

Introduction

TRANSCAN-3 ERA-NET JTC 2021
International Networking Event

April 21, 2021



Anne-Charlotte Fauvel
EATRIS Head of European Affairs

Life Sciences Research Infrastructures



BBMRI-ERIC
gateway for health

BIOBANKING & BIOMOLECULAR RESOURCES



elixir

CURATED DATABASES



erinha
European Research Infrastructure on Highly Pathogenic Agents

HIGHLY PATHOGENIC MICROORGANISMS



INFRAFRONTIER
mouse disease models

FUNCTIONAL GENOMICS



MIRRI
MICROBIAL RESOURCE RESEARCH INFRASTRUCTURE

MICROORGANISMS



eatris

TRANSLATIONAL RESEARCH



EMBRC
EUROPEAN MARINE BIOLOGICAL RESOURCE CENTRE

MARINE MODEL ORGANISMS



eu:openscreen

SCREENING & MEDICINAL CHEMISTRY



instruct ERIC

STRUCTURAL BIOLOGY



ECRIN
EUROPEAN CLINICAL RESEARCH INFRASTRUCTURE NETWORK

CLINICAL TRIALS



EMPHASIS

PLANT PHENOTYPING



EURO-BIOIMAGING

BIOLOGICAL/MEDICAL IMAGING



ISBE
Infrastructure for Systems Biology Europe

SYSTEMS BIOLOGY

Our mission



To accelerate the translation of research discoveries into patient benefit.

We support academia, industry, patients and policy makers.

Who we are

Facilities, resources and services to support cutting edge research



EATRIS countries

Bulgaria, Croatia, Czech Republic, Finland, France, Italy, **Latvia**, Luxembourg, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden



113

Research Institutes



5 Scientific Platforms

- ATMPs
- Biomarker
- Imaging & Tracing
- Small Molecules
- Vaccine, inflammation and immune monitoring



Legal status

Non-profit, ERIC legal status

Examples of key actions



What do we offer



Access to academic
research **facilities &
expertise**



**Training & Quality
programmes**



**Public-private
collaborations**



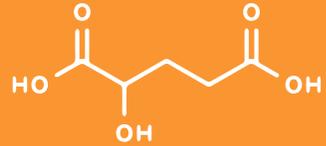
Centralised
consultancy

Five Scientific Platforms



ADVANCED THERAPY MEDICINAL PRODUCTS

Tissue engineering, Gene therapy, Cell therapy, GMP facilities



BIOMARKERS

Biobank facilities, Multiplexed immunostaining, Deep genome sequencing



IMAGING AND TRACING

(pre-clinical) PET imaging, GMP tracer development and production, (Ultra) high field MRI, Optical and hybrid imaging



SMALL MOLECULES

Advanced screening (also in 3D cultures), Development of xenograft and *in vivo* models, Drug (re-)formulation, (Pre-)clinical validation nanomedicines



VACCINE, INFLAMMATION AND IMMUNE MONITORING

Antigen characterisation, Vaccine formulation, Process development

Support for funding applications

EATRIS offers a range of services to help researchers strengthen the translational potential of their research proposals:

1



**FORMING A
CONSORTIUM**

2



**JOINING AS A
PARTNER/
SUBCONTRACTOR**

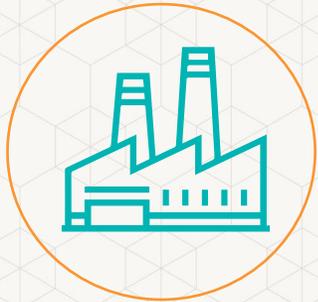
3



**LEADING FLAGSHIP
PROJECTS**

Support for funding applications

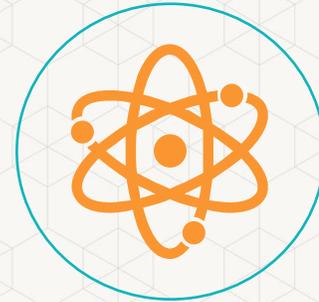
EATRIS can participate in research funding proposals as a full partner providing various centralised services:



**INNOVATION
MANAGEMENT
& INDUSTRY
PARTNERING**



**REGULATORY
SUPPORT**



**TRANSLATIONAL
OPTIMISATION**



**TRAINING
WORKSHOPS**

How to make use of EATRIS for your TRANSCAN proposal?



**FORMING A
CONSORTIUM**

Submit your consortium-building request using [the link](#) or visit eatris.eu/services/support-for-funding-applications/

List of matches with contact information will be provided to you within less than 5 business days.



**JOINING AS
SUBCONTRACTOR**

Please check eligibility criteria of your funder.

Contact Anne-Charlotte Fauvel to discuss the needs of your proposal:
annecharlottefauvel@eatris.eu

With thanks to our members



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

Czech Republic
Ministry of Education,
Youth and Sports (MEYS)



ACADEMY OF FINLAND

Republic of Finland
Ministry of Education and Culture
(OKM)



DE LA RECHERCHE À L'INDUSTRIE
cea

French Republic
Commissariat à l'Énergie Atomique et
aux Énergies Alternatives (CEA)



ISTITUTO SUPERIORE DI SANITÀ

Italian Republic
Istituto Superiore di Sanità (ISS)



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de l'Enseignement supérieur
et de la Recherche

Kingdom of Luxembourg
Le Gouvernement du grand-duché de
Luxembourg



Kingdom of the Netherlands
ZonMW



The Research Council
of Norway

Kingdom of Norway
Research Council of Norway*



Infarmed
Autoridade Nacional do Medicamento
e Produtos de Saúde, I.P.

Republic of Portugal
INFARMED - National Authority of
Medicines and Health Products



REPUBLIC OF SLOVENIA
MINISTRY OF EDUCATION,
SCIENCE AND SPORT

Republic of Slovenia
Ministry of Education, Science
and Sport



Instituto
de Salud
Carlos III

Kingdom of Spain
Instituto de Salud 'Carlos III' (ISCIII)



МИНИСТЕРСТВО
НА ОБРАЗОВАНИЕТО
И НАУКАТА

Republic of Bulgaria
Ministry of Education and Science



Vetenskapsrådet

Kingdom of Sweden
Vetenskapsrådet



REPUBLIC OF CROATIA
Ministry of Science and
Education

Republic of Croatia
Ministry of Science and Education



RĪGAS STRADIŅA
UNIVERSITĀTE

Republic of Latvia
Ministry of Education and Science

* The contribution in Norway is shared between University of Oslo (UiO), University of Bergen (UiB), Norwegian University of Science and Technology (NTNU), the Arctic University of Norway (UiT) and the four Regional Health Authorities in Southeastern, Western, Central and Northern Norway

Stay in contact



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Translational Trends



- Multiomics technologies (Genomics: NGS, deep genome sequencing, Mass spectrometry for multi-omic analysis), Expertise in Biomarkers (Discovery, validation, assays), Samples/data cohorts
- Systems level characterization of immune cells in human tissues (multi-parametric flow cytometry, mass cytometry [CyTOF], Helios) and Immune assays (in vitro functional immune assays, high-throughput multiplex immunoassay)
- Identification and isolation of tissue immunological subsets for deep profiling (RNAseq, Spectral Flow, single cell RNA-seq), SNP Array, TCR- sequencing (immunochip, immunoseq) of immune cell subsets
- Large/Medium-scale analysis of the immune proteins (Mass spectrometry; Multiplex immuno-assays)
- Access to 3D culture systems; patient-derived organoids; patient-derived xenografts, Spheroids and Multifluidic Devices for Immune surveillance in TME
- In vivo Imaging Technologies to Monitor the Immune System - Mass Cytometry Imaging (MCI), PET-CT, PET-MRI, US modalities for studies of the immune system response
- Epigenetics of immune cells to study genome-wide epigenetic changes including DNA methylation, histone modifications and non-coding RNAs expression.
- Multiomics (epigenomic, transcriptomic, proteomic, metabolomics, study of the microbiome and virome, etc.) to assess functional characteristics of TME-tumour cell interplay within the primary tumour and/or metastases (e.g the underlying signaling, the transcriptional landscape, the cell-cell communication, the network regulation of immune cells, etc.), to identify candidate TME targets and to assess the activity of pathway-targeting agents.
- Artificial Intelligence expertise to develop predictive models based on integrating -omics data and network approaches.
- Access to Tumour samples collected from retrospective and/or prospective cohorts of patients.
- Expertise in Radiomics, cell-free circulating tumour DNA, miRNA signatures.
- Expertise in cell therapy and genome editing products in targeted cells and tissues (e.g., base editing, prime editing, talens, zinc-finger nucleases, CRISPR).
- Expertise in novel RNA-based therapeutics targeting Cancer.
- Expertise in Regulatory Expertise for Advanced Therapies
- Expertise in upscaling and product development of advanced therapies
- Drug discovery, medicinal chemistry and development expertise (safety, toxicity, pharmacokinetics) all the way up to GLP safety testing and Phase 1 trial support.
- Identification of new drug targets and mechanism of action studies
- Lead optimisation of targeted small molecule inhibitors of the immune system
- Development of specific molecular tracers to support target and biomarker validation and target engagement in tumour (micro)environment
- Development of in vivo (clinical grade) imaging probes derived from peptides and antibodies involved in immune-oncology (e.g. checkpoint inhibitors)
- Tracking of immune cells
- Chemosensitivity screening using existing drug collections applied to patient samples combined with data sharing/FAIRification.