pitch on DASH during kick-off Jantina Tammes School at the University of Groningen. (Frank Schröer)
- 24 June Attended AI symposium of AI University Tilburg and NL AIC. (Mirjam Plantinga & Frank Schröer)
- 24 June Workshop during UMCG Training Day on 'The doctor of tomorrow'. (Peter van Ooijen & Rosa Verhoeven)
- 29 June Knowledge meeting between DASH and Isala hospital (Peter van Ooijen, Jan Jurjen Uitterdijk, Michiel Hooiveld and Frank Schröer)
- 4 July DASH meets Infervision (AI and Imaging Company) about collaboration.
- 6 Sept Presentations on 'Telemonitoring of asthma and COPD patients' and 'Digital applications regarding COVID-19
  prevention' at symposium of the European Respiratory Society in Barcelona (Esther Metting)Frank Schröer26 Sept Kickoff meeting of the patient/citizen sounding board group of ELSA-NN. (Mirjam Plantinga)
- 15 Sept Present at kick-off ELSA Lab Media & Democracy. (Frank Schröer),
- 22 Sept Present at kick-off ELSA Lab Al-Maps (Frank Schröer)
- 27 Sept Official kick-off of the ELSA-NN at the UMCG. (Mirjam Plantinga, Frank Schröer, Peter van Ooijen & Esther Metting)

- 4 Oct Health-RI workshop about text mining and speech input for Dutch Electronic Patient Records (EPDs) (Natasha Maurits & Frank Schröer)
- 6 Oct Provided a presentation at the 'VvE SIG symposium: Let's sail through the numbers' on 'Identifying COVID-19 in registration data using machine learning: an applied BERT model.' (Eline Meijer)
- 6 Oct Keynote presentation at EBF Groningen's College Day 2022. (Mirjam Plantinga)
- 14 Oct Present at ELSA Lab Live! Kick-Off by NWO. (Mirjam Plantinga & Frank Schröer)
- 14-15 Oct Workshop with AlProHealth serious board game during EUsoMII congress in Valencia. (Peter van Ooijen & Eline Meijer)
- 28 Oct ELSA-NN Workshop and session with AlProHealth serious board game during the conference of Al Hub Noord Nederland in the Forum, Groningen. (Mirjam Plantinga & Peter van Ooijen)
- 3 Nov Present at kick-off ELSA Lab Defence (Frank Schröer)
- 16 Nov Brainstorming meeting of the Coalition Digital Literacy, northern IT companies and healthcare organisations on the development of a living lab for digital literacy. (Esther Metting)
- 1 Dec Present at national ELSA lab conference. (Mirjam Plantinga)
- 2 Dec Present at very first national ELSA congress in Heerlen. (Mirjam Plantinga & Frank Schröer)
- 6 Dec Final presentation of the 'SURF/DCC call' of Consortium UMCU. RadboudUMC, ErasmusMC, AmsterdamUMC and UMCG present results Textmining project. (Jan Jurjen Uitterdijk)
- 9 Dec HTRIC Innovation Booster on 'Responsible development and implementation of AI.' (Mirjam Plantinga)
- 13 Dec Kick-off meeting of UMCG Data Community. (Eline Meijer & Thijmen Kupers)

#### **PROJECT SUPPORT | NEEDS ASSESMENT**

- 15 Aug Identification of data science issue/problem at Lean Six Sigma programme. (Eline Meijer/Frank Schröer)
- Sep Provided advice and support on data science at rehabilitation UMCG. (Peter van Ooijen & Frank Schröer)
- Nov Start of the working groups 'Sensing and monitoring' (led by Claudine Lamoth, Esther Metting and Michiel Hooiveld) and 'Robotics in Healthcare' (led by Deniz Baskent, Lieke Poot (Isala) and Gloria Araiza Illan). The aim of these two working groups is to contribute to reducing the physical and mental workload of (healthcare) professionals in the UMCG through the targeted use of innovative sensor and monitoring technology, and robots in healthcare (and its evaluation), to increase labour input and satisfaction, and to help save on (healthcare) costs.
- COVID-GP project. An interregional time-series analysis of healthcare consumption in Dutch general practices in regions with known heterogeneity in COVID-19. The aim of the project is to map the change in healthcare consumption in Dutch general practices during COVID-19 pandemic. (Thijmen Kupers & Eline Meijer)



#### **EDUCATION**

- 14 Jan Lecture on eHealth implementation for professionals from healthcare management studies at the University of Groningen (Esther Metting)
- 17 jan DASH Mini Lecture: Deep learning for cardiac imaging
- 31 Jan Online course: "How Artificial Intelligence Can Support Healthcare" Slimme Zorg Estafette 2022
- 30 March DASH Webinar: Responsible development and implementation of AI
- 1 June Course eHealth implementation for MBA health students (Esther Metting)
- 1-8 July Summer School Data Science and AI in Health Edition 2022
- 12 July DASH Mini Lecture: Eye Movement Event Detection in Dynamic and Natural Conditions
- 25 July DASH Mini Lecture: The role of Annotations in the Development and Implementation of Deep Learning
- 5 Aug DASH Mini Lecture: Natural Language Processing
- 21 Sept DASH Webinar: Identifying diseases earlier using AI-based Imaging Biomarkers
- 28 Sept Kunstmatige Intelligentie | Wat is het en hoe wordt het gebruikt in het ziekenhuis?
- 5 Oct Kunstmatige Intelligentie | Wat is het en hoe wordt het toegepast in de gezondheidszorg?
- 5 Oct Artificial Intelligence | What is it and how is it applied in healthcare?
- 5 Oct DASH Webinar 'Do we need better interfaces?'
- 8 Nov DASH Webinar: Federated Learning 'The Future of Digital Health'
- 17 Nov DASH Sparkle Event: AI & Robotics in Healthcare
- Dec Establishment of a new research programme 'Digital Healthcare' under the W.J. Kolff Institute of the UMCG with programme leaders Peter van Ooijen, Esther Metting, Job Doornberg and Rozemarijn Vliegenthart.
- 1 Dec 'Innovation management for medical specialists' course at Executive MBA Rijksuniversiteit Groningen. (Esther Metting)
- 7 Dec 'Citizen science' component provided for the minor 'More Healthy Years' at University College Groningen. (Esther Metting)
- 7 Dec Exploratory project for UMCG learning line Data Science, AI and eHealth launched

#### **IMPACT & OUTREACH**

- 2022 Linkedin account expanded from 1000+ to 2000+ followers
- 3 Jan Esther Metting is nominated for the 'Woman in the Media Award 2021, Groningen.'
- 28 Jan Press release on grant for ELSA-NN.
- 10 Feb Article by Dagblad van het Noorden on grant for ELSA-NN.
- 16 Feb Presented at webinar on data science and Lean Six Sigma UMCG (Frank Schröer)
- 12 April Publication of article with Raun van Ooijen and Rozemarijn on the DataPoort.
- 18 May Publication of blog by Kai van Amsterdam on Data Science in Healthcare.
- June Participated on behalf of UMCG/DASH in the AI Hub NN (https://www.aihub-noord.nl/) and wrote a proposal for a 'Digital Healthcare network - Northern Netherlands (DH-NN).' (Michiel Hooiveld)
- June 1 'Make digital care accessible to all.' Publication article by Esther Metting for ICT&Health.
- June 7 <u>'Health gap looms as digital care grows'. Esther Metting mentions possible solutions in Dagblad van het Noorden article.</u>



- June 7 'Health gap looms between digibits and other people' Publication of RTV Noord article with Esther Metting.
- 4 July Happy Hour Science UMCG. Provided presentation on DASH and its project support. (Peter van Ooijen, Job Doornberg, Femke van der Bij)
- 13 July Publication of article on network project 'Generating impact with ELSA labs' honoured by NWO.
- 15 Sept Esther Metting is a guest at RTV Noord to talk about digital care accessibility.
- Oct Recognised as affiliated partner TTT-AI (Frank Schröer & Bart Scheerder)
- 1 Oct Workshop on machine learning during Zpannend Zernike. (Peter van Ooijen, Mirjam Plantinga, Frank Schröer & Eline Meijer)
- 8 Nov DASH presentation on 'Research on congenital disorders' for Eurocat. (Eline Meijer, Frank Schröer & Mirjam Plantinga)
- 15 Nov Presentation on 'Digital Healthcare' during the UMCG Medical Public Academy. (Esther Metting)
- 22 Nov Publication UMCG on 'Detecting diseases earlier using artificial intelligence' with Rozemarijn Vliegenthart
- 23 Nov Article by RTV Noord published on early disease detection with B3CARE.
- 23 Nov Rozemarijn Vliegenthart is a guest on RTV Noord's radio broadcast to talk about earlier detection of diseases using AI.
- 23 Nov 'Using artificial intelligence to seek out diseases earlier' article in Zorgkrant.nl about B3CARE.
- 29 Nov Presentation at partner meeting AI hub North Netherlands (Michiel Hooiveld & Frank Schröer)
- Dec Grant approval from the Aletta School of Public Health, Jantina Tammes School of Digitalisation and the Young Academy Groningen and DASH for the organisation of multidisciplinary eHealth seminars at 7 faculties of the University of Groningen and Hanze University to stimulate eHealth research collaboration. (Esther Metting)
- 16 Dec 'The radiologist as a guide in the healthcare landscape' UMCG-article on inaugural address by Rozemarijn Vliegenthart.
- 19 Dec Provided presentation about DASH programme at Innovation COC AIOS. (Frank Schröer)

#### FUNDING OPPORTUNITIES

- Awarded funding for ELSA Lab North Netherlands. (Mirjam Plantinga, Peter van Ooijen, Esther Metting & Frank Schröer)
- Co-funding application for research proposal 'My robot colleague will be with you in a moment Public service by teams
  of robots and humans' submitted in the SSH Open Competition M 2022. (Prof Jenny van Doorn, Faculty of Economics and
  Business Administration (UG)
- The Parelduiken or "Diving for Pearls in an ocean of data" project is funded by the NOVUM foundation and is a collaboration between Royal Visio, the Laboratory for Experimental Ophthalmology of the UMCG and DASH. In this project, our data scientists work together with domain experts to use data obtained from visual-cognitive tests to optimise the diagnostic process.
- Based on the success of our first AlProHealth project (>2000 participants in our MOOC and a successful Serious Game "Al+Hospital"), we started the 2nd phase of the AlProHealth project with an FKOO grant. In this grant, we will develop a Dutch version of our MOOC, add more patient journeys to our serious game, and develop follow-up course materials. All this to make the AlProHealth offering more accessible to our Medical students at the Faculty of Medical Sciences.
- AiNed chain project in Proof of Concept phase (led by Maastricht UMC). To develop good Al for healthcare, a lot of
  relevant and good data must be available. In this chain project, we develop a concrete result of a new Al prototype (TRL6)
  using a large amount of medical images spread across Dutch hospitals.
- 5 Dec Received a €40,000 grant for exploration on faculty-wide learning line 'Digital Healthcare'. In cooperation with all stakeholders, an inventory will be carried out of educational activities, which are currently taking place in the field of data science, AI and eHealth within all UMCG programmes. (Michiel Hooiveld & Frank Schröer)
- 21 Dec- DASH eHealth expert Esther Metting receives Aletta Health Grant that will enable multiple multidisciplinary eHealth meetings.

#### **MACHINE LEARNING LAB**

- Jan Launch of the online MLL community in Microsoft Teams where knowledge, news and events are shared.
- Jan <u>Multidisciplinary board</u> assembled with Rosa Verhoeven as chair.
- 23 June GroningenML meet-up at UMCG hosted by the MLL on 'How can we improve patient care by learning from data?' (Femke van der Bij, Thijmen Kupers & Rosa Verhoeven)
- 29 Sept Welcome back meeting for all MLL members at LabNul50 (Femke van der Bij, Thijmen Kupers & Rosa Verhoeven)