Innovate UK - Supporting Research Development & Manufacturing in Advanced Therapies

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Innovate UK
Innovate UK – the UK’s innovation agency

Innovate UK drives **productivity and growth** by supporting businesses to realise the potential of new technologies, develop ideas and **make them a commercial success**.

To **stay competitive as an advanced economy**, we need to do things that others cannot do, or to do things in different and better ways.
Investment of £2.2bn since 2007

Industry match funding taking the total value of projects above £3.75bn

Up to £16bn in added value to the economy

We’ve funded around 11,000 projects

8,000 unique organisations involved

Up to £7.30 for every £1 we’ve invested.

8 jobs for each organisation involved

70,000 jobs created in total
Innovate UK

Accelerating UK economic growth through funding and connecting business-led innovation

Business

People

Innovation: Delivering Better Outcomes

Place

Infrastructure

Knowledge

Economy

Society
Economic / societal challenges

- Global population, + 2Bn to 9.7Bn by 2050
- +50% more food required by 2030
- Healthcare costs rising > GDP
- Prevalence of chronic illness & diet related disease increasing

Market potential

<table>
<thead>
<tr>
<th>Sector</th>
<th>Market</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>$1.7Tn</td>
<td>2025</td>
</tr>
<tr>
<td>Healthcare IT</td>
<td>$202Bn</td>
<td>2025</td>
</tr>
<tr>
<td>Medical Technology</td>
<td>$583Bn</td>
<td>2025</td>
</tr>
<tr>
<td>Food (Retail)</td>
<td>$4.0Tn</td>
<td>2016</td>
</tr>
<tr>
<td>Agriculture</td>
<td>$2.4Tn</td>
<td>2016</td>
</tr>
</tbody>
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Mechanisms

- CR&D competitions
- Catapults and Agri Centres
- Biomedical Catalyst
- AgriTech Catalyst
- SBRI
- KTP

Priority themes

- Precision Medicine
- Medicines Discovery
- Advanced Therapies
- Agricultural Productivity
- Food Quality

Partnerships

- BEIS, DH, OLS, DIT, Defra, DfID
- Devolved Administrations
- Research Councils
- ABPI, BioIndustry Association
- British In Vitro Diagnostics Association
- Agricultural Levy Boards

Place

- Heatmap of sector funded projects
Partnerships in health and life science
Regenerative Medicine Programme
2009 – 2017

Innovate UK
Regenerative Medicine Programme

• Established in 2009 - through £20m investment from Innovate UK and partners
• Work to complement UKRMP and other Innovate UK groups (e.g. Stratified medicine)
• Support wider definition of regenerative medicine and cell therapy
Supporting the UK regenerative medicine & advanced therapies sector

£75m
Regenerative medicine + cell & gene therapy CR&D grants

+£36m
Additional funding from industry

>147
R&D projects funded

In addition to our Regenerative Medicine & Cell Therapy themed CR&D competitions companies have been successful in securing grants through Biomedical Catalyst Smart KTP Materials & Manufacturing and other themed competitions
Cell and Gene Therapy Catapult

- Established by Innovate UK in 2012
- Taking therapies into clinical trial, de-risking future investments
- Provide technical expertise & infrastructure to develop manufacturing processes for GMP
- Understanding health economics, reimbursement and business models
- Help businesses manage the regulatory environment
- 2014 - CGTC, through Innovate UK, awarded £55m to establish a large-scale manufacturing centre for Phase III clinical trials and commercial supply
Advanced therapies project lead companies
Advanced therapies project lead companies
Cell Medica: Transforming patients’ lives through cellular immunotherapy

- Phase I/II clinical trial of cell therapy for treatment of infection in bone marrow transplant paediatric patients
- GOSH, Newcastle, Manchester
- Company growth from 4 to over 70 employees
- Secured £110m series B and C funding
Oxford Biomedica: Multi-million gene therapy deal

- Various funding awards, including from the Biomedical Catalyst
- Clinical trials and manufacturing of gene therapy for Parkinson’s and corneal graft rejection
- $90 million deal with Novartis, plus other deals with, e.g., GSK, Sanofi, Green Cross LabCell
ReNeuron: Working in collaboration to scale-up manufacturing

- Collaborating with the Cell and Gene Therapy Catapult and academia to scale-up manufacturing
- Process technology, assay and quality by design expertise
- Over £68m investment including support to develop new base in Wales
TrakCel

- £150K LaunchPad award
- Collaboration with the Cell and Gene Therapy Catapult
- £125K Welsh Government investment
- £315K award within Horizon 2020 cancer cellular therapies consortium
- Announced 20 new jobs, growth 15 to 35 staff, 2015-2018
We can’t stop thinking about the future

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