



COST Action CA1710

WG4 Info Day online - 08/02/2022





Status of the Action

Action Details

- **MoU** 060/18
- **CSO Approval date** 13/04/2018
- **Start date** 28/09/2018
- **End date** 27/09/2022

- Number of represented COST Countries*: 34
- Number of represented COST ITC countries*: 18
- Number of MC members*: 64



COST Members

The **38** COST Members are: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Republic of Moldova, Montenegro, The Netherlands, The Republic of North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

Cooperating Member

Israel is a Cooperating Member







- New COST rules enforced by November 1st 2021 Horizon Europe
 - COST ITC Countries

OLD RULE

 Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, North Macedonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Turkey.

NEW RULE

 Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Greece, North Macedonia, Hungary, Latvia, Lithuania, Malta, Moldova, Montenegro, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Turkey







• New COST rules enforced by November 1st 2021 – Horizon Europe

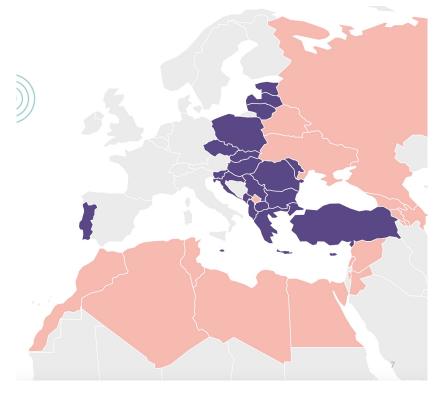
COST NNC Countries

Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Jordan, Kosovo, Lebanon, Libya, Morocco, the Palestinian Authority, Russia, Syria, Tunisia and Ukraine

The designation of Kosovo is without prejudice to position on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence













New CA17140 Leadership (Core Group)

Action Chair: Prof Sabrina Pricl (IT)

Action Vice-Chair: Dr Nazende Günday Türeli (DE)

Grant Holder (GH) Scientific Representative: Prof Barbara Klajnert-Maculewicz (PL, ITC)

Science Communication Coordinator: Dr. Maria Eugenia Riveiro (FR)

WG1 Leader: Prof Rana Sanyal (TR, ITC)

WG1 Vice-leader: Dr. Tomas Strasak (Young researcher/innovator, CZ, ITC)

WG2 Leader: Dr Ivana Vinković Vrček

WG2 Vice-leader: Dr. Evgeny Apartsin (Young researcher/innovator, RU, NNC)

WG3 Leader: Prof Carlo Catapano (CH)

WG3 Vice-leader: Prof. Ulf Kahlert (Young researcher/innovator, DE)

WG4 Leader: Dr Maria Eugenia Riveiro (FR)

WG4 Vice-leader: Dr. Enrico Catalano (Young researcher/innovator, IT)

Grant Awarding Coordinator: Prof. Maria Francesca Ottaviani (IT)

GH Manager: Mrs. Joanna Korczynska (PL, ITC)







There is a vacant position as MC member for Italy

- Interested candidates should contact the Italian CNC
 - Dr Valentina Cardinale +390697727549
 - valentina.cardinale@miur.it
 - Ministry of Education, University and Research Department of Higher Education and research – DG Research; Office VIII – Programming and promotion of research in the international context and coordination of aerospace research Via Carcani 61 00153 Rome Italy

There is a vacant position as MC member for Estonia

- Interested candidates should contact the Estonian CNC
 - Dr Katrin Kello +372 731 7361
 - Katrin.kello@etag.ee
 - Senior Advisor, Department of International Research Cooperation, Estonian Research Council, 90000759, Soola 8, Tartu 51004 Estonia







Update from the Grant Awarding Coordinator: review of completed reports and new applications

Grant Awarding Coordinator – Prof. Maria Francesca Ottaviani

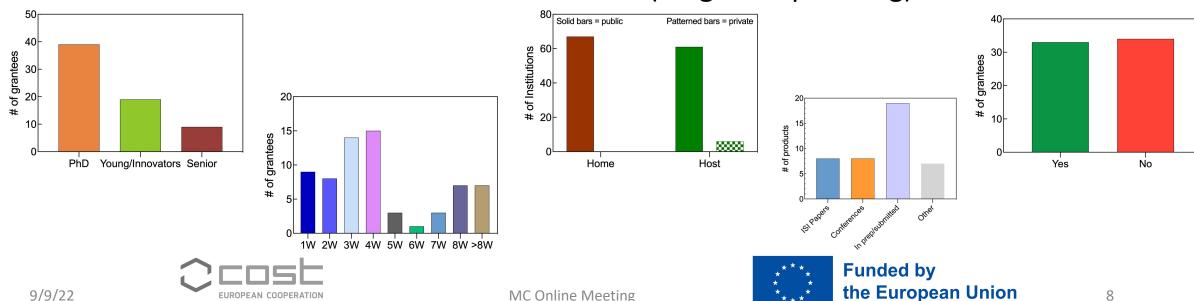






Update from the Grant Awarding Coordinator

- 6th STSM call open (deadline 15/2/2022). Call text and all info at https://www.nano2clinic.eu/sixth-call-stsm
- ITC grant call open no deadline. Call text and all info at https://www.nano2clinic.eu/2022itc-conference-grant-application-open
- STSM conference 1 and 2 More details later (long term planning)





Update from the Grant Holder: Action Budget Status

GH Manager – Mrs. Joanna Korczynska (PL)







Update from the Grant Holder

- GP 4 ACTIVE from 1.11.2021 to 27.09.2022
- Grant Agreement signed on 25/1/2022

Networking Tool	Quant.	Budget
Meetings	8	EUR 46 710.00
Training Schools	1	EUR 34 300.00
Short Term Scientific Missions (STSM)	19	EUR 62 130.00
ITC Conference Grant	3	EUR 4 500.00
COST Action Dissemination	1	EUR 430.00
Other Expenses Related to Scientific Activities (OERSA)	2	EUR 987.00

SCIENCE EXPENDITURE: EUR 149 057.00

Financial and Scientific Administration and Coordination (FSAC) - MAX. 15% 15% EUR 22 358.55

TOTAL GRANT : EUR 171 415.55







Update from the Grant Holder

- MC Substitutes no longer a role
- MC members may nominate a substitute for a specific event or period
- No more permanent MC Observers from NNC or IPC
 - Working Group members







Update from the Science Communication Coordinator

Dr. Maria Eugenia Riveiro (FR)



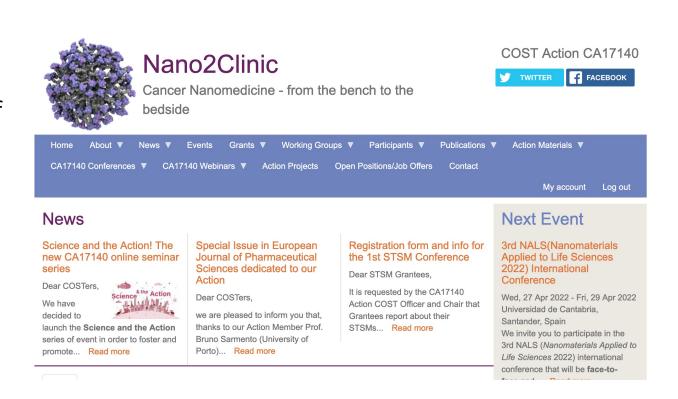




New SCC - eugenia.riveiro@e2dg.com

- Updated action website <u>www.nano2clinci.eu</u> and social media (FB Nano2clinic and Twitter @nano2clinic)
 - Main instrument for the dissemination of our activities and the most frequent mean of communication among all members
- Space for communications on conferences, webinars, STSM/ITC calls and dedicated information for the different WGs, dissemination of events, news and open positions/job offers open to the entire community
- All Members are welcome to be more active in submitting information for publication on the website and more active on the Action social media

IN SCIENCE & TECHNOLOGY





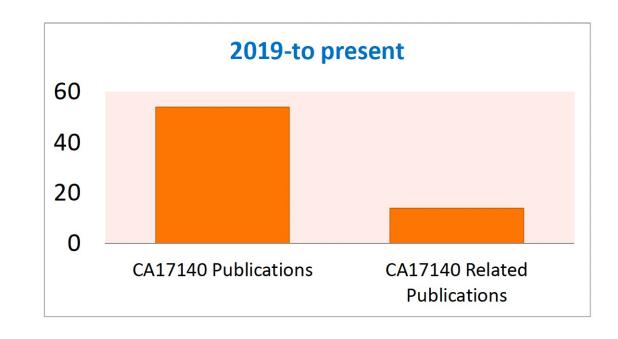


New SCC - eugenia.riveiro@e2dg.com

- ONLY those publications featuring authors belonging to AT LEAST 2 different CA17140 countries can be considered as COST Action publications
- Do not forget that each CA17140 publication must report the following official sentence in the acknowledgment section:

This article/publication is based upon work from COST Action CA 17140 "Cancer Nanomedicine from the Bench to the Bedside supported by COST (European Cooperation in Science and Technology)

 The acknowledgment statement and COST guidelines on visual identity are available on the homepage of our Action www.nano2clinic.eu









Implementation of COST policies







Inclusiveness and excellence

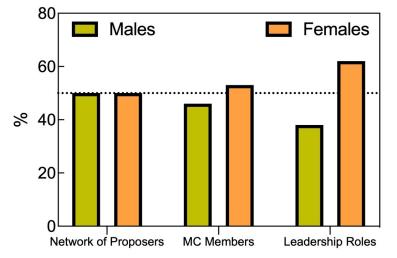
- The COST inclusiveness policy is developed around three main elements:
 - Gender balance
 - Career stage: involving young researchers
 - Geographical spread
- The COST excellence policy is also developed around three main elements:
 - Identifying excellence in science and technology across Europe
 - increasing research communities' access to funding and infrastructures
 - triggering structural changes in Members' national research systems

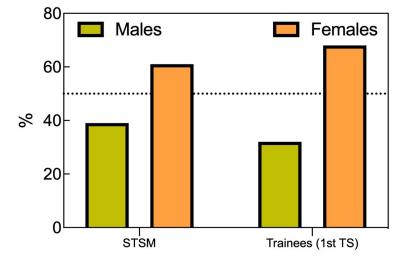


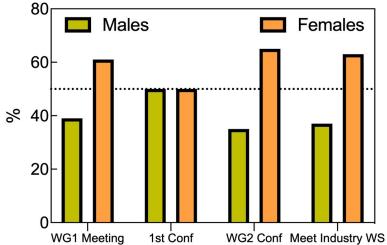




Promotion of gender balance





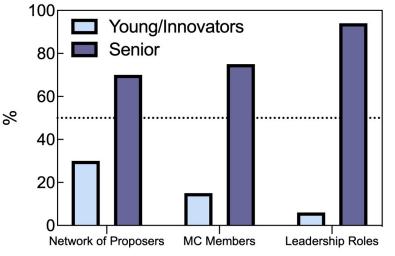


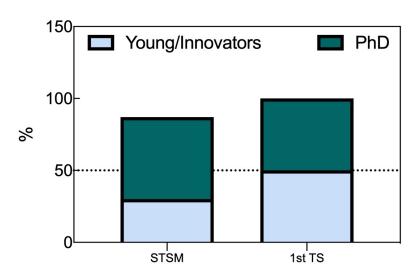






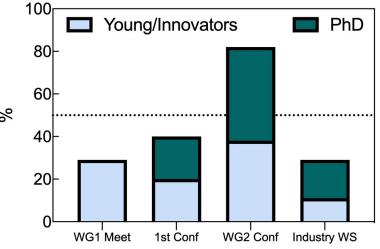
Promotion of Young Researchers/Innovators







Leadership role will drastically increase with the proposed corrective actions (discussed later)



MC Online Meeting

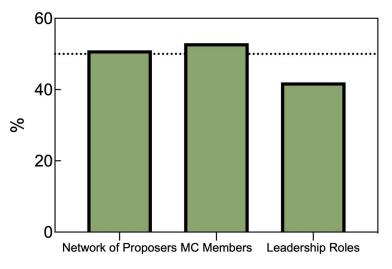


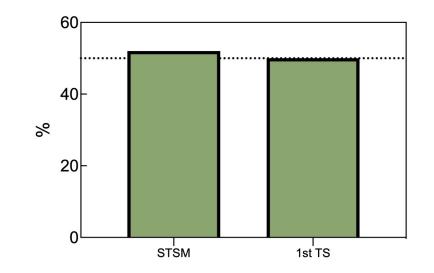




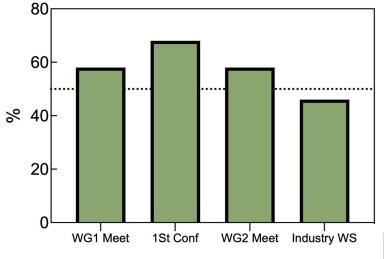
Inclusiveness and excellence – ITCs







Leadership role will further increase with the proposed corrective actions (discussed later)



MC Online Meeting

Participation from all countries
Remarkable participation from Australia, China and India











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Excellence



- 33% of MC members have responded to the issued questionnaire
- 24% of Action members have responded to the issued questionnaire
- The questionnaire is an indispensable tool for:
 - Checking the Action activity in response to COST three main elements
 - Preparing the Action final report
- Another round of Action questionnaire will be issued close to Action deadline
 - A more effective collaboration from all Action members is mandatory







Scientific planning







Scientific Strategy —Secondary objectives

- 1. Promoting and fostering active and multidisciplinary collaborations between industry and academia on each aspect of the design, development, and translation of cancer nanomedical agents \checkmark
- 2. Fostering synergies between complementary EU groups of excellence, thereby expanding the network beyond existing collaborations between Action partners, with particular attention to the strong, active involvement of SMEs, regulatory agencies, academic clinical research centers, clinical research organizations, and other public/industrial entities <
- 3. Promoting cross-pollination of competencies and transferring results within the EU actors belonging to public and privates sectors by extensive exchange of PhD students, young researchers and senior scientists, meetings and workshops, and collaborative scientific publications and patents

 ✓
- 4. Disseminating results to all potential stakeholders, including public organisms, funding agencies, patients associations and the general public to increase EU citizen awareness of the social benefits of the Action results ✓
- 5. Creating strong partnership between academia and industry by the equal participation of these two groups \checkmark
- 6. Training and mentoring of young generations of researchers working in academia and industry to pave their way towards autonomous research leadership ✓
- 7. Ensuring equal opportunities by providing equal access to COST activities, respecting balanced gender distribution √
- 8. Involving participants from less research active countries according to the inclusiveness policy of COST \checkmark







4th GP goals

- GAPG 1: to define a set of standard in vitro testing methods of nanomaterials
- GAPG 2: to define a set of standard in vivo testing methods of nanomaterials
- GAPG 3: to determine the key factors imparting in vitro proof of concepts in oncology
- GAPG 4: to prepare guidelines for translation of nanomedicines from bench to market
- GAPG 5: to prepare guidelines concerning regulatory aspects of nanomedicines
- GAPG 6: to disseminate Action's non-confidential results to public and to further develop a platform for on-line networking activity
- GAPG 7 to monitor Action progress, formulate corrective guidelines, and foster networking activity
- GAPG 8 to foster young scientists and innovators' involvement in the Action Challenge







4th GP Deliverables – WG3

- D3.1. Consensus protocols for *in vitro* testing of nanomaterials (M36)
- D3.2. Consensus protocols for in vivo testing of nanomaterials (efficacy, toxicology and pharmacokinetic studies) (M36)
 - MS3.1. Complete determination of key factors/mechanisms imparting in vitro proof of concept in oncology and cellular uptake/trafficking of selected nanomedicines (Y/N)
 - MS3.2. Complete determination of in vivo efficacy, ADME and the toxicity profile characterization of selected nanomedicines in preclinically relevant animal models (Y/N)
- Deployment delayed → WG3 meeting will elaborate these CA17140 fundamental deliverables and MS achievement → expected deployment date June 2022







WG3 Meeting

Relation to GP goals: GAPG1, GAPG2, GAPG3, GAPG4 and GAPG8

Location: Bellinzona (CH)

Organizer: Dr. Carlo Catapano (WG3 leader)

Date: from 2022-03-03 9 am to 2022-03-04 6 pm (2 days)

Number of expected total participants:

10 people/day – presence sheet signature required (5 to be reimbursed by COST for 2 day)

Aims and scope:

summarizing the state-of-the-art and preparing the final Action deliverables concerning the guidelines and roadmaps for *in vitro/in vivo* successful testing and translation of cancer nanomedicines

Output(s)

Preparation and drafting of the WG3 expected deliverables/related milestones fulfillment and position papers







WG3 Workshop (WS)

Relation to GP goals: GAPG1, GAPG2, GAPG3, GAPG4, GAPG5, GAPG6 and GAPG8

WS title: Advancing cancer nanomedicine to the clinics: hypes, hopes and hurdles

Location: Magdeburg (DE)

Organizer: Prof. Ulf D. Kahlert (WG3 Vice-leader, Young/Innovator member)

Date: from 2022-06-16 9 am to 2022-06-17 6 pm (2 days)

Number of expected total participants:

15 people/day – presence sheet signature required (5 to be reimbursed by COST)







WG3 Workshop (WS)

Aims and scope:

- Generation of a think-tank for defining the state of the art assays for cancer modeling to support clinical meaningful preclinical nano-drug/nano-theranostic development
- Promoting the commitment and pro-actively engaging clinicians (in particular surgeons and radiologists) in the activity of the Action both within the granting period and beyond to foster clinical application of new nano-drugs against cancer
- Present and discuss perspective clinical trials with new nano-drugs, especially for agents based on pure synthetic background – identifying "needs" from the clinician standpoints
 - Also, there will be presentations concerning an emerging field, the combination of nanomedicine and artificial intelligence (AI) in cancer clinical and surgical management, with the further aim of identifying complementing synergies of these frontier fields of research







WG3 Workshop (WS)

Outputs:

- 1. To stir more interest and involvement and inform the clinical/surgeon community about the success of nanomedicine in cancer therapy and rise awareness about the hurdles that still need to be overcome for successful clinical translation of cancer nanomedicines
- 2. To provide material to WG3 and WG4 to finalize the relevant deliverables
- 3. To deploy one or possibly two consensus papers in peer-reviewed (possibly OA) journal articles in the context of the above mentioned topics
- 4. To create a critical mass for defining projects and agenda for future joint grant applications associated to cancer nano-medicine (at national, bi-national, and multi-national EU levels)







4th GP Deliverables – WG4

- D4.1. Formulation of guidelines and documents for translation of nanomedicines from bench to bed/market (M48)
- D4.2. Formulation of guidelines and documents concerning regulatory aspects of nanomedicines (M48)
 - MS4.1. Documents for translation of selected nanomedicines (Y/N)
 - MS4.2. Documents for suggested regulatory aspects of selected nanomedicines(Y/N)
- WG4 meeting will elaborate these CA17140 fundamental deliverables and MS achievement → expected deployment: on time







WG4 Meeting

Relation to GP goals: GAPG4, GAPG5, GAPG6 and GAPG8

Location: Istanbul (TR, ITC)

Organizers: Dr. Maria Eugenia Riveiro (WG4 leader) and Dr. Rana Sanyal (WG1 leader)

Date: from 2022-06-7 9 am to 2022-06-8 6 pm (2 days)

Number of expected total participants:

15 people/day – presence sheet signature required (7 to be reimbursed by COST)

Aims and scope:

- Preparing the final Action deliverables concerning what is perhaps the most critical aspect of the Action: the guidelines and roadmaps concerning successful translation and regulatory aspects of cancer nanomedicines
- Special focus: specific issue of cancer nanomedicine toxicity, with explicit reference to the actual challenges in the development of new standardized methods required for cancer nanomedicine clinical translation as well as regulation issues that are still lacking for their marketing authorization
- Organizers belong to SME







Long term Planning







Long term planning

Events already scheduled for WBP4 with budget

- STSM & ITC grants (discussed)
- WG3 meeting (discussed)
- WG3 workshop (discussed)
- WG4 meeting (discussed)
- STSM Conference 1 and 2
- 5th MC Meeting
- CA17140 Final Conference
- 2nd Training School



Events already scheduled or to be organized in WBP4 with no budget

- "Science and the Action" bi-weekly series of webinars from MC and any Action member
- WG Info days: Four 1-hour online meetings with all members (grouped by WG)
- Online webinars for mentoring academic and industrial career of Young researchers/Innovators (on demand)
- Online webinars involving major European Entities and Governing bodies in the Action field (e.g., EMA, ...)

Funded by

the European Union

Long term planning: STMS Conference 1 and 2

COST ACTION CA 1714©

NANOELINIC

CANCER NANOMEDICINE - FROM THE

BENCH TO THE BENSINE

Relation to GP goals: GAPG6 and GAPG8

Conference title: 1st STSM Conference and 2nd STSM Conference

Location: online

Dates: 1st STSM Conference 2022-03-16 from 9 am to 2022-03-16 6 pm (1 day)

2nd STSM Conference 2022-09-22 from 9 am to 2022-09-22 6 pm (1 day)

Main organizer: Prof. Maria Francesca Ottaviani (Grant Awarding Coordinator)

Organizing and Scientific Committee: composed by Young Researchers/Innovators, appointed by Prof. Ottaviani in response to a call issued among this class of STSM grantees

Aims and scope:

prominent role of disseminating to the widest possible public the results (both in terms of scientific production, networking, jointed proposals, etc.) originated through STSM grants

All grantees are requested to present their contribution to this event

In order to include also those grantees whose activity is still ongoing or is to be carried out during this WBP, the 2nd STSM Conference is schedules in September 2022

Number of expected total participants: 50 per event

Outputs: Official Action book of abstracts

recorded presentations (upon granted permissions) edited and hosted on the action website and made publicly available







Long term planning: 5th MC meeting

Relation to GP goals: GAPG6 and GAPG7

Location: online (in order to ensure the full presence of all members in the framework of a still possibly ongoing pandemic situation)

Date: 2022-07-11 from 9 am to 2022-07-11 1 pm (1day)

Main organizers: Action Chair and GH Manager







CA17140 Final Conference

Relation to GP goals: GAPG1, GAPG2, GAPG3, GAPG4, GAPG5, GAPG6 and GAPG8

Conference title: CA17140 Final Conference

Conference type: hybrid (in person and online, to ensure the maximum participation from all CA17140

members)

Location: University of Trieste (home of the Action chair) (the location has all facilities to provide a safe in-person environment and online conference broadcasting)

Organizer: The Action Chair + Scientific and Organizing Committee (TBD but involving several Young/Innovator members)

Date: from 2022-07-11 at 1 30 pm to 2022-07-12 6 pm (2 days)

Number of expected total participants:

150 people/day – presence sheet signature /online access check required (16 to be reimbursed by COST)

Note: the choice of the CA17140 Final Conference date and modality is related to budget considerations







CA17140 Final Conference

Event description:

- Oral presentations will be preferred and a poster session will also be featured
- A further virtual poster session will also be guested
- The event aims at presenting major efforts/results gathered during the Action
- Young researchers/Innovators will be especially involved (in the Scientific and organizing Committee as well)
- Up to three keynote speakers will be invited to give milestone presentations about the major action topics
- Preliminary Conference agenda: the three keynote speakers will deliver the opening lecture the first day and the two opening lectures in the morning and afternoon of the second day, respectively
- Each keynote will be followed by oral presentations from different WG representatives
- Poster viewing will be available during the entire event

Outputs:

- Book of abstracts; recorded lectures (after written consent) will be hosted on the action website
- global conference overview on the website







CA17140 2nd Training School

Relation to GP goals: GAPG1, GAPG2, GAPG3, GAPG4 and GAPG8

Training school title: Cancer Nanomedicine Training School

Location: Warsaw University of Life Sciences (PL, ITC)

Local organizer: Prof. Sławomir Jaworski

Date: from 2022-09-01 at 9 am to 2022-09-03 at 6 pm (3 days)

Number of expected total participants:

10 trainers and 30 trainees (30 trainees to be reimbursed by COST)







CA17140 2nd Training School

Event description:

- The Second CA17140 Training School (TS) will bring together researchers from different disciplines with a unique and exciting format to learn the most current information about nanobiotechnology and nanomedicine advances
- It will be a perfect platform to share experience and foster collaborations

Aims and scope:

- This TS will address progress and prospects for nanomedicine, with special emphasis on in vitro and in vivo nanotoxicology and angiogenesis
- Some topics covered: glioblastoma, breast cancer and lung cancer
- Hands-on sessions on in vitro/in ovo assessment of nanoparticles against cancer, viability, morphology, and angiogenesis and in vivo toxicology
- This will be further complemented by practical information and advisory; comprehensive talks, special sessions, debates, and new perspective for future scientific cooperation

Outputs:

- increasing awareness of toxicity of nanosystems among Young Researchers/Innovators and senior researchers
- increasing knowledge about nanomedical applications in cancer treatment among Young Researchers/Innovators and senior researchers
- increasing laboratory expertise with special focus on in vivo techniques









"Science and the Action"

To foster and promote Action networking, knowledge exchange and general activity

Science and the Action: A bi-weekly 1-hour online series of seminars proffered by ACTION MC and/or any Action Member (young researchers and Innovators most welcome)

Location: online (no budget need, complying with COST recommendations under pandemic situation)

Date: Every 1st and 3rd Friday from 3 to 4 pm

Event description:

Each presentation (about 30 minutes, followed by Q&A) may consist in:

• Report of scientific activity/results, seminar on specific technique(s), laboratory presentation....

Organizers: Action Chair and Vice-Chair (Dr Nazende Günday Türeli) with an Organizing Committee to be selected among Young Researchers/Innovators upon open call

As MC members, you are strongly encouraged to send your contribution (title and preferred date) to N.Guenday-Tuereli@mybiotech.de (AND CC to cost_action_17140@icloud.com) starting TODAY!

The invitation to other Action members will be sent immediately after the MC meeting closure







Other online activities

Two further activities in the form of online webinars are foresee:

- Online webinars dedicated to mentoring academic and industrial career of Young researchers/Innovators (on demand)
- Online webinars involving major European Entities and Governing bodies in the Action field (e.g., EMA, ...)

Proposals from the MC members (and from all Actions members) are highly recommended and most welcome

Please inform the Chair and vice-Chair about your ideas and proposals









Long term planning

Creating an Action critical mass to form Consortia within the Action to apply for international grants:

- Horizon Europe
- ERC Synergy grants
- ERC individual grants
- EuroNanoMed calls
- Other International and National agency calls...

According to the EC statistics, proposal stemming from COST Actions have higher success rates!







Action extension

There is the possibility to apply for an Action extension

- Based on the rules, extension can be 6 months maximum
- Extension request must be approved by MC with e-voting (to be issued after this MC meeting)
- Extension must be submitted at least 6 months before action end date -> March 26th is the last date for our Action
- No further budget is foreseen but eventual underspending can be carried over to the extension (and the WBP must be prepared)
- A detailed justification for the extension must be described in the request → no COVID-19 reasons accepted
 - All MC members and Action members must help in providing these justification on the basis of scientific, technical and networking reasons







Dissemination planning







Dissemination planning/outreach activity

- Book from WG2 Conference
 - Planned in collaboration with the Horizon 2020 project Phoenix "Open InnovationTest Bed for Enabling Nano-pharmaceutical Innovative Products"
- To be applied to the Books Editorial of the Royal Society of Chemistry, for the Nanoscience & Nanotechnology Series (edited by Prof Nguyễn T K Thanh, University College London, UK)
- Title: Handbook for physicochemical characterisation of nanopharmaceuticals; Subtitle: Fundamentals, protocols, tips and tricks for facilitating quality, efficacy and safety evaluation of nano-enabled medical products
- Editors: Ivana Vinković Vrček & Evgeny Apartsin







Dissemination planning/outreach activity

- Book from the Action
 - The Chair will contact Elsevier and/or The Royal Chemical Society to establish the possibility to have a Book based on Action results
 - Chapters will span all 4 WGs and could be in the form of original work or review work (exclusively based on Action work)
- Thanks to our Action member, Prof. Bruno Sarmento, Elsevier has accepted to guest a special issue focused on our Action in European Journal of Pharmaceutical Sciences
 - All details are available on our website at:
 https://www.nano2clinic.eu/news/special-issue-european-journal-pharmaceutical-sciences-dedicated-our-action







Dissemination planning/outreach activity

Must increase general public awareness and public engagement

- Preparation of press releases/videos with Action results, projects and interviews to be disseminated to different countries press and media agencies
 - Focus on major scientific/technological output, events, etc.
 - All MC must contribute to these (but will also involve all Action members during the WG info days)
 - The SCC will create a dedicated page on the website to host the press releases/videos
 - The CG is already elaborating strategies for Action videos (thanks to Evgeny Apartsin)
 and there will be a call for MC members and Action members to volunteer
 - The contributions from Young Researchers/Innovators, from Industrial Members and from ITC Country Representatives are particularly important
- The successful involvement of EC citizens will be one of the most added value of this Action







Closing

"We should not be shy about being proud of where we are or ambitious about where we want to go."

President Ursula von der Leyen



