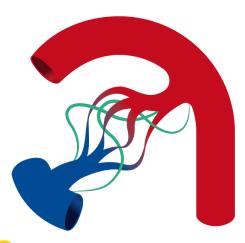


for rare or low prevalence complex diseases

Network
Vascular Diseases
(VASCERN)





#VASCERNdays2020



08.30-9.00 Research: European Joint Programme on Rare Diseases (EJP RD): calls and opportunities & Q&A (Daria Julkowska and Yanis

Mimouni)

EUROPEAN JOINT PROGRAMME ON RARE DISEASES (EJP RD)

VASCERN Days 22–24 of October 2020





Objectives of the EJP RD

Main objective:

Create a research and innovation pipeline "from bench to bedside" ensuring rapid translation of research results into clinical applications and uptake in healthcare for the benefit of patients

Mode of action:

Large programme that integrates existing infrastructures, trainings, funding programmes and tools, expands them and develops new essential ones to offer harmonized (and centralized) RD research ecosystem that is easy to use for scientists and produces benefits for patients in the most efficient way





85% of
European RD community
(directly or indirectly)
involved in EJP RD

750 people:

650 Scientifics **100** Admin

35
participating
countries

88 Beneficiaries:

9 hospitals
12 research institutes
31 research funding bodies/ministries
24 universities/hospital universities
5 EU infrastructures
5 charities/foundations
EURORDIS



50

Linked Third Parties

And 100% of the associated networks

EURORDIS:

884 RD patient organisations 72 countries

ECRIN

24 ERNs:

300 institutions

>950 healthcare units

26 countries

12 main national nodes

EATRIS

13 main national nodes〉

INFRAFRONTIER

23 partners 15 countries

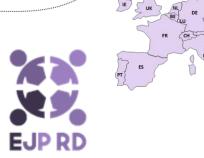
ELIXIR

220 research organisation 23 partners

BBMRI

1 international partner
21 main national nodes
20 countries





EJP RD STRUCTURE





COORDINATION & TRANSVERSAL ACTIVITIES

INTEGRATIVE RESEARCH STRATEGY

SUSTAINABILITY

ETHICAL & REGULATORY

COMMUNICATION

1

FUNDING

COORDINATED
ACCESS TO
DATA &
SERVICES

2

3

CAPACITY
BUIDLING &
EMPOWERMENT

ACCELERATING
TRANSLATION
OF RESEARCH &
THERAPY
DEVELOPMENT

4





EJP RD, organised in four Pillars with central coordination, is a supreme instrument to grant high-level strategic organisation empowering all stakeholders and performance of RD research activities

Pillar 1: Collaborative RD research funding

Funds RD collaborative research

Supports networking & sharing of knowledge between clinicians, scientists and patients

Fosters RD challenges through private-public partnerships

Builds the capacity of RD stakeholders by providing top-level trainings available to all

Supports ERNs in delivery of crosscutting education programmes fostering new generations of clinicians

13 countries

Coordination Transversal activities

Ensures the overall research & innovation strategy

Engages with policy makers and guarantees expansion to relevant stakeholders

Measures the EJP RD results, performance and ensures compliance

Translates each action in dissemination & communication item

> Brings future sustainability/ business solutions

Pillar 2: Coordinated access to data. tools and services

Builds FAIR-based, user driven Virtual Platform of data, resources & services open to all

Accelerates RD research by ensuring access to powerful substrates & tools

Provides innovative approaches to RD diagnosis through application of systems biology

Facilitates partnerships & accelerates translation of research results by providing mentoring & innovation management assistance

Ensures tailored support for design & planning of RD clinical studies

Advances validation & use of innovative methodologies for clinical studies

Pillar 4: Accelerating the translation of research results and clinical studies

Addresses training needs & empowers EU

Pillar 3: Capacity building & empowerment

EJP RD

what is there for me?



FUNDING, TRAINING & SUPPORT OFFICES



Project idea: going beyond clinical outcome measures — how to improve patient healthcare outcomes?

Clinicians + patients + social sciences experts



Joint Transnational Call 2021

Objective: support transnational, innovative, and interdisciplinary Social Sciences and Humanities research projects to improve healthcare implementation and everyday life of people living with a rare disease

List of topics:

- > Health & social care services research to improve patient and familial/household health outcomes
- Economic Impact of Rare diseases
- Psychological and Social Impact of Rare diseases
- > Studies addressing the impact/burden of the delay in diagnosis and of the lack of therapeutic intervention.
- > e-Health in rare diseases: Use of innovative technology systems for care practices in health and social services
- Development and enhancement of health outcomes research methods in rare diseases
- Effects of **pandemic crisis** and the **global outbreak alert** and response on the rare disease field, and the emergence of innovative care pathways in this regard.

Other research topics are possible as long as they focus on SSH research and are not in the excluded topics list.





The call is scheduled to open in December 2020 with a pre-preoposal submission deadline in February 2021



Joint Transnational Call 2021

The following approaches and topics are <u>excluded</u> from the scope of the call:

- Interventional clinical trials to prove efficacy of drugs, treatments, surgical procedures, medical technology procedures. This also includes studies comparing efficacy, e.g. B. two surgical techniques or therapies. Clinical phase IV pharmacovigilance studies cannot be funded either.
- Studies on the exclusive testing of the safety of medical devices.
- Health technology assessment reports (HTA) for a specific product
- Projects focussing on meta-analyses and systematic reviews
- Creation of new registers or establishment of new long-term cohorts and / or promotion of existing registers or long-term cohorts.
- Development of new digital or technological tools.
- Projects to accelerate diagnosis and/or explore disease progression and mechanisms of rare diseases as covered in EJP RD JTC 2019.
- Development of new the rapies as covered in EJP RD JTC 2020.
- Projects focussing only on rare neurodegenerative diseases which are within the main focus of the Joint Programming Initiative on Neurodegenerative Disease Research (JPND;
 http://www.neurodegenerationresearch.eu/). These are: Alzheimer's disease and other dementias; Parkinson's disease (PD) and PD-related disorders; Prion disease; Motor Neuron Diseases; Huntington's disease; Spinal Muscular Atrophy and dominant forms of Spinocerebellar Ataxia. Interested researchers should refer to the relevant JPND calls.
- Rare infectious diseases, rare cancers and rare adverse drug events in treatments of common diseases.





EJP RD internal call for projects on innovative statistical methodologies to improve RD clinical trials in limited populations

- Aims to develop innovative statistical methodologies to address unmet needs
 associated the development and the analysis of clinical trials in limited populations
- Submission of projects is limited to partners from institutions beneficiaries of the EJP RD.
 This includes all 24 ERNs and Linked Third Parties or, parties bound by the Network
 Agreement with the beneficiary institution (and thus being able to integrate EJP RD project as Linked Third Party at later stage)
- Opening of the call is foreseen in late November 2020
- A networking/matchmaking event will be organised in January 2021





Are you looking for (e.g):

Gathering of experts & patients to discuss and share knowledge?

Expanding your network to include new stakeholders?

Finding ways to gather and support future consortium that plans to apply to EC calls?



Networking Support Scheme

- Objective: encourage sharing of knowledge on rare diseases and rare cancers
 - to support health care professionals, researchers and patient advocacy organizations with a networking grant to re-organize themselves into transnational (clinical) research networks
 - * that focus on a (group of) rare disease(s), a (group of) rare cancer(s) or on cohorts of undiagnosed patients that are suspected of suffering from a rare disease
- Financial support to applicants for fostering organization of workshops or conferences for new research networks or existing/expanding research networks to strengthen collaborations and to enable exchange of knowledge
- 30K€ max per event
- ***** Applications:
 - open on a continuous basis. The applications will be collected everythree months and the eligibility will be checked. First collection of application: December 1, 2020 at 14:00 (CET)
 - open to all countries involved in EJP RD (Applicants from Canada are not eligible for funding)
 - the consortium submitting an application must involve a minimum of three eligible applicants from at least three different countries participating in the EJP RD at the time of the application. A maximum of 10 partners per application is eligible





Are you looking to:

Train your PhD student/young MD within your ERN network or within other ERN network?



Research Mobility Fellowship

Aim: financially support PhD students and medical doctors working in ERN-member institutions to undertake short scientific visits (secondments) up to 3 months fostering specialist research training outside their countries of residence and within one of the ERN host institutions. Through this training measure the fellows should acquire at their host (secondment) institution new competences and knowledge related to their research on rare diseases and with benefit to their ERN.

Applicants/Application profile:

- PhD students with a minimum of one year of research experience OR physicians having finished their first year of specialist training
- Be affiliated to an **ERN Full Member or to an ERN-Affiliated Partner Institution** from one of the 24 <u>ERNs</u> at the time when the application is submitted, as well as during the proposed period of the training stay
- The host (secondment) institutions must be Full or Affiliated Members of an ERN at the time when the application is submitted, as well as during the proposed period of the training stay
- Added value to ERN of the mobility stay



The call opened on October 1st 2020

Deadline for submission: 13th November 2020



MORE INFORMATION: https://www.ejprarediseases.org/index.php/training-and-empowerment/ern-trainings/



Are you looking to:

Share transversal type of knowledge (going beyond your ERN) and have interesting training idea?



Research Training Workshop

Aim: identify the most suitable proposals for the organization of research training workshops of 2 days targeted to the ERNs needs. Selected research training workshops will have to train ERN researchers and clinicians in ERN relevant innovative training themes. Training themes may include innovative research methodologies, diagnostic research methodologies, interdisciplinary treatment approaches, such as gene therapy and transplantation, etc. Moreover, the workshops will be aiming to provide a cross-ERN added value.

The workshops will be implemented as two day events. Topics can be proposed by the ERNs or by investigators belonging to EJP RD beneficiary institutions.

- 25k€ max/event
- Applicants/Application profile:
 - * Affiliated to any EJP RD beneficiary institution
 - Affiliated to an ERN Full Member
 - Affiliated to an ERN Partner institution at the time when the application is submitted, as well as during the period of the execution of the workshop



2 calls per year - the call closed on October 12 2020

Next call will open in Q1 2021



MORE INFORMATION: https://www.ejprarediseases.org/index.php/training-and-empowerment/ern-trainings/



Are you looking to:

Train your members or gain knowledge in rare diseases research related aspect?



Other EJP RD trainings

- Data management & quality: the training activities cover a variety of topics including but not limited to variant interpretation, data management, registries, FAIRification process, Orphacodes, biobanking, and undiagnosed cases.
- Patients & Researchers training: training modules dedicated to building the capacity of the patient community and other key stakeholders, including training "expert" paediatric patients (new in 2021) on rare diseases, paediatric medicines development and clinical research.
- Educational academic course: on transversal and multidisciplinary aspects of rare diseases research will be made available for all stakeholders in a fully online format. The course foresees the development of 5 modules. The implementation of the first modules are expected by the end of 2020.

MORE INFORMATION: https://www.ejprarediseases.org/index.php/training-and-empowerment/





You have project and/or preliminary results for e.g. new therapy/biomarker/device

8

You are looking for (e.g):

- further regulatory support
- advice on how to get interest of potential sponsor or derisk your project
- further financial support



Support for innovation & research translation

Facilitating partnerships and accelerating translation for higher patient impact

Innovation management toolbox

- Integration of various resources supporting research translation (including the IRDiRC Orphan Drug Dev. Guide)
- Connection with Pillar 2 to make it interoperable with the Virtual Platform

Support for translation & innovation mentoring

- Pool of mentors to support the translation of research projects
- Assessment of the translation needs of E-Rare, EJP RD funded projects and ERN projects





You have idea about possible multinational clinical study but for which e.g. there is no interest from industry?

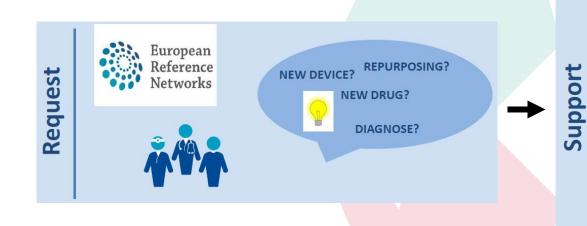
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You are looking for (e.g):

- advice on how to advance with such project
- advice on how to put in place clinical study with public sponsors
- advice on overall management & regulatory issues of multinational clinical studies



Multinational CTs support office





Pillar 4: Accelerating the translation of research& therapy development

CLINICAL TRIALS SUPPORT OFFICE



Clinical Trials Design Planning:

- Innovative statistical design
- Methodology tailored to small populations
- RD experts mentoring

Clinical trial Execution Planning:

- Country selection
- Patient recruitment
- Regulatory and ethical
- Cost evaluation

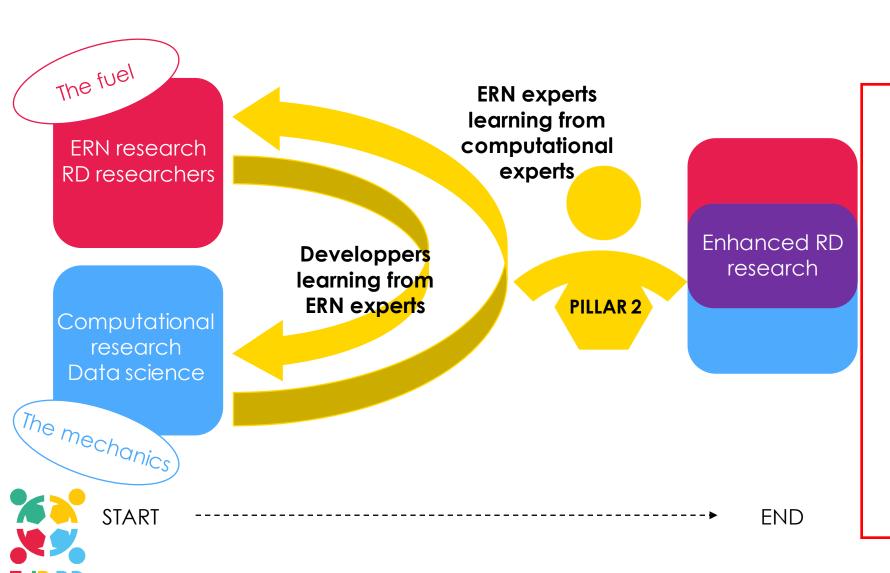




VIRTUAL PLATFORM & RELATED SERVICES



Pillar 2 target: FAIR-based virtual platform



A powerful substrate for translational research:

- Centralized services for collections (resource-level)
- Sample, biobanks, registries, infrastructures and tools catalogue
- Analysis platform for omics data
- Curated rare disease-centered information and data
- Federated services for data elements (record-level)
- FAIR 'at source'
- Data, patients, and samples linked and discoverable
- Consents and data use conditions also represented



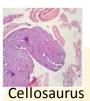
ERDRI.dor

Registries/

biobanks

catalogs





Cell lines

Animal models



Semantic standards









registry



Tools

RD Connect

Euro**B**io**B**ank

orphanet

BBMRI-ERIC®

EJP-RD

Query & Analysis

Support for clinical/ translation

al research

EATRIS

INFRASTRUCTURE NETWORK

Translational Medicine





















deposition & analysis

platforms EUROPEAN GENOME-PHENOME **ARCHIVE**

DECIPHER GRCh37

Data



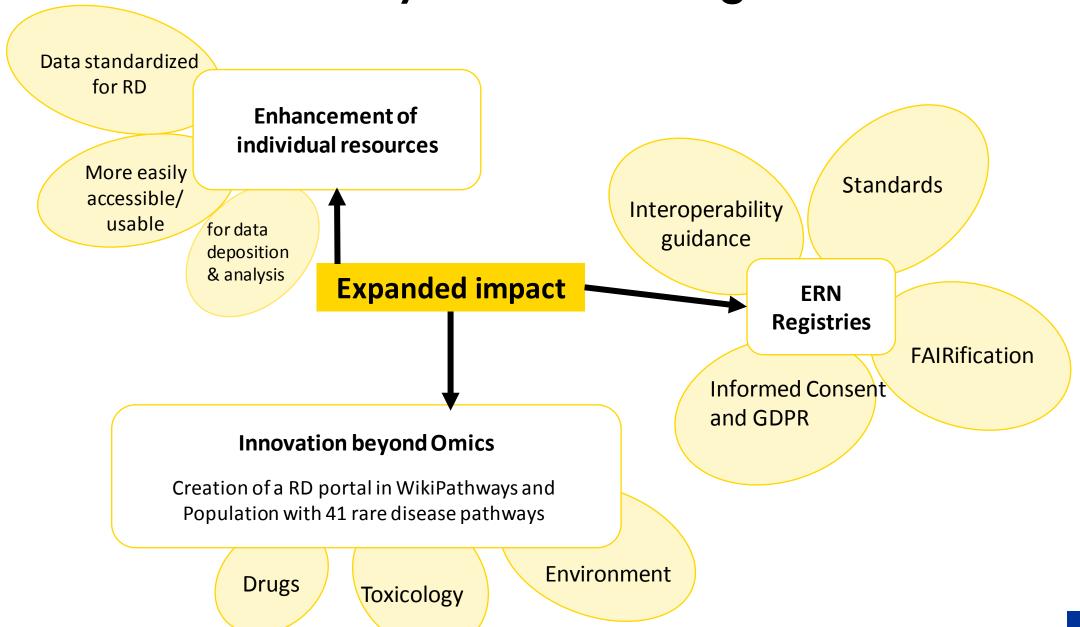








Beyond VP building







Pillar0 (WP4) – Registries Support

Registry Ethics Submission

- The Working group for Informed Consent Process Facilitation (including the AREB) has worked to provide solution to ERN submitting their registries for Ethics Committees approval (using the ERKNet 1+ year plus experience that submitted to 35 Ethics Committees.
- Finalising a harmonised framework (15/11/2020):
 - provide an addendum to the generic EU ICF to ERN registries to be fully GDPR compliant and compatible with secondary research use including EJP RD research data focus
 - the web link to the addendum could be printed on the CPMS/Registry ICF to allow patients to have the additional missing information);
 - To provide information for minors;
 - To provide the current experience from ERKnet with the summary table and the information on the addendum to the other ERN requests





Pillar2 – Registries Support

FAIRification

- Meetings between the FAIRification Stewards and the teams of the 5 VASCERN Registries
 - To complete the inventory of implementations (for FAIRer Registries)
 - Plan the extensive support required for some registries (Vascular EDS [RaDiCo])
- **EJP RD FAIRification Hackathon material shared:**
 - Eink: EJPRD Workshop 2020-06 Hackathon Implementation CDE semantic model for ERNs
 - useful for Redcap platform development to have full FAIR semantic model, FDP (redcap to RDF conversion possible in 2 different methods
- **ERNs** FAIRification Experience Sharing is being planned through MsTeams





Pillar2 – Involvement in Use Cases

Activation

Team Channel creation

Identify Champions

Identify users

TC use case description

Minimum Viable Product

Overall architecture

Counting

Counting persons with specific rare conditions (Poof of Concept of the VP)

May need stakeholders (registries) feedback

Consent

A structured manner of encoding consent conditions in a human and machine readable format Will need more stakeholders (registries) involvement

<u>Catalogue</u>

How stakeholders (researchers, patient organisations, experts, etc.) currently (and want to) use RD catalogue of catalogue to answer particular questions

Needs more stakeholders involvement

Registry CDE Linking

to query <u>CDE values</u> across <u>rare disease resources</u> to get answers to questions

Future call for query tool extension in Q1/Q2 2021

Multi-omics analysis

Added value of multi-omics data for diagnosis, disease modifiers (including environmental exposure), identification of drug targets and druggable pathways.

Next phase for use-cases usng registries with mutiomics data to be expected





Pillar2 – Involvement in Other Activities

Domain Specific CDE

- Plans for the creation with JRC a channel dedicated to Domain Specific CDE development (to be confirmed)
 - PPL registry team contribution would be valuable





We all work for the benefit of rare diseases patients & EJP RD is here to support YOU!

CONTACT US www.ejprarediseases.org

coordination@ejprarediseases.org

helpdesk@ejprarediseases.org



THANK YOU

VASCERN Days 22–24 of October 2020



