

HORIZON EUROPE 2023/2024 CALLS

CLUSTER 1 HEALTH



**NTNU HEALTH IN EUROPE: LIST OF CALLS WITH
THEIR RESPECTIVE INTERESTED NTNU RESEARCHERS**

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INTRODUCTION



Dear Reader,

Dear Reader,

Are you looking for the best researchers with whom to collaborate on Horizon Europe cluster 1 calls? Then please, read on.

At NTNU, the Norwegian University of Science and Technology, we have matched our researchers to the upcoming Horizon Europe 2023/2024 calls, based on both their expertise and the industry relations they can bring to the table.

As the largest university in Norway, we can be a powerful partner and collaborator. With more than 85 funded projects, of which 53 are already signed (accounting for more than € 32 million in funding) at the time of writing, we are setting even more ambitious targets for Horizon Europe 2023/2024 and going forward.

This document is one of six prospectuses that outline areas of expertise for - and of interest to - NTNU researchers, for each of the upcoming six clusters of Horizon Europe.

They are living documents. Even if you do not find an exact match, our research community would be thrilled to open a collaborative dialogue with you. Just ping a message to one of our institutional contact points, like NTNU's Brussels Office.

Together, we can create true "knowledge for a better world"

Tor Grande

Pro-rector of Research



KNOWLEDGE FOR A BETTER WORLD

Knowledge provides people with opportunities and influence, as well as a foundation for making wise choices. Knowledge inspires and challenges. It changes attitudes, mindsets, and how we perceive the world around us. Informed debate strengthens our democracy. NTNU's activities should benefit society as a whole and society can trust that our findings comply with best scientific practice.

Knowledge and technology development create opportunities for increasing sustainable value creation and finding answers to major challenges. Through the United Nations, the world has agreed on 17 Sustainable Development Goals. NTNU will contribute actively towards achieving the Sustainable Development Goals.

NTNU's strength is our competence in science and technology combined with academic breadth and interdisciplinarity.

ABOUT NTNU

Knowledge for a better world

NTNU is a university with an international focus, with headquarters in Trondheim and campuses in Ålesund and Gjøvik. NTNU has a main profile in science and technology, a variety of programmes of professional study, and great academic breadth, including medicine, architecture, and entrepreneurship.

KEY NUMBERS FOR 2022

NOK 10 billion
annual budget

44 170
students

7761
FTE

412
doctoral degrees

NTNU offers 398 programmes of study (2022), as well as continuing and further education. The university has the main responsibility for higher education in technology in Norway, and largest in engineering, teacher education and architecture. NTNU aims to be a national hub in programmes of professional study.

NTNU is the institution awarded the most funding from the Research Council in Norway, as well as being granted with 255 signed projects and a total funding of more than €141 million from Horizon 2020. Moreover, NTNU is a host or partner for 46 major research centers (SFF, SFI, and FME), and has internal initiatives to develop and recruit top researchers.

In Horizon Europe (HEU) - as of March 2023 - NTNU has 97 funded projects, of which 77 are already signed (accounting for more than €46 million in funding), positioning NTNU among the top HEU Norwegian actors, and among the top 10 actors within the European Higher Education Sector in HEU.

Beyond its science and technology profile, NTNU covers a broad range of social science and humanities (SSH) disciplines including sociology, political science, education, psychology, economics, history, cultural sciences and the arts. Researchers from SSH disciplines have successfully addressed societal issues and contributed to social innovation through involvement in more than 30 HEU projects so far, presenting NTNU as promising and strong partner in future European collaborations in all Global Challenge clusters under Horizon Europe.

From 2014-2023, NTNU has identified several strategic research areas and enabling technologies:

NTNU Energy



NTNU Health



NTNU Oceans



NTNU Sustainability



NTNU BRUSSELS OFFICE



The NTNU Brussels Office represents NTNU in Brussels, provides strategic advice on European policies, promotes NTNU positions, manages or participates in strategic networks and initiatives in Brussels, and provides professional services to the NTNU community based on its Brussels presence.

The office represents both «the door to NTNU» for organizations that want to collaborate and create synergies with NTNU, and «the door to Europe» for colleague active in or willing to enter the European Arena.

NTNU opened the doors to its Brussels Office in 2015 and today the staff consists of four people, Director Massimo Busuoli, one senior adviser and two trainees.

The office activities and services include the following:

- Promotion and representation of NTNU in Brussels
- Positioning of NTNU in relevant Brussels-based initiatives and bodies
- Contribution to improve NTNU's EU project portfolio
- Provide internship opportunities for NTNU employees and students
- Provision of logistic support and services in Brussels



NTNU HEALTH

[NTNU Health](#) is one of the four strategic research areas of the [Norwegian University of Science and Technology \(NTNU\)](#). It aims to promote better health, quality of life and sustainable health services, and to create innovative solutions to complex health challenges.

NTNU Health is **an entry point for health research at NTNU** for a wide range of actors, including the industry, the public sector, decision-makers and authorities, as well as researchers. It supports **research, innovation and communication** with a broad spectrum of sectors and disciplines. NTNU Health facilitates contact with experts in health research.

NTNU Health supports **interdisciplinary collaborations and activities** relating to health. It **coordinates local initiatives and resources** to promote NTNU's international health research and innovation. NTNU Health also helps to provide **research-based advice** regarding health-related issues to decision-makers and others who impact on the development of society.

To find out more about NTNU Health, consult our [website](#).

Faculty of Medicine and Health Sciences

Research at NTNU's [Faculty of Medicine and Health Sciences](#) consists of a wide range of research fields in medicine and health. This includes **basic research**, **translational research** at the intersection between basic and clinical research, as well as **applied research**.

The Faculty was established 47 years ago and is a centre for both outstanding research and education. It is home to Nobel Prize-winning scientists May-Britt and Edvard Moser who, along with John O'Keefe, were awarded the **Nobel Prize in Physiology or Medicine** in 2014 for the discovery of the brain's navigation system.

Additionally, the Faculty hosts several centers for outstanding research and research-driven innovation, including no less than:

- **Two Norwegian Centres of Excellence (SFF):**
 - The [Kavli Institute for Systems Neuroscience](#) (KISN)
 - The [Centre of Molecular Inflammation Research](#) (CEMIR)
- **Two K.G. Jebsen Centers for Medical Research:**
 - The [K.G. Jebsen Center for Genetic Epidemiology](#)
 - The [K. G. Jebsen Centre for Alzheimer's Disease](#)
- **A Centre for Research-based Innovation (SFI):**
 - The [Centre for Innovative Ultrasound Solutions for health care, maritime, and oil & gas](#) (CIUS)
- **A Centre for Clinical Treatment Research (FKB):**
 - [Norwegian Centre for Headache Research](#) (NorHEAD)



Faculty of Medicine and Health Sciences

NTNU's Faculty of Medicine and Health Sciences also manages [The Hunt Study](#) (Trøndelag Health Study), which is one of the largest health studies ever performed. HUNT is a unique database of questionnaire data, clinical measurements and samples collected since 1984. Approximately 300 national and international research projects are currently using the samples and data from HUNT.

Researchers at the Faculty are involved with **a wide range of EU-funded projects**. We have successfully coordinated and partnered on Pillar 1 Horizon 2020 projects, including ERC Grants, MSCA Individual Fellowships and Innovative Training Networks, as well as FET Open. We also have an established track record in Societal Challenges projects.

Researchers at the Faculty benefit from state-of-the art, high-quality research infrastructure comprising [15 specialist labs/core facilities](#) run by dedicated and highly trained staff.

NTNU has educational programs for all health professions with medicine and nursing being the largest. The Faculty of Medicine and Health Sciences and the medical campus is closely integrated with St Olavs University Hospital fostering a strong collaboration between the two entities and ensuring strong ties between basic and patient-oriented research.



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COLLABORATING WITH NTNU

As the largest Norwegian university with high multidisciplinary nature, NTNU offers a wide range of expertise and competences. Specific mapping of available researchers willing to collaborate on Horizon Europe have been performed for all clusters, producing documents similar to this brochure.

[Make sure you have the latest version available by downloading it from this website.](#)

Should you be interested to explore collaboration opportunities in areas not present in any of these brochures, you can get in touch with the institutional entry points of the university.

ENTRY POINTS

[NTNU Brussels Office](#)

Faculty EU advisors

- AD - Faculty of Architecture and Design
[Tone Woie Alstadheim](#) and [Srutarshi Pradhan](#)
- HF - Faculty of Humanities
[Chamila Thushari Attanapola](#)
- IE - Faculty of Information Technology and Electrical Engineering
[Nathalie Søyseth](#), [Filip Jessen](#)
- IV - Faculty of Engineering
[Ingunn Syrstad Bøgeberg](#) and [Miriam K. Khider](#)
- MH - Faculty of Medicine and Health Sciences
[Emma Louise Walton](#)
- NV - Faculty of Natural Sciences
[Thais Mothe-Diniz](#) and [Eugen Gravningen Sørmo](#)
- SU - Faculty of Social and Educational Sciences
[Bård Li](#) and [Jens Rohloff](#)
- ØK - Faculty of Economics and Management
[Thomas Aarnseth](#)
- VM - NTNU University Museum – [Astrid Johansen](#)
- NTNU in Gjøvik – [Anne Hilde Ruen Nymoen](#)
- NTNU in Ålesund – [Kirsti Brekke](#)



ASSOCIATED PROFESSORS

Destination 1:

Staying healthy in a
rapidly changing society

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 1.

The following pages are sorted into the calls for the destination presented cluster 1. To simplify your navigation among available expertises per topic, the list of topics have been made clickable.

DESTINATION 1 - CALLS

DISCLAIMER: Please notice that the Topics list is clickable to allow you to immediately reach the one for which you could be interested to open a collaboration dialogue with NTNU

Call - Staying Healthy (Two stage - 2024)

[HORIZON-HLTH-2024-STAYHLTH-01-02-two-stage: Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society.](#)

[HORIZON-HLTH-2024-STAYHLTH-01-05-two-stage: Personalised prevention of non-communicable diseases - addressing areas of unmet needs using multiple data sources.](#)

HORIZON-HLTH-2024-STAYHLTH-01-02-two-stage: Towards a holistic support to children and adolescents' health and care provisions in an increasingly digital society.



Trine Moholdt

Department of Circulation and Medical Imaging
Faculty of Medicine and Health Sciences

Contact information

trine.moholdt@ntnu.no
+47 97098594

Expertise

Exercise physiology, reproduction, lifestyle interventions, randomised controlled trials, female health

Relevant projects

Exercise training in women with obesity (ETIP), Isolated and combined effects of high-intensity interval training and time-restricted eating in women with overweight/obesity



Ashis Jalote Parmar

Department of Industrial Design
Faculty of Architecture and Design

Contact information

ashis.jalote.parmar@ntnu.no
+4741342567

Relevant links outside academia

Public Sector Norwegian welfare organizations such as Kommune, NAV Industry-to health technology development and research

Expertise

Human Centered Design and innovation of technologies, Digital products and services for health- public health, women health, Design for complex workspace, Decision support, citizen centered systems, patient care pathways Interaction Design, User studies, participatory design, design theory, behavioral change

Expertise specific to call:

Service Design methods and Participatory design methods

Relevant projects

- **Project Leader** -Decision support system to reduce maternal mortality, Funder: ZonMw, Netherlands Organization for Scientific Research.Technical University of Delft
- **Project Leader**-Visualisering og digitalisering av pasientinformasjon til kvinner etter fødsel. Funder: NTNU Helse Grant
- **Collaborator**, Project: Menstruation monitoring & Performance enhancement mobile Application for Elite Athlete - Health & Machine learning, Funder: Discovery, NTNU
- **Collaborator**, Project: Cross-sectoral and collaborative video consultations as an addition to the national care pathway for patients with long-term and complex pain conditions. Funder: The Norwegian Research Council (NFR)
- **Early-stage** Researcher, Intraoperative visualization system for minimally invasive surgery-Augmented reality in Surgery ARIS*ER, Funder: FP6 and Marie Curie Training
- **Post Doc**, Project: My Medical Digital Twin, Funder: NTNU
- **Post doc**, Project: NorEX- The Norwegian Trial of Physical Exercise Myocardial Infarction, Funder: NFR



Eleftherios Papachristou

Department of Design
Faculty of Architecture and Design

Contact information

eleftherios.papachristos@ntnu.no

+47 47707238

Expertise

- Human-Centred Artificial Intelligence design
- Human-Computer Interaction
- Interaction design
- Conversational Interfaces,
- Value-centered AI
- Ethics/trust/transparency and AI
- Interface Evaluation.

Relevant projects

rurALLURE (EU H2020 CSA)

INTER-SOCIAL (EU INTERREG)

SERIES (EU FP7 CSA)

QALIBRA (EU FP6 CSA)



Roxanna Morote

Department of Psychology
Faculty of Social and Educational Sciences

Contact information

roxanna.morote@ntnu.no
+47 73412825

Expertise

- Community and cross-cultural psychology.
- Multi-systemic resilience and protective factors.
- Adolescents, school, and community resilience
- Intersectionality, gender, and ethnicity.
- Gender and sexual diversity, and women's empowerment

Relevant projects

- H2020 UPRIGHT: Universal Preventive Resilience Intervention Globally Implemented in Schools to improve and promote Mental Health For Teenagers.
- Work package: Cocreation and Regional Adaptation in 5 EU countries.
- MapRes: Mapping personal, professional, and community-based resilience resources for work inclusion in social services, women, and youths at-risk of permanent unemployment in Trøndelag.
- Building a Sustainable University Community (Fremtidens Campus)

HORIZON-HLTH-2024-STAYHLTH-01-05-two-stage: Personalised prevention of non-communicable diseases - addressing areas of unmet needs using multiple data sources.



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Expertise

Exercise physiology, reproduction, lifestyle interventions, randomised controlled trials, female health

Relevant projects

Exercise training in women with obesity (ETIP), Isolated and combined effects of high-intensity interval training and time-restricted eating in women with overweight/obesity



Gerit Pfuhl

Department of Psychology
Faculty of Social and Educational Sciences

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Relevant links outside academia

NVE

Expertise

Mental health, motivation, decision-making, experimental design, multilab studies

Specific expertise to this call:

Experience with e-health (e.g. Diabetes, self-help apps), see publication record

Relevant projects

FRIMEDBIO 262338/F20

NORDFORSK 105061



Emre Yaksi

Department of Kavli Institute for Systems Neuroscience
Faculty of Medicine and Health Sciences

Contact information

emre.yaksi@ntnu.no
+4790738961

Expertise

Sensory computations, epilepsy,
neural/glial functional imaging,
physiology, data analysis, drug
screens, zebrafish

Relevant projects

- Function of Chemosensory Circuits (#335561), Coordinator, ERC Starting Grant (1,5M Euros)
- Modulation of brain activity and sensory computations by habenula-dorsal raphe circuitry (#314212),
- Coordinator, NFR FRIPRO BIOMED research grant (12M NOK)
- Exploring Frontal Lobe Epilepsy, Coordinator, Helse Midt-Norge (8M NOK)
- Investigating the role of Gonadotropin-releasing hormone and Neuropeptide Y in modulation of brain circuits and animal behavior (#239973), Coordinator, NFR FRIPRO BIOMED young talent grant (8M NOK)



Tone Frost Bathen

Department of Circulation and Medical Imaging
Faculty of Medicine and Health Sciences

Contact information

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+47 95021097

Relevant links outside academia

Bruker Biospin GmbH.

Expertise

Clinical and pre-clinical MRI and PET
Image analysis including artificial intelligence
Metabolomics (NMR-based and spatial MALDI Imaging)
Decision support
Precision medicine and biomarkers
Breast cancer
Prostate cancer

Relevant projects

2021-2024: NTNU/St. Olavs Hospital – Clinical Academic research group (ProstateCAG, 9 mill NOK) – co-PI - Liaison Committee between the Central Norway Regional Health Authority (RHA) and NTNU

2019-2023: NTNU- Researcher project (PROVIZ: Prostate cancer visualization by MRI - Improved diagnostics using artificial intelligence, 17.2 mill NOK) – Principal Investigator – Research council of Norway

2015-2021: NTNU – Researcher project (Personalized Treatment in High-Risk Mammary Cancer – the role of medical imaging, 5.7 mill NOK) – Principal Investigator – Liaison Committee between the Central Norway RHA and NTNU

2013-2019: NTNU – Researcher project (MR and PET in personalized prostate cancer management, 13.9 mill NOK) – Principal Investigator – The Norwegian Cancer Society

2018-2022: UMC Utrecht, NL – FET project (Non-invasive chemistry imaging, NICI) – Work Package leader – Horizon2020

2019-2025: NTNU – Researcher project (Improved diagnostics and treatment through a state-of-the-art multi-center nuclear medicine approach: Applications in cancer and dementia, 65 mill NOK) – Principal Investigator – Trond Mohn Foundation

2020-2024: NTNU/ Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice – Researcher project (Serum metabolome profiling in breast cancer risk assessment, 6.3 mill NOK)- Co-PI – Norway Grants

2019-2022: NTNU – Researcher project (Gut microbiota and metabolomics for assessing late effects of breast cancer treatment, 4 mill NOK) – Co-PI - The Norwegian Cancer Society



Ingerid Reinertsen

Department of Circulation and Medical Imaging
Faculty of Medicine and Health Sciences

Contact information

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+4790212159

Relevant links outside academia

Close collaboration with clinical partners nationally and internationally and SINTEF (non-profit research institute).

Expertise

In our group we have extensive experience in medical image analysis for various clinical applications including neurosurgery, breast cancer, lung cancer and cardiovascular applications.

We have expertise in MR, CT, ultrasound and digital pathology and analysis of medical images in combination with clinical data for prediction of outcome.

In our projects, we use a variety of methods including deep learning based approaches for detection, segmentation and characterization of medical images.

Relevant projects

Numerous projects in the field of image guided intervention (neurosurgery, bronchoscopy, laparoscopy, vascular surgery), surgical planning and digital pathology.



Ilanko Balasingham

Department of Eletronic Systems
Faculty of Information Technology and Electrical Engineering

Contact information

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+ 4793459022

Relevant links outside academia

Links to industry

Expertise

- Microscale antennas and wireless communication systems
- Passive (battery-free) wireless communication methods
- Passive microimplants for actuation, sensing and communication
- Medical signal and image processing using machine learning algorithms
- Molecular communication technology (nanoscale communication modeling and data inference)

Relevant projects

1. Principle Investigator/Work Package Leader of Wireless Brain-Connect Interface to Machines (B-CRATOS), (Funded by the European Commission (EC) H2020:Future Emerging Technologies (FET) Open Program, 01.03.2021- 28.02.2025, award EUR 4.475 million)

2. Principle Investigator/Work Package Leader of Reliable Technologies and Models for Verified Wireless Body-Centric Transmission and Localization (ROVER) , (Funded by the EC H2020-MSCA-RISE, 01.01.2020-31.12.2023, award EUR 1 million)

3. Principle Investigator of 5G HEalth AquacultuRe and Transport validation trials (5G-HEART), (Funded by the EC H2020:ICT, 01.07.2019-30.06.2022, award EUR 14.3 million)

4. Principle Investigator of Next-Generation Theranostics of Brain Pathologies With Autonomous Externally Controllable Nanonetworks: A Transdisciplinary Approach With Bio-Nanodevices Interfaces (GLADIATOR), (Funded by the EC H2020: FET Open Program, 01.01.2019-31.12.2022, award EUR 5.9 million)

5. Coordinator/Principle Investigator of Wireless In-Body Environment (WiBEC), (Funded by the EC, H2020- MARIE Skodowska-CURIE ACTIONS (MSCA-ITN-2015), 01.01.2016-31.12.2019, award EUR 3.957 million)

6. Work Package Leader of ULTRASPONDER, (Funded by the European Union 7th Framework Program, STREP, 01.09.2008 -31.08.2011, award EUR 4.5 million)



Ashis Jalote Parmar

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Faculty of Architecture and Design

Contact information

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+4741342567

Relevant links outside academia

Public Sector Norwegian welfare organizations such as Kommune, NAV Industry-to health technology development and research

Expertise

Human Centered Design and innovation of technologies, Digital products and services for health- public health, women health, Design for complex workspace, Decision support, citizen centered systems, patient care pathways Interaction Design, User studies, participatory design, design theory, behavioral change

Expertise specific to call:

Human Centered Design of Digital Products and Services and Policies and systems thinking

Relevant projects

- **Project Leader** -Decision support system to reduce maternal mortality, Funder: ZonMw, Netherlands Organization for Scientific Research.Technical University of Delft
- **Project Leader**-Visualisering og digitalisering av pasientinformasjon til kvinner etter fødsel. Funder: NTNU Helse Grant
- **Collaborator**, Project: Menstruation monitoring & Performance enhancement mobile Application for Elite Athlete - Health & Machine learning, Funder: Discovery, NTNU
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- Interaction design
- Conversational Interfaces,
- Value-centered AI
- Ethics/trust/transparency and AI
- Interface Evaluation.

Relevant projects

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INTER-SOCIAL (EU INTERREG)

SERIES (EU FP7 CSA)

QALIBRA (EU FP6 CSA)



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Expertise

- Community and cross-cultural psychology.
- Multi-systemic resilience and protective factors.
- Adolescents, school, and community resilience
- Intersectionality, gender, and ethnicity.
- Gender and sexual diversity, and women's empowerment

Relevant projects

- H2020 UPRIGHT: Universal Preventive Resilience Intervention Globally Implemented in Schools to improve and promote Mental Health For Teenagers.
- Work package: Cocreation and Regional Adaptation in 5 EU countries.
- MapRes: Mapping personal, professional, and community-based resilience resources for work inclusion in social services, women, and youths at-risk of permanent unemployment in Trøndelag.
- Building a Sustainable University Community (Fremtidens Campus)



Maryam Ziaei

Department of Kavli Institute for Systems Neuroscience
Faculty of Medicine and Health Sciences

Contact information

maryam.ziaei@ntnu.no
+4748504709

Expertise

Aging, mental health, cognitive disorders, psychiatric disorders, brain function, life span development

Relevant projects

I have more than 15 years of working in the area of healthy aging and brain health



ASSOCIATED PROFESSORS

Destination 2:

Living and working in a health-promoting environment

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 2.

The following pages are sorted into the calls for the destination presented in cluster 1. To simplify your navigation among available expertises per topic, the list of topics have been made clickable.

DESTINATION 2 - CALLS

DISCLAIMER: Please notice that the Topics list is clickable to allow you to immediately reach the one for which you could be interested to open a collaboration dialogue with NTNU

Call - Environment and health (Two stage - 2024)

HORIZON-HLTH-2024-ENVHLTH-02-06-two-stage: The role of environmental pollution in non-communicable diseases: air, noise and light and hazardous waste pollution.

HORIZON-HLTH-2024-ENVHLTH-02-06-two-stage: The role of environmental pollution in non-communicable diseases: air, noise and light and hazardous waste pollution.



Andreas Erbe

Department of Materials Science and Engineering
Faculty of Natural Science

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+47 73594048

Relevant links outside academia

Industry (metal-producing industries in Norway and other parts of Europe; surface pretreatment producing industries); Public sectors (e.g., local museums).

Expertise

- **Materials** degradation (corrosion) on a molecular, mesoscopic to macroscopic level
- **Materials** interaction with environment (incl. complex biological environments in the body)
- **Vibrational** spectroscopy (IR, Raman) in complex matrices, especially for materials surface analysis, study of solvation, and in combination with electrochemical techniques
- **Surface** treatment of metals and semiconductors (pretreatment, etching, etc.)
- **Electrochemical** techniques

Relevant projects

Diverse fundamental and applied research projects (e.g., ITN; innovation projects for the industrial sector in Norway)



Emre Yaksi

Department of Kavli Institute for Systems Neuroscience
Faculty of Medicine and Health Sciences

Contact information

emre.yaksi@ntnu.no
+4790738961

Expertise

Sensory computations, epilepsy, neural/glial functional imaging, physiology, data analysis, drug screens, zebrafish

Relevant projects

- Function of Chemosensory Circuits (#335561), Coordinator, ERC Starting Grant (1,5M Euros)
- Modulation of brain activity and sensory computations by habenula-dorsal raphe circuitry (#314212),
- Coordinator, NFR FRIPRO BIOMED research grant (12M NOK)
- Exploring Frontal Lobe Epilepsy, Coordinator, Helse Midt-Norge (8M NOK)
- Investigating the role of Gonadotropin-releasing hormone and Neuropeptide Y in modulation of brain circuits and animal behavior (#239973), Coordinator, NFR FRIPRO BIOMED young talent grant (8M NOK)



Roxanna Morote

Department of Psychology

Faculty of Social and Educational Sciences

Contact information

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+47 73412825

Expertise

- Community and cross-cultural psychology.
- Multi-systemic resilience and protective factors.
- Adolescents, school, and community resilience
- Intersectionality, gender, and ethnicity.
- Gender and sexual diversity, and women's empowerment

Relevant projects

- H2020 UPRIGHT: Universal Preventive Resilience Intervention Globally Implemented in Schools to improve and promote Mental Health For Teenagers.
- Work package: Cocreation and Regional Adaptation in 5 EU countries.
- MapRes: Mapping personal, professional, and community-based resilience resources for work inclusion in social services, women, and youths at-risk of permanent unemployment in Trøndelag.
- Building a Sustainable University Community (Fremtidens Campus)

HORIZON-HLTH-2024-ENVHLTH-02-06-two-stage: The role of environmental pollution in non-communicable diseases: air, noise and light and hazardous waste pollution.



Pasi Aalto

Department of Architecture and Technology
Faculty of Architecture and Design

Contact information

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+47 98025519

Relevant projects

- Review of eye-tracking in architecture 1976-2020, fNIRS experiments in situ and in lab, lead of multiple research and innovation projects in Norway and some in EU.

Expertise

Physiological experiments using Eye-tracking, fNIRS, EEG, GSR and Indoor Environmental Quality (IEQ) sensors in architecture, both lab and in-situ. 3D scanning of environments, design of interventions and experimental spaces, interviews, surveys and the normal stuff. I am also an architect, so theory, architectural design development and domain knowledge is not a problem.

In this Call, I would look at disturbance (noise, visual distraction) to focus/flow in workplaces and learning spaces, multi-sensory experiments using fNIRS/EEG/Eye-tracking/GSR

Relevant links outside academia

I lead **NTNU Wood**, a cross-disciplinary centre that focuses on knowledge development to benefit the use of Norwegian forests towards 2050. We are industry funded and I have extensive networks in industry and public bodies. I am pretty good at getting in touch with the right people.



ASSOCIATED PROFESSORS

Destination 3:

Tackling diseases and reducing disease burden

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 3.

The following pages are sorted into the calls for the destination presented in cluster 1. To simplify your navigation among available expertises per topic, the list of topics have been made clickable.

DESTINATION 3 - CALLS

DISCLAIMER: Please notice that the Topics list is clickable to allow you to immediately reach the one for which you could be interested to open a collaboration dialogue with NTNU

Call - Tackling diseases (Two stage - 2024)

[HORIZON-HLTH-2024-DISEASE-03-08-two-stage: Comparative effectiveness research for healthcare interventions in areas of high public health need.](#)

HORIZON-HLTH-2024-DISEASE-03-11-two-stage: Pandemic preparedness and response: Adaptive platform trials for pandemic preparedness.

[HORIZON-HLTH-2024-DISEASE-03-13-two-stage: Validation of fluid-derived biomarkers for the prediction and prevention of brain disorders.](#)

HORIZON-HLTH-2024-DISEASE-03-14-two-stage: Tackling high-burden for patients, under-researched medical conditions.

Call - Tackling diseases (Single stage - 2024)

[HORIZON-HLTH-2024-DISEASE-08-12: Pandemic preparedness and response: Maintaining the European partnership for pandemic preparedness.](#)

HORIZON-HLTH-2024-DISEASE-08-20: Pandemic preparedness and response: Host-pathogen interactions of infectious diseases with epidemic potential

Call - Partnerships in Health (2024)

[HORIZON-HLTH-2024-DISEASE-09-01: European Partnership: One Health Anti-Microbial Resistance](#)

HORIZON-HLTH-2024-DISEASE-03-08-two-stage: Comparative effectiveness research for healthcare interventions in areas of high public health need.



Eleftherios Papachristou

Department of Design

Faculty of Architecture and Design

Contact information

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+47 47707238

Expertise

- Human-Centred Artificial Intelligence design
- Human-Computer Interaction
- Interaction design
- Conversational Interfaces,
- Value-centered AI
- Ethics/trust/transparency and AI
- Interface Evaluation.

Relevant projects

urALLURE (EU H2020 CSA)

INTER-SOCIAL (EU INTERREG)

SERIES (EU FP7 CSA)

QALIBRA (EU FP6 CSA)

HORIZON-HLTH-2024-DISEASE-03-13-two-stage: Validation of fluid-derived biomarkers for the prediction and prevention of brain disorders.



Katja Scheffler

Department of Neuromedicine and Movement Science
Faculty of Medicine and Health Sciences

Contact information

Katja.scheffler@ntnu.no

Expertise

My research aims at understanding genome dynamics in the brain and its effect on neurodegenerative diseases with special emphasis on AD. The overall goal is to identify novel biomarkers for early diagnosis and targets for effective therapy.

Areas of expertise include multi-omics, patient-derived cell models, animal models, DNA damage and repair, translational medicine.

Relevant projects

DNA repair -dependent changes of the neuroepigenome

Trønderbrain - a clinical cohort of AD patients and healthy controls

DNA modifications as novel biomarker in Alzheimer's disease



Emre Yaksi

Department of Kavli Institute for Systems Neuroscience
Faculty of Medicine and Health Sciences

Contact information

emre.yaksi@ntnu.no
+4790738961

Expertise

Sensory computations, epilepsy, neural/glial functional imaging, physiology, data analysis, drug screens, zebrafish

Relevant projects

- Function of Chemosensory Circuits (#335561), Coordinator, ERC Starting Grant (1,5M Euros)
- Modulation of brain activity and sensory computations by habenula-dorsal raphe circuitry (#314212),
- Coordinator, NFR FRIPRO BIOMED research grant (12M NOK)
- Exploring Frontal Lobe Epilepsy, Coordinator, Helse Midt-Norge (8M NOK)
- Investigating the role of Gonadotropin-releasing hormone and Neuropeptide Y in modulation of brain circuits and animal behavior (#239973), Coordinator, NFR FRIPRO BIOMED young talent grant (8M NOK)



Roxanna Morote

Department of Psychology

Faculty of Social and Educational Sciences

Contact information

roxanna.morote@ntnu.no
+47 73412825

Expertise

- Community and cross-cultural psychology.
- Multi-systemic resilience and protective factors.
- Adolescents, school, and community resilience
- Intersectionality, gender, and ethnicity.
- Gender and sexual diversity, and women's empowerment

Relevant projects

- H2020 UPRIGHT: Universal Preventive Resilience Intervention Globally Implemented in Schools to improve and promote Mental Health For Teenagers.
- Work package: Cocreation and Regional Adaptation in 5 EU countries.
- MapRes: Mapping personal, professional, and community-based resilience resources for work inclusion in social services, women, and youths at-risk of permanent unemployment in Trøndelag.
- Building a Sustainable University Community (Fremtidens Campus)



Andreas Erbe

Department of Materials Science and Engineering
Faculty of Natural Science

Contact information

andreas.erbe@ntnu.no
+47 73594048

Relevant links outside academia

Industry (metal-producing industries in Norway and other parts of Europe; surface pretreatment producing industries); Public sectors (e.g., local museums).

Expertise

- **Materials** degradation (corrosion) on a molecular, mesoscopic to macroscopic level
- **Materials** interaction with environment (incl. complex biological environments in the body)
- **Vibrational** spectroscopy (IR, Raman) in complex matrices, especially for materials surface analysis, study of solvation, and in combination with electrochemical techniques
- **Surface** treatment of metals and semiconductors (pretreatment, etching, etc.)
- **Electrochemical** techniques

Relevant projects

Diverse fundamental and applied research projects (e.g., ITN; innovation projects for the industrial sector in Norway)



ASSOCIATED PROFESSORS

Destination 4:

Ensuring access to
innovative, sustainable
and high-quality health
care

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 4.

The following pages are sorted into the calls for the destination presented in cluster 1. To simplify your navigation among available expertises per topic, the list of topics have been made clickable.

DESTINATION 4 - CALLS

DISCLAIMER: Please notice that the Topics list is clickable to allow you to immediately reach the one for which you could be interested to open a collaboration dialogue with NTNU

Call - Ensuring access to innovative, sustainable and high-quality health care (Two stage - 2024)

[HORIZON-HLTH-2024-CARE-04-04-two-stage: Access to health and care services for people in vulnerable situations.](#)



Ashis Jalote Parmar

Department of Industrial Design
Faculty of Architecture and Design

Contact information

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+4741342567

Relevant links outside academia

Public Sector Norwegian welfare organizations such as Kommune, NAV Industry-to health technology development and research

Expertise

Human Centered Design and innovation of technologies, Digital products and services for health- public health, women health, Design for complex workspace, Decision support, citizen centered systems, patient care pathways Interaction Design, User studies, participatory design, design theory, behavioral change

Expertise specific to call:

Service Design methods and Participatory design methods, behavioral Change

Relevant projects

- **Project Leader** -Decision support system to reduce maternal mortality, Funder: ZonMw, Netherlands Organization for Scientific Research.Technical University of Delft
- **Project Leader**-Visualisering og digitalisering av pasientinformasjon til kvinner etter fødsel. Funder: NTNU Helse Grant
- **Collaborator**, Project: Menstruation monitoring & Performance enhancement mobile Application for Elite Athlete - Health & Machine learning, Funder: Discovery, NTNU
- **Collaborator**, Project: Cross-sectoral and collaborative video consultations as an addition to the national care pathway for patients with long-term and complex pain conditions. Funder: The Norwegian Research Council (NFR)
- **Early-stage** Researcher, Intraoperative visualization system for minimally invasive surgery-Augmented reality in Surgery ARIS*ER, Funder: FP6 and Marie Curie Training
- **Post Doc**, Project: My Medical Digital Twin, Funder: NTNU
- **Post doc**, Project: NorEX- The Norwegian Trial of Physical Exercise Myocardial Infarction, Funder: NFR



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Expertise

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- Human-Computer Interaction
- Interaction design
- Conversational Interfaces,
- Value-centered AI
- Ethics/trust/transparency and AI
- Interface Evaluation.

Relevant projects

rurALLURE (EU H2020 CSA)

INTER-SOCIAL (EU INTERREG)

SERIES (EU FP7 CSA)

QALIBRA (EU FP6 CSA)



Roxanna Morote

Department of Psychology

Faculty of Social and Educational Sciences

Contact information

roxanna.morote@ntnu.no
+47 73412825

Expertise

- Community and cross-cultural psychology.
- Multi-systemic resilience and protective factors.
- Adolescents, school, and community resilience
- Intersectionality, gender, and ethnicity.
- Gender and sexual diversity, and women's empowerment

Relevant projects

- H2020 UPRIGHT: Universal Preventive Resilience Intervention Globally Implemented in Schools to improve and promote Mental Health For Teenagers.
- Work package: Cocreation and Regional Adaptation in 5 EU countries.
- MapRes: Mapping personal, professional, and community-based resilience resources for work inclusion in social services, women, and youths at-risk of permanent unemployment in Trøndelag.
- Building a Sustainable University Community (Fremtidens Campus)





ASSOCIATED PROFESSORS

Destination 5:

Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 5.

The following pages are sorted into the calls for the destination presented in cluster 1. To simplify your navigation among available expertises per topic, the list of topics have been made clickable.

DESTINATION 5 - CALLS

DISCLAIMER: Please notice that the Topics list is clickable to allow you to immediately reach the one for which you could be interested to open a collaboration dialogue with NTNU

Call - Tools and technologies for a healthy society (Two stage - 2024)

[HORIZON-HLTH-2024-TOOL-05-06-two-stage: Innovative non-animal human-based tools and strategies for biomedical research.](#)

Call - Tools and technologies for a healthy society (Single stage - 2024)

[HORIZON-HLTH-2024-TOOL-11-02: Bio-printing of living cells for regenerative medicine](#)



Katja Scheffler

Department of Neuromedicine and Movement Science
Faculty of Medicine and Health Sciences

Contact information

Katja.scheffler@ntnu.no

Expertise

My research aims at understanding genome dynamics in the brain and its effect on neurodegenerative diseases with special emphasis on AD. The overall goal is to identify novel biomarkers for early diagnosis and targets for effective therapy.

Areas of expertise include multi-omics, patient-derived cell models, animal models, DNA damage and repair, translational medicine.

Relevant projects

DNA repair -dependent changes of the neuroepigenome

Trønderbrain - a clinical cohort of AD patients and healthy controls

DNA modifications as novel biomarker in Alzheimer's disease



Emre Yaksi

Department of Kavli Institute for Systems Neuroscience
Faculty of Medicine and Health Sciences

Contact information

emre.yaksi@ntnu.no
+4790738961

Expertise

Sensory computations, epilepsy, neural/glial functional imaging, physiology, data analysis, drug screens, zebrafish

Relevant projects

- Function of Chemosensory Circuits (#335561), Coordinator, ERC Starting Grant (1,5M Euros)
- Modulation of brain activity and sensory computations by habenula-dorsal raphe circuitry (#314212),
- Coordinator, NFR FRIPRO BIOMED research grant (12M NOK)
- Exploring Frontal Lobe Epilepsy, Coordinator, Helse Midt-Norge (8M NOK)
- Investigating the role of Gonadotropin-releasing hormone and Neuropeptide Y in modulation of brain circuits and animal behavior (#239973), Coordinator, NFR FRIPRO BIOMED young talent grant (8M NOK)



Ilanko Balasingham

Department of Eletronic Systems

Faculty of Information Technology and Electrical Engineering

Contact information

ilanko.balasingham@ntnu.no
+ 4793459022

Relevant links outside academia

Links to industry

Expertise

- Microscale antennas and wireless communication systems
- Passive (battery-free) wireless communication methods
- Passive microimplants for actuation, sensing and communication
- Medical signal and image processing using machine learning algorithms
- Molecular communication technology (nanoscale communication modeling and data inference)

Relevant projects

1. Principle Investigator/Work Package Leader of Wireless Brain-Connect Interface to Machines (B-CRATOS), (Funded by the European Commission (EC) H2020:Future Emerging Technologies (FET) Open Program, 01.03.2021- 28.02.2025, award EUR 4.475 million)
2. Principle Investigator/Work Package Leader of Reliable Technologies and Models for Verified Wireless Body-Centric Transmission and Localization (ROVER) , (Funded by the EC H2020-MSCA-RISE, 01.01.2020-31.12.2023, award EUR 1 million)
3. Principle Investigator of 5G HEalth AquacultuRe and Transport validation trials (5G-HEART), (Funded by the EC H2020:ICT, 01.07.2019-30.06.2022, award EUR 14.3 million)

4. Principle Investigator of Next-Generation Theranostics of Brain Pathologies With Autonomous Externally Controllable Nanonetworks: A Transdisciplinary Approach With Bio-Nanodevices Interfaces (GLADIATOR), (Funded by the EC H2020: FET Open Program, 01.01.2019-31.12.2022, award EUR 5.9 million)
5. Coordinator/Principle Investigator of Wireless In-Body Environment (WiBEC), (Funded by the EC, H2020- MARIE Skodowska-CURIE ACTIONS (MSCA-ITN-2015), 01.01.2016-31.12.2019, award EUR 3.957 million)
6. Work Package Leader of ULTRASPONDER, (Funded by the European Union 7th Framework Program, STREP, 01.09.2008 -31.08.2011, award EUR 4.5 million)



ASSOCIATED PROFESSORS

Destination 6:

Maintaining an
innovative, sustainable
and globally competitive
health industry

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 6.

The following pages are sorted into the calls for the destination presented in cluster 1. To simplify your navigation among available expertises per topic, the list of topics have been made clickable.

DESTINATION 6 - CALLS

DISCLAIMER: Please notice that the Topics list is clickable to allow you to immediately reach the one for which you could be interested to open a collaboration dialogue with NTNU

Call - A competitive health-related industry (Single stage - 2024)

HORIZON-HLTH-2024-IND-06-08: Developing EU methodological frameworks for clinical/performance evaluation and post-market clinical/performance follow-up of medical devices and in vitro diagnostic medical devices (IVDs)

HORIZON-HLTH-2024-IND-06-09: Gaining experience and confidence in New Approach Methodologies (NAM) for regulatory safety and efficacy testing – coordinated training and experience exchange for regulators.



KNOWLEDGE FOR A BETTER WORLD

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NTNU BRUSSELS OFFICE
MH FACULTY
TSO HEALTH

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