



NEWSLETTER 6

July 2021

Austria, Belgium, Canada, Croatia, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Latvia, Luxembourg, Norway, Poland, Romania, Slovenia, Spain, Sweden, The Netherlands, Turkey

ERA PerMed: News, Updates, Achievements and Future Plans

Announcements

COMING UP

ICPerMed Family Meeting
9-10 Nov 2021

Stay posted on ICPerMed events

EU-Africa PerMed
Open Event on funding opportunities from ERA PerMed
23 Sept 2021,
10:00 CEST

More on EU-Africa PerMed

STAY TUNED!

ERA PerMed is launching another call for proposals on personalised medicine - JTC2022!
Preannouncement - Nov 2021

www.erapedmed.eu

DON'T MISS

NEW videos introducing ICPerMed and family 



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ERAPerMed is funded under the ERA-NET Cofund scheme of the Horizon 2020 Research and Innovation Framework Programme of the European Commission Research Directorate-General, Grant Agreement No. 779282.

According to the new EU General Data Protection Regulation (GDPR) the ERAPerMed webpage informs on respective policies.

INTRODUCTION

ERA PerMed carrying on and looking forward

Like everyone else, we too, hoped for the life we knew before Covid19 to return by now. And like most others, we adapted to the new reality and are carrying on with our numerous duties and activities.

In May, we hosted ERA PerMed's very first Midterm Review Seminar for the Joint Transnational Call 2018 (JTC2018), which is co-funded by the European Commission (EC). The Midterm Seminar, initially planned to be an eventful face-to-face meeting, ended up in a virtual format, which on the upside, allowed for vast participation of partners from the 25 funded consortia from the JTC2018, as well as additional representatives from the 2019 and 2020 calls, funders, scientific evaluators and patient representatives ([more on pg. 3](#)).

In this issue 6 of the ERA PerMed newsletter, you can also find some interesting statistics on the JTC2020 ([pg. 4](#)) and the funded projects.

Furthermore, we are happy to announce that thanks to a one-year no-cost prolongation that ERA PerMed received from the EC, we will have an additional, initially unforeseen, call for proposals – JTC2022. The pre-announcement of this call will be published on the ERA PerMed website latest in November 2021.

Finally, ERA PerMed has been actively participating in discussions and working groups on the elaboration and development of the European Partnership for Personalised Medicine (EP PerMed) – [more on this on page 7](#).

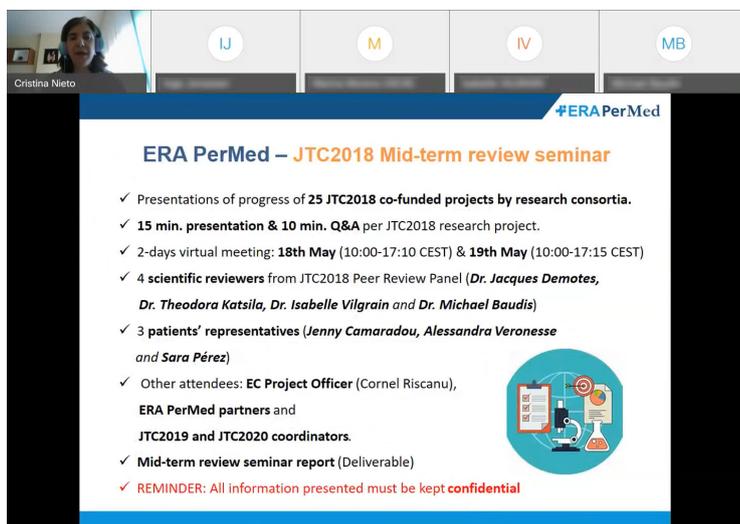
Meanwhile, we carry on, working around the globe, to promote ERA PerMed's activities and actions and we hope you enjoy reading about some of them in this issue.

News

In mid-May, ERA-PerMed held its virtual Call Steering Committee meeting and a Network Steering Committee meeting. We would like to congratulate Dr. Monika Frenzel and Dr. Katja Kuhlmann for their unanimous re-election as chair and vice-chair, respectively, of ERA PerMed's Network Steering Committee.

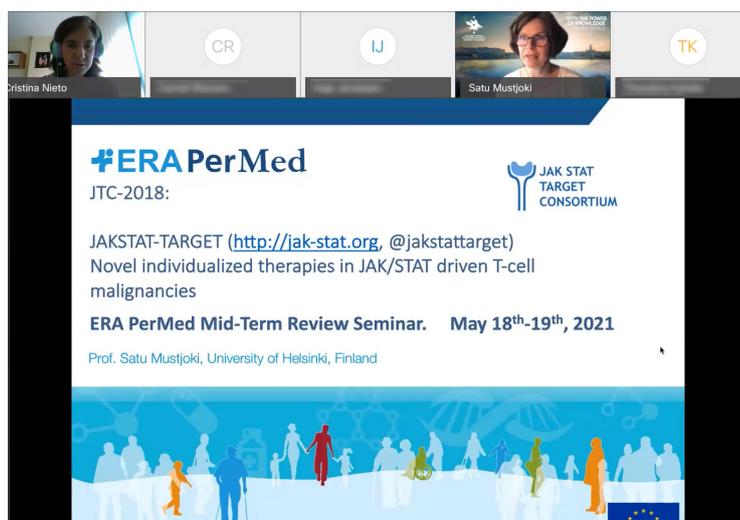
UPDATES AND ACHIEVEMENTS

JTC2018 Midterm Review Seminar – May 18-19th, 2021



Last May, we had the pleasure of holding the ERA PerMed Midterm Review Seminar for projects funded under the European Commission co-funded Joint Transnational Call for Proposals (2018) for Research Projects on Personalised Medicine - Smart Combination of Pre-clinical and Clinical Research with Data and ICT Solutions.

Due to the unfortunate health situation resulting from the COVID-19 pandemic, the seminar, organised by the Spanish National Institute of Health Carlos III (ISCIII), as Joint Call Secretariat of JTC2018, was carried out in a virtual format.



ERA PerMed's Midterm Review Seminar aimed to provide the 25 coordinators, funded under this call, the opportunity to present their work and results achieved so far and to allow ERA PerMed to monitor the progress and outcomes of the funded consortia, to date. The format of the seminar included a series of talks by the project coordinators/representatives, who were invited to prepare brief presentations outlining their project objectives, achievements and pending goals.

The seminar was attended by four scientific experts (Dr. Theodora Katsila, Dr. Michael Baudis, Dr. Isabelle Vilgrain and Dr. Jacques Demotes) and three patients' representatives (Jenny Camaradou, Alessandra Veronese and Sara Pérez), who provided a fruitful feedback to the consortia coordinators, from both the scientific and patient involvement perspectives. The ERA PerMed EC Project Officer, ERA PerMed funding partners and the coordinators from JTC2019 and JTC2020 were also invited to attend this seminar.

Although, the personal aspect was missing in this virtual format, interesting discussions arose, important feedback was provided and diverse research projects in personalised medicine were reviewed. We are eagerly looking forward to the Final Symposium of this co-funded call in order to hear about the fascinating outcomes and impact of the projects, as well as to, finally, meet face-to-face.

JTC2020

The topic of the third ERA PerMed Call, JTC2020, was “Multidisciplinary Research Projects on Personalised Medicine – Pre-/Clinical research, Big Data and ICT, Implementation and User’s Perspective”. Under this call, 188 eligible pre-proposals were submitted and 52 were invited to submit full-proposals. Ultimately, 18 consortia were chosen to be funded with a total investment of about 23 million Euros for three years.



Figure 1: Structure of JTC2020 research areas and modules

ERA PerMed supports multidisciplinary research through its annual calls. The JTC2020 included 3 research areas (RAs), each comprising of 2-4 modules, as depicted in Figure 1. Consortia funded under JTC2020 were required to address at least one module from RA3 and at least one module from RA1 or RA2 (or both). Our analysis shows that 56% of the funded projects address both pre-clinical and clinical research, while only two projects address pre-clinical research alone and 33% focus solely on clinical research. Moreover, of those projects that address Data and ICT (Information and Communications Technology) (12 of 18 consortia), 17% work on enabling technology, 33% work towards application in healthcare and 50% work on both aspects. Finally, each of the consortia had to address in their projects at least one out of four modules from the research area “Research towards Responsible Implementation in Health Care” in order to foster implementation steps. 56% of the consortia focus on ethical, legal or social aspects, 28% address optimisation of the healthcare system and 11% refer to both modules. Moreover, one consortium chose to focus on Module 3C, Citizen and Patient Empowerment.

As can be seen from the chart below (Figure 2), the disease categories covered by the funded projects are as follows: 50% of the projects work on cancer, 11% on neurological disorders, 11% on immunological disorders, 11% on kidney diseases and there are single projects on cardiovascular diseases, psychiatric disorders and on metabolic disorders.

Disease categories

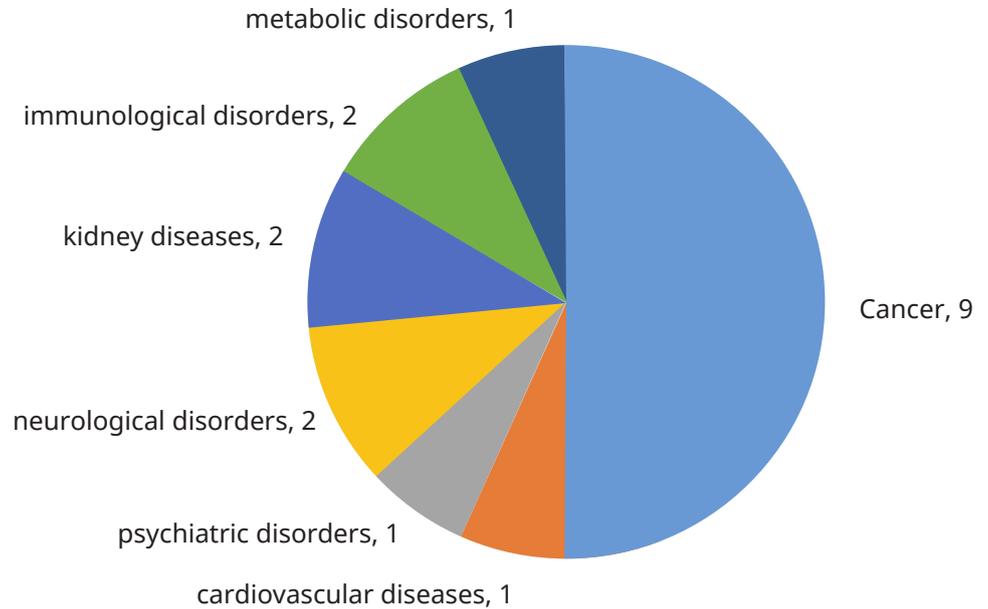


Figure 2: Disease categories covered by the JTC2020 funded projects

When looking at the consortium composition (Figure 3), it could be noted that most consortia include 6 partners (56%) and one consortium made use of the widening option and therefore consists of 7 partners. The remaining consortia include 4 partners (11%) or 5 partners (28%). Regarding multinationality of the consortia, as can be seen in Figure 4, all consortia include groups from 3-6 different countries (28% from 3 countries, 28% from 4 countries, 28% from 5 countries and 17% from 6 different countries).

Number of partners in consortia

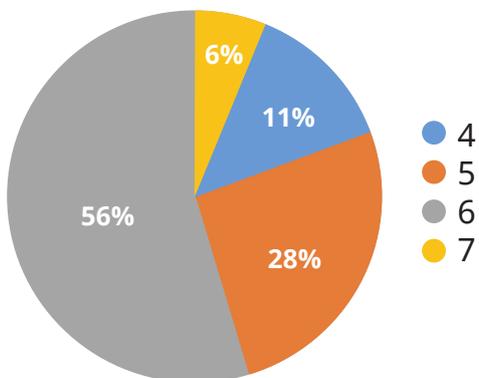


Figure 3: Number of partners in consortia funded under the JTC2020

Number of countries in consortia

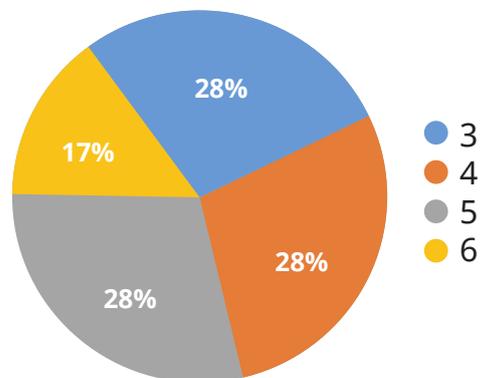


Figure 4: Transnational composition - number of countries included in consortia funded under JTC2020

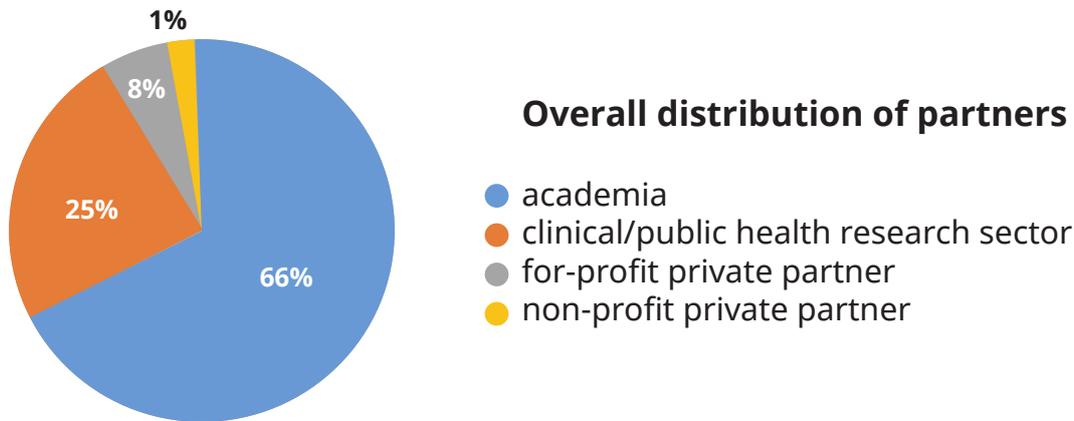


Figure 5: Distribution of consortia partners amongst different sectors

The overall distribution of partners between academia, clinical / public health research sector and the private sector is as follows: 66% of the partners are from academia, 25% are from the clinical / public health research sector and 8% are from the private for-profit sector while there is one private non-profit partner. It should be noted that 40% of the The JTC2020 projects' coordinators are from 5 different countries and 33% of them are women. The transnational aspect of ERA PerMed funded projects is well presented in the JTC2020 consortia. Partners from 21 different countries are collaborating on 18 personalised medicine-related research projects, as can be seen in the graph below (Figure 6).

Geographical Distribution of JTC2020 Consortia Partners and Coordinators

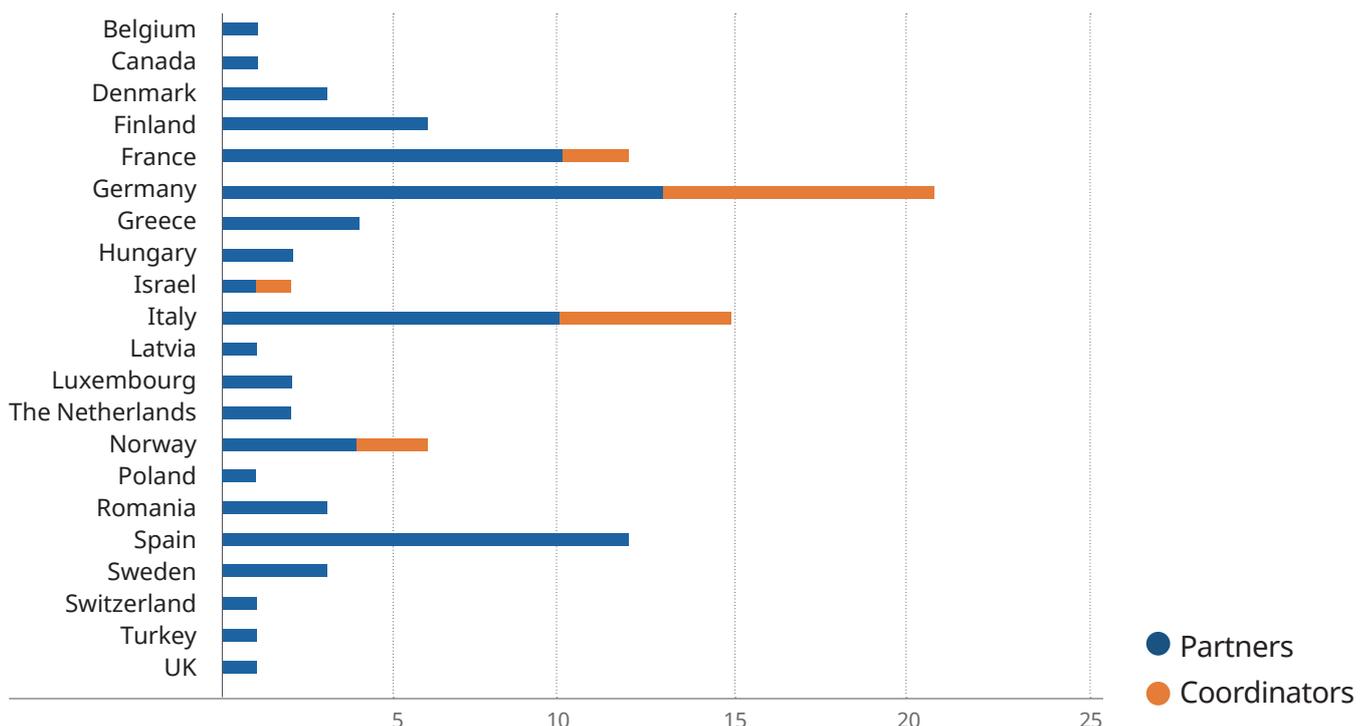


Figure 6: Geographical distribution of coordinators and partners taking part in the JTC2020 funded consortia

JTC2021

In December 2020, ERA PerMed launched its fourth Call, JTC2021, with the support of 30 funding organisations from 23 countries on the topic “Multidisciplinary Research Projects on Personalised Medicine – Development of Clinical Support Tools for Personalised Medicine Implementation”. The aim of this call is to promote innovative interdisciplinary collaboration and to encourage translational research proposals.

The overarching goal is to improve disease management, with better patient stratification, diagnostics and treatment protocols, and disease prevention.

We welcome the new funding agencies that joined ERA PerMed’s JTC2021: Brazilian National Council of State Funding Agencies – CONFAP, Brazil, and Agencia Nacional de Investigación y Desarrollo (ANID), Chile. The joining of these funding agencies represents ERA PerMed’s strive to promote international standards and global collaboration in the field of personalised medicine.

217 eligible pre-proposals, comprising of 984 research groups, were submitted under the JTC2021 out of which 59 were invited to submit a full-proposal. The full-proposal final evaluation will take place virtually in September 2021.

FUTURE PLANS

The European Partnership for Personalised Medicine under Horizon Europe

The new framework programme “Horizon Europe” (2021-2027) was launched by the EC in February 2021, representing the most ambitious Research and Innovation programme of the European Union (EU) and the largest transnational programme of this kind worldwide, with a budget of 95.5 billion Euros. Several forms of European Partnerships are foreseen in Horizon Europe as key implementation tools that will address some of Europe’s most pressing challenges.

Personalised Medicine was selected as one of the topics for a co-funded European Partnership, expected to be launched at the end of 2023 or latest beginning of 2024. The consultation of the European Member States for the candidate **European Partnership for Personalised Medicine** - [EP PerMed](#), which will be organised, most likely, in the third quarter of this year by the EC, will be the official starting point for the preparations of this partnership.

ERA PerMed, in collaboration with the International Consortium for Personalised Medicine (ICPerMed), have already started discussing reflections and provided content-driven input for the **EP PerMed**. [A draft concept paper](#) underlining the needs and proposing ICPerMed’s and ERA PerMed’s vision for the EP PerMed - its objectives, activities (e.g. research funding)

and expected impacts (Figure 7) - was jointly published in February 2021. The document also outlines the need to include different stakeholders in the partnership activities and the importance of interaction with the entire PM ecosystem, at European and international levels, to achieve full PM implementation.

To further provide support for representatives of regional and national authorities, ministries, funders, policy makers and the PM stakeholder community, ERA PerMed and ICPerMed published an *EP PerMed guide* and **seven information sheets** that address key aspects of the EP PerMed, such as the need for the partnership, the involvement of stakeholders, the establishment of national hubs, opportunities for regions, joint funding activities, industry involvement and the international perspective.

Furthermore, ERA PerMed and ICPerMed organised on May 31st a public **EP PerMed information event**, to present the draft concept paper, as well as the guide and information sheets, and to engage with national and regional authorities, funders and stakeholders interested in promoting and implementing PM approaches in their countries and regions. The presentations and video recordings are available on the ERA PerMed [website](#).

ERA PerMed is looking forward to the future European Partnership for Personalised Medicine as an outstanding opportunity to provide further support to the personalised medicine research community. ERA PerMed will share updates on the EP PerMed preparations through the ERA PerMed website!

Stay tuned!

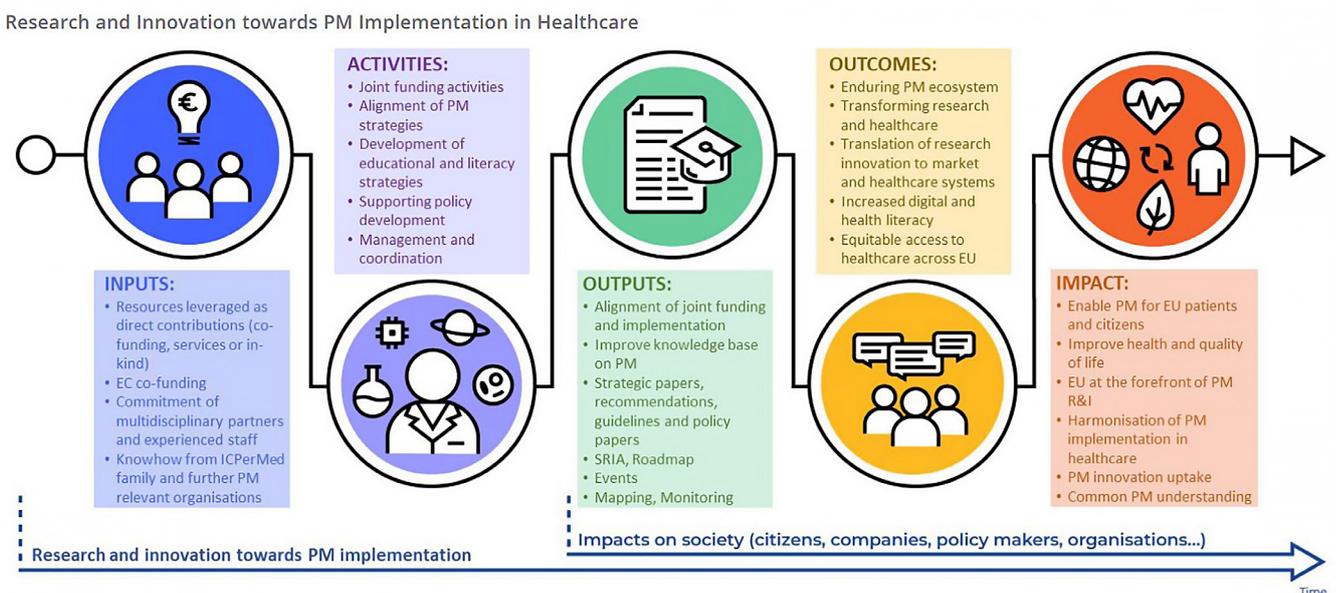


Figure 7: The EP PerMed framework as proposed in the EP PerMed draft concept paper

RELATED INITIATIVES

Cell-level Simulations for European Personalised Medicine



HPC/Exascale
Centre of
Excellence in
Personalised
Medicine

The HPC/Exascale Centre of Excellence in Personalised Medicine (*PerMedCoE*), launched in October 2020 and funded by the European Commission, will contribute to the European Personalised Medicine roadmap by optimising codes for cell-level simulations in HPC (High Performance Computing) and bridge the gap between organ and molecular simulations.

“PerMedCoE will boost the competitiveness of European personalised medicine and aims to become the community hub for Exascale-ready software in this domain”, said *Alfonso Valencia*, ICREA Research Professor, BSC Life Sciences Department Director and PerMedCoE Coordinator.

This centre of excellence will also integrate personalised medicine into the new European HPC/Exascale ecosystem, and design a comprehensive set of *personalised medicine use cases* to test the capacities and limitations of the *four tools* scaled-up in PerMedCoE so they could be used in Exascale computers.

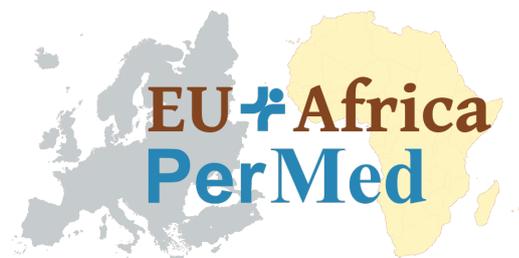
The *use case on COVID-19 infection* has been prioritised with the aim to help to explain the varied patients’ severity of symptoms observed in the clinics, find mechanisms that cause this diversity and find proper drugs to treat the disease.

The PerMedCoE multi-scale model considers an epithelial cell layer that is responsive to virus infection by signalling pathways, that recruit different immune cells which interact with the cell and the viral particles. This model is a comprehensive way of organising all the knowledge available on mechanisms among these players, identifying biomarkers and proposing therapeutic targets.

Thanks to this model, the mutations in the patients’ epithelial cells and in the virus can be studied, as well as their effect on the epithelial cells’ ability to kill themselves, a process known as apoptosis. Additionally, heterogeneous cell populations, for instance, where 95% of the virus have a disabled M protein preventing the release of the virus from infected cells, can be compared to the normal scenario.

EU-Africa PerMed: Building links between Europe and Africa in Personalised Medicine

EU-Africa PerMed is, together with ERA PerMed, part of the *ICPerMed family*.



The 4-year **EU-Africa PerMed** project started on February 1st, 2021, with the overall aim of integrating African countries into ICPerMed activities, thus contributing to a successful implementation of Personalised Medicine (PM) in the global context. It will foster joint PM projects and programmes between Europe and Africa, as well as strengthening bilateral EU-AU science,

technology and innovation relations in the area of health. The project will be implemented by a consortium of 13 partners, 6 from Europe and 7 from Africa.

As been demonstrated by the COVID-19 pandemic, addressing global health challenges is only possible by building and strengthening international, inter-continental and national scientific cooperation between researchers, decision/policy makers, private enterprises, healthcare professionals and civil society. **EU-Africa PerMed** will work towards fostering a stronger global collaboration in PM through the umbrella of ICPerMed, and by this, to better tackle global health challenges such as infectious diseases and future pandemics as well as the prevention of non-communicable diseases.

EU-Africa PerMed will also closely collaborate with ERA PerMed, I) to provide support and advice for African funding organisations interested in participating in one of the ERA PerMed calls and II) to support the ERA PerMed consortium, e.g. in the search for experts for evaluation processes or the refinement of the call scopes.

The first open virtual event organised by EU-Africa PerMed, will take place on September 23rd, 2021, 10:00 CEST. It will be an 'ERA PerMed information day' aiming to present ERA PerMed and its Joint Transnational Calls to African funders and researchers to attract their participation in ERA PerMed calls and future activities. A good example and success story for the participation of a country from Africa is Egypt with the Academy of Scientific Research and Technology (ASRT) who participates in ERA PerMed calls as funder since the JTC2019. Two project consortia, out of 22 projects in total funded in the JTC2019, include a partner from Egypt.

For further information on EU-Africa PerMed, check out the project's [website](#) and twitter account: @EU_AfricaPerMed