



AALBORG UNIVERSITET

# HORIZON EUROPE 2026/2027 CALLS

## CLUSTER 1 – HEALTH

AAU Fundraising & Project Management Office



# TABLE OF CONTENTS

**TABLE OF CONTENTS** ..... 2

**INTRODUCTION**..... 5

**AAU Horizon Europe Compendium** ..... 5

**ABOUT AAU**..... 5

**Our Profile and DNA – why should you partner with us?**..... 5

**DESTINATION 1** ..... 6

**STAYING HEALTHY IN A RAPIDLY CHANGING SOCIETY**..... 7

**DESTINATION 1: CALLS** ..... 8

**Call – staying healthy in a rapidly changing society**..... 8

**HORIZON-HLTH-2026-01-STAYHLTH-02: Behavioural interventions as primary prevention for Non-Communicable Diseases (NCDs) among young people** ..... 9

**HORIZON-HLTH-2027-01-STAYHLTH-01: Addressing disabilities through the life course to support independent living and inclusion** ..... 11

**DESTINATION 2** ..... 13

**LIVING AND WORKING IN A HEALTH-PROMOTING ENVIRONMENT** ..... 14

**DESTINATION 2: CALLS** ..... 15

**Call – living and working in a health-promoting environment**..... 15

**HORIZON-HLTH-2026-01-ENVHLTH-01: Towards a better understanding and anticipation of the impacts of climate change on health** ..... 16

**DESTINATION 3** ..... 17

**TACKLING DISEASES AND REDUCING DISEASE BURDEN** ..... 18

**DESTINATION 3: CALLS** ..... 19

**Call – tackling diseases and reducing disease burden**..... 19

**HORIZON-HLTH-2026-01-DISEASE-03: Advancing research on the prevention, diagnosis, and management of post-infection long-term conditions..... 20**

**HORIZON-HLTH-2026-01-DISEASE-04: Development of novel vaccines for viral pathogens with epidemic potential ..... 24**

**HORIZON-HLTH-2026-01-DISEASE-09: Multisectoral approach to tackle chronic non-communicable diseases: implementation research maximising collaboration and coordination with sectors and in settings beyond the healthcare system (GACD).. 25**

**HORIZON-HLTH-2026-02-DISEASE-12: European Partnership on Rare Diseases (ERDERA) (Phase 2) ..... 26**

**HORIZON-HLTH-2027-02-DISEASE-01-two-stage: Innovative healthcare interventions for non-communicable diseases ..... 27**

**HORIZON-HLTH-2027-01-DISEASE-08: Development of innovative antimicrobials against critical pathogens resistant to antimicrobials ..... 29**

**DESTINATION 4 ..... 32**

**ENSURING EQUAL ACCESS TO INNOVATIVE, SUSTAINABLE, AND HIGH-QUALITY HEALTHCARE ..... 32**

**DESTINATION 4: CALLS ..... 33**

**Call – Ensuring equal access to innovative, sustainable, and high-quality healthcare..... 33**

**HORIZON-HLTH-2026-04-CARE-04: Enhancing and enlarging the European Partnership on Personalised Medicine (EP PerMED) (Top-up). ..... 34**

**DESTINATION 5 ..... 35**

**DEVELOPING AND USING NEW TOOLS, TECHNOLOGIES AND DIGITAL SOLUTIONS FOR A HEALTHY SOCIETY ..... 35**

**DESTINATION 5: CALLS ..... 36**

**Call – developing and using new tools, technologies and digital solutions for a healthy society ..... 36**

**HORIZON-HLTH-2026-01-TOOL-03: Integrating New Approach Methodologies (NAMs) to advance biomedical research and regulatory testing..... 37**

**HORIZON-HLTH-2026-01-TOOL-05: Pilot Actions for Follow-on Funding: Leveraging EU-funded Collaborative Research in Regenerative Medicine ..... 40**

**HORIZON-HLTH-2026-01-TOOL-06: Support to European Research Area (ERA) action on accelerating New Approach Methodologies (NAMs) to advance biomedical research and testing of medicinal products and medical devices..... 42**

**HORIZON-HLTH-2027-02-TOOL-01-two-stage: Development of predictive biomarkers of disease progression and treatment response by using AI methodologies for chronic non-communicable diseases ..... 44**

**HORIZON-HLTH-2027-03-TOOL-02: Advancing bio-printing of living cells for regenerative medicine ..... 45**

**HORIZON-HLTH-2027-03-TOOL-08: Towards Artificial General Intelligence (AGI) for healthcare..... 48**

**DESTINATION 6 ..... 49**

**MAINTAINING AN INNOVATIVE, SUSTAINABLE, AND COMPETITIVE EU HEALTH INDUSTRY 49**

**DESTINATION 6: CALLS ..... 50**

**Call – Maintaining an innovative, sustainable, and competitive EU health industry 50**

**HORIZON-HLTH-2027-02-IND-02-two-stage: Portable and versatile Point-of-care diagnostics ..... 51**

# INTRODUCTION

## AAU HORIZON EUROPE COMPENDIUM

Interested in finding academic partners for the upcoming Horizon Europe calls? At AAU, we have collected, mapped, and showcased AAU researchers' interest in collaborating on specific topics within the six clusters of Pillar 2 (including EU Missions & Cross-cutting activities). Each compendium displays our showcased researcher's relevant expertise within each identified topic, which makes it easy to locate AAU researchers who are interested in collaborating and providing their expertise in your next Horizon Europe proposal.

## ABOUT AAU

AAU has campuses in Aalborg, Copenhagen, and Esbjerg, as well as an EU office in Brussels. We have 3.700 staff, 18.000 students and an annual turnover of DKK 3 billion.

AAU is a comprehensive university covering four faculties and 18 departments, such as Sustainability and Planning, Energy, Health Science and Technology, Computer Science, Built Environment, Politics and Society, Culture and Learning.

With problem-based learning at the heart of educational programs, AAU researchers and students are well-equipped to take on current and future societal, environmental and economic challenges.

## OUR PROFILE AND DNA – WHY SHOULD YOU PARTNER WITH US?

Collaboration is heavily embedded in the DNA of AAU. We have a strong and natural collaboration with industry and the surrounding society – thus our current strategy is labeled "Knowledge for the World 2.0".

We are a mission-oriented university, with three identified AAU Missions:

1. A Sustainable Danish Energy System
2. Improved Wellbeing Among Children and Youth in Denmark
3. Improving Health Through Coherence and Individualisation

As the second best ranked engineering university in Europe, and being no. 16 globally (ranking from the U.S. News & World Report), as well as being in top 5 of universities pursuing the UN sustainable development goals (THE University Impact Rating), we are a very capable partner and collaborator.

AAU has contributed as coordinator or partner in close to 200 projects in the EU Horizon 2020 Framework Programme. For Horizon Europe we have – so far – contributed to more than 150 projects. We are setting even more ambitious targets for Horizon Europe in 2025 and going forward.

# DESTINATION 1

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# **STAYING HEALTHY IN A RAPIDLY CHANGING SOCIETY**

# DESTINATION 1: CALLS

## CALL – STAYING HEALTHY IN A RAPIDLY CHANGING SOCIETY

HORIZON-HLTH-2026-01-STAYHLTH-02: Behavioural interventions as primary prevention for Non-Communicable Diseases (NCDs) among young people

HORIZON-HLTH-2027-01-STAYHLTH-01: Addressing disabilities through the life course to support independent living and inclusion

## HORIZON-HLTH-2026-01-STAYHLTH-02: BEHAVIOURAL INTERVENTIONS AS PRIMARY PREVENTION FOR NON-COMMUNICABLE DISEASES (NCDS) AMONG YOUNG PEOPLE



### Ying Jie Ma

Department of Health Science and Technology  
The Faculty of Medicine

#### CONTACT INFORMATION

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<https://vbn.aau.dk/en/persons/ying-jie-ma>

#### HIGHLIGHTED AAU RESEARCH GROUPS

AAU Immunology Group

#### RELEVANT LINKS OUTSIDE ACADEMIA

ExpreS2ion Biotech, 2N Pharma, Guidepoint

#### AREA OF EXPERTISE

I have dedicated over 15 years to biomedical research, translational science, and biopharma innovation. My expertise spans immunology, complement biology, molecular and cell biology, vaccine development, and recombinant protein engineering, with a strong focus on drug discovery, diagnostics, and immunotherapy.

I have extensive experience in GLP/GCLP-accredited clinical and CRO QC environments, where I have successfully led cross-functional R&D projects, developed novel immunoassays & cell-based functional assays & biomarker assays, and advanced complement-targeted drug development for infectious & inflammatory & rare autoimmune diseases.

My research aims to establish a platform that integrates immunology with innovative immunotherapeutic strategies. I am particularly interested in nanoparticle-based vaccine design with complement engineering, the roles of complement in infectious & inflammatory & autoimmune diseases, and characterization of natural products with complement-modulatory activities.

Complement-targeted interventions for complement-related non-communicable diseases.



## Rogerio Pessoto Hirata

Department of Health Science and Technology  
The Faculty of Medicine

### CONTACT INFORMATION

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<https://vbn.aau.dk/en/persons/rirata/>

### HIGHLIGHTED AAU RESEARCH GROUPS

Head of Exercise Tech Research Group

### AREA OF EXPERTISE

**Pain mechanisms and neurophysiology:** Experimental and clinical pain models focusing on sensorimotor interactions, neuroplasticity, and pain chronification.

**Ageing Research:** screening and muscle skeletal evaluation of older adults. Fall prevention approach, including physical training.

**Postural control and biomechanics:** Quantitative assessment of balance, gait, and motor control in relation to pain, ageing, and chronic disease.

**Screening and prevention:** Development and validation of digital and biomechanical tools for early identification of fall and pain risk in ageing populations and individuals with chronic conditions

**Rehabilitation science and intervention design:** Co-development and evaluation of multimodal, movement-based and digital interventions (e.g., dance training, tactile biofeedback) for fall and pain prevention.

**Digital health and data-driven monitoring:** Integration of sensor technologies, computerised adaptive testing, and AI-based analytics for personalized screening, rehabilitation, and shared decision-making.

Human experimental pain paradigms (mechanical, muscle, joint).

Motor control, balance and gait analysis, surface EMG, and motion capture

Development and validation of biomechanical and wearable-sensor devices

Multimodal data integration: biomechanics, clinical measures, and self-reported outcomes

User-centred and participatory design in preventive health technologies

Previous primary interventions for mental and physical problems.

## HORIZON-HLTH-2027-01-STAYHLTH-01: ADDRESSING DISABILITIES THROUGH THE LIFE COURSE TO SUPPORT INDEPENDENT LIVING AND INCLUSION



**Cedomir Stefanovic**

Department of Electronic Systems  
The Technical Faculty of IT and Design

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### HIGHLIGHTED AAU RESEARCH GROUPS

Edge Computing and Networking (leader)  
Connectivity (secondary affiliation)

### RELEVANT LINKS OUTSIDE ACADEMIA

ESAC (European Interdisciplinary Society for AI in Cancer Research)

### AREA OF EXPERTISE

5G/6G systems, Internet of Things, wireless communications, Cloud/Edge computing, open radio access network (O-RAN), Cloud-connected assistive robotics.

Cloud-connected assistive technologies, 5G/6G communications, advanced human-machine interfacing, haptic communications.

### RELEVANT PROJECTS

DFF project 2 CLIMB, H2020 RIA TACTILITY, H2020 RIA SIXTHSENSE



## **DESTINATION 2**

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# **LIVING AND WORKING IN A HEALTH- PROMOTING ENVIRONMENT**

## **DESTINATION 2: CALLS**

### **CALL – LIVING AND WORKING IN A HEALTH-PROMOTING ENVIRONMENT**

HORIZON-HLTH-2026-01-ENVHLTH-01: Towards a better understanding and anticipation of the impacts of climate change on health

## HORIZON-HLTH-2026-01-ENVHLTH-01: TOWARDS A BETTER UNDERSTANDING AND ANTICIPATION OF THE IMPACTS OF CLIMATE CHANGE ON HEALTH



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Motor control, balance and gait analysis, surface EMG, and motion capture

Development and validation of biomechanical and wearable-sensor devices

Multimodal data integration: biomechanics, clinical measures, and self-reported outcomes

User-centred and participatory design in preventive health technologies

Can contribute with different measurements withing health.

## **DESTINATION 3**

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# TACKLING DISEASES AND REDUCING DISEASE BURDEN

## DESTINATION 3: CALLS

### CALL – TACKLING DISEASES AND REDUCING DISEASE BURDEN

HORIZON-HLTH-2026-01-DISEASE-03: Advancing research on the prevention, diagnosis, and management of post-infection long-term conditions

HORIZON-HLTH-2026-01-DISEASE-04: Development of novel vaccines for viral pathogens with epidemic potential

HORIZON-HLTH-2026-01-DISEASE-09: Multisectoral approach to tackle chronic non-communicable diseases: implementation research maximising collaboration and coordination with sectors and in settings beyond the healthcare system (GACD)

HORIZON-HLTH-2026-02-DISEASE-12: European Partnership on Rare Diseases (ERDERA) (Phase 2)

HORIZON-HLTH-2027-02-DISEASE-01-two-stage: Innovative healthcare interventions for non-communicable diseases

HORIZON-HLTH-2027-01-DISEASE-08: Development of innovative antimicrobials against critical pathogens resistant to antimicrobials

## HORIZON-HLTH-2026-01-DISEASE-03: ADVANCING RESEARCH ON THE PREVENTION, DIAGNOSIS, AND MANAGEMENT OF POST-INFECTION LONG-TERM CONDITIONS



### Ying Jie Ma

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#### HIGHLIGHTED AAU RESEARCH GROUPS

AAU Immunology Group

#### RELEVANT LINKS OUTSIDE ACADEMIA

ExpreS2ion Biotech, 2N Pharma, Guidepoint

#### AREA OF EXPERTISE

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My research aims to establish a platform that integrates immunology with innovative immunotherapeutic strategies. I am particularly interested in nanoparticle-based vaccine design with complement engineering, the roles of complement in infectious & inflammatory & autoimmune diseases, and characterization of natural products with complement-modulatory activities.

Pathological roles of complement in long COVID-19, complement diagnosis, and complement-targeted prevention.



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**Digital health and data-driven monitoring:** Integration of sensor technologies, computerised adaptive testing, and AI-based analytics for personalized screening, rehabilitation, and shared decision-making.

Human experimental pain paradigms (mechanical, muscle, joint).

Motor control, balance and gait analysis, surface EMG, and motion capture

Development and validation of biomechanical and wearable-sensor devices

Multimodal data integration: biomechanics, clinical measures, and self-reported outcomes

User-centred and participatory design in preventive health technologies

Previous primary interventions for mental and physical problems.



## Carsten Dahl Mørch

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### HIGHLIGHTED AAU RESEARCH GROUPS

Head of Cutaneous Experimental Pain Research Laboratory focusing on Human experimental pain models, selective nerve fiber stimulation, and neurophysiological biomarkers.

Scientific Lead for Peripheral Neuroplasticity at CNAP – Center for Neuroplasticity and Pain a Danish National Research Foundation Center of Excellence.

Head of the Cancer-Related Neuropathy Research Group at Aalborg University Hospital focusing mechanisms, diagnostics, and prevention of chemotherapy-induced peripheral neuropathy.

### RELEVANT LINKS OUTSIDE ACADEMIA

Chief Science Officer and board member at Inventors Way Aps (<https://inventors.dk/>), a company dedicated to enabling and promoting reproducible experimental practice in human neuroscience.

### AREA OF EXPERTISE

I specialize in human experimental pain research, peripheral neuroplasticity, and small fiber neuropathy, with a strong translational focus on early diagnostics and biomarker development. My expertise spans computational neuroscience, electrophysiology, and neurophysiological modeling, including the development of Perception Threshold Tracking and Hodgkin-Huxley-based simulations of nerve fiber excitability. I have led interdisciplinary projects integrating AI, EEG, and optical imaging for the assessment of nerve function in chronic conditions such as diabetic and chemotherapy-induced neuropathy. I also contribute to innovation in reproducible research practices through LabBench, a platform for standardized human neuroscience protocols. My work bridges basic science, clinical application, and biomedical technology development.

My research focuses on the neurophysiological mechanisms underlying chronic pain and neuropathy, with an emphasis on early diagnostics and patient stratification. I have developed and validated the Perception Threshold Tracking (PTT) method, which assesses small and large fiber excitability and has shown promise as a biomarker for early nerve dysfunction. This method is currently being applied in longitudinal studies on diabetic and chemotherapy-induced neuropathy, both of which share mechanistic features with post-infectious conditions such as long COVID. I have extensive experience in integrating neurophysiological testing with computational modeling and EEG to understand central and peripheral changes in

chronic conditions. My work is supported by national and international funding bodies, and I collaborate closely with clinical departments in endocrinology, oncology, and neurology. I believe these tools and approaches can be adapted to investigate and manage long-term sequelae following infection, particularly where sensory dysfunction and neuroinflammation are involved.

## HORIZON-HLTH-2026-01-DISEASE-04: DEVELOPMENT OF NOVEL VACCINES FOR VIRAL PATHOGENS WITH EPIDEMIC POTENTIAL



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The Faculty of Medicine

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### HIGHLIGHTED AAU RESEARCH GROUPS

AAU Immunology Group

### RELEVANT LINKS OUTSIDE ACADEMIA

ExpreS2ion Biotech, 2N Pharma, Guidepoint

### AREA OF EXPERTISE

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My research aims to establish a platform that integrates immunology with innovative immunotherapeutic strategies. I am particularly interested in nanoparticle-based vaccine design with complement engineering, the roles of complement in infectious & inflammatory & autoimmune diseases, and characterization of natural products with complement-modulatory activities.

Nanoparticle-based vaccine development – designing and characterizing novel complement-activating and modulating vaccine strategies for infectious diseases.

## **HORIZON-HLTH-2026-01-DISEASE-09: MULTISECTORAL APPROACH TO TACKLE CHRONIC NON-COMMUNICABLE DISEASES: IMPLEMENTATION RESEARCH MAXIMISING COLLABORATION AND COORDINATION WITH SECTORS AND IN SETTINGS BEYOND THE HEALTHCARE SYSTEM (GACD)**



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#### **HIGHLIGHTED AAU RESEARCH GROUPS**

AAU Immunology Group

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Complement-targeted interventions for complement-related non-communicable diseases.

## HORIZON-HLTH-2026-02-DISEASE-12: EUROPEAN PARTNERSHIP ON RARE DISEASES (ERDERA) (PHASE 2)



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My research aims to establish a platform that integrates immunology with innovative immunotherapeutic strategies. I am particularly interested in nanoparticle-based vaccine design with complement engineering, the roles of complement in infectious & inflammatory & autoimmune diseases, and characterization of natural products with complement-modulatory activities.

Pathological roles of complement in rare diseases, complement diagnosis, and complement-targeted immunotherapy development.

## HORIZON-HLTH-2027-02-DISEASE-01-TWO-STAGE: INNOVATIVE HEALTHCARE INTERVENTIONS FOR NON- COMMUNICABLE DISEASES



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#### HIGHLIGHTED AAU RESEARCH GROUPS

Head of Exercise Tech Research Group

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Development and validation of biomechanical and wearable-sensor devices

Multimodal data integration: biomechanics, clinical measures, and self-reported outcomes

User-centred and participatory design in preventive health technologies

Has experience in developing wearables for health.



## Ying Jie Ma

Department of Health Science and Technology  
The Faculty of Medicine

### CONTACT INFORMATION

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Complement-targeted interventions for complement-related non-communicable diseases.

## HORIZON-HLTH-2027-01-DISEASE-08: DEVELOPMENT OF INNOVATIVE ANTIMICROBIALS AGAINST CRITICAL PATHOGENS RESISTANT TO ANTIMICROBIALS



Ying Jie Ma

Department of Health Science and Technology  
The Faculty of Medicine

### CONTACT INFORMATION

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Pathological roles of complement in infectious diseases, complement diagnosis, and complement-targeted immunotherapy development.

## HORIZON-HLTH-2027-02-DISEASE-14-TWO-STAGE: CLINICAL TRIALS FOR ADVANCING INNOVATIVE INTERVENTIONS FOR NEURODEGENERATIVE DISEASES



### Carsten Dahl Mørch

Department of Health Science and Technology  
The Faculty of Medicine

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#### HIGHLIGHTED AAU RESEARCH GROUPS

Head of Cutaneous Experimental Pain Research Laboratory focusing on Human experimental pain models, selective nerve fiber stimulation, and neurophysiological biomarkers.

Scientific Lead for Peripheral Neuroplasticity at CNAP – Center for Neuroplasticity and Pain a Danish National Research Foundation Center of Excellence.

Head of the Cancer-Related Neuropathy Research Group at Aalborg University Hospital focusing mechanisms, diagnostics, and prevention of chemotherapy-induced peripheral neuropathy.

#### RELEVANT LINKS OUTSIDE ACADEMIA

Chief Science Officer and board member at Inventors Way Aps (<https://inventors.dk/>), a company dedicated to enabling and promoting reproducible experimental practice in human neuroscience.

#### AREA OF EXPERTISE

I specialize in human experimental pain research, peripheral neuroplasticity, and small fiber neuropathy, with a strong translational focus on early diagnostics and biomarker development. My expertise spans computational neuroscience, electrophysiology, and neurophysiological modeling, including the development of Perception Threshold Tracking and Hodgkin-Huxley-based simulations of nerve fiber excitability. I have led interdisciplinary projects integrating AI, EEG, and optical imaging for the assessment of nerve function in chronic conditions such as diabetic and chemotherapy-induced neuropathy. I also contribute to innovation in reproducible research practices through LabBench, a platform for standardized human neuroscience protocols. My work bridges basic science, clinical application, and biomedical technology development.

I have over two decades of experience in translational neuroscience, with a focus on pain mechanisms, peripheral neuroplasticity, and small fiber neuropathy. My research bridges computational modeling, neurophysiology, and clinical application, and I have led several studies involving early diagnostics and intervention strategies for chronic neurological conditions. I developed the Perception Threshold Tracking (PTT) method, which is currently being validated in a 10-year longitudinal study on diabetic

neuropathy. I am also PI of a work package in the Novo Nordisk Foundation-funded Optical Skin Biopsy Study, where we combine neurophysiological testing, imaging, and AI to identify early biomarkers of nerve damage. My collaborations with clinical departments in endocrinology, oncology, and neurology have given me extensive experience in designing and conducting human studies. I believe this background positions me well to contribute to clinical trials targeting innovative interventions for neurodegenerative diseases, particularly those involving early detection, patient stratification, and mechanistic biomarkers.

## **DESTINATION 4**

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**ENSURING EQUAL ACCESS TO  
INNOVATIVE, SUSTAINABLE, AND HIGH-  
QUALITY HEALTHCARE**

## **DESTINATION 4: CALLS**

### **CALL – ENSURING EQUAL ACCESS TO INNOVATIVE, SUSTAINABLE, AND HIGH-QUALITY HEALTHCARE**

HORIZON-HLTH-2026-04-CARE-04: Enhancing and enlarging the European Partnership on Personalised Medicine (EP PerMEd) (Top-up)

## HORIZON-HLTH-2026-04-CARE-04: ENHANCING AND ENLARGING THE EUROPEAN PARTNERSHIP ON PERSONALISED MEDICINE (EP PERMED) (TOP-UP).



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#### HIGHLIGHTED AAU RESEARCH GROUPS

Regenerative Medicine research group

#### MEMBERSHIP OF EU PARTNERSHIPS

STRONG-UR: Strategies for Optimised bioprinting of Next Generation tissues for Urethral regeneration and translation

#### RELEVANT LINKS OUTSIDE ACADEMIA

Member of the Danish Stem Cell Society (DASCS)  
Member of Danish Society for Wound Healing

#### AREA OF EXPERTISE

Adipose-derived stem cells (ASCs)  
Stem cell characterization  
Multichromatic flowcytometry or FACS  
In vitro wound healing models  
Potency assays for ATMPs  
Translational applications in regenerative medicine

Experience with isolation and culturing of adipose-derived stem cells (ASCs), a key cell source for regenerative medicine and potential secretome-based therapies.  
Experience with the establishment of a manufacturing protocol, including starting material selection, pre-conditioning, and bioprocessing including isolation, expansion, cultivation in bioreactors, processing of conditioned media, and isolation, purification of the secretome and its components  
Experience with identifying relevant quality criteria for and establishment of a fully GMP-conform production process  
Experience with producing Standard Operating Procedures (SOP)  
Experience with GMP manufacturing and regulatory considerations from an academic perspective  
Experience with product characterization and potency testing  
Experience with monitoring mechanism of action in-vitro as part of quality assurance.

## **DESTINATION 5**

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**DEVELOPING AND USING NEW TOOLS,  
TECHNOLOGIES AND DIGITAL  
SOLUTIONS FOR A HEALTHY SOCIETY**

## DESTINATION 5: CALLS

### CALL – DEVELOPING AND USING NEW TOOLS, TECHNOLOGIES AND DIGITAL SOLUTIONS FOR A HEALTHY SOCIETY

HORIZON-HLTH-2026-01-TOOL-03: Integrating New Approach Methodologies (NAMs) to advance biomedical research and regulatory testing

HORIZON-HLTH-2026-01-TOOL-05: Pilot Actions for Follow-on Funding: Leveraging EU-funded Collaborative Research in Regenerative Medicine

HORIZON-HLTH-2026-01-TOOL-06: Support to European Research Area (ERA) action on accelerating New Approach Methodologies (NAMs) to advance biomedical research and testing of medicinal products and medical devices

HORIZON-HLTH-2027-02-TOOL-01-two-stage: Development of predictive biomarkers of disease progression and treatment response by using AI methodologies for chronic non-communicable diseases

HORIZON-HLTH-2027-03-TOOL-02: Advancing bio-printing of living cells for regenerative medicine

HORIZON-HLTH-2027-03-TOOL-08: Towards Artificial General Intelligence (AGI) for healthcare

## HORIZON-HLTH-2026-01-TOOL-03: INTEGRATING NEW APPROACH METHODOLOGIES (NAMS) TO ADVANCE BIOMEDICAL RESEARCH AND REGULATORY TESTING



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### HIGHLIGHTED AAU RESEARCH GROUPS

Regenerative Medicine research group

### MEMBERSHIP OF EU PARTNERSHIPS

STRONG-UR: Strategies for Optimised bioprinting of Next Generation tissues for Urethral regeneration and translation

### RELEVANT LINKS OUTSIDE ACADEMIA

Member of the Danish Stem Cell Society (DASCS)  
Member of Danish Society for Wound Healing

### AREA OF EXPERTISE

Adipose-derived stem cells (ASCs)  
Stem cell characterization  
Multichromatic flowcytometry or FACS  
In vitro wound healing models  
Potency assays for ATMPs  
Translational applications in regenerative medicine

Expertise in regulatory testing requirements, including GMP, GCP, and quality assurance systems.  
Familiarity with EMA, which is crucial for advancing NAMS into regulatory acceptance. Specialization in manufacturing requirements for ATMPs and combination products. Experience with CMC documentation, process validation, and risk-based approaches. Understanding of scaling and reproducibility challenges, which are central to NAMS development.  
Pedagogical leadership using Problem-Based Learning (PBL), which supports interdisciplinary and translational education—key for NAMS uptake.  
Bridging biomedical engineering, regulatory affairs, and education.  
Experience working across academia, industry, and regulatory bodies, which is essential for stakeholder engagement in NAMS.



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### HIGHLIGHTED AAU RESEARCH GROUPS

Head of Cutaneous Experimental Pain Research Laboratory focusing on Human experimental pain models, selective nerve fiber stimulation, and neurophysiological biomarkers.

Scientific Lead for Peripheral Neuroplasticity at CNAP – Center for Neuroplasticity and Pain a Danish National Research Foundation Center of Excellence.

Head of the Cancer-Related Neuropathy Research Group at Aalborg University Hospital focusing mechanisms, diagnostics, and prevention of chemotherapy-induced peripheral neuropathy.

### RELEVANT LINKS OUTSIDE ACADEMIA

Chief Science Officer and board member at Inventors Way Aps (<https://inventors.dk/>), a company dedicated to enabling and promoting reproducible experimental practice in human neuroscience.

### AREA OF EXPERTISE

I specialize in human experimental pain research, peripheral neuroplasticity, and small fiber neuropathy, with a strong translational focus on early diagnostics and biomarker development. My expertise spans computational neuroscience, electrophysiology, and neurophysiological modeling, including the development of Perception Threshold Tracking and Hodgkin-Huxley-based simulations of nerve fiber excitability. I have led interdisciplinary projects integrating AI, EEG, and optical imaging for the assessment of nerve function in chronic conditions such as diabetic and chemotherapy-induced neuropathy. I also contribute to innovation in reproducible research practices through LabBench, a platform for standardized human neuroscience protocols. My work bridges basic science, clinical application, and biomedical technology development.

I have a long-standing commitment to improving the reproducibility and translational value of human neuroscience research. As Chief Science Officer at Inventors Way, I co-develop LabBench, a platform for implementing standardized and reproducible experimental protocols in human neuroscience. This tool directly supports the integration of New Approach Methodologies (NAMs) by enabling harmonized data collection and protocol sharing across labs. My research has also focused on developing non-invasive neurophysiological methods, such as Perception Threshold Tracking (PTT), which can serve as human-relevant alternatives to animal models in pain and neuropathy research. I have led several industry-academic

collaborations, e.g., to model and optimize neuromodulation strategies using computational simulations. These experiences position me well to contribute to the advancement and validation of NAMs in biomedical research, particularly in the context of regulatory science and translational neuroscience.

## HORIZON-HLTH-2026-01-TOOL-05: PILOT ACTIONS FOR FOLLOW-ON FUNDING: LEVERAGING EU-FUNDED COLLABORATIVE RESEARCH IN REGENERATIVE MEDICINE



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#### HIGHLIGHTED AAU RESEARCH GROUPS

Lead of Regenerative Medicine research group

#### RELEVANT LINKS OUTSIDE ACADEMIA

Board member of the Scandinavian Society for Biomaterials  
Member of the Danish Stem Cell Society (DASCS)  
Member of the IEEE-EMBS  
Board member of COST actions (BM1209: Regenerative Sphincter Therapy and CA16122: Biomaterials for regenerative neurology and cardiology)

#### RELEVANT PROJECTS

**STRONG-UR:** Strategies for Optimised bioprinting of Next Generation tissues for Urethral regeneration and translation  
**PROMEAT:** A truly scalable next-generation cultured meat with bioprotectives and health benefits  
**MODERATE:** Modular hydrogel for 3D printing of tissue-engineered muscle  
Development of elastomeric and conductive scaffolds for spinal cord engineering

#### AREA OF EXPERTISE

Stem cells and tissue engineering  
Adipose-derived stem cells (ASCs)  
3D culture systems  
Myogenesis and muscle tissue regeneration  
Biomechanics and biophysical preconditioning  
Advanced 3D manufacturing  
Translational applications in regenerative medicine

Scientific coordinator of an ongoing RIA in the topic of regenerative medicine, with potential results moving beyond early-stage research to clinical development  
Experience with 3D bioprinting and biomaterials for regenerative medicine  
Development of tissue-engineered 3D platforms integrating advanced biomanufacturing, novel biomaterials, and controlled mechanical stimulation to model physiological and pathological processes.  
Experience working with industrial partners, providing insights into scaling up manufacturing and regulatory considerations.



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### HIGHLIGHTED AAU RESEARCH GROUPS

Regenerative Medicine research group

### MEMBERSHIP OF EU PARTNERSHIPS

STRONG-UR: Strategies for Optimised bioprinting of Next Generation tissues for Urethral regeneration and translation

### RELEVANT LINKS OUTSIDE ACADEMIA

Member of the Danish Stem Cell Society (DASCS)  
Member of Danish Society for Wound Healing

### AREA OF EXPERTISE

Adipose-derived stem cells (ASCs)  
Stem cell characterization  
Multichromatic flowcytometry or FACS  
In vitro wound healing models  
Potency assays for ATMPs  
Translational applications in regenerative medicine

Experience with isolation and culturing of adipose-derived stem cells (ASCs), a key cell source for regenerative medicine and potential secretome-based therapies.

Experience with the establishment of a manufacturing protocol, including starting material selection, pre-conditioning, and bio-processing including isolation, expansion, cultivation in bioreactors, processing of conditioned media, and isolation, purification of the secretome and its components

Experience with identifying relevant quality criteria for and establishment of a fully GMP-conforming production process

Experience with producing Standard Operating Procedures (SOP)

Experience with GMP manufacturing and regulatory considerations from an academic perspective

Experience with product characterization and potency testing

Experience with monitoring mechanism of action in-vitro as part of quality assurance

## HORIZON-HLTH-2026-01-TOOL-06: SUPPORT TO EUROPEAN RESEARCH AREA (ERA) ACTION ON ACCELERATING NEW APPROACH METHODOLOGIES (NAMS) TO ADVANCE BIOMEDICAL RESEARCH AND TESTING OF MEDICINAL PRODUCTS AND MEDICAL DEVICES



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### HIGHLIGHTED AAU RESEARCH GROUPS

Regenerative Medicine research group

### MEMBERSHIP OF EU PARTNERSHIPS

STRONG-UR: Strategies for Optimised bioprinting of Next Generation tissues for Urethral regeneration and translation

### RELEVANT LINKS OUTSIDE ACADEMIA

Member of the Danish Stem Cell Society (DASCS)  
Member of Danish Society for Wound Healing

### AREA OF EXPERTISE

Adipose-derived stem cells (ASCs)  
Stem cell characterization  
Multichromatic flowcytometry or FACS  
In vitro wound healing models  
Potency assays for ATMPs  
Translational applications in regenerative medicine

Knowledge of EU regulatory frameworks, including EMA and Notified Body procedures. Expertise in regulatory testing requirements, especially for Advanced Therapy Medicinal Products (ATMPs) and combination products. Familiarity with quality assurance systems, GMP, GCP, and CMC documentation—critical for validating and harmonizing NAMS across the ERA. Understanding of manufacturing requirements for complex biomedical products. Experience with risk-based approaches, reproducibility, and process standardization—key for ensuring NAMS are robust and scalable. Insight into data integrity and traceability, supporting infrastructure development for NAMS. Use of Problem-Based Learning (PBL) pedagogy to foster interdisciplinary thinking and real-world problem solving.

Proven ability to work across academia, industry, and regulatory bodies.  
Focus on bridging innovation with regulatory compliance, especially in emerging fields like ATMPs.

## **HORIZON-HLTH-2027-02-TOOL-01-TWO-STAGE: DEVELOPMENT OF PREDICTIVE BIOMARKERS OF DISEASE PROGRESSION AND TREATMENT RESPONSE BY USING AI METHODOLOGIES FOR CHRONIC NON-COMMUNICABLE DISEASES**



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### **HIGHLIGHTED AAU RESEARCH GROUPS**

AAU Immunology Group

### **RELEVANT LINKS OUTSIDE ACADEMIA**

ExpreS2ion Biotech, 2N Pharma, Guidepoint

### **AREA OF EXPERTISE**

I have dedicated over 15 years to biomedical research, translational science, and biopharma innovation. My expertise spans immunology, complement biology, molecular and cell biology, vaccine development, and recombinant protein engineering, with a strong focus on drug discovery, diagnostics, and immunotherapy.

I have extensive experience in GLP/GCLP-accredited clinical and CRO QC environments, where I have successfully led cross-functional R&D projects, developed novel immunoassays & cell-based functional assays & biomarker assays, and advanced complement-targeted drug development for infectious & inflammatory & rare autoimmune diseases.

My research aims to establish a platform that integrates immunology with innovative immunotherapeutic strategies. I am particularly interested in nanoparticle-based vaccine design with complement engineering, the roles of complement in infectious & inflammatory & autoimmune diseases, and characterization of natural products with complement-modulatory activities.

Experimental validation & characterization for complement-related chronic non-communicable diseases:

Validate AI predictions using in vitro models and animal studies

Ensure AI-driven models are biologically meaningful



## Carsten Dahl Mørch

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### HIGHLIGHTED AAU RESEARCH GROUPS

Head of Cutaneous Experimental Pain Research Laboratory focusing on Human experimental pain models, selective nerve fiber stimulation, and neurophysiological biomarkers.

Scientific Lead for Peripheral Neuroplasticity at CNAP – Center for Neuroplasticity and Pain a Danish National Research Foundation Center of Excellence.

Head of the Cancer-Related Neuropathy Research Group at Aalborg University Hospital focusing mechanisms, diagnostics, and prevention of chemotherapy-induced peripheral neuropathy.

### RELEVANT LINKS OUTSIDE ACADEMIA

Chief Science Officer and board member at Inventors Way Aps (<https://inventors.dk/>), a company dedicated to enabling and promoting reproducible experimental practice in human neuroscience.

### AREA OF EXPERTISE

I specialize in human experimental pain research, peripheral neuroplasticity, and small fiber neuropathy, with a strong translational focus on early diagnostics and biomarker development. My expertise spans computational neuroscience, electrophysiology, and neurophysiological modeling, including the development of Perception Threshold Tracking and Hodgkin-Huxley-based simulations of nerve fiber excitability. I have led interdisciplinary projects integrating AI, EEG, and optical imaging for the assessment of nerve function in chronic conditions such as diabetic and chemotherapy-induced neuropathy. I also contribute to innovation in reproducible research practices through LabBench, a platform for standardized human neuroscience protocols. My work bridges basic science, clinical application, and biomedical technology development.

I lead research on small fiber neuropathy and have developed the Perception Threshold Tracking method, a non-invasive tool for assessing nerve excitability, currently being validated in a 10-year longitudinal diabetes cohort. I am PI of a work package in the Novo Nordisk Foundation-funded Optical Skin Biopsy Study, integrating neurophysiology, imaging, and AI for early diagnosis of neuropathy. My group has developed Hodgkin-Huxley-based models of nerve fibers validated in healthy human participants and patch clamp recordings. My translational work includes partnerships with biomedical companies, and I co-develop LabBench – a platform for reproducible human neuroscience.

## HORIZON-HLTH-2027-03-TOOL-02: ADVANCING BIO-PRINTING OF LIVING CELLS FOR REGENERATIVE MEDICINE



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#### HIGHLIGHTED AAU RESEARCH GROUPS

Regenerative Medicine research group

#### MEMBERSHIP OF EU PARTNERSHIPS

STRONG-UR: Strategies for Optimised bioprinting of Next Generation tissues for Urethral regeneration and translation

#### RELEVANT LINKS OUTSIDE ACADEMIA

Member of the Danish Stem Cell Society (DASCS)  
Member of Danish Society for Wound Healing

#### AREA OF EXPERTISE

Adipose-derived stem cells (ASCs)  
Stem cell characterization  
Multichromatic flowcytometry or FACS  
In vitro wound healing models  
Potency assays for ATMPs  
Translational applications in regenerative medicine

Experience with adipose-derived stem cells (ASCs), a key cell source for cell-based ATMPs  
Experience with GMP manufacturing and regulatory considerations from an academic perspective  
Experience with product characterization and potency testing  
Experience with transferring ATMP from research to production  
Experience with optimizing and standardizing the manufacturing of Advanced Therapy Medicinal Products (ATMPs), including testing the effect of process changes on product quality and standardization



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### HIGHLIGHTED AAU RESEARCH GROUPS

Lead of Regenerative Medicine research group

### RELEVANT LINKS OUTSIDE ACADEMIA

Board member of the Scandinavian Society for Biomaterials  
Member of the Danish Stem Cell Society (DASCS)  
Member of the IEEE-EMBS  
Board member of COST actions (BM1209: Regenerative Sphincter Therapy and CA16122: Biomaterials for regenerative neurology and cardiology)

### RELEVANT PROJECTS

EU-funded projects:  
STRONG-UR: Strategies for Optimised bioprinting of Next Generation tissues for Urethral regeneration and translation  
PROMEAT: A truly scalable next-generation cultured meat with bioprotectives and health benefits  
National projects:  
MODERATE: Modular hydrogel for 3D printing of tissue-engineered muscle  
Development of elastomeric and conductive scaffolds for spinal cord engineering

### AREA OF EXPERTISE

Stem cells and tissue engineering  
Adipose-derived stem cells (ASCs)  
3D culture systems  
Myogenesis and muscle tissue regeneration  
Biomechanics and biophysical preconditioning  
Advanced 3D manufacturing  
Translational applications in regenerative medicine

Scientific coordinator of an ongoing project under this topic.  
Experience with 3D bioprinting and biomaterials for regenerative medicine  
Development of tissue-engineered 3D platforms integrating advanced biomanufacturing, novel biomaterials, and controlled mechanical stimulation to model physiological and pathological processes.  
Experience working with industrial partners, providing insights into scaling up manufacturing and regulatory considerations

## HORIZON-HLTH-2027-03-TOOL-08: TOWARDS ARTIFICIAL GENERAL INTELLIGENCE (AGI) FOR HEALTHCARE



**Andrés R. Masegosa**

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The Technical Faculty of IT and Design

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### HIGHLIGHTED AAU RESEARCH GROUPS

Machine Learning Group, Department of Computer Science, Aalborg University

### RELEVANT LINKS OUTSIDE ACADEMIA

Collaborations with industry on probabilistic modeling and AI applications

Member of international research networks in probabilistic machine learning

Organizer of the Nordic Probabilistic AI School (ProbAI)

### AREA OF EXPERTISE

Probabilistic Machine Learning for large-scale data modeling  
Trustworthy and Explainable AI  
Deep Learning and Neural Networks  
Probabilistic Programming  
Modeling Uncertainty  
Large-Scale Machine Learning

Bayesian methods for deep learning models

### RELEVANT PROJECTS

**DK-Future:** Probabilistic Geospatial Machine Learning for Predicting Future Danish Land Use under Compound Climate Impacts (PI, Villum Foundation, 800K euros)

**Explainable Machine Learning:** A Probabilistic Approach (Co-PI, Spanish National Grant, 2020-2022)

**DarkScience Project:** Illuminating microbial dark matter through data science (Villum Foundation)

## **DESTINATION 6**

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# **MAINTAINING AN INNOVATIVE, SUSTAINABLE, AND COMPETITIVE EU HEALTH INDUSTRY**

## **DESTINATION 6: CALLS**

### **CALL – MAINTAINING AN INNOVATIVE, SUSTAINABLE, AND COMPETITIVE EU HEALTH INDUSTRY**

HORIZON-HLTH-2027-02-IND-02-two-stage: Portable and versatile Point-of-care  
diagnostics

## HORIZON-HLTH-2027-02-IND-02-TWO-STAGE: PORTABLE AND VERSATILE POINT-OF-CARE DIAGNOSTICS



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### HIGHLIGHTED AAU RESEARCH GROUPS

AAU Immunology Group

### RELEVANT LINKS OUTSIDE ACADEMIA

ExpreS2ion Biotech, 2N Pharma, Guidepoint

### AREA OF EXPERTISE

I have dedicated over 15 years to biomedical research, translational science, and biopharma innovation. My expertise spans immunology, complement biology, molecular and cell biology, vaccine development, and recombinant protein engineering, with a strong focus on drug discovery, diagnostics, and immunotherapy.

I have extensive experience in GLP/GCLP-accredited clinical and CRO QC environments, where I have successfully led cross-functional R&D projects, developed novel immunoassays & cell-based functional assays & biomarker assays, and advanced complement-targeted drug development for infectious & inflammatory & rare autoimmune diseases.

My research aims to establish a platform that integrates immunology with innovative immunotherapeutic strategies. I am particularly interested in nanoparticle-based vaccine design with complement engineering, the roles of complement in infectious & inflammatory & autoimmune diseases, and characterization of natural products with complement-modulatory activities.

Development of novel immunoassays & cell-based functional assays & biomarker assays, and their applications in Point-of-care diagnostics.