

MRC Careers and Skills

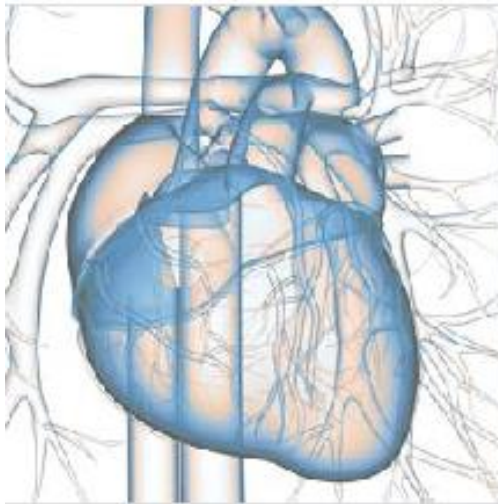
Dr Anna Kinsey

Medical Research Council

22 November 2017

MRC history

- **The Medical Research Committee and Advisory Council** was set up in **1913**, initiating its own research programmes and funding research by outside bodies or individuals.
- Became the **Medical Research Council** in **1918** and received a Royal Charter. The 'Haldane Principle', that the MRC should make scientific decisions independently from government, was also first proposed in 1918.

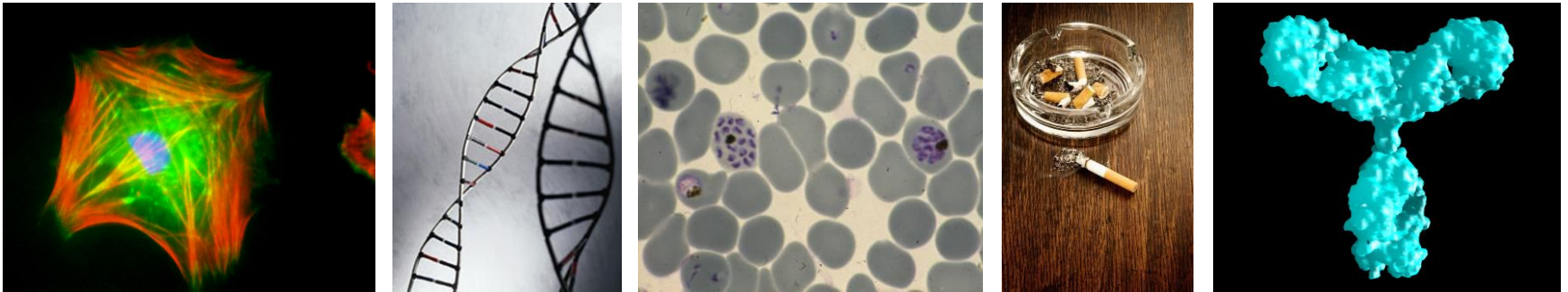


MRC mission

- Encourage and support high-quality research with the aim of improving human health.
- Produce skilled researchers.
- Advance and disseminate knowledge and technology to improve the quality of life and economic competitiveness in the UK and worldwide.
- Promote dialogue with the public about medical research.



MRC discoveries and developments



- Rickets caused by lack of vitamin D (1916)
- Discovery and development of penicillin (1940s)
- Pioneered randomised controlled trial design (1940s)
- Discovery of link between smoking and cancer (1950s)
- Clinical trials for radiotherapy for cancer (1960s)
- Clinical trials of chemotherapy for leukaemia (1970s)
- Invention of DNA fingerprinting (1980s)
- Gene for Huntington's disease discovered (1990s)
- Humanised therapeutic antibodies in widespread use (2000s)
- Treating age-related macular degeneration with stem cells (2010s)

MRC Strategic Plan 2014-2019

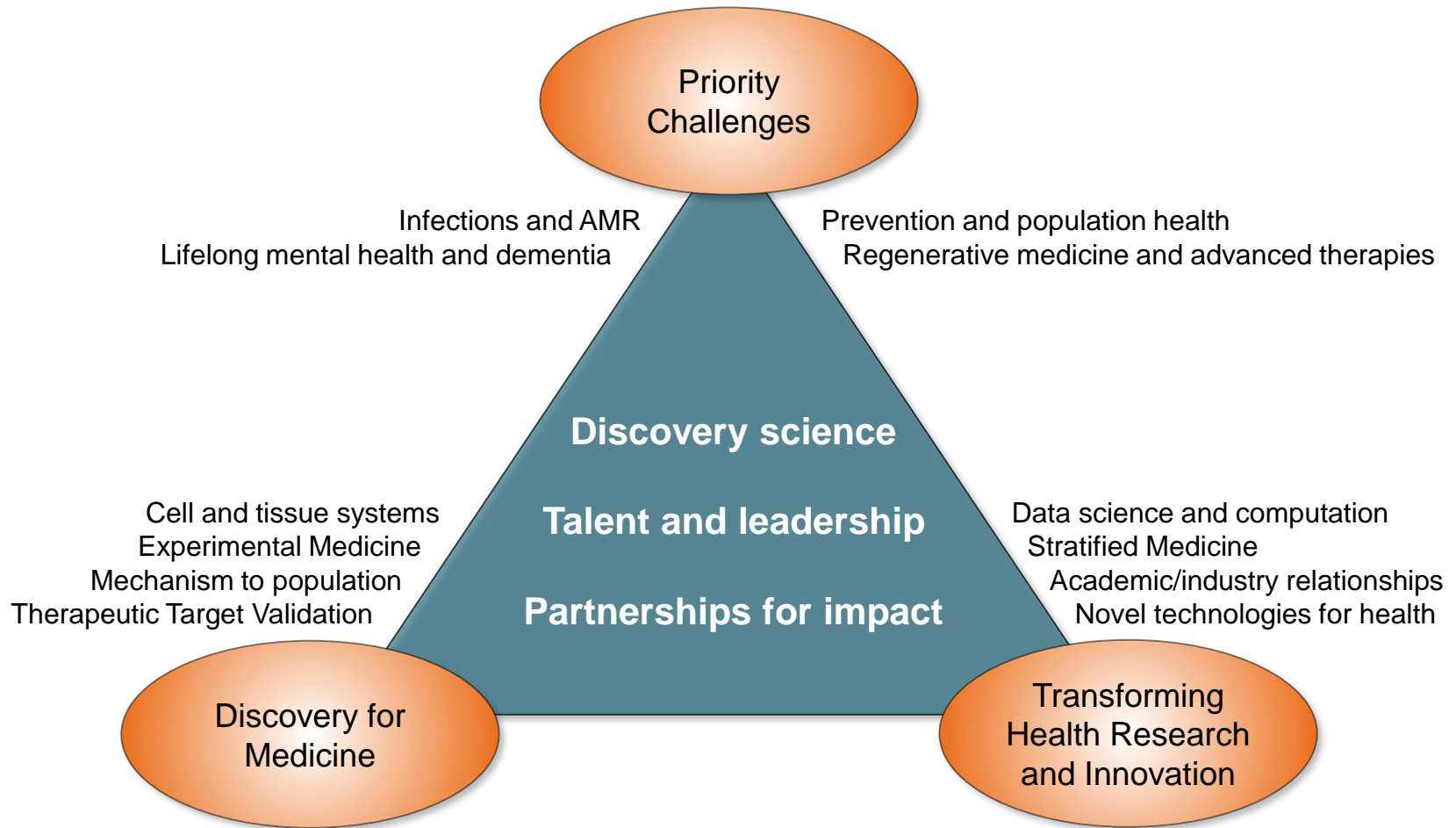
Research Changes Lives 2014-2019

Strategic intent: to support excellent discovery science and partnerships to promote translation to accelerate the pace of improvements in health and wealth.

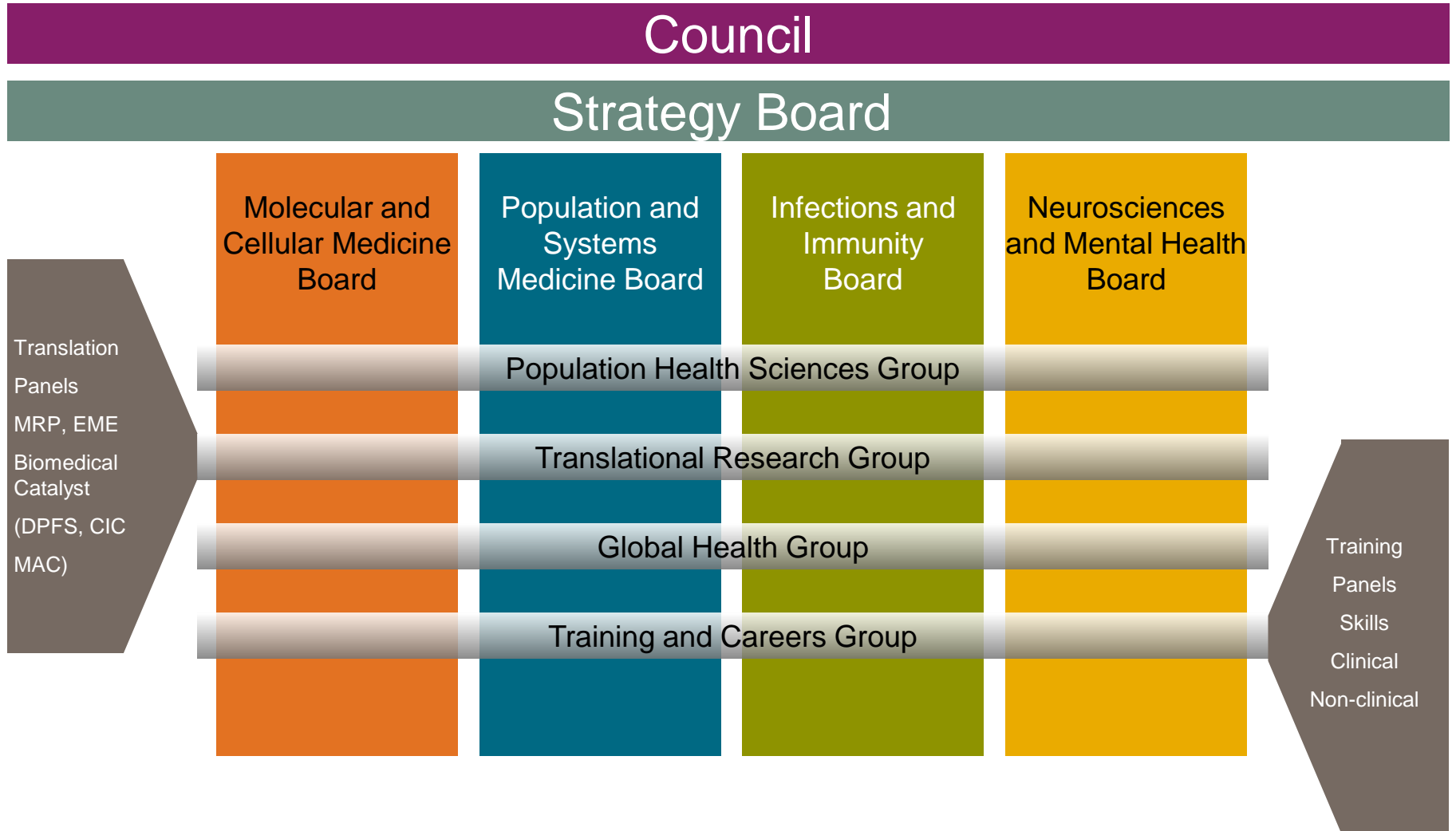
- Strategic Aim One: **Picking research that delivers**
Setting research priorities which are most likely to deliver improved health outcomes
- Strategic Aim Two: **Research to people**
Bringing the benefits of excellent research to all sections of society
- Strategic Aim Three: **Going global**
Accelerating progress in international health research
- Strategic Aim Four: **Supporting scientists**
Sustaining a robust and flourishing environment for world-class research



The MRC's UK and global priorities for a healthier society, increased innovation and productivity



MRC structure



MRC remit and partners

- **MRC: basic research to early clinical trials**

- Underpinning and aetiological
- Prevention
- Detection and diagnosis
- Treatment development & evaluation
- Phase 1 & 2 trials

- **Other funders/partners**

- Government departments, especially Health
- Other Research Councils
- Medical Charities
- Industry
- Innovate UK



MRC

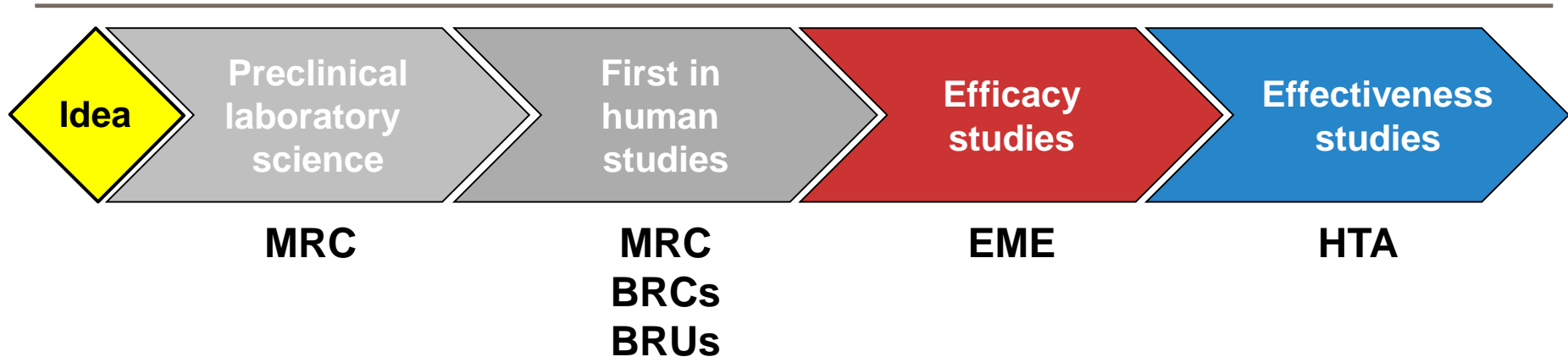
BBSRC

NIHR/CSO/H&CR/HSCN

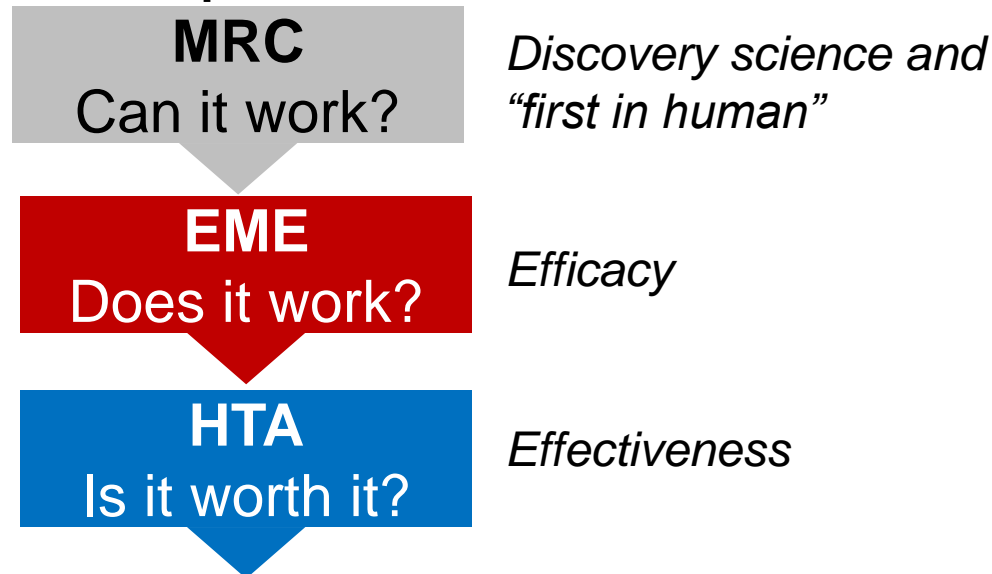
Medical Charities (e.g. Wellcome Trust, CRUK, BHF etc)

Innovate UK

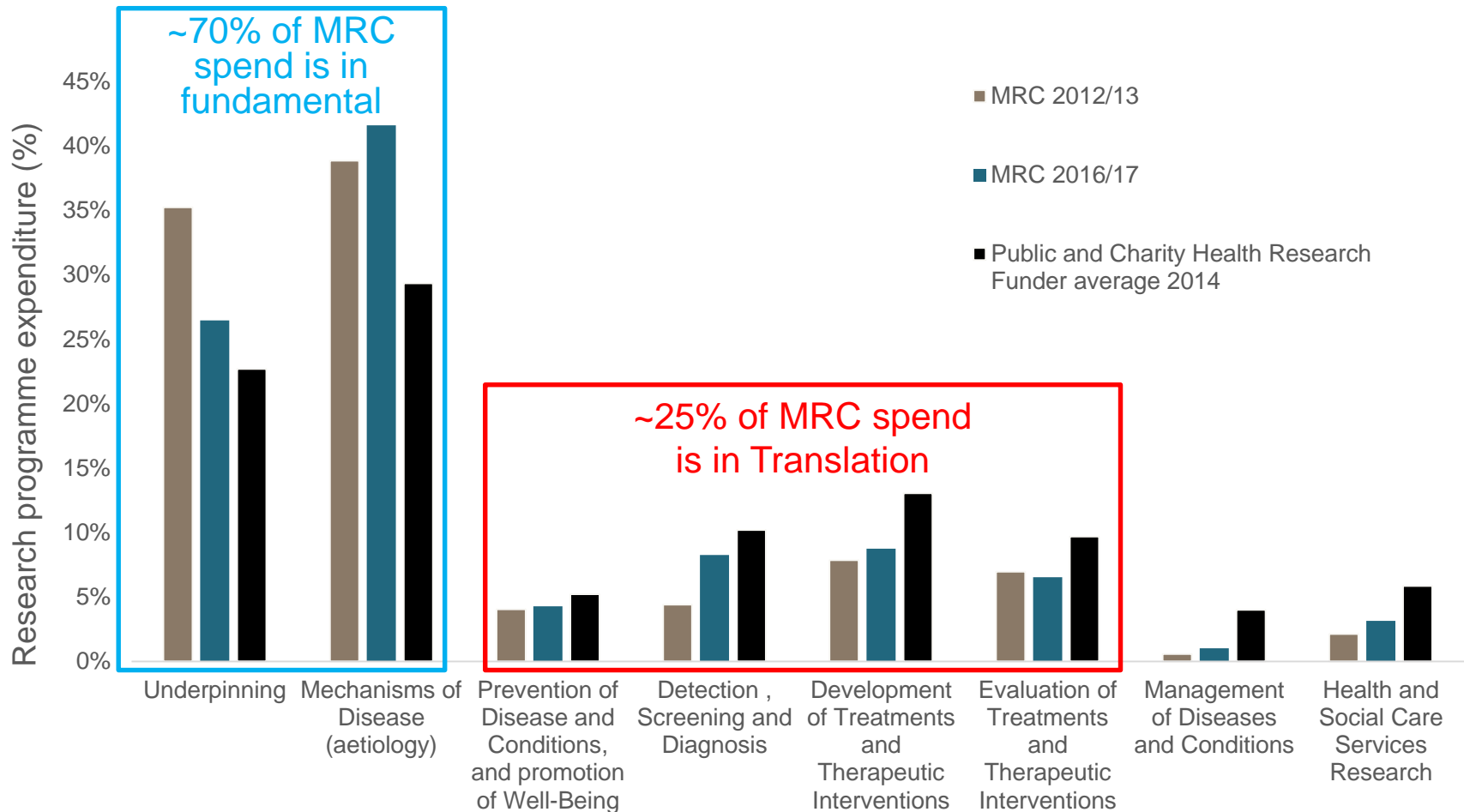
MRC/NIHR clinical research: the Managed Translational Pathway



In simple terms:



MRC Portfolio: 5 year trend

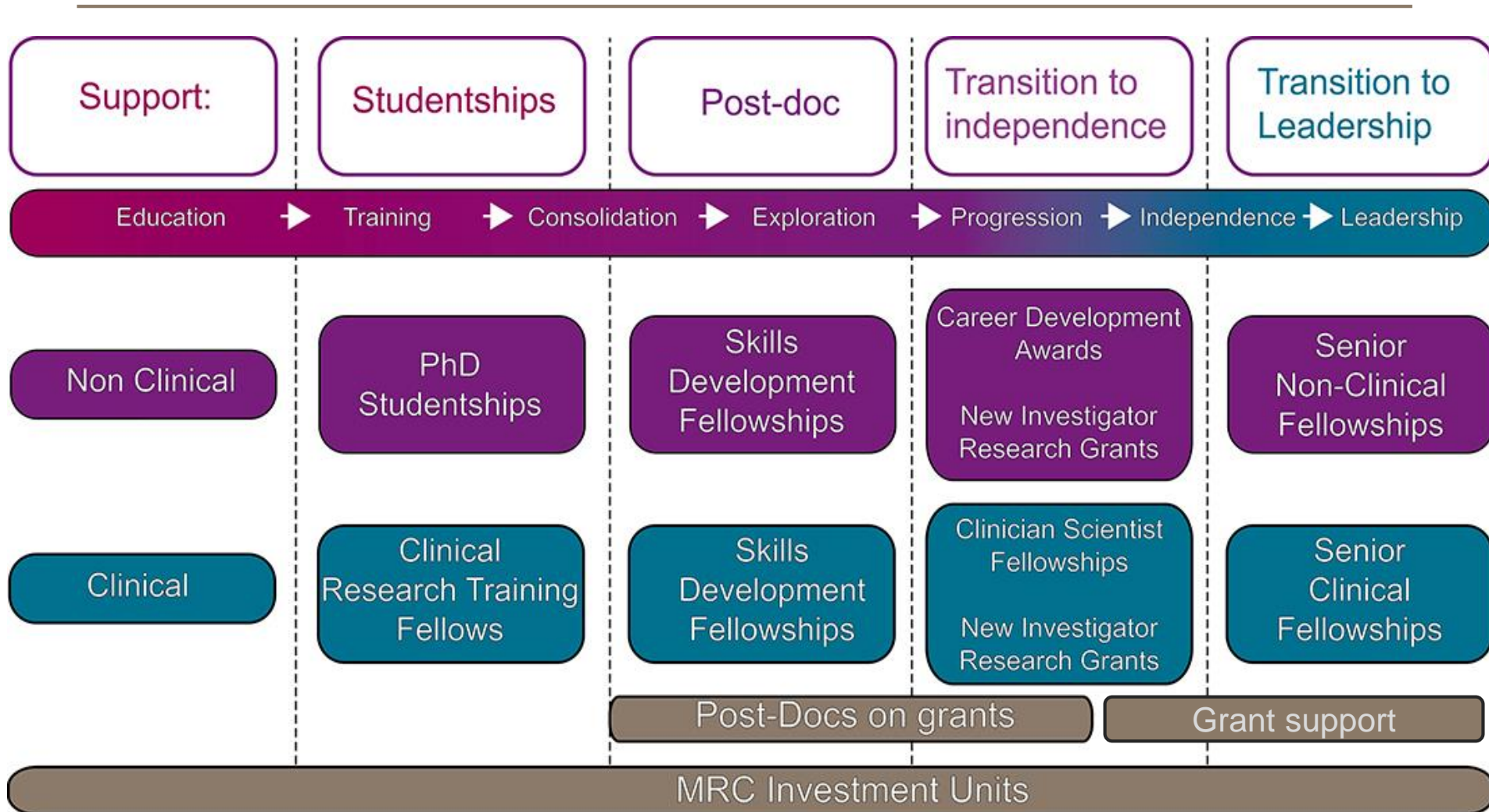


MRC investment in research, 2016/17

MRC gross research expenditure - **£755.5m** in 2016/17

- **£358.3m** on grants to researchers in universities, medical schools and research institutes.
- **£159.1m** on programmes within the MRC's own units and institutes including £4.9m on studentships.
- **£160.3m** on programmes within university units, including transfer of property, plant and equipment with a net book value of £19.1m.
- **£60.7m** on studentships and fellowships in universities, medical schools and research establishments.
- **£17.1m** for international subscriptions.

MRC Supporting Key Career Stages



Supporting flexible careers

Support: clinical and non-clinical researchers

Funding: no pre-set limits – subject to peer review of ‘value for money’

Flexible funding policies

- No age limits
- Return from a career break
- Awards can be held P/T
- Support for parental/sick leave
- Mentoring, induction workshops, Annual Symposium

Increased support for flexible careers

- Time since PhD eligibility criteria removed
- Career breaks – guidance for reviewers and applicants
- Increased support for career re-entry scheme
- Supporting transitions

MRC Vision for Fellowship Support

MRC fellowships are personal awards for talented researchers to support key transition points in their careers. They support:

- Individuals **transitioning** to the next level in their careers, normally through a change from an existing / current role
- **Protected time** to focus on your own research, shielded from other professional commitments (e.g. teaching). Clinical fellows may undertake clinical duties as part of their award
- Funding for a challenging research project and an ambitious programme of research training which offers accelerated personal and **career development**
- Progression towards fulfilling long term career goals, which includes an aspiration to **strengthening** the UK research base
- A clear **commitment** from the Research Organisation to supporting, developing and mentoring the fellow

Skills Development Fellowships

EDUCATION

TRAINING

CONSOLIDATION

EXPLORATION

PROGRESSION

INDEPENDENCE

LEADERSHIP

- Training at early post-doctoral career stage or enable changes in discipline
- Focussed on priority areas requiring capacity building at this level

Quantitative Expertise: mathematics, statistics, computation and informatics applicable to any biomedical or health related data sources, from molecular to population level.

Expertise at Social Science interface: with a focus on areas of health economics and/or mixed methods research.

- Applicants should hold a PhD (or equivalent)
- No eligibility rules based on time since PhD completion
- 3 years support: full personal salary costs, together with support for consumables expenses, travel costs and capital equipment
- Support a period of research overseas, at a second UK institution, or within industry

Clinical Research Training Fellowships

EDUCATION

TRAINING

CONSOLIDATION

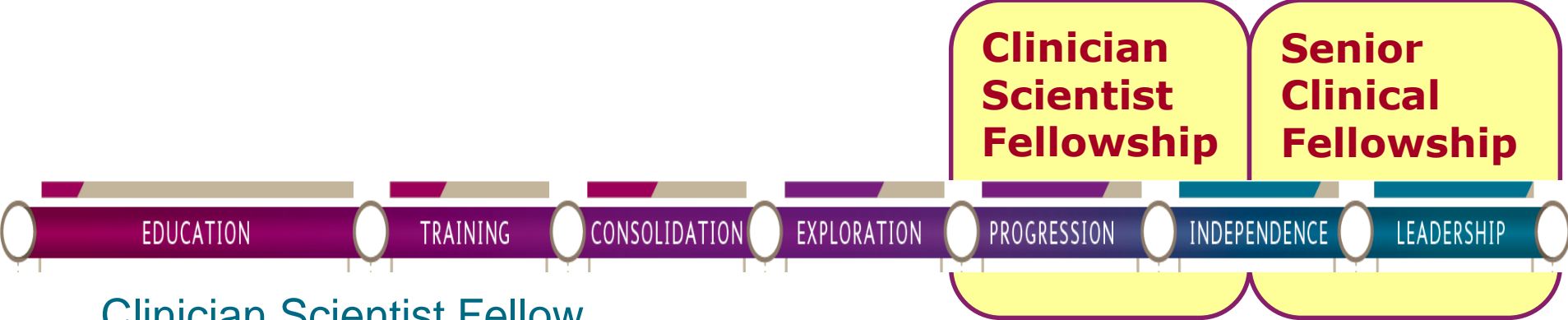
EXPLORATION

PROGRESSION

INDEPENDENCE

LEADERSHIP

- Early career entry for those with minimal previous lab experience
- Joint funding with charities and Royal Colleges
- 2 rounds p.a. (Jan and Sept)
- **Pre-doctoral**
 - Combining research with clinical sessions to maintain skills
 - For salary, research expenses (£20k p.a.) & animal/second centre training costs
- **Post-doctoral**
 - “catch-up” time to re-enter research



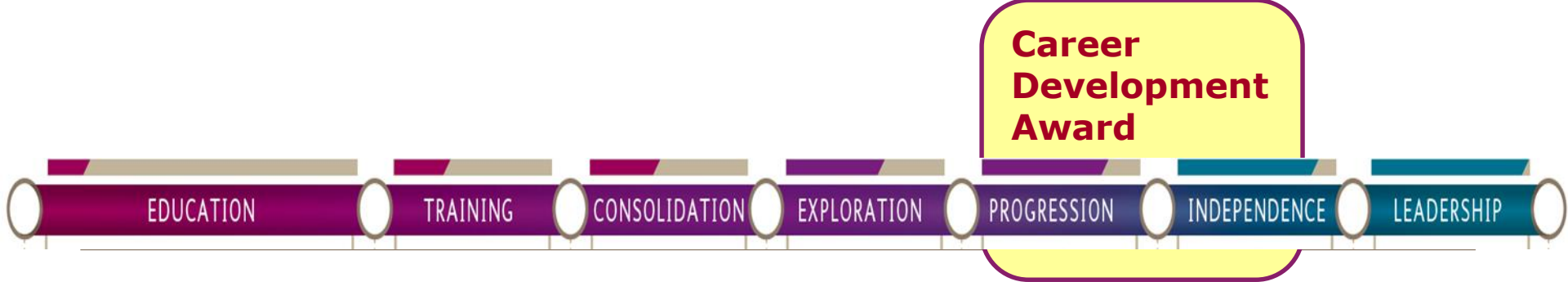
Clinician Scientist Fellow

- Clinically active individuals; transition to independence
- 4 – 5 years' support, Ave £1m
- Salary, research expenses (inc. support staff) & travel costs

Senior Clinical Fellow

- Clinically active individuals with strong track record of challenging, original and productive research
- 5 years support, Ave 1.5M





Career Development Award: Transition to Independence

- For post-doctoral researchers who are ready to make the transition to independent investigators
- No eligibility rules based on time since PhD completion
- Up to 5 years support
- Includes an option of 12 months research training (outside the UK, in UK industry, or at another UK research centre)
- The average cost per award is approximately £1m.

Senior Non Clinical Fellowship

EDUCATION

TRAINING

CONSOLIDATION

EXPLORATION

PROGRESSION

INDEPENDENCE

LEADERSHIP

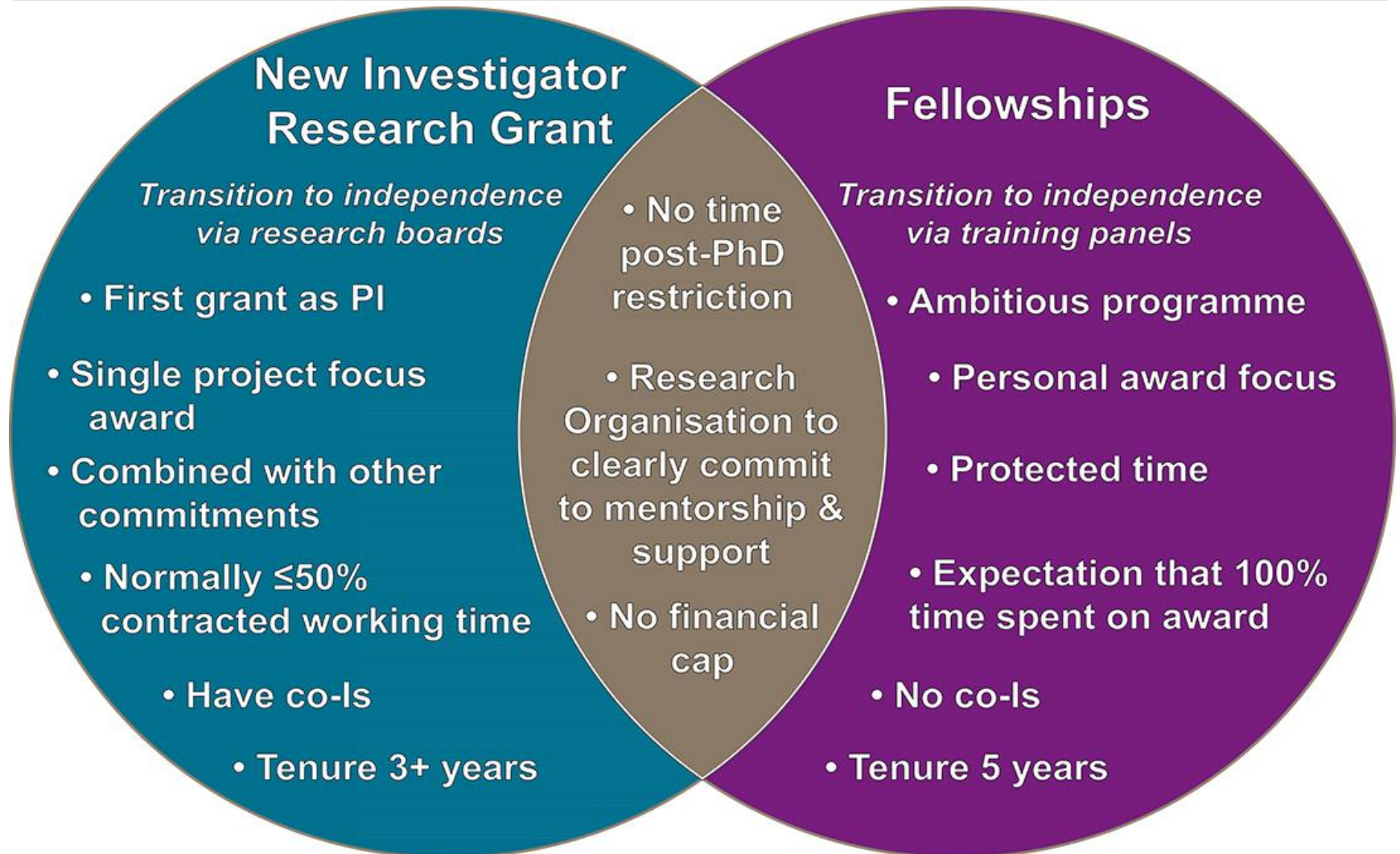
Senior Non-Clinical Fellowship: Transition to Leadership

- Enable independent researchers to make the transition to research leadership
- No eligibility rules based on time since PhD completion
- 7 years funding
- Stewardship visit in year 4 / 5
- Up to 1 year at a second centre encouraged
- The average cost per award is approximately £2m.

Additional opportunities for MRC fellows

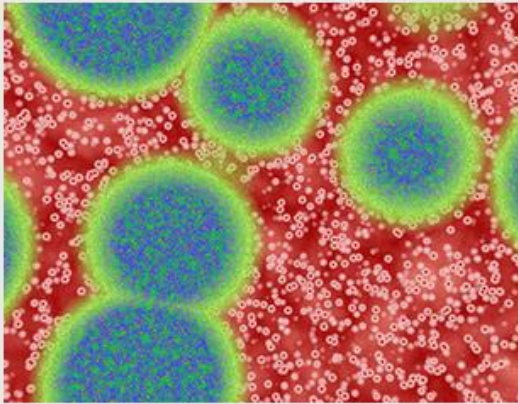
- Induction for new MRC fellows
- Annual Fellowship Meeting
 - Better **communication** with existing fellows
 - 97% of fellows say it helps feel part of MRC
- Observing funding committee meetings
- Opportunity to spend up to 12 months overseas
- AMS Starter Grants for Clinical Lecturers
 - Enable clinical lecturers to **sustain research-activity** during their clinical training
- Mentoring for MRC fellows
 - **Mentorship** scheme for intermediate fellows with Academy of Medical Sciences

Supporting the transition to independence

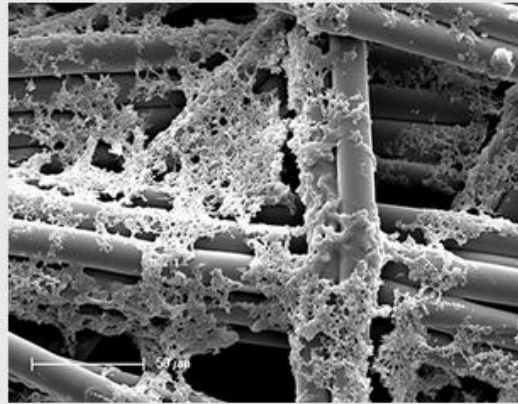


Funding Opportunities

> Infections & immunity



> Molecular & cellular medicine



> Neurosciences & mental health



> Population & systems medicine



- MRC Board – 3 times a year

- Standing Panels
 - Development Pathway Funding Scheme
 - Regenerative Medicine Research Committee
 - Methodology Research Programme Panel
 - [Fellowship Panels]

Types of funding

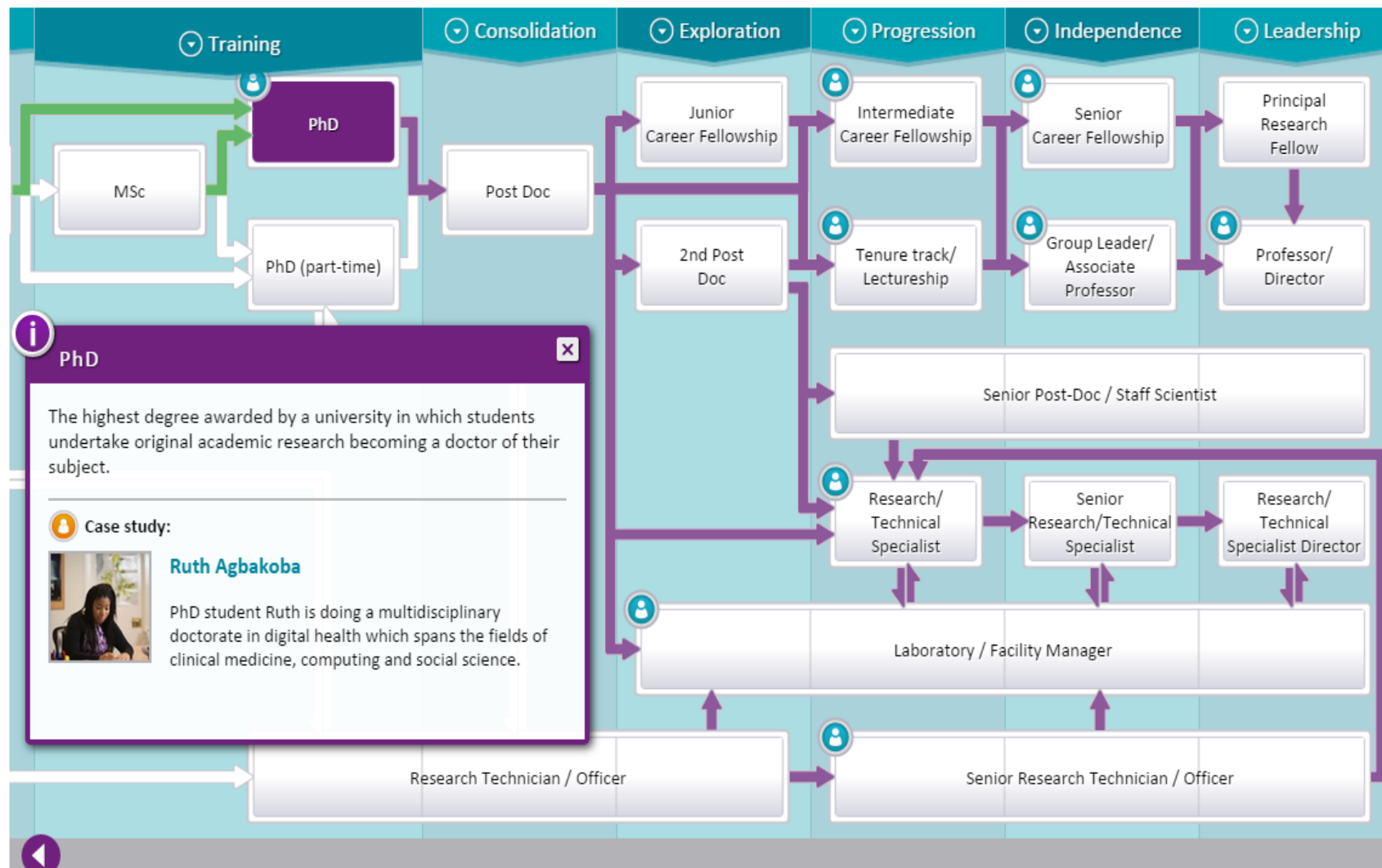
- **Response Mode – ‘reactive’**
 - Where MRC is responding to the scientists’ hypothesis or request for research work.
 - Proposals submitted to boards and panels by anyone eligible to apply to MRC for funding in field of research relevant to MRC’s remit.
- **Managed Mode – ‘pro-active’**
 - Where MRC wants to manage the direction of the science (to fit the MRC strategy)
 - One-off calls which will be focused on a key strategic area e.g. Zika rapid response, GCRF, dementia institutional pump priming
 - Usually time limited, with ring-fenced money
- **Individual Awards – Fellowships, studentships**

Response Mode Funding through the Boards/Panels

- Research Grants
- Programme Grants
- Partnership Grants
- New Investigator Research Grant
- [Centres]
- [Units]
- [Institutes]

Interactive career framework - explore your career options

This new online resource is an interactive tool that signposts a range of career options available at any stage of a biomedical research career. Please note, the career options displayed here are illustrative and not exhaustive. This is version one of the interactive career framework, and we would like to develop it further based on your [feedback](#). We recommend using this version on a desktop computer.



Application and assessment

Stage one – external peer review

Each proposal is reviewed by at least three experts, who are asked to assess the proposal based on three core criteria:

- **Importance** – how important are the questions, or gaps in knowledge, that are being addressed?
- **Scientific potential** – what are the prospects for good scientific progress?
- **Resources requested** – does the proposal represent good value for money?

Each scheme has a set of more [detailed assessment criteria](#) that reviewers should read.

Reviewers provide comments and an [overall score](#) from 1 – 6 via our grants system.

Stage two – board and panel assessment

2-3 MRC board or panel members use reviewer comments to provide a view on how competitive each proposal is for funding.

All proposals discussed at triage meeting, where shortlisted by sub-group of board / panel members plus Chair and Deputy Chair.

Competitive?

- Applicants with potential to be funded are sent anonymous reviewer comments and given opportunity to respond in writing before Board or Panel meeting. If fellowship, invited to respond to comments in person at interview.

Not competitive?

- Proposal declined and anonymous reviewer comments sent to applicant to help inform future submissions.

Response to reviewer comments

Do:

- Write a calm and measured response
- Consider the audience for your response: an MRC Board / Panel
- Address concerns clearly and concisely – headings?
- Keep to the page limit (typically 3 pages)
- Refer to parts of the application which may address concerns
- Respect that not everyone who reviews your proposal will share your opinions. It's fine to disagree but justify why.
- Include references to publications or additional data to add weight to your argument

Response to reviewer comments

Don't:

- Waste space copying at length what reviewers have already said
- Dismiss reviewer comments as irrelevant – consider a constructive response to concerns raised or points that require clarification
- Exceed the page limit. This is irrespective of the number of reviews / additional points made by the triage panel

Stage two – board and panel assessment

Funding meeting:

- Each proposal (with reviewer comments and PI response) introduced by 2-3 members and assessed against key criteria.
- Following a wider discussion with the whole group, each member scores from 1 to 10.
- All proposals ranked according to median scores and considered in terms of fit with strategic priorities and scientific portfolio balance.
- Board will decide which proposals to fund, based on budget.

Post-funding meeting:

- Applicants awarded / declined for funding
- Applicants receive feedback from Board or Panel
- Meeting outcomes and funded proposals are [published online](#)

Tips for Application Writing

Making a successful application

Clearly show what you're going to do

Clearly show how you're going to do it

Clearly show why you're doing it

Clearly show why you're doing it.

Making a successful application: Resources

- Is your research environment adequate?
Do you have the necessary equipment?
What shared/core resources are available?
- Justify sample sizes – power calculations!
- Justify **why** needed – don't just list!
- Value-for-money



An application will be declined because:

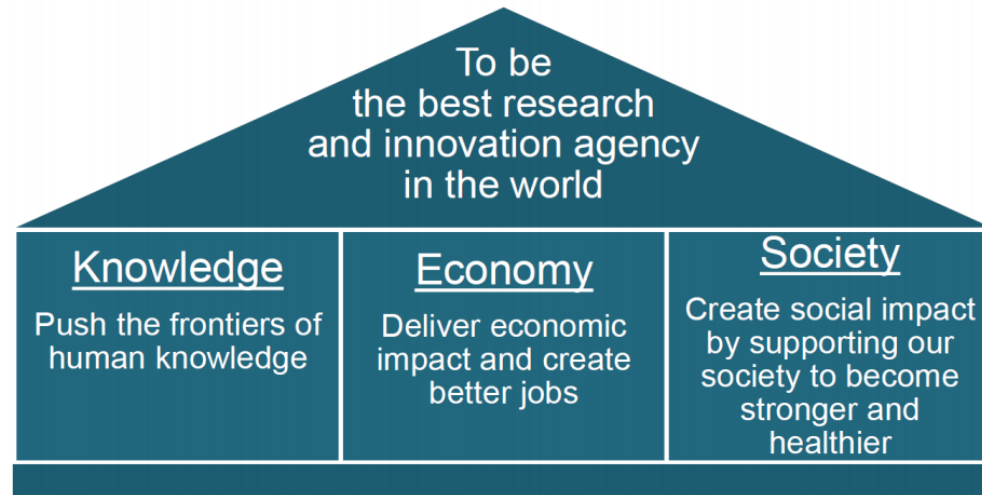
- Limited funding
- Unfocused, overambitious project
- Unoriginal, pedestrian approach
- No clear hypothesis, or not hypothesis-driven
- Methodology not sufficiently detailed
- Project not intellectually challenging
- Centre has no international standing in research area
- Lack of infrastructure/facilities
- Training element incomplete/unclear; poor training environment
- Right person – wrong project? And vice versa

Future opportunities

MRC in a new landscape

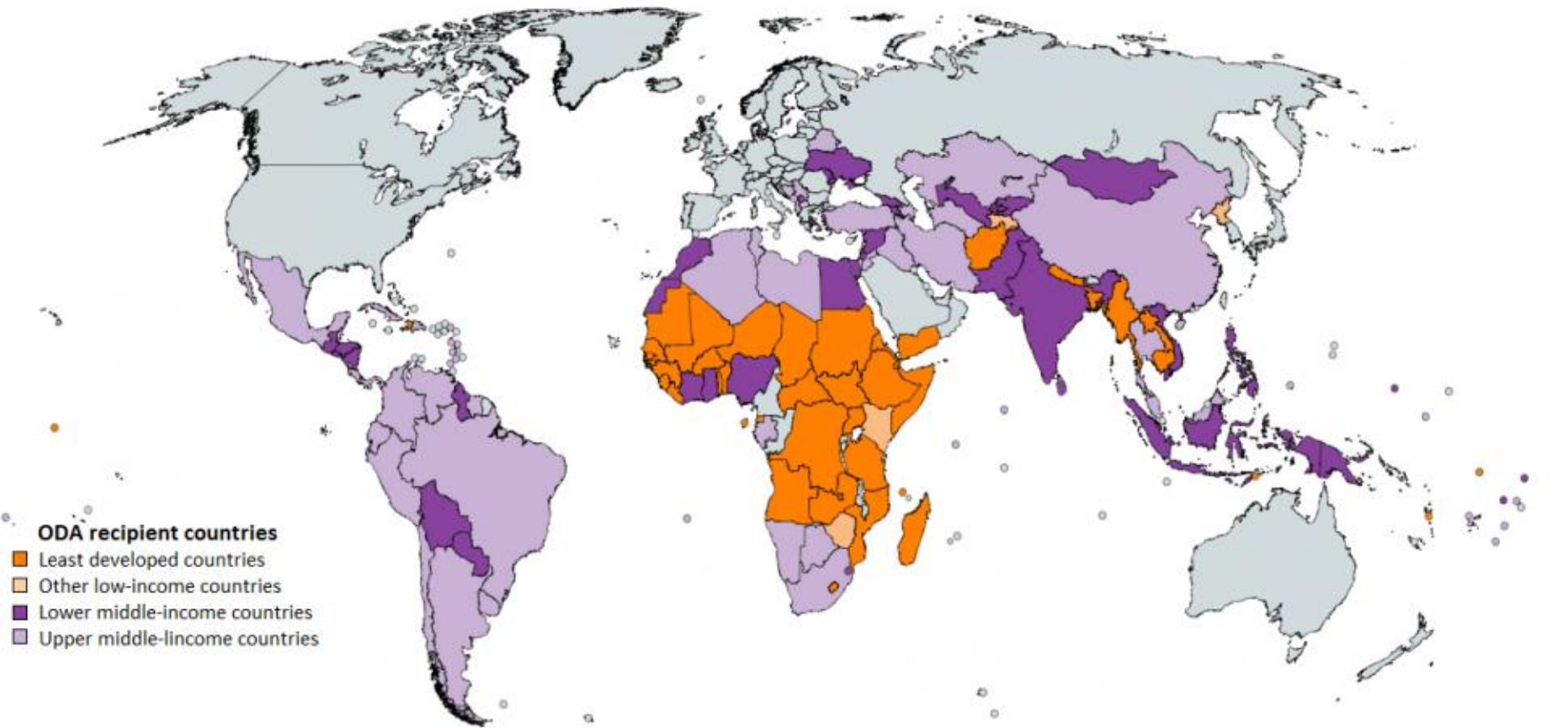
UK Research
and Innovation

UK Research and Innovation – formally starts 1 April –
aiming *“to be the best research and innovation agency in
the world”*



- Transitional work and preliminary strategy work in progress.
- One legal entity, with nine ‘Councils’ and a small coordination group.
- Councils retain names, sector funding strategy work, delegated authority.

Global health

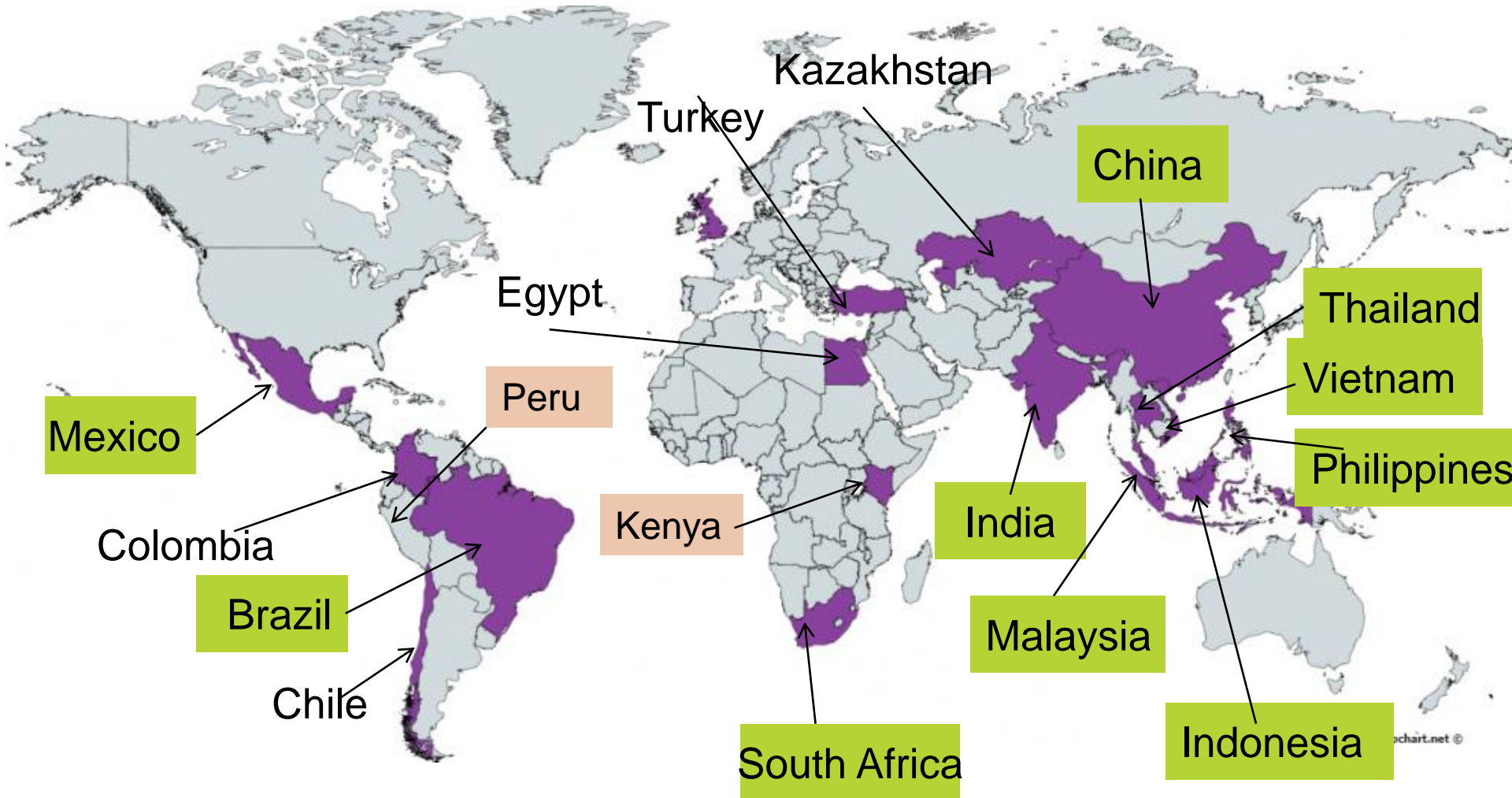


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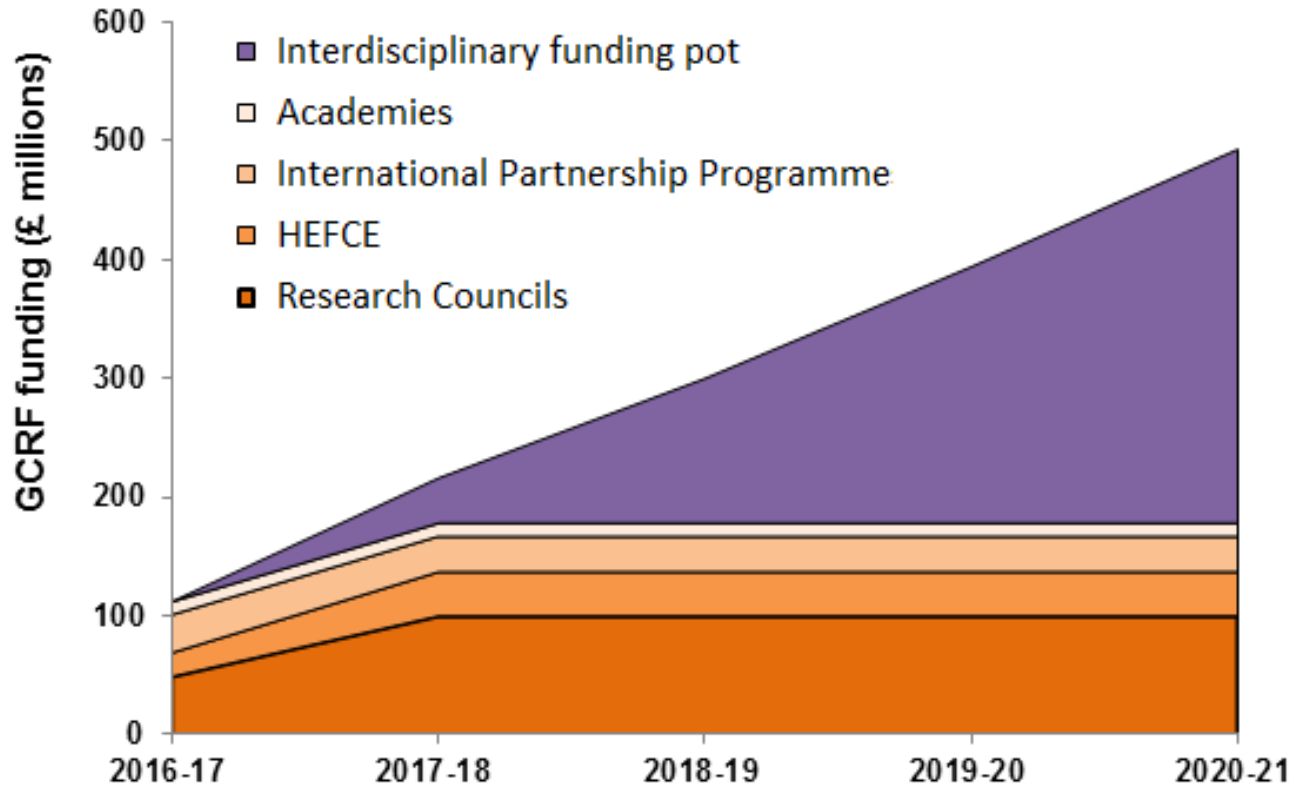
Newton Fund Countries

MRC partners Newton 1 & 2

Proposed new MRC partners Newton 2



Global Challenge Research Fund







Allocations of funding under the Global Challenges Research Fund (2016-2021)

More information: www.mrc.ac.uk



Leading science for better health

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FUNDING

OUR RESEARCH


INNOVATION

SKILLS & CAREERS

PUBLIC ENGAGEMENT

NEWS, EVENTS & PUBLICATIONS


ABOUT US



We support research across the entire spectrum of medical sciences, in universities and hospitals, in our own units, centres and institutes in the UK, and in our units in Africa.

FUNDING: Opportunities

Current opportunities open to applications

Tackling Antimicrobial Resistance: Understanding resistant bacteria in context of the host 

Deadline: 3 September 2014

Tackling Antimicrobial Resistance: Accelerating therapeutic and diagnostics development 

Deadline: 3 September 2014



Filter by New Deadline


FUNDING: Science areas

Researchers can apply for MRC grant funding at any time.

Infections & immunity 
Next deadline: 16 September 2014

Molecular & cellular medicine 
Next deadline: 10 September 2014

Neurosciences & mental health 
Next deadline: 1 October 2014

Population & systems medicine 
Next deadline: 30 September 2014

Global Health 
Various deadlines

Translation 
Various deadlines

Fellowships application submission deadlines 
Various deadlines

Any questions?