



The Usher Institute

Cathie Sudlow

Director, Centre for Medical Informatics

Director, Health Data Research UK Scotland





- Centre for Global Health Research
- Centre for Population Health Sciences
- Centre for Medical Informatics
- Edinburgh Clinical Trials Unit
- New initiatives:
 - Centre for Biomedicine, Self and Society
 - Health Data Research UK: Scottish substantive site

Research areas

- Acute care
- Addiction
- Allergy and respiratory (asthma)
- Cancer
- Chronic disease epidemiology (diabetes, stroke, cardiovascular)
- Clinical trials & statistical methodology
- Dementia
- eHealth
- Ethnicity and health
- Families and relationships
- Global health
- Medical informatics
- Molecular epidemiology
- Palliative care
- Public health research & policy
- Social studies of health & medicine
- UK Biobank

Teaching and learning

- PhD programme
- Postgraduate taught degrees
 - MSc Clinical Trials
 - Postgraduate Certificate in Data Science
 - Master of Family Medicine
 - MSc Global eHealth
 - Postgraduate Certificate in Global Health Challenges
 - Master of Public Health
- Undergraduate MBChB

Vision

Established partnerships: NHS, public, academia, industry

National, longitudinal, dynamic e-cohort

Sharing data, knowledge and resources

Towards a vision for the whole UK (65 million)





Rich national data and tissue assets, linked via CHI



World class health and informatics research capability



Science aligned with HDRUK priorities

| Research initiatives | Modernising public health | Actionable health data analytics | 21 st century trial design | Precision medicine |
|--|---------------------------|----------------------------------|---------------------------------------|--------------------|
| National e-cohort: 21 st century public health research | ✓ | | | ✓ |
| Deriving and applying health-related phenotypes at scale | | ✓ | ✓ | ✓ |
| Computational tools for large-scale genomic and environmental prediction | | ✓ | | ✓ |
| Precision therapeutics | | ✓ | | ✓ |

Funding opportunities

- Scottish site initial award: £5M for 5 years (10-20 year vision)
- Rutherford/UKRI HDRUK fellowships (3 to Edinburgh): £2.5M
- Capital infrastructure: £10M to HDRUK in next few months
- UKRI/ISCF/Innovate UK, AI in digital diagnostics: £50M
- Digital innovation hubs: £40M for around 5 hubs (infrastructure + exemplars)
- Strategic charity partnerships: BHF, Asthma UK