Call for Feasibility Studies
EPSRC Future Manufacturing CMAC Research Hub

Call Type: Invitation for Proposals
Closing Date: 16:00 on Thursday 1st October
Related themes: Manufacturing the Future

Summary
The EPSRC Future Manufacturing CMAC Research Hub is offering funding to support four Feasibility Studies at TRls 1 – 4. The funding is available for novel short-term research studies of advanced manufacturing technologies to complement the current Hub research programme of advanced pharmaceutical manufacturing. This call seeks to support studies primarily aligned with innovative approaches to digital design and application of advanced measurements.

The call is open to all UK academics eligible to receive EPSRC funding and is the primary mechanism for new academic collaborators to engage with the Hub. Awards are limited to a maximum of £60k at 80% FEC and for a project duration of 6-12 months. This call seeks to stimulate applications from existing groups where there is opportunity to leverage significant existing activity that would lead to an ongoing collaboration following feasibility studies. To facilitate active collaboration a Hub Champion will be assigned to work with each funded proposal.

Key Dates

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
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<tr>
<td>Call launched</td>
<td>Thursday 20th August</td>
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<tr>
<td>Closing date for expression of interests</td>
<td>Wednesday 16th September</td>
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<td>Closing date for applications</td>
<td>Thursday 1st October</td>
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<td>Evaluation of Applications by</td>
<td>Friday 16th October</td>
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<td>Awards announced</td>
<td>Wednesday 21st October</td>
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Projects must start within 3 months of receipt of the offer letter

CMAC Hub Background
CMAC is an internationally leading medicines manufacturing research Hub. Our ambitious research and technical translation activities led from our unique award-winning facilities, at the University of Strathclyde, provide a nurturing environment for training the workforce of the future. Operating a Hub and spoke model with 6 academic partners (Universities of Bath, Cambridge, Leeds, Loughborough, Sheffield and Imperial College London) CMAC was co-created with industry Tier 1 partners (AZ, GSK, Novartis, Bayer, Lilly, Roche, Takeda and Pfizer) and attracts support from a broad range of Tier 2 partners. We have a long-term vision to transform medicines manufacture, development time and cost to market through the use of Digital twins and MicroFactories. The CMAC hub which was launched in January 2017 will deliver predictive design tools and novel integrated continuous processing platforms for the supply of next generation high performance products (Figure 1).
Figure 1. CMAC Hub is researching and developing novel manufacturing technologies

Scope of the Call
Current research activity is largely focussed on those areas outlined in Figure 1. Feasibility call proposals will be complementary to overall research scope and Hub vision and establish new activity in the areas of:

- Innovative approaches to digital design to continuous processes or pharmaceutical products
- Application of advanced measurement to understand material of formulated systems
- Potential application of continuous technologies beyond small molecule pharmaceuticals

Funding Available
The maximum funding available for each funded project is £60k for a duration of up to 6 months. Where feasible applicants are encouraged to propose a co-funding model to extend project duration up to a maximum of 12 months. The £60k represents 80% of the Full Economic Cost (FEC). Institutions are requested to itemise bills based on 100% FEC and then invoice at 80% FEC.

Eligibility
This call is open to all UK academic institutions (including existing Hub and Spoke institutions), where applicants must be eligible to hold an EPSRC grant. If you need guidance on eligibility, please visit https://epsrc.ukri.org/funding/applicationprocess/fundingguide/eligibility/investigators/

How to apply
Prior to submitting a written application please contact Hub Programme Manager, Dr Andrea Johnston (andrea.johnston@strath.ac.uk) to express interest. Expression of interest should be no more than 1 page of A4 submitted by email outlining research area and track record of applicants. Applicants will be notified by Friday 18th September if they should submit an application.
Feasibility study applications should be submitted in MS Word/PDF format to Hub Programme Manager (andrea.johnston@strath.ac.uk). Applications should be in the range of 2-4 sides of A4, using a standard 11pt font. Proposals should include, but are not limited to, the following content:

1. Research title, organisation and name of investigator.
2. Start date and duration. Project maximum funding available for projects is £60k for maximum duration of 6 months, unless applicants wish to co-fund to extend duration to 12 months.
3. Context, aim and objectives and benefit of work, including relevance to Centre strategy and fit to remit of the call.
4. A statement of the novelty of the proposed work.
5. Short outline of project plan with milestones and deliverables, including suggestion of who will carry out the work.
6. A plan to show how you will attract further funding if your idea is feasible and the research is successful.
7. Evidence of industrial support
8. Proven capabilities of the research group to deliver.

Please also supply an annexe covering a breakdown of FEC in the categories: Directly allocated, Directly Incurred, Indirect Costs and Exceptions.

**Assessment process**
Submissions will be considered by a panel consisting of members from the Hub Independent Advisory Board, Hub Management Committee and Hub Technical committee. The evaluation criteria for applications will be:

1. **Suitability**: Does the proposal address one or more of the topics outlined in the call and is the proposal at an appropriate TRL?
2. **Research Quality**: Is the proposal likely to result in high quality research outcomes, in the form of journal publications, patents etc.?
3. **Novelty**: Does the proposal contain genuine scientific novelty and is the work timely? Is it being addressed elsewhere?
4. **Relevance**: Is the proposal complementary to existing Hub research and is it relevant to the interests of industrial partners or represent the opportunity to significantly improve the U.K.’s manufacturing capability?
5. **Ambition**: Does the proposal offer suitable levels of challenge, ambition and risk? High-risk, high return studies are encouraged.
6. **Potential**: Is the approach credible and will the team be able to deliver? If feasibility is demonstrated is there potential for developing a larger collaborative project, either at a similar fundamental level or at higher TRLs?
7. **Planning**: How well has the proposal been planned? Are the requested resources appropriate to deliver the proposed programme within the timeframe and have they been fully justified?

**Contacts**
For further details please contact the Hub Programme Manager, Dr Andrea Johnston (andrea.johnston@strath.ac.uk) or Hub Director, Prof Alastair Florence (alastair.florence@strath.ac.uk).