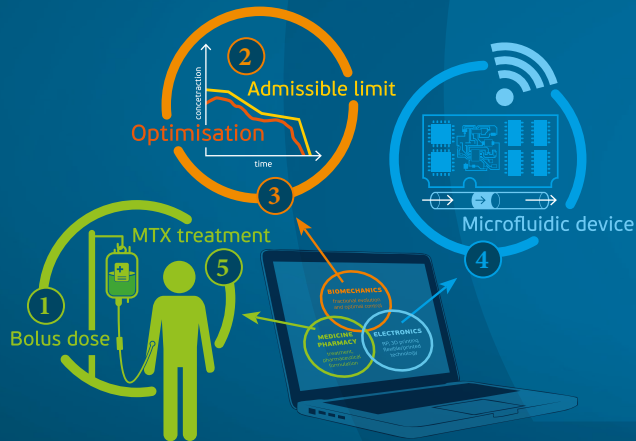


CONSORTIUM

No.	Institution	City, Country	Type	Sector
1.	University of Novi Sad	Novi Sad, Serbia	AC	Academy
2.	Elvesys SAS	Paris, France	MS	SME
3.	Marcotech oHG	Muenster, Germany	MS	SME
4.	Genochem SAS	Grasse, France	MS	SME
5.	Prince Songkla University	Songkhla, Thailand	TC	Academy
6.	Curtin University	Perth, Australia	TC	Academy

PROJECT CONCEPT



- 1 Bolus dose and MTX analysis in biological fluids
- 2 Individual pharmacokinetics parameters
- 3 Modeling, simulation and optimization
- 4 Microfluidic device programming
- 5 Personalized treatment

PROJECT OBJECTIVES

Objective 1:

Modeling of pharmacokinetics response using fractional calculus and optimal control

Objective 2:

Development and optimisation of microfluidic electronic devices

Objective 3:

Estimation of appropriate dosage regime

Objective 4:

Knowledge sharing and establishment of longterm collaboration

Objective 5:

Ensuring sustainability of the MEDLEM

Objective 6:

Increasing the visibility of the MEDLEM team excellence

WORK PACKAGES

WP1:

Fractional pharmacokinetics multicompartamental systems and optimal control

WP2:

Design and fabrication of microfluidic electronic devices

WP3:

Optimal dosage regime

WP4:

International/intersectoral secondments

WP5:

Joint networking activities

WP6:

Dissemination and communication activities

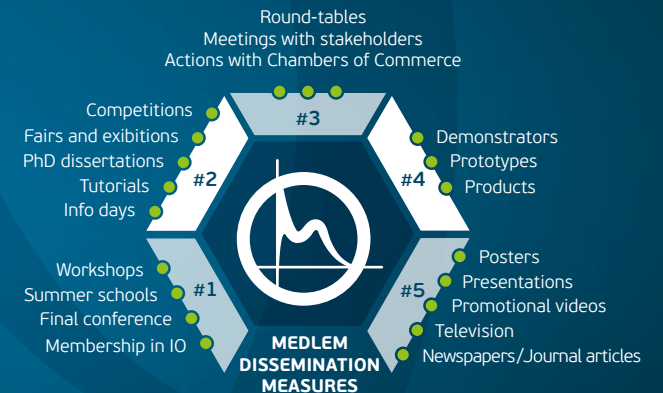
WP7:

Project management and coordination

NETWORKING EVENTS

Type	Title	When	Where
WS1	Fractional calculus for modelling phenomena from our life	September 2016	Novi Sad, Serbia
SS1	3D printing of devices for medical applications	August 2017	Novi Sad, Serbia
WS2	Microfluidic devices and their application in medicine and other fields	September 2018	Songkhla, Thailand
SS2	Pharmacokinetics determination of the pharmaceuticals for leukemia treatments and its testing in vitro and in vivo systems	June 2019	Novi Sad, Serbia
Conf.	Summary of all project outcomes	November 2019	Novi Sad, Serbia

DISSEMINATION MEASURES

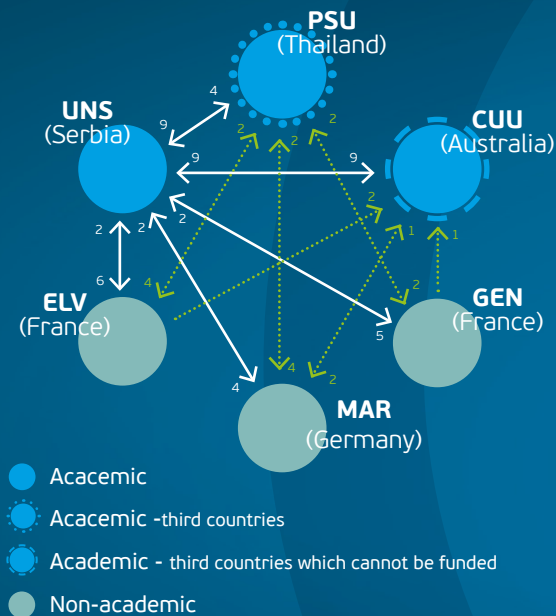


PUBLIC ENGAGEMENT

Type of action	Number
Marie Skłodowska Curie ambassadors	12 visits to schools
Face to face meetings in order to reach ordinary people, wide public audience, students	~ 8 per year
Web based document and video clips	~ 3 per year
Festival of Sciences	~ 3 per year
Researchers' Nights	~ 1 per year

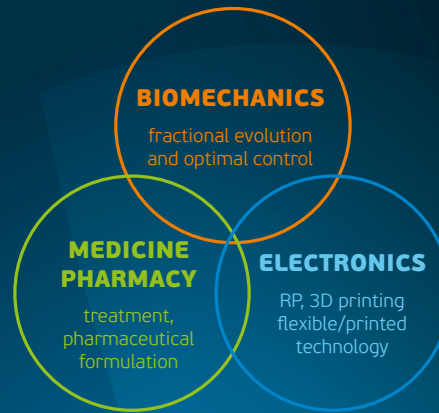
SECONDMENTS

Secondments are very efficient means for realization of the knowledge sharing among the project partners, especially between the different sectors inside Europe as well as between partners from Europe and worldwide leading organizations in the project field. Figure below illustrates planned secondments, including their researcher months, during the MEDLEM implementation.



ABOUT MEDLEM

The project is aimed at strengthening research collaboration through active networking, staff exchange and dissemination activities between 4 European organizations from Germany, France and Serbia as well as 2 nonEuropean institutions from Thailand and Australia, in linking the fields of microfluidic electronic devices, optimal drug administration, fractional pharmacokinetics, and leukaemia treatments.



The project will exploit complementary competences and synergies of the partners, and enable knowledge sharing via international intersectoral mobility, based on secondments of research staff. The consortium offers a unique opportunity that creativity and entrepreneurship will flourish and will help exchanged personnel to turn creative ideas into innovative electronics products, reaching breakthroughs in modeling, drug administration and improvements in therapy protocols.

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Cost-effective microfluidic electronic devices for optimal drug administration based on fractional pharmacokinetics for leukemia treatments

Acronym: MEDLEM
 Grant No: 690876
 Type of action: Marie Skłodowska Curie Research and Innovation Staff Exchange (RISE)
 Duration: 01/01/2016 - 31/12/2019

www.medlemproject.com



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