HORIZON EUROPE
2023/2024 CALLS

CLUSTER 1
HEALTH

Produced by: NTNU Brussels office, TSO HEAlth and MH Faculty
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>Introduction</td>
</tr>
<tr>
<td>05</td>
<td>About NTNU and NTNU Brussels Office</td>
</tr>
<tr>
<td>07</td>
<td>Health Research at NTNU</td>
</tr>
<tr>
<td>11</td>
<td>NTNU Collaboration and Entry Points</td>
</tr>
<tr>
<td>12</td>
<td>Destination 1 - Staying healthy in a rapidly changing society</td>
</tr>
<tr>
<td>26</td>
<td>Destination 2 - Living and working in a health-promoting environment</td>
</tr>
<tr>
<td>37</td>
<td>Destination 3 - Tackling diseases and reducing disease burden</td>
</tr>
<tr>
<td>46</td>
<td>Destination 4 - Ensuring access to innovative, sustainable and highquality health care</td>
</tr>
<tr>
<td>52</td>
<td>Destination 5 - Unlocking the full potential of new tools, technologies and digital solutions for a healthy society</td>
</tr>
<tr>
<td>59</td>
<td>Destination 6 - Maintaining an innovative, sustainable and globally competitive health industry</td>
</tr>
</tbody>
</table>
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 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.
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**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOK 10 billion</td>
<td>annual budget</td>
</tr>
<tr>
<td>44 170</td>
<td>students</td>
</tr>
<tr>
<td>7761</td>
<td>FTE</td>
</tr>
<tr>
<td>412</td>
<td>doctoral degrees</td>
</tr>
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</table>

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:
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.
Call - Staying Healthy (Single stage - 2023)

HORIZON-HLTH-2023-STAYHLTH-01-01: The Silver Deal - Person-centred health and care in European regions.

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.
Maryam Ziaei

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

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

Contact information
maryam.ziaei@ntnu.no
+4748504709

Ashis Jalote Parmar

Department of Industrial Design
Faculty of Architecture and Design

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

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: 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

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

Expertise specific to call:
Human Centered Design of Digital Products and Services and Policies

Contact information
ashis.jalote.parmar@ntnu.no
+4741342567
**Ingerid Reinertsen**  
*Department of Circulation and Medical Imaging*  
*Faculty of Medicine and Health Sciences*

**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.

**Contact information**
Ingerid.Reinertsen@ntnu.no  
+4790212159

**Relevant links outside academia**
Close collaboration with clinical partners nationally and internationally and SINTEF (non-profit research institute).

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

**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)
Ilangko Balasingham

Department of Electronic Systems
Faculty of Information Technology and Electrical Engineering

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)

Contact information
ilangko.balasingham@ntnu.no
+ 4793459022

Relevant links outside academia
Links to industry

Relevant projects
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)
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)

Eleftherios Papachristou

Department of Design
Faculty of Architecture and Design

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

Contact information
eleftherios.papachristos@ntnu.no
+47 47707238

Relevant projects
rurALLURE (EU H2020 CSA)
INTER-SOCIAL (EU INTERREG)
SERIES (EU FP7 CSA)
QALIBRA (EU FP6 CSA)
Damiano Varagnolo
Department of Engineering Cybernetics
Faculty of Information Technology and Electrical Engineering

Expertise
- Data analysis
- Mathematical modelling
- Numerical optimization
- System identification
- Biofeedback

Relevant projects
- Pelvic floor activation through gamified exercising (Swedish local funds)
- Cybernetics approaches for personalized biofeedback (Norwegian local funds)

Contact information
damiano.varagnolo@ntnu.no
+47 48128922

Links outside academia
- Maastricht University Medical Center+
- Uppsala University Hospital

Anders Lyngvi Fougner
Department of Engineering Cybernetics
Faculty of Information Technology and Electrical Engineering

Expertise
- Experience in closed-loop glucose control (artificial pancreas)
- Diabetes, pattern recognition
- Machine learning
- Sensor fusion
- Electromyography
- Upper-limb prostheses
- Glucose sensing
- Mathematical modeling
- System identification
- Model-based control.

Relevant projects
- The Artificial Pancreas Trondheim (APT) research group (apt-norway.com).
- Projects funded by the Research Council of Norway: «Double Intraperitoneal Artificial Pancreas» (DIAP), and «Listening to the patients».
- Robust, coordinated and proportional control of myoelectric upper-limb prostheses.

Contact information
anders.fougner@ntnu.no
+47 97158863

Links outside academia
- Inreda Diabetic BV (Goor, Netherlands).
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 (Fremtids Campus).
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-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: 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)
Trine Moholdt
Department of Circulation and Medical Imaging
Faculty of Medicine and Health Sciences

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trine.moholdt@ntnu.no
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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

Contact information
gerit.pfuhl@ntnu.no
+47 98662518

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

Relevant projects
FRIMEDBIO 262338/F20
NORDFORSK 105061

Specific expertise to this call:
Experience with e-health (e.g. Diabetes, self-help apps), see publication record
Tone Frost Bathen
Department of Circulation and Medical Imaging
Faculty of Medicine and Health Sciences

Contact information
tone.f.bathen@ntnu.no
+47 95021097

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

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

Contact information
emre.yaksi@ntnu.no
+47 90738961

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

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

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Department of Eletronic Systems
Faculty of Information Technology and Electrical Engineering

Expertise
- Microscale antennas and wireless communication systems
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- Medical signal and image processing using machine learning algorithms
- Molecular communication technology (nanoscale communication modeling and data inference

Relevant projects


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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

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

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
- Early-stage Researcher, Intraoperative visualization system for minimally invasive surgery-Augmented reality in Surgery ARIS*ER, Funder: FP6 and Marie Curie Training
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- Post doc, Project: NorEX- The Norwegian Trial of Physical Exercise Myocardial Infarction, Funder: NFR

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Relevant projects
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QALIBRA (EU FP6 CSA)
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Department of Psychology
Faculty of Social and Educational Sciences

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+47 73412825

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- 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.
Call - Environment and health (Single stage- 2023)

HORIZON-HLTH-2023-ENVHLTH-02-01: Planetary health: understanding the links between environmental degradation and health impacts.

HORIZON-HLTH-2023-ENVHLTH-02-02: Evidence-based interventions for promotion of mental and physical health in changing working environments (post-pandemic workplaces).

HORIZON-HLTH-2023-ENVHLTH-02-03: Health impacts of endocrine-disrupting chemicals: bridging science-policy gaps by addressing persistent scientific uncertainties.

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.
Gerit Pfuhl

Department of Psychology
Faculty of Social and Educational Sciences

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

Contact information
gerit.pfuhl@ntnu.no
+47 98662518

Relevant projects
FRIMEDBIO 262338/F20
NORDFORSK 105061

Relevant links outside academia
NVE

Andreas Erbe

Department of Materials Science and Engineering
Faculty of Natural Science

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

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).
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)

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Pasi Aalto
Department of Architecture and Technology
Faculty of Architecture and Design

**Contact information**
pasi.alto@ntnu.no
+47 98025519

**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 am interested to look at people relationship to nature and the effects of nature in both natural and man-made environments.

**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.

**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.
Maryam Ziaei

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

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

Contact information
maryam.ziaei@ntnu.no
+47 48504709

Trine Moholdt

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

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

Contact information
trine.moholdt@ntnu.no
+47 97098594
Roxanna Morote
Department of Psychology
Faculty of Social and Educational Sciences

**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)

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Eleftherios Papachristou
Department of Design
Faculty of Architecture and Design

**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)
Pasi Aalto
Department of Architecture and Technology
Faculty of Architecture and Design

Contact information
pasi.aalto@ntnu.no
+47 98025519

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.

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.

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.
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)
Emre Yaksi
Department of Kavli Institute for Systems Neuroscience
Faculty of Medicine and Health Sciences

Contact information
emre.yaksi@ntnu.no
+47 90738961

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).
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
pasi.aalto@ntnu.no
+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.
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.
Call - Tackling diseases (Single stage - 2023)

HORIZON-HLTH-2023-DISEASE-03-04: Pandemic preparedness and response: Broad spectrum anti-viral therapeutics for infectious diseases with epidemic potential

HORIZON-HLTH-2023-DISEASE-03-05: Pandemic preparedness and response: Sustaining established coordination mechanisms for European adaptive platform trials and/or for cohort networks.

HORIZON-HLTH-2023-DISEASE-03-17: Pandemic preparedness and response: Understanding vaccine induced-immunity.

Call - Partnerships in Health (2023)

HORIZON-HLTH-2023-DISEASE-07-01: European Partnership on Rare Diseases.
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-03-13-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
Ilangko Balasingham

Department of Electronic Systems
Faculty of Information Technology and Electrical Engineering

Contact information
ilangko.balasingham@ntnu.no
+ 4793459022

Relevant links outside academia
Links to industry

Relevant projects


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)


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)

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)
Ingerid Reinertsen

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

**Contact information**
Ingerid.Reinertsen@ntnu.no
+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 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, laparascopy, vascular surgery), surgical planning and digital pathology.
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
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)
Katja Scheffler
Department of Neuromedicine and Movement Science
Faculty of Medicine and Health Sciences

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

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)
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.
Call - Ensuring access to innovative, sustainable and high-quality health care (Single stage - 2023) 122

HORIZON-HLTH-2023-CARE-04-01: Maintaining access to regular health and care services in case of cross-border emergencies.

HORIZON-HLTH-2023-CARE-04-02: Resilience and mental wellbeing of the health and care workforce

HORIZON-HLTH-2023-CARE-04-03: Environmentally sustainable and climate neutral health and care systems.

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.
Maryam Ziaei

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

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

**Contact information**
maryam.ziaei@ntnu.no
+4748504709

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

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Ashis Jalote Parmar

**Department of Industrial Design**
Faculty of Architecture and Design

**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

**Contact information**
ashis.jalote.parmar@ntnu.no
+4741342567

**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

**Relevant links outside academia**
Public Sector Norwegian welfare organizations such as Kommune, NAV Industry-to-health technology development and research
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)

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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-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

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

Contact information
ashis.jalote.parmar@ntnu.no
+47 413 425 67

Relevant links outside academia
Public Sector Norwegian welfare organizations such as Kommune, NAV Industry-to-heath technology development and research

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

Eleftherios Papachristou

Department of Design
Faculty of Architecture and Design

Contact information
eleftherios.papachristos@ntnu.no
+47 477 07 238

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)
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.
Call - Tools and technologies for a healthy society (Single stage - 2023)

HORIZON-HLTH-2023-TOOL-05-01: Clinical trials of combined Advanced Therapy Medicinal Products (ATMPs)

HORIZON-HLTH-2023-TOOL-05-04: Better integration and use of health-related real-world and research data, including genomics, for improved clinical outcomes.


HORIZON-HLTH-2023-TOOL-05-09: Developing a Data Quality and Utility Label for the European Health Data Space.

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


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
HORIZON-HLTH-2023-TOOL-05-04: BETTER INTEGRATION AND USE OF HEALTH-RELATED REAL-WORLD AND RESEARCH DATA, INCLUDING GENOMICS, FOR IMPROVED CLINICAL OUTCOMES.

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

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 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.

Contact information
Ingerid.Reinertsen@ntnu.no
+4790212159

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

Tone Frost Bathen
Department of Circulation and Medical Imaging
Faculty of Medicine and Health Sciences

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

Contact information
tone.f.bathen@ntnu.no
+47 95021097

Relevant links outside academia
Bruker Biospin GmBH.

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


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
Anders Lyngvi Fougner
Department of Engineering Cybernetics
Faculty of Information Technology and Electrical Engineering

Contact information
anders.fougner@ntnu.no
+47 97158863

Links outside academia
• Inreda Diabetic BV (Goor, Netherlands).

Expertise
• Experience in closed-loop glucose control (artificial pancreas)
• Diabetes, pattern recognition
• Machine learning
• Sensor fusion
• Electromyography
• Upper-limb prostheses
• Glucose sensing
• Mathematical modeling
• System identification
• Model-based control.

Relevant projects
• The Artificial Pancreas Trondheim (APT) research group (apt-norway.com).
• Projects funded by the Research Council of Norway: «Double Intraperitoneal Artificial Pancreas» (DIAP), and «Listening to the patients».
• Robust, coordinated and proportional control of myoelectric upper-limb prostheses.
HORIZON-HLTH-2023-TOOL-05-08: Pandemic preparedness and response: In vitro diagnostic devices to tackle cross-border health threats

Andreas Erbe

Department of Materials Science and Engineering
Faculty of Natural Science

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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)
Katja Scheffler
Department of Neuromedicine and Movement Science
Faculty of Medicine and Health Sciences

**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

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

**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)
Ilango Balasingham

**Department of Electronic Systems**
Faculty of Information Technology and Electrical Engineering

**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)

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**Relevant links outside academia**
Links to industry

**Relevant projects**


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)


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.
Call - A competitive health-related industry (Single stage - 2023)

HORIZON-HLTH-2023-IND-06-01: Supporting the uptake of innovative Health Technology Assessment (HTA) methodology and advancing HTA expertise across EU.

HORIZON-HLTH-2023-IND-06-02: Expanding the European Electronic Health Record exchange Format to improve interoperability within the European Health Data Space.

HORIZON-HLTH-2023-IND-06-05: Mapping the hurdles for the clinical applications of Advanced Therapy Medicinal Products (ATMPs)

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.
HORIZON-HLTH-2023-IND-06-02: EXPANDING THE EUROPEAN ELECTRONIC HEALTH RECORD EXCHANGE FORMAT TO IMPROVE INTEROPERABILITY WITHIN THE EUROPEAN HEALTH DATA SPACE.

Ashis Jalote Parmar
Department of Industrial Design
Faculty of Architecture and Design

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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 interaction Design, system design

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
- **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

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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)