Topic: Exploitation of IMI project results

All information regarding future IMI Call topics is indicative and subject to change. Final information about future IMI Calls will be communicated after approval by the IMI Governing Board.

Topic details

Action type Research and Innovation Action (RIA)
Submission & evaluation process Single stage

Background and problem statement

A key challenge of any research funding scheme is to ensure that significant results, outputs and/or data generated during the lifetime of a project remain available and can be further exploited and valorised for maximum and long-term impact after the project finishes. Often, important scientific results reach the public domain via publication in relevant scientific journals. However, for some important results, the route to becoming available to the wider scientific community, or being fully exploited, remains a difficult path. Important results are defined as those with maximum potential long-term impacts on research and development, as well as on regulatory, clinical and healthcare practice.

Realising the full potential of project results within the timeframe available to the project is not always possible and sometimes may only be achieved through the involvement of additional expertise beyond the project.

In order for important results[1] from IMI projects to be integrated into general research and medical practice, significant outputs, important samples and/or data that have been generated by the large public-private investments need to be maintained and made available for future research by the whole scientific community. This might mean that new solutions paving the way to long term sustainability have to be identified.

This Call for proposals aims to provide initial/short term support so that significant results from IMI projects that have finished or are nearing completion become fully exploitable, available to all relevant end users, and fully sustainable.

Need and opportunity for public-private collaborative research

IMI projects are public-private partnerships between industrial members of EFPIA and other private and public stakeholders with a focus on tackling challenging bottlenecks in pharmaceutical research and development (R&D) and improving the delivery of healthcare to patients. Important project results have been developed based upon collaboration between public and private stakeholders. In order to ensure that these results are exploited fully and eventually benefit end users, the collaboration of public and private stakeholders and additional public and private support may be necessary to ensure that:

- the results are available to the wider scientific community and other relevant end users, and/or
- key industry and societal challenges can be tackled.

Exploitation might often be most successfully achieved via integration in healthcare systems and public research infrastructures.

[1] For the purposes of this Call, results are defined as that foreground generated under a IMI project from IMI Calls launched between 2008-2013.

To enable this exploitation, collaboration between private industries (especially EFPIA members), and different stakeholders such as academic experts, small and medium-sized enterprises (SMEs), regulatory agencies, patient organisations, public health institutes, and potentially public research infrastructures, is necessary. Convergence between innovative SMEs, larger companies, and academic institutions will ensure that the best approaches are sought to ensure the IMI results are further exploited in line with IMI2 objectives. Cross-country collaboration will bring together competences and facilities which are not available on a national level, avoid dispersion of the results, and contribute to maintaining European competitiveness in the field of biomedical research and innovation.

Scope

The objective is to ensure the optimal exploitation and sustainability of key results from IMI projects that have finished or are nearing completion, and where relevant activities had not been already included as a funded activity of the project. Results should be those with the greatest chance of significant impact, beyond the original project lifetime. In some cases, this might be best achieved by finding solutions that can be applied to results generated across more than one project, to avoid dispersion and duplication of efforts.

Proposals must be in line with the objectives of IMI2 JU[2], particularly by aiming at sustaining and exploiting key results of previous projects to improve processes for the development of new medicines and/or lead to an improvement of individual and public health.

It is essential that applicants demonstrate that the funding sought will facilitate and foster the exploitation and sustainability of results beyond the original objectives of the project(s) by providing the necessary intermediate solutions and funding for a maximum of two years. It is expected that at the end of this period, further exploitation and sustainability will be achievable.

Thus commercial exploitation is outside the scope of this Call.

Applicants should be aware that only the project results identified in the Annex I to the Topic Text are within the scope of this Call. As such, applicants must clearly indicate through their proposals which results they are utilising.

All participants from the listed projects have agreed and undertaken, in furtherance of the Call objectives, to make available[3] to any potential applicant relevant information sufficient to enable a proposal submission. Furthermore, they have agreed and undertaken to grant the necessary access rights for research use to the successful applicants as follows:

[2] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.169.01.0054.01.ENG

The IMI2 Joint Undertaking shall have the following objectives:

(a) to support, in accordance with Article 25 of Regulation (EU) No 1291/2013, the development and implementation of pre-competitive research and of innovation activities of strategic importance to the Union's competitiveness and industrial leadership or to address specific societal challenges in particular as described in parts II and III of Annex I to Decision 2013/743/EU, and in particular the challenge to improve European citizens' health and well-being;

(b) to contribute to the objectives of the Joint Technology Initiative on Innovative Medicines, in particular to:

(i) increase the success rate in clinical trials of priority medicines identified by the World Health Organisation;

(ii) where possible, reduce the time to reach clinical proof of concept in medicine development, such as for cancer, immunological, respiratory, neurological and neurodegenerative diseases;

(iii) develop new therapies for diseases for which there is a high unmet need, such as Alzheimer's disease and limited market incentives, such as antimicrobial resistance;

(iv) develop diagnostic and treatment biomarkers for diseases clearly linked to clinical relevance and approved by regulators;

(v) reduce the failure rate of vaccine candidates in phase III clinical trials through new biomarkers for initial efficacy and safety checks;

(vi) improve the current drug development process by providing support for the development of tools, standards and approaches to assess efficacy, safety and quality of regulated health products.

[3] The IMI1 foreground will be made available free of intellectual property (IP) rights and obligations for the implementation of the action(s) selected under the Call.

Where necessary, access to IMI background shall be granted to allow IMI foreground to be used for the purposes of this Call.

a) in the case of concluded Grant Agreements, royalty free access rights in accordance with article II.30 and II.31 of the IMI Model Grant Agreement[4];
b) in the case of ongoing Grant Agreements, royalty free access rights in accordance with article II.30 and II.31, and the additional measures beyond Article II.31 as required to effect access rights to third parties for the purposes of this Call.

The work to be supported will consist mainly of activities and measures to make the results available to the broader scientific community and as such may include measures to enable technology transfer and the analysis of regulatory aspects, as well as the standardisation and transfer of samples, databases, tools, etc. to sustainable infrastructures. In addition, the work may also encompass further activities should novel solutions/tools/methods be required to achieve the objectives of sustaining the results and ensuring their full impact. These could include adaptation of technologies to enable wider engagement, development of novel standardisation and/or interoperability measures, further development of scientific and business solutions, etc., as appropriate.

The applicants must demonstrate that the results to be exploited and sustained are viable for exploitation. A justification has to be included of the importance and value of sustaining these results for biomedical research and/or the delivery of healthcare, and to fulfil an unmet need of the end users, e.g. researchers or patients.

Proposals should clearly demonstrate that the solutions selected for achieving exploitation and sustainability of the results are fit for purpose, including when relevant attention to standardisation and interoperability, and leveraging the latest knowledge and learning, allowing the results to enable further research beyond the state of the art.

Expected key deliverables

- At the end of the action, plans for the further exploitation and sustainability of results of IMI projects will have to be in place. Plans should include a clear value proposition for the end users to be targeted, for example: transfer to a sustainable infrastructure, technology transfer, etc.
- A convincing scientific and business solution that sustains key IMI project results without the need for further IMI funding beyond the duration of the funding of this Call.
- Measures to make the results available to the broader scientific community (public and private) beyond the duration of the sustainability funding to maximise the impact of the results on biomedical research and/or the delivery of healthcare.

Expected impact

It is expected that proposals selected for award under this Call will result in the future full exploitation of key project results in the scope of this Call (Annex I to the Topic Text) and their sustainability, which will stimulate the development of an open innovation model in biopharmaceutical research and contribute to the achievement of the objectives of IMI2 JU.

To ensure the expected impact, it is necessary that the most valuable solutions with maximum potential long-term impacts on research and development, as well as on regulatory, clinical and healthcare practice be identified. Some examples can be, among others, integrated and interlinked (translational) databases linked to biobanks that, when relevant, enable the sustainability of results from multiple projects. Other examples are well validated targets, assays, tools, biomarkers and models that require only limited further refinement for practical applications in drug development, regulatory and healthcare practices.

Thus to ensure the expected impact, applicants should seek out the best solutions to achieve the exploitation and long-term sustainability of the result, and identify relevant end users. Proposals have to include a clear

[4] http://www.imi.europa.eu/sites/default/files/uploads/documents/Rev_Grant_Agreement_2011/1_WP_2013_GA_Annex%20II_2013%2003%2013.pdf

argumentation of how the sustained assets will be effectively applied in future activities that will significantly move the field forward, create socio-economic impact, and bring significant benefits to the wider scientific and R&D community.

Where appropriate, the activities funded should prove the viability of the findings, methodologies, processes, prototypes, models, technologies, clinical trials etc., developed with a potential for application.

Overall, proposals should demonstrate an appreciation of the impact of exploiting the results with respect to:

- their long-term sustainability as a result of the exploitation activities;
- an impact on R&D, regulatory, clinical and healthcare practice as relevant;
- a strengthening of the competitiveness and industrial leadership (demonstrated by the ability to mobilise relevant industrial contributions) and/or addressing specific societal challenges, improving European citizens' health and wellbeing.

This impact is expected to be generated via mobilizing resources and relevant expertise from contributing partners[5] significant enough to ensure meeting the proposal specific objectives and contribute to the IMI2 objectives as a public-private partnership.

Potential synergies with existing consortia

While proposals must be based on results included in the table presented in the Annex I to the Topic Text, synergies with existing initiatives should be considered in order to favour solutions maximising the impact while avoiding duplication and fragmentation.

Consortia have to demonstrate that they have developed their proposal taking into consideration and leveraging already available and relevant research infrastructures in Europe.

Indicative duration of the action

Proposals should include an appropriate duration for the action in relation to the activities and action work plan but should be no longer than 24 months.

Applicant consortium

Applicant consortia are expected to address all of the objectives and have the necessary expertise to produce the deliverables and ensure the expected impact as outlined in the Call text.

The size and composition of each consortium should be adapted so as to respond to the goals and the key deliverables. The consortium participants need to include participants as appropriate to exploit the targeted results in the most logical and efficacious manner.

While preparing their proposals, applicant consortia should ensure that all relevant stakeholders are engaged appropriately and that the needs of patients are adequately addressed and, where appropriate, patient involvement is encouraged.

[5] i.e. industries being EFPIA companies or organisations associated to EFPIA, and Associated Partners to IMI2 JU. If the contributing entity is not yet an affiliate or a constituent entity of an IMI2 Member other than the Union (i.e. EFPIA), or an Associated Partner at the time of the proposal submission, and the proposal is selected for funding, such a legal entity is invited to become an affiliate or a constituent entity of an IMI2 Member, other than the Union, or an Associated Partner in accordance with the IMI2 JU Statutes prior to the signature of the relevant Grant Agreement.

Applicant consortia will also be required to establish a robust legal/IPR apparatus that can facilitate the management and transfer of project results and sustainability efforts, including relevant ethical considerations, whilst remaining cognisant of, and consistent with, the IMI legal framework and associated project consortium agreements.

Applicants must pay particular attention to harnessing support from different stakeholders, including the mobilisation of funds through the inclusion of contributing partners – not necessarily involved in the original project – to reflect the public-private character of IMI actions. These mobilised contributions must be in addition to those already committed by any contributing partners when the original project(s) began.

Proposal preparation

Given the specific scope of this Call, when preparing their proposals, applicants must ensure the following points are covered in the relevant section of the proposal template:

- Result(s) chosen from those listed as in the scope of this Call have to be highlighted in the section of the proposal '1.2 Relation to the Call topic text'.
- A justification of the need and importance of further exploiting these results and expected value to be created, as well as how the funding under the present Call will trigger further long-term, self-standing sustainability. These activities should be confirmed as not being part of the funded activities of the original IMI project(s).
- A clear justification of the contributions mobilised to achieve the objectives.
- A description of the intended end-users and how they would benefit from the proposed exploitation and sustainability solution.
- All elements listed in the 'Expected Impact' section have to be addressed.
- A detailed explanation of the resources required and alignment with the budget requested.
- For entities that intend to contribute by becoming an Associated Partner of IMI2 JU, a request letter (http://www.imi.europa.eu/content/get-involved) has to be provided as an appendix to the proposal (this letter is not to be counted in the maximum number of pages).

Glossary

EFPIA	European Federation of Pharmaceutical Industries and Associations
IMI	Innovative Medicines Initiative
IP	Intellectual Property
R&D	Research and development
RIA	Research and Innovation Action
SMEs	Small and medium-sized enterprises
SRA	IMI2 Strategic Research Agenda
WHO	World Health Organisation

Note: the information in these tables is indicative and subject to change, and potential applicants should not contact the projects listed before Call launch.

Project acronym, title & number	Project results (IMI1 project foreground)	Foreground type	Reference to scientific publications / other public sources	Project website and contacts
EMTRAIN **European Medicines Research Training Network** **115015**	on-course®: a unique, independent, searchable, postgraduate course database containing over 7 600 courses for Masters, short courses and PhD programmes with >100 000 users. Now also used for research purposes. LifeTrain: established the principles for mutually-recognised lifelong learning and developed competency profiles, assessment of competencies and recognition / implementation processes - now part of the European Molecular Biology Laboratory (EMBL) conference series. Public-private partner (PPP) PhD workshops to increase industry awareness and support the acquisition of critical transferable skills. Toolkit for trainers: teaching methods for course developers. Extensive pan-European network including hundreds of thousands of biomedical scientists.	Databases Learning platforms	1. Payton A, Janko C, Renn O, Hardman M. on-course(®) portal: a tool for in-service training and career development for biomedical scientists. Drug Discovery Today 2013; 18: 803-806. 2. Payton A, Dallakian P, Fitton A, Payton A, Hardman H, Yuille M. Course fees and academic ranking: insights from the IMI EMTRAIN on-course® database. Drug Discovery Today 2013; 19 (7): 830 – 833. 3. Hardman M, Brooksbank C, Johnson C, Janko C, See W, et al. LifeTrain: towards a European framework for continuing professional development in biomedical sciences. Nature Reviews Drug Discovery 2013; 12: 407-408. 4. Aperia A, Dirach J, Hardman M, et al. It pays to promote joint PhD programmes between academia and the private sector. Journal of Medicines Development Sciences 2015; 1 (2): 37–40. 5. Klech H, Brooksbank C, Price S, Verpillat P, Bühler FR, et al. European initiative towards quality standards in education and training for discovery, development and use of medicines. European Journal of Pharmaceutical Sciences 2012; 45: 515-520. 6. www.on-course.eu 7. www.lifetrain.eu	www.emtrain.eu

Project acronym, title & number	Project results (IMI1 project foreground)	Foreground type	Reference to scientific publications / other public sources	Project website and contacts
EUPATI **European Patients' Academy on Therapeutic Innovation** **115334**	Certificate Patient Expert Training Course on medicines research and development (R&D). 98 certified Patient Experts in two course cycles. Pan-European workshop series on patient involvement in R&D. 'EUPATI Toolbox' and 'Internet Library' on medicines R&D in 7 languages, more than 50 000 users, add-on 'mini-course starter-kits' for short–courses. ~18 supported EUPATI National Platforms: launched: AT, FR, DE, IE, IT, MT, ES, CH, UK, PL; emerging: DK, SL, SR, NL, PT, GR; under construction: BE, LU. Guidance documents for interaction of patients/patient organisations with industry, regulators, health technology assessment (HTA) and ethics committees. Spearheaded public debate on patient and public involvement (PPI) in R&D.	Educational material on seven-language toolbox website and on EUPATI Moodle e-learning system Guidance documents on interaction of patient organisations with 4 stakeholder groups, text Pan-European network of key contacts in advocacy and PPI, database Patients involved platform, website	1. Pavitt S. EUPATI: An initiative to provide expertise in patient advocacy and in medicines development processes. Regulatory Rapporteur 2013; 10 (9). 2. Chakradhar S. Training on trials: Patients taught the language of drug development. Nature Medicine 2015; 21 (3): 209-210. 3. Parsons S, Starling B, Mullan-Jensen C, et al. What the public knows and wants to know about medicines research and development: a survey of the general public in six European countries. BMJ Open 2015; 5: e006420. doi: 10.1136/bmjopen-2014-006420. 4. Pushparajah DS, Geissler J, Westergaard N. EUPATI: Collaboration between patients, academia and industry to champion the informed patient in the research and development of medicines. Journal of Medicines Development Sciences 2015; 1(1): 74–80. 5. Parsons S, Starling B, Mullan-Jensen C, et al. What do pharmaceutical industry professionals in Europe believe about involving patients and the public in research and development of medicines? A qualitative interview study. BMJ Open 2016; 6: e008928. doi: 10.1136/bmjopen-2015-008928. 6. Korieth, K. (2016) Three resonating patient-centric initiatives. The CenterWatch Monthly 2016; 23 (7). 7. Organisation for Economic Co-operation and Development (OECD) Global Science Forum. Facilitating international cooperation in non-commercial clinical trials. 2011.	www.eupati.eu

Project acronym, title & number	Project results (IMI1 project foreground)	Foreground type	Reference to scientific publications / other public sources	Project website and contacts
PharmaTrain **Pharmaceutical Medicine Training Programmes** **115013**	Shared content and quality standards for post-graduate diploma and Master programmes in medicines development + implemented course recognition procedure + implementation of post-graduate certification as 'Specialist in Medicines Development' presented in the 'PharmaTrain Manual, Curriculum Standards and Best Practices'. Shared content and quality standards for post-graduate Master programmes in regulatory affairs. Clinical investigator certificate (CLIC) position paper on development of a responsibility-based clinical trial management training programme for clinical investigators and their staff.	Course Handbook for post-graduate diploma and Master programmes in pharmaceutical medicine and regulatory affairs Standard operating procedures (SOPs) and charters for national implementation of the post-graduate certification programme 'Specialist in Medicines Development' Position paper with syllabus and learning outcomes for the three levels investigator training in clinical trial management	1. Klech H, Brooksbank C, Price S, Verpillat P, Bühler FR, Dubois D, et al. European initiative towards quality standards in education and training for discovery, development and use of medicines. European Journal of Pharmaceutical Sciences 2012; 45: 515-520. 2. Boeynaems J-M, Canivet C, Chan A, Clarke MJ, Cornu C, Daemen E, et al. A European approach to clinical investigator training. Frontiers in Pharmacology 2013; 4: 112.	www.pharmatrain.eu
Open PHACTS **The Open Pharmacological Concepts Triple Store** **115191**	The Open PHACTS Discovery Platform offers semantically integrated life science data allowing to query across the concepts compounds - targets - pathways - diseases. A well-structured application programming interface (API) allows standardised access and data retrieval.	Semantically integrated life science data	1. Williams AJ, Harland L, Groth P, Pettifer S, Chichester C, Willighagen EL, et al. Open PHACTS: Semantic interoperability for drug discovery. Drug Discovery Today 2012; 17: 1188-98. doi: 10.1016/j.drudis.2012.05.016. 2. www.openphacts.org/news-and-events/publications	www.openphacts.org

Project acronym, title & number	Project results (IMI1 project foreground)	Foreground type	Reference to scientific publications / other public sources	Project website and contacts
RAPP-ID **Development of RApid Point-of-Care test Platforms for Infectious Diseases** **115153**	Breath sample technology: this technology is intended for capturing non-volatile components of exhaled breath for patient diagnostic purposes. The device, labelled BESS (Breath ElectroStatic Sampler), is based on electrostatic capture of microbe-containing aerosols present in exhaled breath. The BESS features a liquid capture interface, allowing collection of exhaled breath particles directly into microliters of buffer, the latter being adaptable to any biological assay of interest. The BESS has been designed with disposability in mind, using cost-saving plastics, along with one-time-use collectors to eliminate cross contamination between patients and saving time. Early-stage studies with influenza-infected patients of the usage of BESS versus swab sampling indicate a strong preference for BESS-collected samples, rather than the standard nasopharyngeal swab collection.	Prototype	1. Ladhani L, Pardon G, van der Wijngaart W. A 3D microfluidic cage collector for airborne particles. 19th International Conference on Miniaturized Systems for Chemistry and Life Sciences, October 25-29 2015, Gyeongju, South Korea. www.rsc.org/images/LOC/2015/PDFs/Papers/0079_1B3-4.pdf	www.rapp-id.eu
WEB-RADR **Recognising Adverse Drug Reactions** **115632**	WEB-RADR has delivered a mobile app for adverse drug reaction (ADR) reporting, regulatory news and ADR data. WEB-RADR can make available software code, images, and databases developed through the project. Additionally, the backend connections and rules between the World Health Organization Uppsala Monitoring Centre (WHO-UMC), national authorities and the apps are a shared resource, developed through WEB-RADR. The foreground can be described in sufficient detail to provide a sense of the capabilities. However, data security is paramount because a too detailed public description could expose	Databases Technology platform	1. https://itunes.apple.com/gb/app/yellow-card-mhra/id990237487?mt=8 2. https://itunes.apple.com/mg/app/bijwerking/id1060529495?mt=8 3. https://itunes.apple.com/us/app/halmed/id1080314179?mt=8 4. https://play.google.com/store/apps/details?id=uk.org.mhra.yellowcard&hl=en_GB 5. https://play.google.com/store/apps/details?id=nl.lareb&hl=en_GB 6. https://play.google.com/store/apps/details?id=hr.halmed&hl=en_GB	www.web-radr.eu

Project acronym, title & number	Project results (IMI1 project foreground)	Foreground type	Reference to scientific publications / other public sources	Project website and contacts
	systems to outside malicious actors. Therefore, the level of information that is transferred must meet the security requirements of each existing country using the app.			
GetReal Incorporating real-life clinical data into drug development 115546[6]	The web-based navigator tool has been designed to: a. guide medicine development/evidence generation strategy: b. provide a methodological platform to provide options for study designs and analytical approaches; c. guide users towards more detailed material, publications and case studies reported by each GetReal work package (WP); d. direct users to authoritative external guidance and sources. Research and policy recommendations on the use of real world evidence (RWE) in drug development and stakeholder decision making in addition to recommendations around the use of the research tools, key outputs of simulation studies and methodological recommendations generated in GetReal. PragMagic: a decision support tool for pragmatic trial design aimed at facilitating the design & planning of pragmatic trials, by providing insights into the consequences of design choices & possible operational challenges to maximise the generalisability of trial findings while ensuring validity and operational feasibility.	Website Software tools Online education and Training programme	Information on all aspects of the project foreground included in this call are publically available at the following sources: 1. General information about GetReal and all relevant publications can be found on the GetReal website https://www.imi-getreal.eu 2. The Navigator can be accessed via: http://rwe-navigator.nice.org.uk 3. Details of the all the deliverables described in this Call can be can be found at: https://www.imi-getreal.eu/Events/Stakeholder-Conference 4. Additional information regarding all key foreground listed are available via the GetReal website (slides and materials shown at stakeholder meeting of 24 November 2016, Brussels).	www.imi-getreal.eu

[6] This list is provisional upon finalisation of the inclusion of Foreground from the GetReal project.

Project acronym, title & number	Project results (IMI1 project foreground)	Foreground type	Reference to scientific publications / other public sources	Project website and contacts
	ADDIS software: a system that allowed us structured clinical trials data. We support the automated discovery and (meta-) analysis of trial data, as well as benefit-risk assessment. Education and training materials on a remote e-learning platform intended to simultaneously discover the possibilities of, and the requirements on, a database of Increase knowledge and skills about topics that are at the core of the GetReal project, with a particular emphasis on the connection between methodology development and its practical applications within companies, regulatory agencies and HTA bodies. GetReal platform for the engagement of key stakeholders.			