Innovate UK – European Programmes Pitching session

**Belen Rebollo-Garcia
Knowledge Transfer Manager**
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Running order for pitches

Company	Name
Nebuflow	Elijah Nazarzadeh and Graham Matthews
Atelerix	Alistair Leitch
Brunel University	Ronan McCarthy
Atelerix	Steve Swioklo
Life Sciences Centre	Daumantas Matulis
Graematta	Ferron Gray
Centre Hospitalier Universitaire de Nantes	Pierre-Antoine Gourraud
University of Zurich	Bogdan Mateescu
University of Salford	Zeljka Krpetic
Data4Care	Ipek Deveci Kocakoç
Bar-Ilan University	Tomer Kalisky
Hesso	Gilles Courret
NHS Tayside & University of Dundee	Kate Cheesbrough and Helen Donald-Simpson
Nottingham Trent University	Jehan El-Jawhari
Reveal my food	Ludovica De Pieri
University of Exeter	Neil Vaughan
Loughborough University	Vadim V. Silberschmidt
Northumbria University	Iain Brownlee
University of the Creative Arts	Mark Brill

2min

# Pandemic Preparedness (HORIZON-HLTH -2024-DISEASE-08-20)

Nebu flow

Proposed Approach & Experience

Nebu~Flow is developing the next generation of nebulisers to enable efficient inhalation delivery of biological medicines and vaccines.

We have shown that our technology is capable the aerosol droplet size for efficient drug delivery to the lungs, while it is a soft method that can aerosolise biologics and formulations with low surface tension. Additionally, our approach can provide a method to make formulation at the point of treatment, if the formulation is unstable.

Confocal Images of A549 cells, transfected by delivery via Nebu~Flow laboratory nebulisation platform into the culture dish. siRNA was labelled green and the nuclei were stained with Hoechst in blue.

A. Standard Transfection   B. SAW Transfection
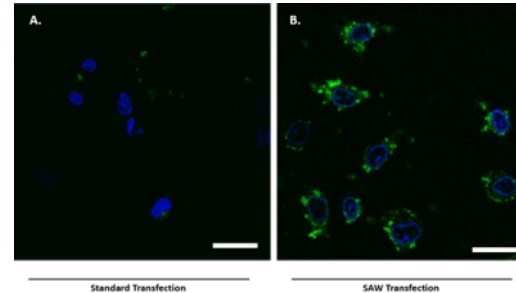
Partners

Nebu~Flow is looking for partners who are aiming to develop vaccines and treatment to develop a delivery device for their products.

Pandemics are usually respiratory infections. We believe availability of a robust nebuliser technology that can accelerate delivery of drugs and vaccines directly to the lungs can provide a better and faster treatment option, while by passing the enzymatic reaction through the parental and oral routes.

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

Nebu~Flow is a start-up company with state-of the art equipment for aerosol formation and characterisation techniques such as Next Generation Impactor, Breath simulator. Also, our laboratory is capable of conducting basic biological assays.

Administrative Information

Nebu~Flow is a Start-Up , looking to be a partner on a project as a delivery platform.

Contact details:
Elijah Nazarzadeh; Elijah@nebuflow.co.uk ; (+44)7834 860841
Graham Matthews: Graham@nebuflow.co.uk

WWW.NebuFlow.Com

IHI Call 5: Accelerating the implementation of New Approach Methodologies and other innovative non-animal approaches for the development, testing and production of health technologies (HORIZON-JU-IHI-2023-05-01)

PITCH TITLE: Enabling the distribution of advance cell models at room temperature for drug discovery

Proposed Approach & Experience

- As models become more physiologically relevant, they have become more complex and fragile, and require greater specialist technical skill and time to generate.
- Increased complexity and fragility of models brings about logistical challenges for their storage and distribution from sites of manufacture to sites of drug discovery. This directly impedes the global accessibility of advanced screening platforms.
- As cryopreservation is often unsuitable for these platforms, new methods for distribution are desperately required.

- Atelerix offers a patented alginate-based technology for storage and transport of human cells without the need for cryopreservation.
- This enables model distribution in an easy to use "assay-ready" format.

Partners

Atelerix are looking to partner with developers of cell and tissue models for drug discovery

Organisational Capabilities

- Atelerix have developed products for cells, tissues, organoids and viruses in multiple formats including; vials, bags and multi-well plates.
- Atelerix's team is experienced in developing solutions for multiple cell/tissue types and end-point analysis/models.
- Atelerix's technology can also be implemented for use in co-culture and 3D-printing.
- Atelerix operates from a purpose-built fully equipped research facility with a highly skilled team.

Administrative Information

Atelerix is an SME planning on being a partner.

Alistair Leitch (Alistair.leitch@atelerix.co.uk)
Steve Swioklo (Steve.Swioklo@atelerix.co.uk)
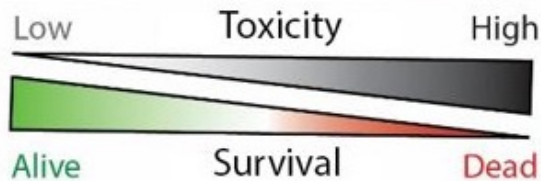Phone: +44191 580 6181
Country: UK
Participant identification code (PIC): 888571993

IHI call 5 (HORIZON-JU-IHI-2023-0 & Others)

Proposed Approach & Experience

Extensive Expertise in bacterial pathogenicity, biofilm formation, wound infection and antimicrobial resistance.

Expertise in 3Rs focused *in vivo* models of infection.
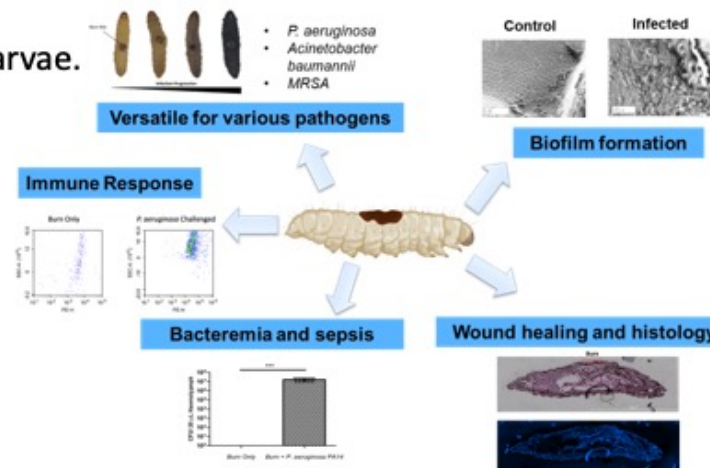
Partners

If you are looking for partners, what type of partners are you looking for?

Academia

Industry

Low — Toxicity — High

Alive — Survival — Dead

Burn Site

Infection Progression

Organisational Capabilities

- Genome Sequenced Breeding Colony of Research Grade Larvae.
- No ethical considerations
- High throughput screens
- Capacity for infection and pathogenicity studies.
- Capacity for toxicity studies.
- Capacity to screen probiotics.
- Capacity for drug efficacy and drug synergy studies.
- Capacity to match mouse/mammalian studies.

- *P. aeruginosa*
- *Acinetobacter baumannii*
- MRSA

Versatile for various pathogens

Immune Response

Bacteremia and sepsis

Control | Infected

Biofilm formation

Wound healing and histology

Burn Only | *P. aeruginosa* Challenged

Administrative Information

Planning to be: Partner

Contact Details:

Ronan.mccarthy@brunel.ac.uk

www.mccarthy-lab.com

Twitter: @mccarthy_ronan

Horizon Health Work Programme: Pandemic preparedness and response: Host-pathogen interactions of infectious diseases with epidemic potential (HORIZON-HLTH-2024-DISEASE-08-20)

PITCH TITLE: Supporting the vaccine development lifecycle through stabilising live viruses at room temperature during viral surveillance

Proposed Approach & Experience

- Vaccine development against viruses is complicated by the fact that they are continually mutating producing variants with different levels of infectivity and transmissibility.
- Mutations often occur in transcripts encoding surface glycoproteins (i.e. spike proteins) that are often the target of emerging vaccines.
- Through stabilising live viruses at room temperature during population and environmental surveillance, vaccine developers can assess genomic and protein changes in viral variants as well as directly examine how these changes affect infectivity, viral behaviour and vaccine efficacy.

- Atelerix offers a patented alginate-based technology for storage and transport of live cells, tissues and viruses without the need for cryopreservation.
- Utilising this technology, live viruses can be stabilised for weeks to months to enable collection across wide geographies. This directly supports the generation of targeted vaccines against emerging variants.

Partners

Atelerix are looking to partner with vaccine developers / researchers to directly support the vaccine development lifecycle.

Organisational Capabilities

- Atelerix has developed products for cells, tissues and viruses in multiple formats including; swabs, vials, bags and multi-well plates.
- The technology has been demonstrated to preserve viability in a range of different viruses (including coronavirus, lentivirus, ebola surrogate) for up to 3 months.
- Atelerix's R&D team is experienced in developing solutions that allow the simple collection and storage of different biological samples within different matrices.
- Atelerix operates from a purpose-built facility with highly skilled and trained staff (PhD or equivalent).

Administrative Information

Atelerix is an SME planning on being a partner.

Alistair Leitch (Alistair.Leitch@atelerix.co.uk)
Steve Swioklo (Steve.Swioklo@atelerix.co.uk)
Phone: +44191 580 6181
Country: UK
Participant identification code (PIC): 88571993

IHI CALL 5/TOPIC 2 Theranostics (HORIZON-JU-IHI-2023-05-02)

Proposed Approach & Experience
What is your understanding of the part of the problem/challenge you can solve?
We are targeting hypoxic tumors with no cure

What previous, relevant, work or track record can you bring to the team?
1. Thermodynamic, kinetic, and structural parameterization of human carbonic anhydrase interactions toward enhanced inhibitor design
2. Carbonic Anhydrase as Drug Target
   Thermodynamics and Structure of Inhibitor Binding

Partners
If you are looking for partners, what type of partners are you looking for?

Pharmaceuticals and any other partner that can assist in bringing a new drug to the market

Organisational Capabilities
What skills, capabilities, facilities does your organisation have that will be vital for this project?
Experienced Team In Medical Biochemistry and Drug Development

Administrative Information
Is your organisation academic, SME, big business, etc.
Are you planning on being the Coordinator or a Partner?
We are academia (www.gmc.vu/en) and we plan to be the coordinator

Your contact details including:
Prof. Daumantas Matulis, daumantas.matulis@bti.vu.lt +370-655-06560
What country are you from **Lithuania**
Your organisation's Participant Identification Code (PIC)
999893170

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Innovate UK
KTN

Improved Prediction, Detection, and Treatment approaches for Comprehensive Stroke Management

Proposed Approach

We have a deep understanding of the human brain and the illnesses such as stroke that can affect it.

We want to address the following within the scope
- Lack of efficient and comprehensive pathways along the whole continuum of the disease
- The implementation of connected healthcare pathways
- Better communication, sharing and integration of data
- Improving the access and quality of data

Organisational Capabilities

We are a organisation that builds solutions to illnesses involving the mind. We create sustainable mental health services for industries utilising policy as our driver for change and we have been doing this now for 8yrs.

We are a SME in the area of Mental Health Policy development so are uniquely equipped to tackle a task such as this. We can utilise our relationships with the UN, CBI and the B20 to assist us with this call.

Experience

- We have created Global Mental Health Reports for the G20 & B20 in 2018, 2020. We have also created sector specific reports in 2021 & 2022.

- We hold Special Consultative Status for the United Nations (UN) for our work in the field of Mental Health,
- Members of Employment & Education Taskforce and Members of the Health & Life Sciences Taskforce for the B20 since 2017
- Members of the Confederation of British Industry (CBI)
- Worked with the British Standards Institution (BSI), CBI and Institute of Directors

Administrative Information

We are planning to be the coordinator for this project. If you are interested in partnering with us please contact me on the details below

Dr Ferron Gray
ferron.gray@graematta.com
+447908 794 475
England, UK
PIC: 903984808

HORIZON-JU-IHI-2023-05-04 SUSAN-HD (Pr PA Gourraud)

Systematic Use of Synthetic ANonymous Health Data

Nantes Université

Proposed Approach & Experience

Why ? The overall aim of SUSAN-HD project is to promote the generation of <u>anonymous</u> synthetic data in all health care sectors.

What ? We will leverage 5-years of use of validated method for the generation of synthetic data from tabular datasets in hospital context **(WP2)** and address its ELSI and economical barriers **(WP3)** while extending its uses to more usages as augmented data **(WP4)** and additional data type (WP5-7)

What are anonymous synthetic data ? Anonymous synthetic data are synthetic (simulated) data delivered with privacy metrics documenting the absence of re-identification, correlation and inference risks **(CEPD)**.

Partners

Looking **for IHI industrial partners** :

When algorithms meets synthetic data unlimited possibilities.

Who ? IHI industrial partners with Data value strategy:
Expert in structured Data – (WP4) RCTs in Biopharma In silico arms, <u>outliers</u> detection, data drifting
- Expert in **Complex data** like ECG, <u>biosignals</u> and genomic data **(WP5)**
- Biomedical Images **(WP6)**
- Biomedical text **(WP7)**

Organisational Capabilities

How ? SUSAN-HD leverage 17 years of expertise in complex health data simulation, 10 years of international consortium animation with over 50 m€ budget and public private partnership (WP1) including a 5 years collaboration with the Avatars method by SME Octopize, **a published method (Nature Digital Medicine 2023)** that has received a conformity certificate by the French National data protection agency (CNIL).

Administrative Information
Academic Coordinator

Pr Pierre-Antoine Gourraud - **Coordinator**
+33 2.53.48.28.56 aurelia.kuster@chu-nantes.fr
Aurélia Kuster - **European Project Manager**
+33 2.53.48.28.56 aurelia.kuster@chu-nantes.fr

*We hypothesize that **the future of value creation from data** can proceed without handling personal data : Personal data shall be strictly used for personal purposes. (WP8)*

University of Zurich UZH

Next generation genomic biomarkers

Proposed Approach & Experience

At the University of Zürich, our NeXendia platform harnesses **cell-free RNA** from biofluids using PRISM technology, enhancing **biomarker** discovery's sensitivity and specificity. Derived from our collaboration with NIH's extracellular RNA Consortium (2019-2023), NeXendia aids in early disease detection, progression monitoring, and treatment response.

Biofluids

• Disease biomarkers

PRISM technology

Enhanced disease biomarkers discovery
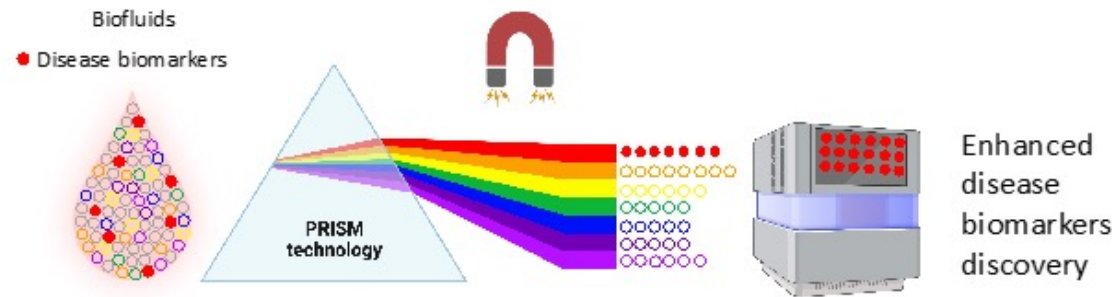
Partners

We are looking for:

- **Clinical Collaborators**: Institutions or researchers with patient cohorts, allowing us to further validate our PRISM technology in diverse patient populations and conditions.
- **Theranostic Developers**: Organizations focusing on innovative therapeutic and diagnostic solutions, providing an opportunity for synergistic collaboration to refine and expand theranostic offerings.

Organisational Capabilities:

- **Proprietary PRISM Technology**: A breakthrough tool for the enrichment of clinically relevant cell-free RNA from biofluids, crucial for sensitive and specific biomarker discovery.
- **Collaborative Experience**: Proven track record with the NIH's Extracellular RNA Communication Consortium, and Zürich STRESS network showcasing our collaborative spirit and ability to work within global research frameworks.
- **State-of-the-art Facilities**: Fully equipped labs for cell-free RNA analysis, complete with the latest tools and technologies for extracting cell-free RNA from biofluids, NGS library preparation, and sequencing.
- **Specialized Expertise**: A dedicated team led by Dr. Bogdan Mateescu, a world-renowned expert in cf-RNA, complemented by specialists in RNA biology and bioinformatics.

Administrative Information

Organisation: ACADEMIC
We aim to participate as PARTNER

Your contact details including:
Dr. Bogdan Mateescu
bogdan.mateescu@uzh.ch
+41 78 713 85 25
Switzerland (Zürich)

Gaining experience in New Approach Methodologies (HORIZON-HLTH-2024-IND-06)

University of Salford
MANCHESTER

Proposed Approach & Experience
What is your understanding of the part of the problem/challenge you can solve?
What previous, relevant, work or track record can you bring to the team?

- **Need for development and implementation of robust methods for biological assessment of novel antimicrobial nanomedicines and contribution to fighting Antimicrobial Resistance challenge.**
- **19 years of experience in precision nanofabrication, custom functionalisation and characterisation of functional nanomaterials in relevant biological environments. I contributed to the work of several EU FP6, FP7 and Horizon 2020 projects.**

Partners
If you are looking for partners, what type of partners are you looking for?

- **Academic partners for consortia building and collaborative projects**
- **Industrial partners for validation of concepts, knowledge exchange and collaborative projects**

Organisational Capabilities
What skills, capabilities, facilities does your organisation have that will be vital for this project?

- **Interdisciplinary approach**
- **NanoLAB at the University of Salford offers expertise in Nanofabrication, synthesis of precision shaped nanoparticles as novel materials with many health related benefits, including design and fabrication of theranostic tools**
- **NanoLAB at the University of Salford offers expertise in characterisation of nanomedicines in relevant biological fluids: DCS, DLS, zetaview, z-potential analysis, with access to SEM, custom nanoparticle synthesizer for scaled up semi automated synthesis (only research lab in the UK with this setup)**

Administrative Information
Is your organisation academic, SME, big business, etc.
Are you planning on being the Coordinator or a Partner?

- **University of Salford; School of Science Engineering and Environment – academic organisation**
- **I am planning to join as a Partner**

Your contact details including:
Dr Zeljka Krpetic
Z.Krpetic@Salford.ac.uk +447403540389
United Kingdom
PIC - TBC

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-06-08)

Data4Care
We value your data

Proposed Approach & Experience

At Data4Care, our expertise lies in leveraging data to provide actionable insights in the healthcare domain. Our capability to process, analyze, and interpret complex datasets positions us uniquely to provide solutions for this challenge. We can develop data-driven models that predict the performance of these devices in real-world scenarios, using machine learning and AI. Furthermore, our analytics products can be used to continuously monitor the performance of these devices post-market, ensuring that any deviations from expected results are quickly identified and addressed.

Data4Care has a strong track record of employing data analytics to drive positive changes in healthcare. Our interdisciplinary team, which combines expertise in data analytics, machine learning, and healthcare, has been developing customized solutions for various healthcare organizations, enabling them to unlock the value of their data and gain transformative insights.

Partners

Given our proven expertise in data analytics and its transformative application in healthcare, we are seeking a consortium to contribute and collaborate as a strategic partner in the projects under this call.

Organisational Capabilities

Given Data4Care's profile, our skills, capabilities, and facilities are finely tuned to the demands of the EU project. We are equipped not just with the technical know-how but also with a deep understanding of the healthcare landscape, making us a valuable partner in this initiative. Data4Care boasts a robust blend of data analytics proficiency, adeptness in machine learning and AI techniques, a deep understanding of healthcare implications, and a proven track record in crafting tailored data-driven solutions. Our team's unique interdisciplinary nature, combining data specialists with healthcare professionals, equips us with the insights to not only analyze data but also to discern its real-world healthcare implications. This, combined with our expertise in designing custom solutions, positions us ideally for the clinical/performance evaluation of medical devices and IVDs within the project's scope.

Administrative Information

Data4Care is an academic SME, founded by academics in technopark of Dokuz Eylul University. We seek to be a partner in a consortium for this call.

Contact details:
Ipek Deveci Kocakoç, data4care@data4care.com, Turkey
Participant Identification Code (PIC): 881097464

Running order for pitches

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Nebuflow	Elijah Nazarzadeh and Graham Matthews
Atelerix	Alistair Leitch
Brunel University	Ronan McCarthy
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Artificial vascular constructs for organoids

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

Proposed Approach & Experience

Aim:

Utilize a bio-compatible scaffold to develop an in-vitro artificial vascularization system for supporting patterning, growth, and maturation of large–scale organoids

Expertise:

- **Urbach lab (Life Sciences):** Differentiation of hPSCs into diverse 3D organoids (brain, kidney, etc.)
- **Shpaisman lab (Chemistry):** Assembly of biomaterials to 3D microstructures (electrospinning, microfluidics, acoustic wave patterning)
- **Kalisky lab (Bioengineering):** Single-cell genomics, bioinformatics, machine learning

Partners

Looking for experts in:
- In-vitro vascularization
- Xenograft transplantation
- Large-scale production of cells (bioreactors)

Organisational Capabilities

Located at Bar-Ilan center for nanotechnology and advanced materials:
- 3D printers: BioX6®, cellenONE®, Nanoscribe® Quantum X
- An opera Phenix Plus High-Content Screening System
- A microfluidics foundry
- A core facility equipped with: FACS machines, fluorescent and confocal microscopes, SEM, and TEM
- SPF animal facility

Administrative Information

Organization: Bar-Ilan University (academic), Israel
Collaboration type: Either Coordinator or a Partner

Contact details:
Achia Urbach: achia.urbach@biu.ac.il
Hagay Shpaisman: hagay.shpaisman@biu.ac.il
Tomer Kalisky: tomer.Kalisky@biu.ac.il

PIC: 999886574

CALL/TOPIC Name (Reference)

Proposed Approach & Experience

What is your understanding of the part of the problem/challenge you can solve?
What previous, relevant, work or track record can you bring to the team?

Good hand hygiene is essential to reduce the uncontrolled spread of human pathogens such as Covid-19. Although regular application of alcohol-based lotions has proved effective, hand washing followed by air drying remains the preferred method for most people. Cold Atmospheric Plasma (CAP) can be an alternative to hand sanitization when handwashing facilities are not available. CAP can be safely applied to the skin if the energy is well controlled. In a recent study, we performed microbiological tests to examine various plasma generators and conditions. It was found that CAP would provide a means to effectively reduce the bacterial load on metal and silicone discs that mimic skin.

Partners

If you are looking for partners, what type of partners are you looking for?

I am looking for an industrial manufacturer of hot air hand dryers such as Dyson.

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

Our prototype air CAP achieved significant disinfection in the MHz range on both types of substrate, metal and silicone discs, i.e. half the performance of direct current CAP, which is only effective on conductive substrates (see https://youtu.be/Ht4Z5akwQ_w).
Using only electricity, air CAP could replace or complement current hand disinfection methods, and mitigate the economic burden of public health crises in the future.

We have evaluated the feasibility of integrating such a system into hot air hand dryers. We are capable of designing, assembling and testing prototypes that meet market requirements.

Administrative Information

Is your organisation academic, SME, big business, etc.
Academic
Are you planning on being the Coordinator or a Partner?
Partner
Your contact details including:
Name, email and phone number
Gilles COURRET, gilles.courret@heig-vd.ch, **41 24 557 75 91**
What country are you from
Switzerland
Your organisation's PIC: ? https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/participant-register-search does not respond.

Horizon Europe Health (Cluster 1) and Innovative Health Initiative (IHI) –Consortia Opportunity

NHS Tayside | **University of Dundee**

Proposed Approach & Experience

What is your understanding of the part of the problem/challenge you can solve?
What previous, relevant, work or track record can you bring to the team?

TIME (Tayside Innovation MedTech Ecosystem) is an established collaboration among Academia (University of Dundee) Clinical (NHS Tayside) and Industry, offering specialised expertise and distinctive resources to drive innovation in MedTech and promote service learning.
We are open to offers of consortium building where partners think the resources and expertise offered by this established collaboration would be beneficial.

Partners

If you are looking for partners, what type of partners are you looking for?

Industry
Academic
Clinical
Civic

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

Thiel human cadaveric: resource combined with State-of-the-art imaging resource (CT,MRI, Angiosuite, Ultrasound. – life like procedural interventions in realistic environment.
Health informatics Centre: data linkage, trusted safe-haven – access and combining with clinical data for validation and verification purposes.
SHARE: Patient, public engagement – the patient voice.
Medical Manufacturing facility: precision metal work and 3D printing.
NHS Innovation Testbed: Access to the NHS departments and personnel.

Administrative Information

TIME: Tayside Innovation MedTech Ecosystem

Are you planning on being the Coordinator or a Partner? Either
Kate Cheesbrough
Helen Donald-Simpson

Time@dundee.ac.uk
What country are you from
Your organisation's Participant Identification Code (PIC) **999975523**

Horizon Europe Health (Cluster 1) and Innovative Health Initiative (IHI) Consortia Building Event

Proposed Approach & Experience

Understanding the cell/molecular interactions between multipotent stem cells and inflammatory mediators is essential to understanding processes that underlie pre-cancerous lesions, chronic inflammation, autoimmunity and degenerative diseases. It also aids significantly in developing regenerative and immune-modulatory treatments.

I can bring the expertise in

Stem cell biology, immunology, regenerative therapies, immunomodulation, molecular biology, musculoskeletal diseases, rheumatology, bone/cartilage healing, and cancer immunology.

Organisational Capabilities

The John van Geest Cancer Research Centre (JvGRC) and MTIF,
- NanoString nCounter XT and Spatial Profiler
- cell Sorters and Flow Cytometers
- Imaging suite
- PALM Microbeam Laser Capture Microdissector
- Mass spect facility
- Bio-Plex Multiplex Immunoassay System
- xCelligence RTCA DP real-time cell analyser
- Cary Eclipse Fluorescence Spectrophotometer with Polarizer
- tissue culture, biology, molecular & chemical labs.

Partners with expertise/interest in

- Biomaterials
- 3D/4D bioprinting
- Autoimmune/autoinflammatory diseases
- Orthopaedics and Rheumatology
- Haematology and cancer

Organisation: Nottingham Trent University

(Partner), **United Kingdom,** PIC: 999824494

Dr Jehan El-Jawhari PhD, MBBCh, MSc, FIBMS, FHEA, Senior Lecturer of Biosciences, School of Science and Technology
jehan.el-ajwahri@ntu.ac.uk

NTU

Reveal My Food: AI Personalised Nutrition Food ordering app

Proposed Approach & Experience

By 2060 USD PPP 311 billion will be spent every year by OECD countries to treat diseases caused by overweight. Overweight will cost 52 countries USD PPP 425 billion per year. Currently, 40% of our workforce presents multiple comorbidities including diabetes, high blood pressure, cholesterol, and NAFLD. Costing $7000 per employee annually making employees' well-being is the top 3 concern for employers, alongside retention and recruitment. Figures worsening due to the ageing population and the earlier onset of complications associated with Higher BMIs.

Reveal My Food (RMF) artificial intelligence personalised nutrition food ordering app: uses AI to enhance nutrition and food choice behaviours. We deliver unique workplace interventions that combine education, behavioural change programs and meal intervention aimed at preventing, reverting and managing non-communicable diseases in an ageing population. We aim to provide access to equitable preventive care during working hours: creating a healthier, safer more inclusive food environment.

Partners

Academic/ corporate partnership: We aim to investigate the impact of our technology on Metabolic biomarkers of users with and without non-communicable diseases.

I am also interested in conducting further POC with any corporation with a running food canteen, and measure the increase in health and well-being and long-term health benefits for their workforce.

We are looking to collaborate with an academic to explore any of the following topics:
- Real-life intervention and clinical trial 12 months: correlate result of employees' blood tests to assess the impact of our technology in reducing long-term health risks. Investigate improvement in knowledge and self-efficiency thanks to the use of the app.
- Online: pilot trial conducted towards a selected online audience and enabling to measure the extent by which we improve the quality of diet.
- With university canteen and students: pilot to measure the impact of using Reveal My food as a vector to 1) improve the quality of the diet of students, 2) increase engagement and connection through the attendance of food canteen with peers, 3) Impact on exams performance and burnout comes during exams. In all the scenarios, we aim to measure the impact of Reveal My Food on: 1) diet 2) risks of developing non-communicable diseases 3) platform acceptance 4) productivity and stress

Organisational Capabilities

Ludovica De Pieri Chief Executive Officer Ludovica is the founder of Reveal My Food and has almost a decade of experience in Public Health nutrition and intervention design around obesity management and inclusive food environments. She has extended expertise in public health policy implementation and behaviour change techniques. Stefano Imperiale Lead developer. A tech enthusiast with a Master's in Software Engineering and over 5 years of experience in development, software deployment, DevOps, and cloud management. Back and front-end development, both in start-up and scale-up.

Administrative Information

Your contact details including:
Name: Ludovica De Pieri   Ludovica@revealmyfood.com
phone number: 07512893377
What country are you from: United Kingdom
Your organisation's PIC: QJNRRXZHJ42

Running order for pitches

Company	Name
Nebuflow	Elijah Nazarzadeh and Graham Matthews
Atelerix	Alistair Leitch
Brunel University	Ronan McCarthy
Atelerix	Steve Swioklo
Life Sciences Centre	Daumantas Matulis
Graematta	Ferron Gray
Centre Hospitalier Universitaire de Nantes	Pierre-Antoine Gourraud
University of Zurich	Bogdan Mateescu
University of Salford	Zeljka Krpetic
Data4Care	Ipek Deveci Kocakoç
Bar-Ilan University	Tomer Kalisky
Hesso	Gilles Courret
NHS Tayside & University of Dundee	Kate Cheesbrough and Helen Donald-Simpson
Nottingham Trent University	Jehan El-Jawhari
Reveal my food	Ludovica De Pieri
University of Exeter	Neil Vaughan
Loughborough University	Vadim V. Silberschmidt
Northumbria University	Iain Brownlee
University of the Creative Arts	Mark Brill

UK RI
Innovate UK
KTN

Horizon Europe Health (Cluster 1) and Innovative Health Initiative (IHI)

Proposed Approach & Experience

What is your understanding of the part of the problem/challenge you can solve?
What previous, relevant, work or track record can you bring to the team?

I have track record of developing health-technology, Health data science, Artificial Intelligence (AI), virtual reality (VR), Health Innovations, Medical Devices, Smartphone Health Apps, Health Data Analysis, Data science.

Partners

If you are looking for partners, what type of partners are you looking for?

I am looking for partners or coordinators.

Projects related to Health, AI, virtual reality, Health Innovations, Medical Devices, Smartphone Health Apps, Health Data Analysis, Data science.

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

University of Exeter has strong research support and infrastructure, including research financial team, experienced in Horizon2020 funding, related ongoing research project in health.

We do teaching and research in Health Data Science.

Administrative Information

Professor Neil Vaughan
Email: n.vaughan@exeter.ac.uk
Telephone: 00447783527327

Country: United Kingdom (UK)
University of Exeter
PIC No: 999864555

I am based at an Academic University.
I can be a Partner, or a Coordinator.

Cluster 1: Health Destination 5 - Biomaterials

Loughborough University

Proposed Approach & Experience

Challenge: In silico and physical assessment of performance & safety of medical devices as a result of their exposure to combined effects of physiological environment and loading conditions.

Track record: Many years of research into microstructure, mechanical properties and performance of biomedical materials and devices (from bones to muscles and from advanced composites and alloys to hydrogels) based on a combination of mechanical testing, microscopic characterisation and multi-scale multiphysics numerical simulations. Strong international networks; multiple publications; organisation of international scientific events.

Partners

We are happy to work in collaboration with medical scientists and practitioners – end-users of medical devices; manufacturers of such devices (from stents to implants to prostheses); biophysicists; materials scientists working in the area of biomaterials; manufacturers of 3D printers; developers of mechanical testing and material characterisation systems.
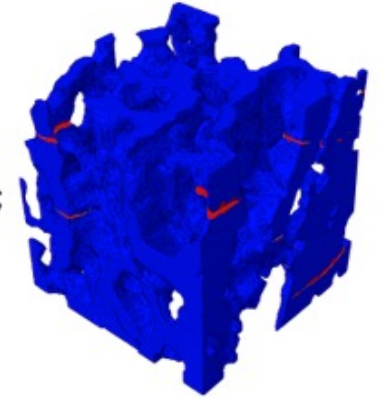
Organisational Capabilities

Skills: Technical skills – see above. Additionally, many years of involvement in international (including EU) projects and consortia.

Capabilities & Facilities:

- A suite of advanced mechanical testing tools.
- Various microstructure characterisation systems.
- Various 3D printing facilities with original in-house software for manufacturing unique structures with complex morphologies.
- Modern computational facilities (HPC) and relevant software packages.
- In-house coding (Python, Fortran etc.) for statistical analysis, materials subroutines etc.

3D printing
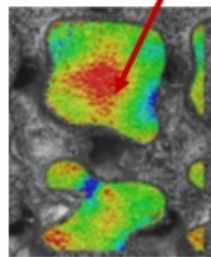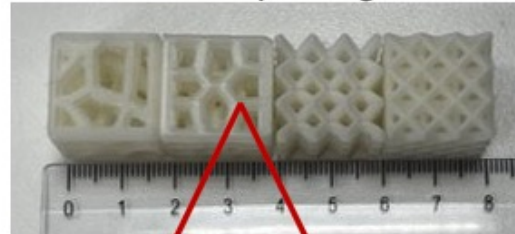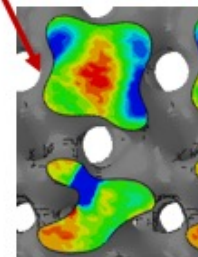
Experiment   Simulation

Administrative Information

Loughborough University
Planning to be a Partner

Professor Vadim V. Silberschmidt
Loughborough University
Loughborough Leicestershire LE11 3TU, U.K.
Phone: +44/(0)1509/227504
Country : UK
Participant Identification Code (PIC) 999990752

2.1: Cardiovascular diseases improved prediction...

Northumbria University NEWCASTLE

Proposed Approach

Interested in supporting work related to dietary habit or cardiovascular health, or where dietary habit may need to be assessed as part of wider behaviour/potential confounding factors.

Experience

Expertise in assessment of diet as a core behaviour linked to cardiovascular health

Design of diet quality scoring systems to define notional "idealness" of dietary intake.

Current consortium member (UK lead) on an ERA JPI project across five countries.

Experience of developing diet quality scoring methods for cross-sectional studies (to answer the question "How can dietary habit improve?") and randomised-controlled trials ("How well have dietary recommendations been followed?").

Experience of working with adult, adolescent, child and infant populations. Further experience of design of meal quality scoring approaches for foods served to children

Partners

Interested in partnering with clinical and fundamental research partners in the area, whether the work relates to patient management or disease prevention.

Academic, food, nutraceutical or biotechnology industries.

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

Wider expertise in relation to Food Science and Nutrition

Extensive metabolomic/lipidomic and microbiomic capability to support understanding the relationship of dietary habit and health

Cutting-edge nutritional trials research facilities, with particular expertise in studies on assessment of cognitive performance, sports performance and sleep quality.

Administrative Information

Northumbria University is an academic organisation. I am most likely expecting to be a project partner.

Dr Iain Brownlee

Associate Professor of Human Nutrition, UK

Iain.Brownlee@northumbria.ac.uk

https://www.northumbria.ac.uk/about-us/our-staff/b/iain-brownlee/

PIC: 391 8711

NAM/UKRI/Healthy Ageing

Proposed Approach & Experience

We are addressing the challenges of ageing and dementia by developing digital tools that support care and improve wellbeing. I have been researching this field as an academic and building apps as a practitioner since 2018. In September 2023, I was part of a team that launched a digital group cognitive therapy app (COGS Therapy) which was the result of an SBRI Medicines and Dementia project. My current research is to create digital services that address the problem of avoidable hospitalisations in older adults. We are developing a tool called ACT that supports carers, health practitioners and therapists to recognise early changes in wellbeing and through that, prevent as many as 20% of hospitalisations in older adults. We have also identified additional technologies including machine learning and computer vision that can further support anticipatory care.

Partners

We are looking for both academic and commercial partners.
On the academic side, we would like to find partners with dementia or technology specialisms who can help us develop our prototypes further in addition to user research.
On the commercial side, we are keen to build partnerships with health technology companies or organisations that support ageing, for partnerships or investment.

Organisational Capabilities

As a university the PI and CoI bring expertise in research in dementia and wellbeing through creativity and innovation. As CoI, I have been a technology innovator for 30 years. As a university we have a broad range of capabilities in research and enterprise development through our Research Office. We are working with health partners, Memory Matters CIC, who are highly experienced in dementia care and cognitive therapy. We also have a technology partner, Memory Tracks who specialise in developing digital tools that support older adults, dementia and cognitive conditions.

Administrative Information

We are a Higher Education Institute and would like to coordinate projects.

Your contact details including:
Mark Brill, mbrill@ucreative.ac.uk
UK based

Breakout Rooms

- Pitch presenters (Name of organisation)

Company	Name
Nebuflow	Elijah Nazarzadeh and Graham Matthews
Atelerix	Alistair Leitch
Brunel University	Ronan McCarthy
Atelerix	Steve Swioklo
Life Sciences Centre	Daumantas Matulis
Graematta	Ferron Gray
Centre Hospitalier Universitaire de Nantes	Pierre-Antoine Gourraud
University of Zurich	Bogdan Mateescu
University of Salford	Zeljka Krpetic
Data4Care	Ipek Deveci Kocakoç
Bar-Ilan University	Tomer Kalisky
Hesso	Gilles Courret
NHS Tayside & University of Dundee	Kate Cheesbrough and Helen Donald-Simpson
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Reveal my food	Ludovica De Pieri
University of Exeter	Neil Vaughan
Loughborough University	Vadim V. Silberschmidt
Northumbria University	Iain Brownlee
University of the Creative Arts	Mark Brill

- Thematic breakout rooms

- Health UK NCP Room

- *"Plenary Room"*

Additional pitches submitted

Aquarius Population Health

by Aquarius
November 2023

Interested in partnering in several work packages

- Improved prediction, detection, and treatment approaches for comprehensive stroke management (HORIZON-JU-IHI-2023-05-03)

- Development and proof of principle of new clinical applications of theranostics solutions (HORIZON-JU-IHI-2023-05-02)

- Maximising the potential of synthetic data generation in healthcare applications (HORIZON-JU-IHI-2023-05-04)

- Maximising the potential of synthetic data generation in healthcare applications (HORIZON-JU-IHI-2023-05-04)

- 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-06-08)

We offer extensive expertise in various evidence-generation methods, including health-economic assessment.

Proposed Approach & Experience

- We can help you to **generate high-quality** and impactful **evidence regarding the added value** of your innovation. We are experts in **assessing the cost-effectiveness** of innovations in healthcare; this evidence is required for many grants and is a necessary part of getting a technology reimbursed.

- This includes conducting **health economic evaluations**, **analysing clinical and epidemiological data**, **conducting performance evaluation studies**, **mapping care pathways, developing evidence-generation strategies** and disseminating the evidence through peer-reviewed **publications**.

- We provide **end-to-end partnership** and support, from securing funding to publication and implementation. We have **extensive experience partnering on grant applications** and delivering impactful research that demonstrates the value of new innovations. This includes successful projects as part of the **Horizon** (Miners, 2023), **NHRI**, **Innovate UK** (Huntington, 2021) and **SBRI grants**.

- We have published a range of relevant research (Vankelegom, 2022)(Jameel, 2022)

Partners

We are looking to partner with academic or commercial organisations that need support to develop evidence that demonstrates the potential of their solutions.

Our extensive publication portfolio can be found here.

Organisational Capabilities

Our close-knit team of 20+ have public health and technical backgrounds across a range of specialisms (epidemiology, HEOR, statistics/analysis, policy, qualitative research, writing, etc.).

Many of the team have enjoyed extensive careers in academia and public sector, all drawn to work in the dynamic, agile commercial environment at Aquarius. Our diverse client base reflects our diverse experience.

Administrative Information

We are a London-based health economics (HEOR) evidence-generation consultancy.

Contact details

Projects@aquariusph.com
Elisabeth.Adams@aquariusph.com

IHI as well as Horizon Europe Calls

ConsulTech.

| **Proposed Approach & Experience**	Partners
What is your understanding of the part of the problem/challenge you can solve? Our core competencies are project support and management. Application Phase: • Identification of suitable funding opportunities and building strong consortia • Administrative, budget & legal advice and support • Proposal coordination, writing and review Implementation Phase: • Grant and project management; Financial and technical reporting; Clinical study support • Dissemination, communication, exploitation *What previous, relevant, work or track record can you bring to the team?* Project manager of: BeeGuards (HEU); IMI-PainCare (IMI2); Gliomark (H2020) and others	*If you are looking for partners, what type of partners are you looking for?* We are looking for a consortium which needs: • A project management partner • Support for the proposal writing phase • Exploitation, dissemination, communication partner
Organisational Capabilities *What skills, capabilities, facilities does your organisation have that will be vital for this project?* ConsulTech supports proposals and projects for European, international and national funding options since 1992. Our main focus is on pharma, biotech, medtech, digital health and biotechnology as well as other life science areas. We have 8 employees with relevant scientific experience. We have been management partner and coordinator (Gliomark) in several European projects, see list above.	**Administrative Information** *Is your organisation academic, SME, big business, etc.* • ConsulTech GmbH is an SME *Are you planning on being the Coordinator or a Partner?* • We are planning to be a partner **Contact details:** Dr. Karoline Weißhuhn, info@consultech.de, + 49 (30) 77 20 59 218 Country: Germany PIC number: 991287815

Calls on topics requiring flow control

Proposed Approach & Experie

State-of-the-art instrumentation for microfluidics and fine-tuned flow control

Bring innovations to the field

Experience with more than 40 collaborative projects (H2020, Horizon Europe)
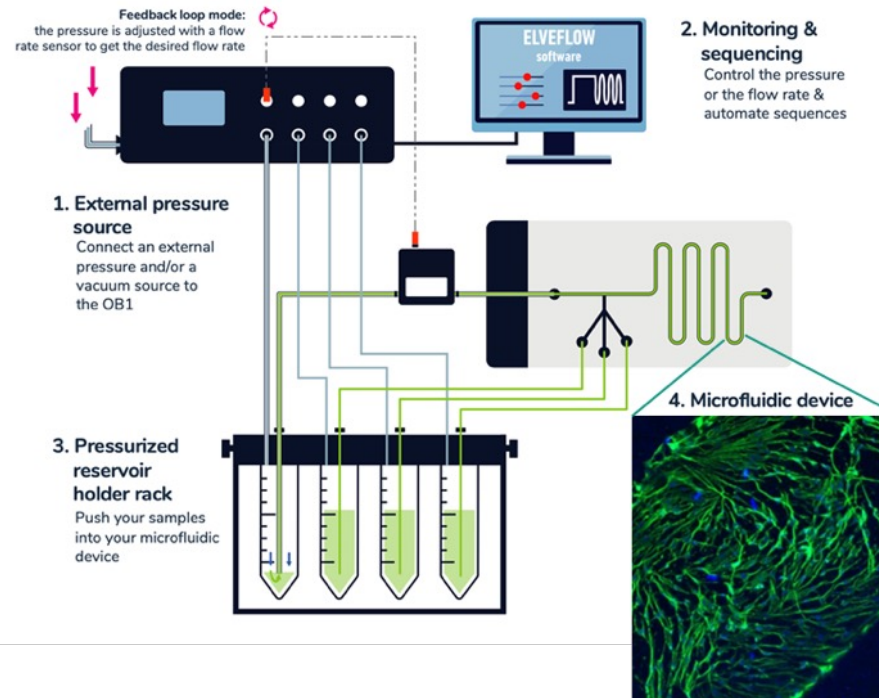
Partners we are looking for

- Existing consortia
- Partners considering to coordinate a consortium
- Many areas of research: health related topics, cell biology, microbiology, organ-on-chip, lab-on-chip, tissue engineering, coating and printing technology, flow chemistry, additive manufacturing, …

Please contact us to explore collaboration possibilities!

Organisational Capabilities

- Solutions for fine-tuned flow control, pressure control and volume control
- High-precision liquid handling
- Perfused cell culture setups
- Development of customized advanced microfluidic circuits
- Development of userfriendly solutions
- Access to over 1000 m2 of workshop equipment and R&D facilities
- Experience with 40+ European projects as an SME partner

Administrative Information
SME

Elvesys Microfluidics Innovation Center
Marlene Kopf, PhD, Innovation manager
partnership@elvesys.com
+33 1 88 33 43 68
Paris, France
PIC: 954636462

Image-Based Cognitive Behavioural Therapy Tool

Proposed Approach & Experience

What is your understanding of the part of the problem/challenge you can solve?

To help reduce the immense pressure on our primary healthcare services by helping reverse the increasing levels of physical inactivity, obesity, mental health and loneliness, and at the same time unlock growth in the national economy by helping return more people back to work

What previous, relevant, work or track record can you bring to the team?

Experiences of major and global sporting events and how, given recent technological advancements, and working with the academic, healthcare and third sectors, we can:

Provide evidence of how our memorable sensory experiences, starting with Photographic Imagery combined with AI, can empower individuals of all ages and special needs into healthy, sustainable behavioural change – leading to longer, healthier, happier lives

Partners

If you are looking for partners, what type of partners are you looking for?

A sponsoring organisation from either of these sectors: Pharmaceuticals
Health & Care
Financial Services
Technology
Media
Telecommunications

Organisational Capabilities

What skills, capabilities, facilities does your organisation have that will be vital for this project?

Cross-sector experiences, skills, expertise & networks of high-level executives
Combines all of these from global sporting events, sponsors, media, national event strategies, academic research in psychology & behavioural studies, and digital health & care solutions
Unrivalled experiences in the capabilities of Photographic Imagery as a communications tool as well as a cognitive behavioural therapy solution

Administrative Information

Is your organisation academic, SME, big business, etc.
SME Start-up
Are you planning on being the Coordinator or a Partner?
Lead Partner & Coordinator
Your contact details including: **Wyn Fanshawe**
Name, email and phone number
wyn@capturetheevent.com
00 44 7785 254672
What country are you from **UK/England**

The Worldwide Centre of Cognitive Excellence

Quantum Computing for Predicting Protein-Ligand Binding Affinity to Understand specie sensitivity

Brunel University London

Proposed Approach & Experience	Partners
The prediction of protein-ligand binding affinity constitutes a foundational challenge within the realm of drug discovery, as well as in comprehending species-specific responses to particular pharmaceutical agents and the preservation of biodiversity. The exhaustive evaluation of protein-ligand binding affinity across the entire spectrum of available compounds and proteins poses a formidable obstacle, particularly when considering individual subspecies, let alone a specific species. For instance, the diversity of fish species alone encompasses approximately 30,000 distinct variants. Consequently, the utilization of quantum computing presents an opportunity to significantly augment the precision and computational efficiency of this intricate process. We have a track record of publishing high-quality papers in molecular biology and AI methodologies. My Scholar H-Index: 21	We are looking for collaborators who are in drug design and quantum computing.

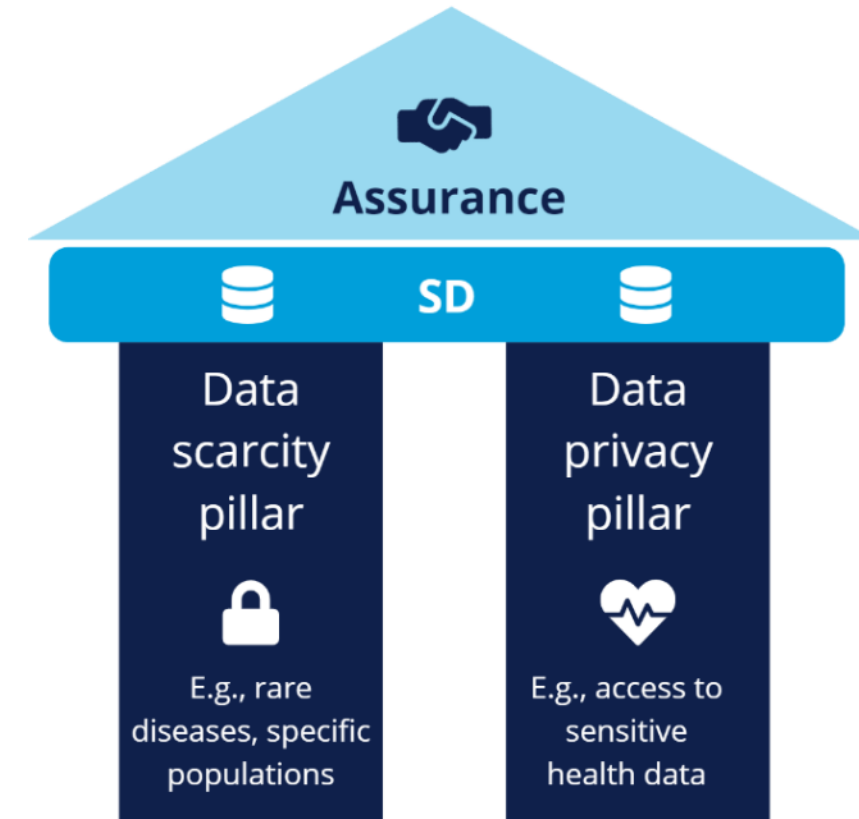| Organisational Capabilities	Administrative Information
What skills, capabilities, facilities does your organisation have that will be vital for this project? We have AI and toxicology expert and our collaborator at Southampton University can do lab testing for us.	Our organization is an academic institute based in London, and we are looking to be a partner in developing AI algorithms for quantum computing Your contact details including: matloob.Khushi@brunel.ac.uk Name, email and phone number What country are you from: London, UK

DNV

Proposed Approach & Experience

Despite the high potential **there is limited trust in SD** due to:
1. Absence of standardized metrics to assess SD quality
2. Absence of quality audit of SD generation process
3. Security and privacy concerns
4. Ethical and legal concerns

DNV proposes to create trust in SD and its challenges above by developing:
• **Standard methods for SD generation** while ensuring high data utility retention in the region of interest necessary for analyzing outliers (anomaly/rare scenarios detection).
• **An SD assurance scheme** - a systematic approach involving procedures and standards designed to instill confidence by ensuring that both the SD generation process and resulting SD meet specific requirements and expectations, including privacy and ethical concerns.

Assurance

SD

Data scarcity pillar

E.g., rare diseases, specific populations

Data privacy pillar

E.g., access to sensitive health data

Our purpose
To safeguard life, property, and the environment

Our vision
A trusted voice to tackle global transformations

Our externally funded projects

EDiHTA   Nordic Innovation   AI-Mind   SHARE EHR Xchange Format

We are looking for a consortium: partners and a coordinator

We have expressions of interest to join up from

Organisational Capabilities

Example publications from our group

17 JANUARY 2023 | WHITEPAPER

How do I turn this on? What to consider when adopting AI-based too...

In this white paper we present considerations to help facilitate the safe and widespread adoption of...

10 NOVEMBER 2022 | PAPER

A Systematic Literature Review of User Trust in AI-Enabled Systems:...

This review aims to provide an overview of the user trust definitions, influencing factors,...

01 MARCH 2022 | WHITEPAPER

AI Medical Device Software under the MDR

Recommendations regarding automation bias and performance conformity assessment of AI...

DNV has an ongoing **industrial PhD project** in collaboration with Oslo University and Oslo University Hospital on **use of SD for validation of AI-based tools in healthcare**.

DNV has a vast experience in risk management and quality assurance. DNV's expertise in standards and assurance can provide robust frameworks to guide the development and evaluation of SD. In the healthcare sector, DNV has a profound understanding of the regulatory landscape and a history of collaboration with healthcare research institutions.

A global assurance and risk management company

159 years	~13,000 employees	~100,000 customers	100+ countries	5%+ of revenue in R&D

Ship and offshore classification and advisory

Energy advisory, certification, verification, inspection and monitoring

Software, **cyber security**, platforms and **digital solutions**

Management system **certification**, supply chain and product **assurance**

Healthcare business in DNV

Product Assurance

Notified body under the MDR

Hospital certification

NAIHO standard, clinical management programmes

Digital Health

DNV Imatis, MBI Technologies

DNV's Healthcare research delivers to these units, and horizon scans

DNV is committed to research, development and innovation

5% of revenue invested in research and innovation (1% in long-term strategic research)

Collaborating & sharing knowledge through standards and best practices with industry partners and external experts

Independent 3rd party 100% foundation-owned ensures impartiality

Serena Marshall
Serena.Elizabeth.marshall@dnv.com
004746766902
Country: Norway
PIC code of DNV: 999929060
Organisation: Industry
Participation: Partner