National Institute for Health Research

NIHR Research Design Service London

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Deputy Director

Research Design Service (RDS)

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- A national network of support services;
- Supporting those who are putting together research grant applications for national peer-reviewed funding streams

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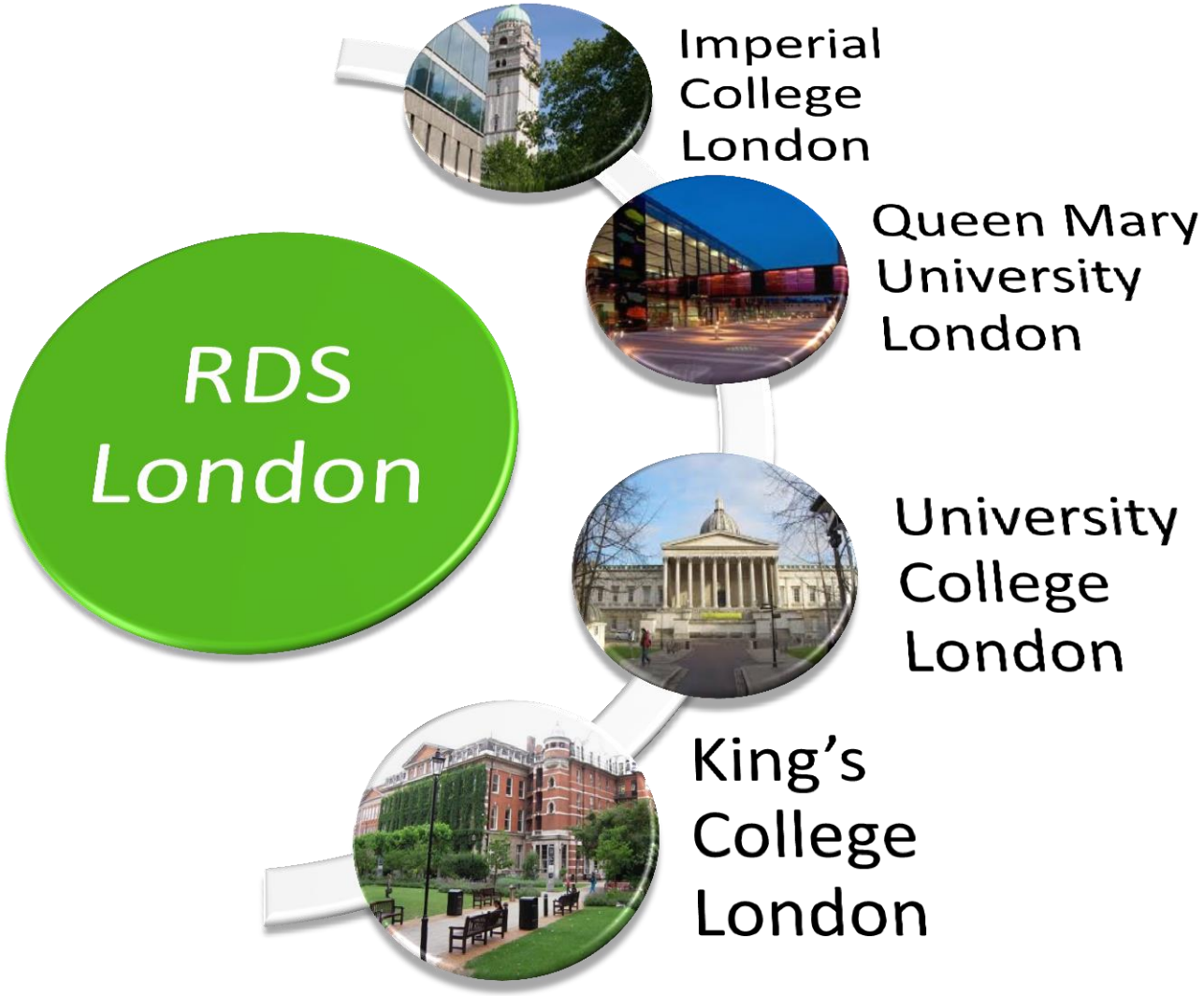
A successful partnership



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Our expertise

Local RDS centres: Teams of advisers with a wide range of methodological expertise

- Statistician
- Health economist
- Social scientist
- Health psychologist
- Epidemiologist
- trial design
- qualitative research methods
- Patient Public Involvement

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Our aim

“Increase the volume and proportion of high quality research grant applications”

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Our role

Provide project specific **guidance** and **expertise** on **study design** and **health research methods.**

Free of charge!

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Our support

- **Much more than research design…**
  - Help identify most suitable funding stream
  - Support teams in working more collaboratively
  - Advise on patient and public involvement
  - Help get the narrative right
  - Advise on training and development plans
  - Interview preparation / mock interviews
  - Help interpret feedback, support resubmissions

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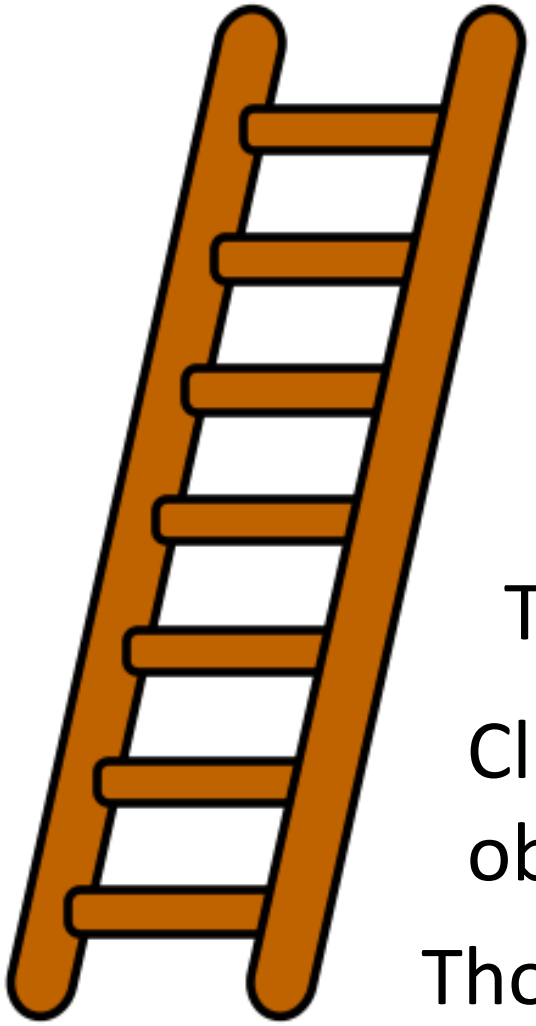
Who can we help?



Applicants with experience of submitting funding applications

Those targeting a resubmission

Fellowship applicants

Those requiring advice on study design

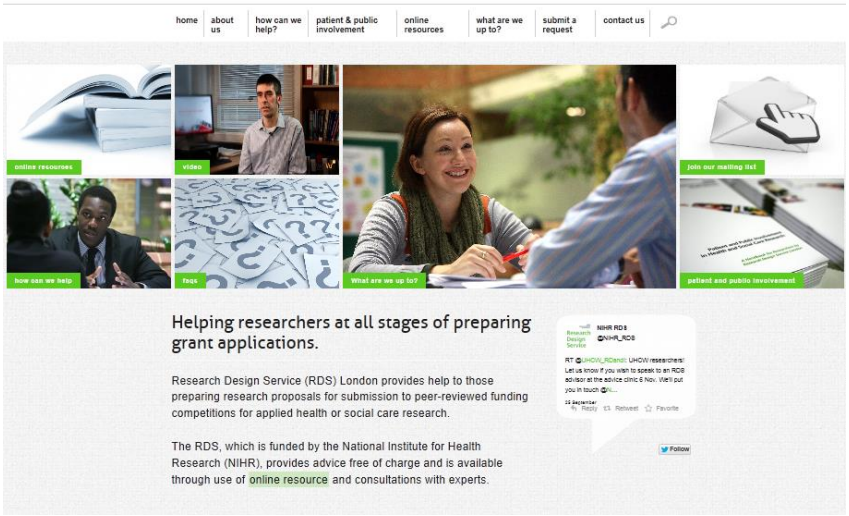
Clinicians eager to exploit ideas or observations

Those with little experience of research

Access to the service

Online:

- ❑ Through our website
- ❑ Simple online support request form
- ❑ Greater range of online resources



www.rds-london.nihr.ac.uk

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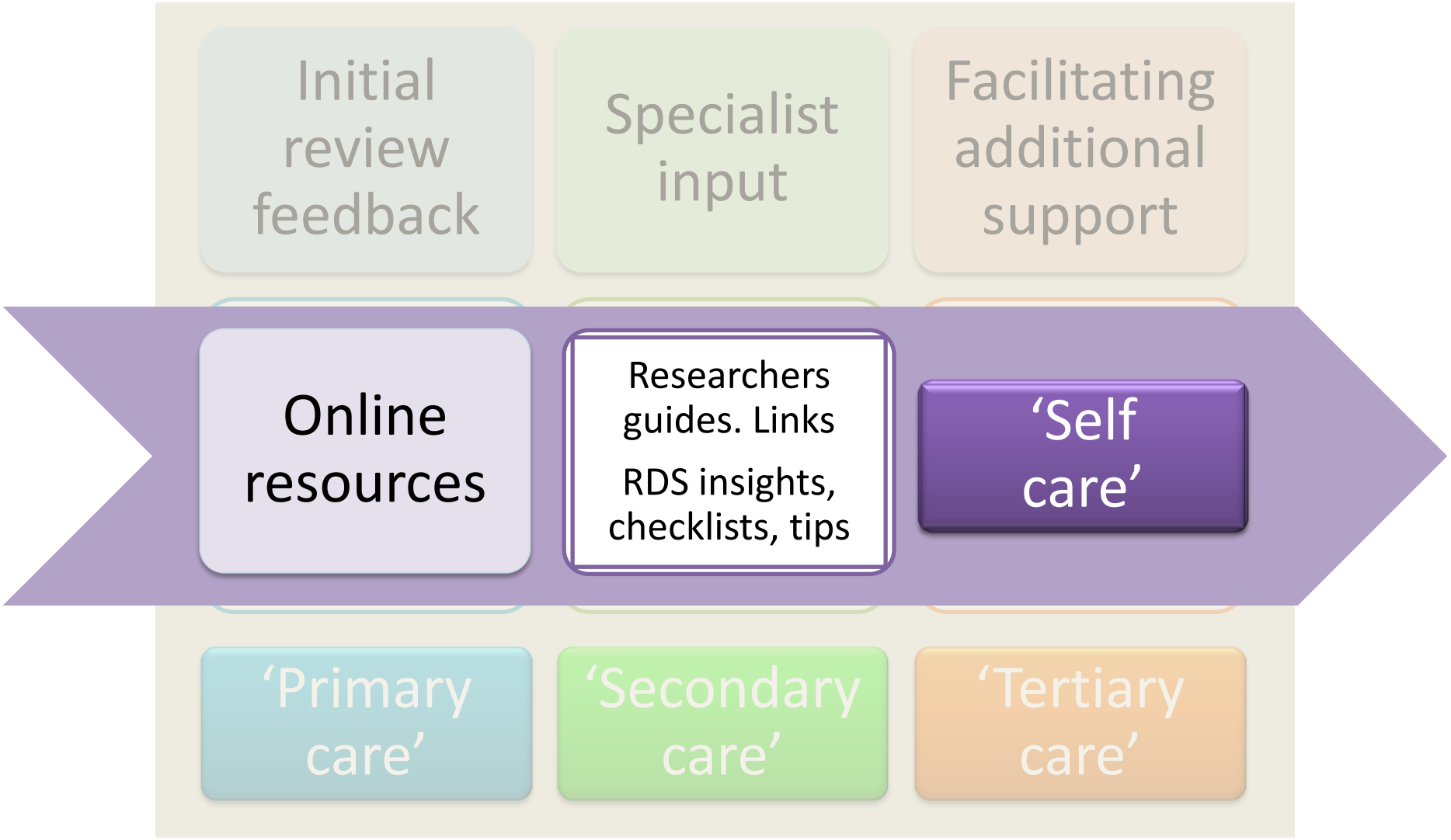
Access to the service

Outreach:

- Regular ‘drop-in’ sessions across London
- Events / clinics aligned with NIHR funding calls
- Supporting local NHS Trust R&D events
- Presentations to therapeutic communities and research groups

Delivering the service



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Adding value

NIHR SAF feedback

99% of researchers would recommend using RDS

98% say we improve the quality of their applications

97% are satisfied with the service

A record of achievement

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Between July 2009 and Aug 2015:

- 360 successful RDS London supported studies;

  total award value in excess of £156m

When should I contact RDS?

- **As early as possible!**
- **Ideally 4-6 months** ahead of submission deadline
- **Need 2-3 months** for really good input

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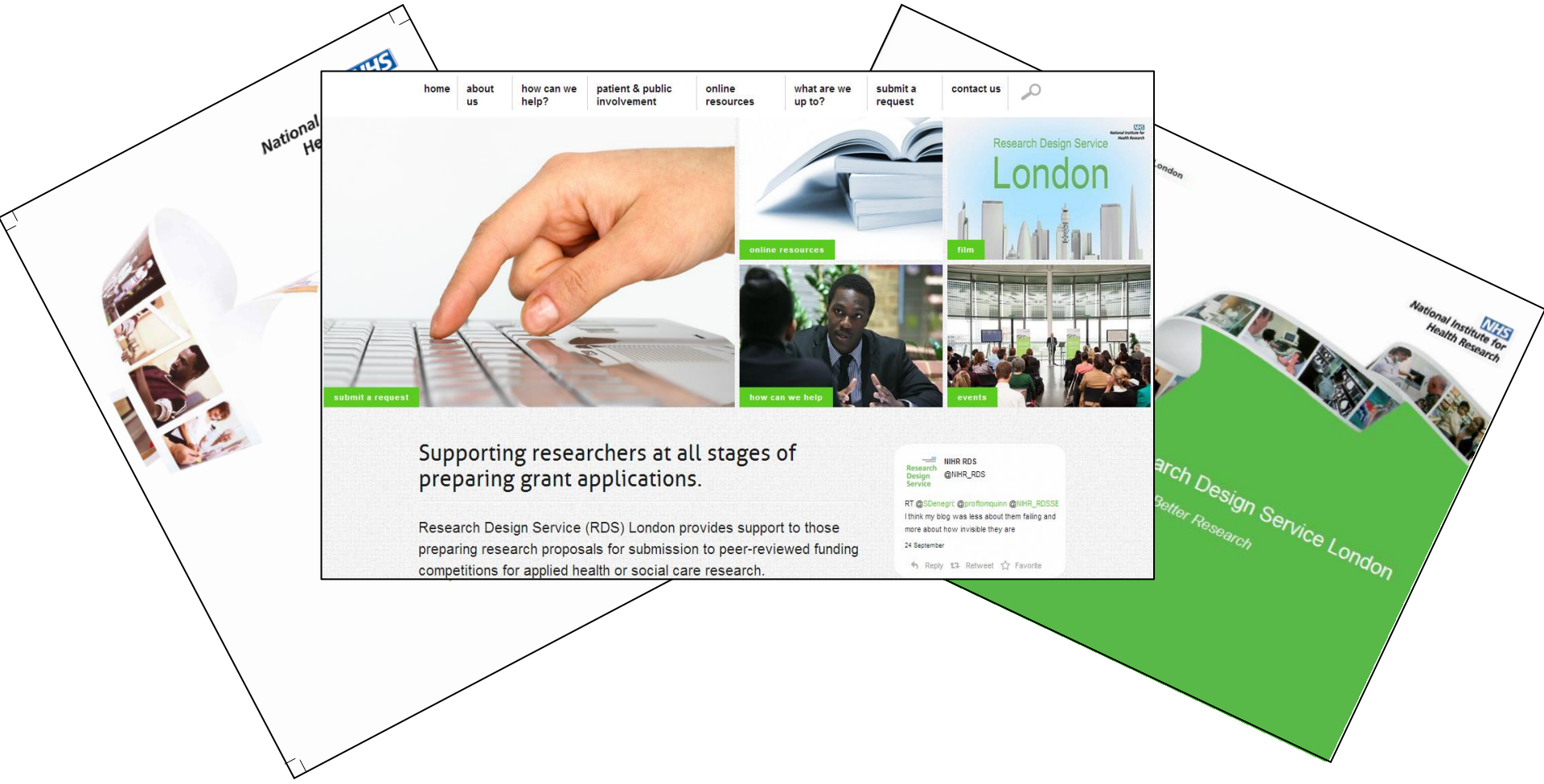
website: www.rds-london.nihr.ac.uk



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Sources of funding for research

NIHR funding programmes

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Information about NIHR's research funding and career development opportunities

http://www.nihr.ac.uk/publications/

NIHR funding programmes

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Three NIHR co-ordinating centres:

- **Central Commissioning Facility (CCF)**
  - Research for Patient Benefit (RfPB), Programme Grants (PGfAR and PDG), Invention for Innovation (i4i)
- **NIHR Evaluation, Trials and Studies Co-ordinating Centre (NETSCC)**
  - Health Technology Assessment (HTA), Efficacy and Mechanism Evaluation (EME), Health Services and Delivery Research (HS&DR), Public Health Research (PHR)
- **Trainees Co-ordinating Centre (TCC)**
  - Fellowship schemes

NIHR funding programmes

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GENERAL POINTS:

- Applications submitted on a **Standard Application Form (SAF)**
- **Outline and Full applications** for most NIHR funding streams.
- Fellowship schemes are **single stage**.
- **Multiple calls** for proposals each year
- Researcher-led, commissioned and themed calls
- Independent peer review, then assessment by funding committee
- Feedback is given, no lobbying but resubmissions are allowed
- **Eligibility rules** vary for NHS / HEI applicants

Efficacy and Mechanism Evaluation (EME)

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OVERVIEW:

- **Bridge the gap** between preclinical study and evidence of clinical efficacy
- Proof of concept in humans – starting point
- Supports **early phase trials in an ideal setting**
- Outcome – clinical efficacy. Surrogates OK.
- **Mechanistic studies encouraged**, but optional
- Remit includes evaluation of small molecules, biologics, psychological interventions, diagnostics, medical devices
- Treatments to prevent disease are also included
- Collaborative working between NHS, academia and Industry (2/3)

Efficacy and Mechanism Evaluation (EME)

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EXAMPLE:

Phase II randomised controlled trial to determine the efficacy of an IL-1 receptor antagonist to treat those with pustular psoriasis compared with placebo

- **Proof of Concept** – 7 patients with pustular psoriasis showed complete resolution with IL-1RA
- **Studying efficacy** (n=64 in each arm of the trial) of a re-purposed intervention (IL-1RA)
- **Exploring a novel scientific principle** that IL-1 over-production is treatable
- **Using mechanistic studies** to determine whether gene mutations are associated with treatment outcome

Health Technology Assessment (HTA)

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OVERVIEW:

- Evaluates a wide range of 'technologies' delivered within NHS
- **'Technology' needs to be fully developed** and defined
- Often a pragmatic multi centred RCT
- Supports projects **that study effectiveness / cost effectiveness**
- **Outcomes** need to **measure health gain** and matter to patients
- Remit includes interventions to promote health, prevent or treat disease, improve rehab or long term care. Includes drugs, devices, procedures, settings of care and screening.

Health Technology Assessment (HTA)

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EXAMPLE:

A phase III randomised controlled trial of the effectiveness of anti-inflammatory treatment on eye surgery in those with open globe trauma, compared to standard treatment

- The study built upon two pilot studies that demonstrated clinical efficacy and feasibility of a large scale trial
- Multicentre study (20 specialist eye units, typical of NHS care of ocular trauma), n = 302, duration = 4 years
- Primary outcome = capacity for eye to see fine detail at 6 months
- Cost effectiveness analysis

Research for Patient Benefit (RfPB)

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OVERVIEW:

- Funds projects that are regionally focused (unique feature)
- Funds projects into everyday practice that address issues of importance to the NHS:
  - the way **NHS services are provided** and used
  - evaluate whether interventions are **effective**
  - **alternative means of providing healthcare**
  - **feasibility studies** (£150-250K) e.g. for a future clinical trial
- Trajectory to patient benefit needs to be explicit

Research for Patient Benefit (RfPB)

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EXAMPLE:

❖ **Single blind randomised controlled trial using hot water bottle to provide evidence that local heat pre-conditioning can reduce skin necrosis** and to assess the feasibility (recruitment, retention, incidence of necrosis) of undertaking a large multicentre trial.

Public Health Research (PHR)

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OVERVIEW:

❖ Focuses on evaluating effectiveness / cost effectiveness of public health interventions that are outside of the NHS (complements HTA)

❖ Evaluation of **non NHS interventions** intended to **improve the health of the public**, **prevent disease** and **reduce inequalities**.

EXAMPLE:

A randomised controlled trial and economic evaluation of a community-based physical activity intervention to prevent mobility-related disability for retired older people.

Health Services and Delivery Research (HS&DR)

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OVERVIEW:

❖ Funds research to produce evidence on the **quality, accessibility and organisation of health services.** This includes **evaluations on how the NHS might improve the delivery of services**

EXAMPLE:

❖ Reorganising specialist cancer surgery: a mixed methods evaluation. What is the impact of centralising specialist cancer surgery on provision of care? What is the impact on patient experience, choice and continuity of care? What is the impact on ways of (staff) working?

Invention for innovation (i4i)

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OVERVIEW:

❖ Supports **research and development of innovative healthcare technologies**, which have **potential for commercialisation** and acceptance within the NHS (e.g. medical devices, implantable devices and in vitro diagnostics)

❖ Supports projects through prototype and commercial development to introduction and adoption in the NHS

❖ Supports projects that **develop technologies from other sectors** that could have an impact in healthcare

EXAMPLE:

❖ Novel zinc bioglass coatings to eliminate infections associated with orthopaedic wires and pins. **Testing the feasibility of using biodegradable zinc glasses to reduce infections.**

Programme Grants for Applied Research (PGfAR)

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OVERVIEW:

❖ Funds programmes of applied research (projects / workpackages linked with a clear theme and where combination gives added value)

❖ Prestigious awards directed towards leading researchers who can demonstrate an **impressive track-record of achievement** in applied health research

❖ Funds projects that are a priority for the NHS that require a multidisciplinary approach (typical input from clinical, health economics, statistics, qualitative, health psychology backgrounds)

Target **Programme Development Grant (PDG)** for addressing limitations of a future PGfAR application (£20-100K over 6-18m)

Fellowship schemes

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OVERVIEW:

❖ Personal awards / institutional awards covering salary, training and development costs and research costs.

- ❑ A **person** with potential and trajectory for their career
- ❑ A good **project** with aims of the funder
- ❑ A tailored **training/development** package
- ❑ **Suitable institution and supervision**

❖ Pre-doctoral, doctoral, post-doctoral, senior/pre-chair, chair

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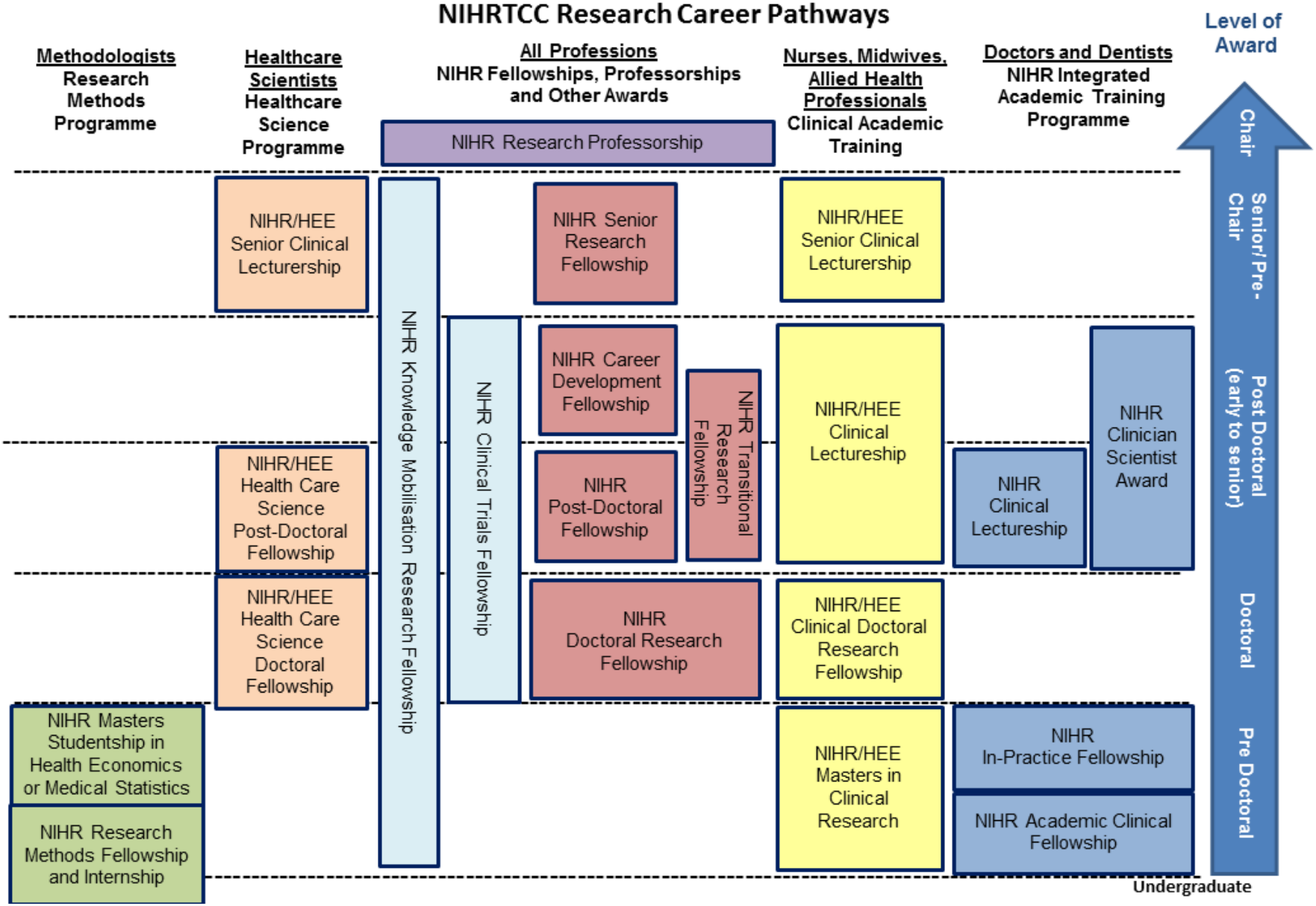
NIHRTCC Research Career Pathways



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