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HORIZON EUROPE · CLUSTER 1 HEALTH · 2027 CALLS

# AI, bioinformatics and virtual twins for Cluster Health consortia

Your data and AI partner for predictive biomarkers, patient stratification, clinical decision support and FAIR data.

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ABOUT US

# About Coremine Vitae

## A Norwegian health-tech SME specialising in AI, bioinformatics and multimodal biomedical data.

We turn complex biomedical evidence into clear, actionable outputs for research, clinical decisions and patients. We build on the PubGene heritage in biomedical text mining and knowledge extraction, and on two decades of EU and national projects.

**ORGANISATION**

Coremine Vitae AS · Oslo, Norway

**LEGAL STATUS**

SME · PIC 938247827

**HORIZON EUROPE ELIGIBILITY**

Norway · Associated Country, full beneficiary

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EXPERTISE

# Where biomedicine, data and AI meet

### Data harmonisation
FAIR, interoperable clinical and molecular data

### Omics & biomarkers
Genomics, proteomics and metabolomics analysis

### AI & machine learning
Predictive models, RAG and domain-adapted LLMs

### Decision support
Dashboards and portals used in real workflows

### Predictive analytics
Disease progression, treatment-response and risk prediction

### Evidence synthesis
Literature mining and knowledge extraction

### Virtual human twins
Multimodal patient models for personalised care

### Science & patient comms
Evidence-based writing and health-literacy portals

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TECHNOLOGY

# Platforms we bring to the project

01

## Coremine Platform

Literature mining and integrated knowledge bases, shown as visual networks of biological relationships.

02

## Predictive AI framework

Neural networks, autoencoders and explainable models linking clinical and molecular data to outcomes.

03

## Knowledge-grounded LLMs

Fine-tuned, domain-adapted language models and RAG workflows for medical tasks.

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# Eight calls we are looking to join

## DESTINATION 1
### Staying healthy

**STAYHLTH-01**
Disabilities through the life course, independent living and inclusion

## DESTINATION 3
### Tackling diseases

**DISEASE-10**
Chronic NCDs in children and young people (GACD)

**DISEASE-01 · two-stage**
Innovative healthcare interventions for NCDs

**DISEASE-14 · two-stage**
Clinical trials for neurodegenerative diseases

## DESTINATION 4
### Health care

**CARE-02**
Personalised approaches to reduce adverse drug reactions from multiple medications

## DESTINATION 5
### Tools & digital

**TOOL-01 · two-stage**
AI-derived predictive biomarkers for chronic NCDs

**TOOL-04**
Virtual human twins for clinical decision support

**TOOL-08**
Next-generation frontier AI models for healthcare

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DESTINATIONS 1 & 3 · OUR ROLE

# Staying healthy and tackling disease

| | |
|---|---|
| **HORIZON-HLTH-2027-01-STAYHLTH-01**<br>Addressing disabilities through the life course to support independent living and inclusion | **Data & digital partner** — FAIR life-course data, AI-supported personalised tools and accessible content |
| **HORIZON-HLTH-2027-01-DISEASE-10**<br>Prevention and management of chronic non-communicable diseases in children and young people (GACD) | **Data & analytics partner** — risk prediction, harmonised cohort data and youth-friendly health literacy |
| **HORIZON-HLTH-2027-02-DISEASE-01-two-stage**<br>Innovative healthcare interventions for non-communicable diseases | **AI work-package lead** — patient stratification, response prediction and evidence synthesis |
| **HORIZON-HLTH-2027-02-DISEASE-14-two-stage**<br>Clinical trials for advancing innovative interventions for neurodegenerative diseases | **Trial analytics partner** — biomarker-based stratification, outcome modelling and FAIR trial data |

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DESTINATIONS 4 & 5 · OUR ROLE

# Better care through data, AI and twins

| | |
|---|---|
| **HORIZON-HLTH-2027-01-CARE-02**<br>Personalised approaches to reduce risks from Adverse Drug Reactions due to administration of multiple medications | **AI work-package lead** — drug interaction mining, ADR risk models and clinician decision support |
| **HORIZON-HLTH-2027-02-TOOL-01-two-stage**<br>Development of predictive biomarkers of disease progression and treatment response by using AI methodologies for chronic non-communicable diseases | **AI work-package lead** — multi-omics biomarker discovery and explainable progression and response models |
| **HORIZON-HLTH-2027-03-TOOL-04**<br>Virtual Human Twins (VHTs) for integrated clinical decision support in prevention and diagnosis | **VHT modelling partner** — multimodal patient twins, building on our HARMONIA digital-twin work |
| **HORIZON-HLTH-2027-03-TOOL-08**<br>Towards the next generation of frontier Artificial Intelligence models for healthcare | **LLM & knowledge partner** — domain-adapted, knowledge-grounded models and RAG |

IN YOUR CONSORTIUM

# Work packages we can lead or support

## AI & predictive modelling

Biomarker discovery, risk and response models, explainable AI

## Virtual human twins

Multimodal patient models feeding clinical decision support

## FAIR data management

Harmonisation, interoperable workflows and the data management plan

## Evidence & knowledge mining

Literature and network analysis behind the scientific rationale

## Patient engagement

Health-literacy content, patient-facing tools and dissemination

## SME exploitation

A route to market for decision-support tools and portals

PROVEN DELIVERY

# Already building AI and digital twins

EP PERMED JTC2026 · SELECTED FOR FUNDING

## HARMONIA

Personalised prediction of cardiovascular and kidney complications in MASLD, combining molecular and clinical data, AI and digital-twin approaches.

RESEARCH COUNCIL OF NORWAY · 2021–2024

**Coremine Vitae Project** — personalised treatment options for patients with cancer

**200+**

personalised medicine reports combining evidence synthesis and clinical input

## Hjernesvulstportalen

Brain-cancer patient portal, launched 2025 with the Norwegian Brain Cancer Association

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TRACK RECORD

# Two decades of EU and national projects

| Years | Project · programme | Focus |
|---|---|---|
| 2026 | HARMONIA · EP PerMed JTC2026 | AI and digital twins in MASLD (selected) |
| 2022–2025 | ANTISeptic · Eurostars | Mass-spec detection of antimicrobial resistance |
| 2021–2024 | Coremine Vitae Project · RCN | Personalised treatment options in cancer |
| 2021–2024 | Pathobody · Eurostars | Proteogenomic antibody pipeline |
| 2016–2020 | Glioma Strategies · Eurostars | Bioinformatics and phosphoproteomics |
| 2016–2018 | Precision Cancer Medicine Services · Eurostars | Coordinator · precision oncology services |
| 2004–2008 | DIAMONDS · EU FP6 | Systems biology integration |

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# Let’s build your Cluster Health 2027 consortium

We welcome academic, clinical and industry partners looking for AI and bioinformatics work packages, virtual human twins, FAIR data management and predictive modelling.

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