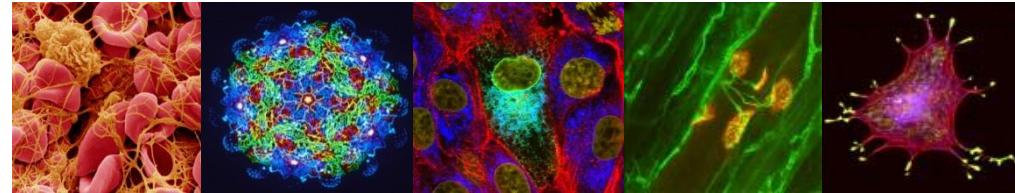


Maximising the value of research outputs: a funder perspective

STM Beyond Open Access Seminar
5 December 2014

Dave Carr
Wellcome Trust
d.carr@wellcome.ac.uk



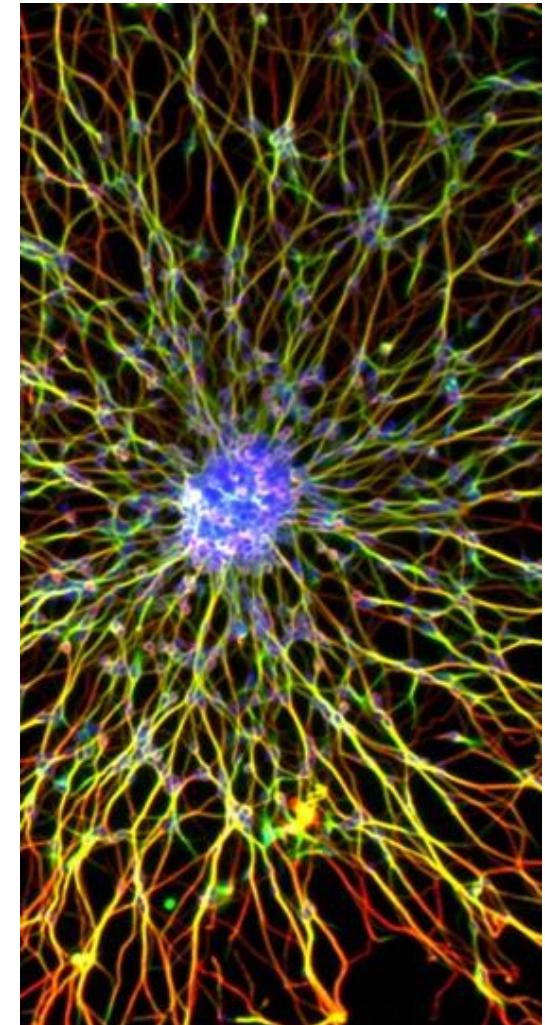
Sharing research outputs: the Wellcome Trust's position

- support research with the vision of achieving extraordinary improvements in human & animal health
- want the outputs of research we support to be accessed and used in a way that maximises benefits to health & society
- long-standing policies on open access publishing and data management and sharing



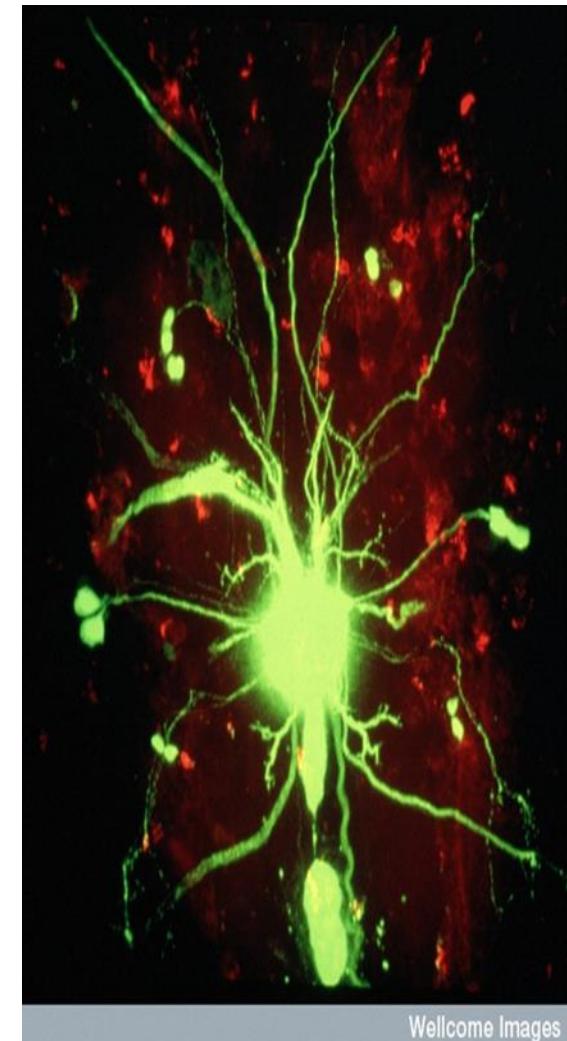
Our policies...

- Open access policy
 - all papers openly accessible via Europe PMC within six months of publication
 - provide dedicated funding for gold OA APCs
 - Require CC-BY licence where we pay APC
- Data management & sharing policy
 - maximise access to research data with as few restrictions as possible
 - require data management & sharing plan, where research likely to generate data of value as a resource for the community
 - meet costs as integral part of grant
- Software: coming soon!



Increasing policy momentum

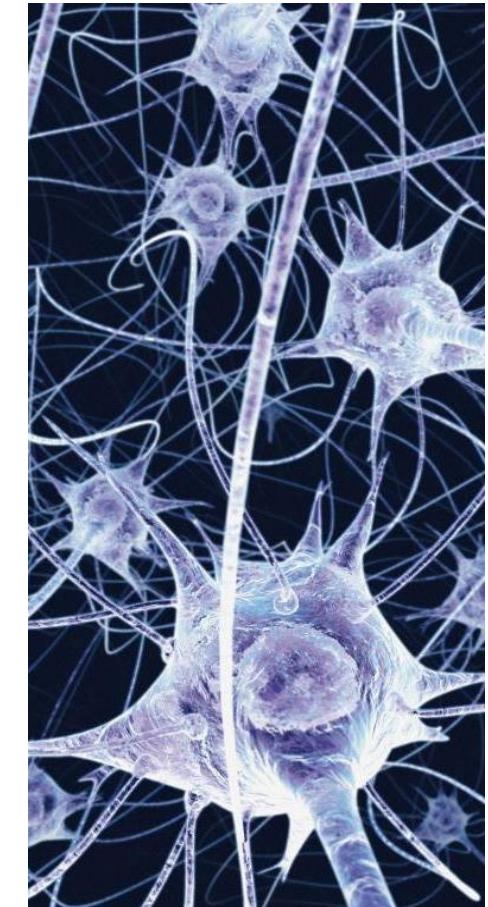
- Strong convergence of funder policies in terms of:
 - mandating open access to research publications
 - requiring data management plans
- Growing high-level policy consensus (e.g. European Commission, OSTP, G8 Science Ministers Statement)
- Context of political focus on maximising economic potential of ‘big data’ and ‘open data’
- But recognition significant challenges to overcome



Wellcome Images

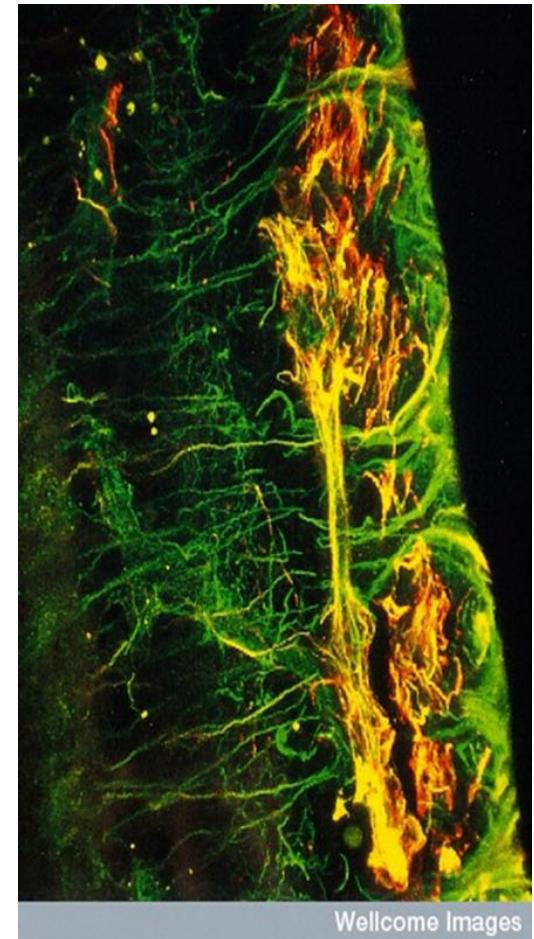
Working in partnership to drive change

- **Charity Open Access Fund** – six UK medical research charities providing funding to ensure immediate open access to funded research
- **Public Health Research Data Forum** – global cross funder initiative to increase access to research data generated by public health and epidemiology research
- **Clinical Trial Data** – funded programme of work with IOM and seeking to build an international consortia to support access to trial data



Why is openness so important?

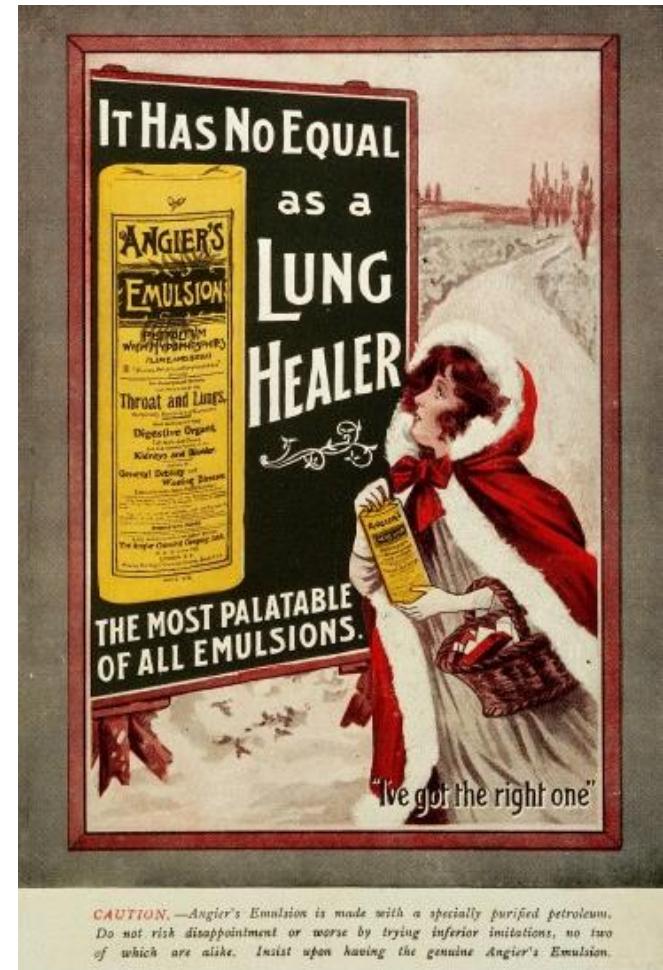
- Enable validity and reproducibility of research findings to be assessed
- Increase the visibility and use of research findings
- Enable research outputs to be used to answer new questions
- Reduce duplication and waste
- Makes outputs accessible to patients, policymakers, healthcare professionals & wider public



Wellcome Images

Example 1 – enabling re-use of content

- Making content that we fund and produce openly available – enables it to be accessed and re-used by a wider audience
 - OA articles downloaded more – 89% more downloads when compared with access-controlled content
 - Wellcome Images downloads – increase of 709% in downloads
 - Mosaic Magazine
Menstrual taboos article:
30k views at Wellcome
334k views at Jezebel + 650 comments



Wellcome Images, CC-BY, L0031713

Examples of re-use: “promiscuous content”

Mosaic
the science of life



The future of sex?

Once derided as being like a plastic bag with the erotic appeal of a jellyfish, the female condom is being reinvented as the next big thing in safe sex. Emily Anthes investigates.

GIZMODO

The Science of Female Condoms: The Future of Sex?

Emily Anthes - Mosaic
Filed to: SEX 3/4/14 5:40am



Once derided as being like plastic bag with the erotic appeal of a jellyfish, the female condom's being reinvented as the next big thing in safe sex. [Emily Anthes investigates](#).

1. Excitement

Content available from multiple platforms



NEWS | IMAGES | VOICES | SPORT | TECH | LIFE | PROPERTY | ARTS + ENTS | TRAVEL | MONEY | IN

Fashion v / Food & Drink v / [Health & Families](#) v / History / Gadgets & Tech v / Motoring v / Dating v / Crosswords /

Life > Health & Families > Features

The future of sex: The first female condoms were derided, mistrusted and shunned - but will their modern counterparts catch on?



EMILY ANTHES | Wednesday 05 March 2014

[SHARE](#) [TWEET](#) [SHARE](#) [REDDIT](#) [SHARE](#) [PRINT](#)

In 1987, an American pharmaceutical executive called Mary Ann Leeper flew to Copenhagen to get a first-hand look at what she thought might be the world's next great health innovation. She didn't expect to find it tucked away inside an old cigar box.

SCIENCE

Examples of re-use: translation

Materia > LEE, PIENSA, COMPARTE

Noticias | Entrevistas | Opinión | Interactivos | Vídeos | En directo

Ciencia Salud Tecnología Medio ambiente #ALIMENTACIÓN #BIO



¿El futuro del sexo?

12/04/2014 | Comentarios

por Emily Anthes

Aunque su 'sex appeal' se haya equiparado al de una medusa, y su aspecto al de una bolsa de plástico, el condón femenino va camino de transformarse en la gran novedad del sexo seguro. Casi dos décadas después de su presentación en sociedad y con solo el 1,6% del mercado, un puñado de investigadores, ingenieros y empresarios va a presentar un amplio repertorio de condones vaginales rediseñados y reinventados

Más noticias de: [sexo](#), [sexualidad](#), [sida](#), [vih](#)

 Me gusta 111  8+1  Twittear 118

 Replicar  Enviar  Compartir  Menear



Female condoms
article – translated
into Spanish;
reaching a new
audience

Examples of re-use: re-packaging

Home Activities Stories Images Links About Contact

Ask a Question Teacher Toolbox Listen & Watch

dna day **Apr 25**

ask a BIOLOGIST

PLOS PUBLIC LIBRARY OF SCIENCE

PLOSABLE a doorway to the leading edge of BIOLOGY

World of Biology
Meet Our Biologists
Listen & Watch
PLoSable Biology

Scientists are learning new things every day. They are also writing about their discoveries. In most cases they publish in science magazines called journals like the Public Library of Science (PLOS). In PLoSable Biology you will find stories that will help you read and explore the articles written by scientists.

Now jump in and start exploring PLoSable Biology - a place where firsthand science is only a mouse click away.

[List with summary](#) [Show All](#) [Quick list](#)

A Win-Win with Wind
By Melanie Sturm

When we think about using the natural power of the earth, like sun or wind, we don't usually think about how this might hurt animals. But researchers are finding that we can use sustainable energy while still taking care of our flying friends.

Amoeba Families Stick Together
By Ben Pirotte

Families are important to many animals, but are they also important to organisms made of just one cell? For amoebas, the ability to recognize relatives can make a world of difference.

Are Plankton Ocean Super Stars?

<http://askabiologist.asu.edu/explore/plosable>

Gallery of recently uploaded files [edit]

The 50 most recent uploads are embedded below. See [here](#) for 500 most recent uploads and [here](#) for all contributions.

Date	Name	Thumbnail	Size
07.07, 24 April 2014	Key-Bifurcations-of-Bursting-Polyrhythms-in-3-Cell-Central-Pattern-Generators-pone.0092918.s005.ogv (file)		1.27 MB
07.06, 24 April 2014	Key-Bifurcations-of-Bursting-Polyrhythms-in-3-Cell-Central-Pattern-Generators-pone.0092918.s004.ogv (file)		6.52 MB
07.06, 24 April 2014	Key-Bifurcations-of-Bursting-Polyrhythms-in-3-Cell-Central-Pattern-Generators-pone.0092918.s003.ogv (file)		13.82 MB
07.05, 24 April 2014	Key-Bifurcations-of-Bursting-Polyrhythms-in-3-Cell-Central-Pattern-Generators-pone.0092918.s002.ogv (file)		14.47 MB

http://commons.wikimedia.org/wiki/User:Open_Access_Media_Importer_Bot

Re-packaged content for different and new audiences

Example 2 – sharing data to improve health: the INDEPTH network

- brings together 49 health & demographic surveillance systems (HDSS) sites at 42 research centres in 20 LMICs
- launched INDEPTH data repository & statistics resource, and actively building data sharing platforms across network via iShare2 project.
- network has enabled landmark studies to enhance policy & practice:
 - effectiveness and safety studies of antimalarials in Africa (INESS)
 - optimising impact and cost-effectiveness of child health intervention programmes of vaccines and micronutrients in LMICs(OPTIMUNISE)
 - studies of epidemiology of epilepsy in demographic sites (SEEDS)

Parasites and poor antenatal care are the main causes of epilepsy in sub-Saharan Africa, study reveals

31 January 2013



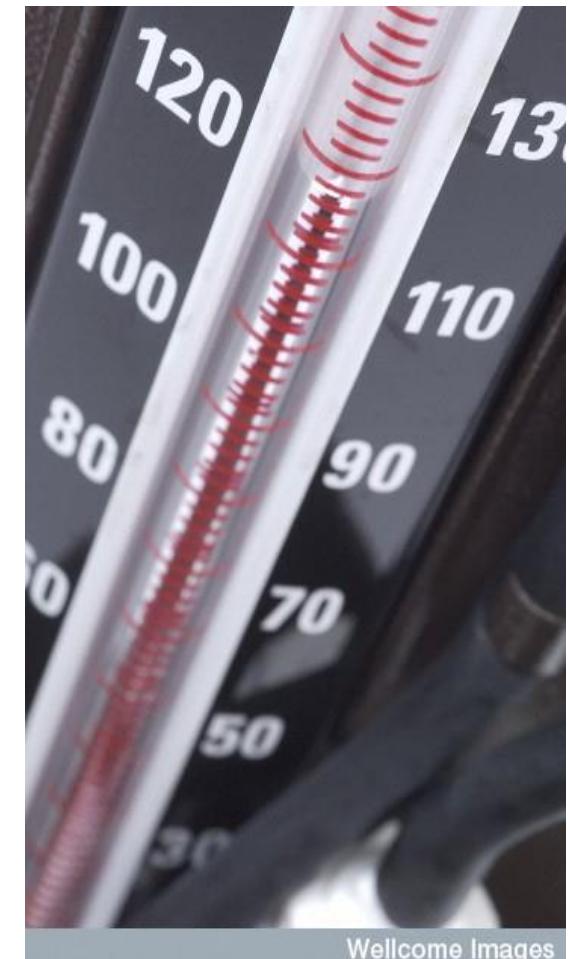
The largest study of epilepsy in Africa to date reveals that programmes to control parasitic diseases and access to better antenatal care could substantially reduce the prevalence of the disease in this region.

Wellcome Trust's indicators of progress

Outcomes	Key indicators of progress
Discoveries	1. significant advances in the generation of new knowledge 2. contribute to discoveries with tangible impacts on health
Applications	3. contribute to the development of enabling technologies, products and devices 4. uptake of research into policy and practice
Engagement	5. enhanced level of informed debate in biomedicine 6. significant engagement of key audiences & increased reach
Research leaders	7. develop a cadre of research leaders 8. evidence of significant career progression among those we support
Research environment	9. key contributions to the creation, development and maintenance of major research resources 10. contributions to the growth of centres of excellence
Influence	11. significant impact on science funding & policy developments 12. significant impact on global research priorities and processes

How do we assess our impact

- we want to build the most picture we can of our outputs & impact
- we use a broad range of approaches to assess our progress:
 - capturing and analysing research outputs (publications, citations, patents, etc)
 - developing research profiles & histories
 - tracking researcher careers
- the open access movement has helped to enable the availability of new & alternative metrics
- Value is variable, and we can't yet capture all we need... but a rapidly evolving field



Wellcome Images

A wider range of metrics...

plos.org [create account](#) [sign in](#)

PLOS MEDICINE

Browse | For Authors | About Us | **Search**  [advanced search](#)

OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

58,747 **67** **257** **192**

Views Citations Saves Shares

The Effectiveness of Mobile-Health Technology-Based Health Behaviour Change or Disease Management Interventions for Health Care Consumers: A Systematic Review

Caroline Free , Gemma Phillips, Leandro Galli, Louise Watson, Lambert Felix, Phil Edwards, Vikram Patel, Andy Haines

Published: January 15, 2013 • DOI: 10.1371/journal.pmed.1001362



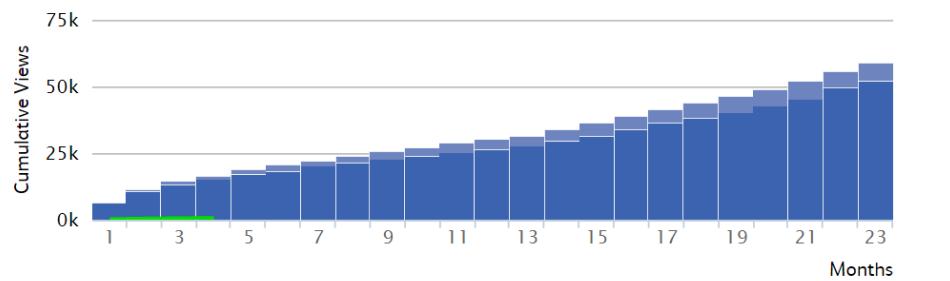
89

Cited 

				
67	39	6	50	Search

Viewed 

Total Article Views	HTML Page Views	PDF Downloads	XML Downloads	Totals
58,747	46,380	5,477	218	52,075
Jan 15, 2013 (publication date) through Dec 1, 2014*	PMC	4,681	1,991	n.a.
	Totals	51,061	7,468	218
		58,747		
		14.63% of article views led to PDF downloads		



Cumulative Views

75k

50k

25k

0k

1 3 5 7 9 11 13 15 17 19 21 23 Months

Saved 



257

Discussed 

				
1	154	38	0	Search

wellcome trust

Valuing a broad range of outputs

- Research culture and environment not perceived to provide sufficient support or rewards for data sharing
- High quality datasets which are reused need to be recognised and valued as research outputs
- The wider use of data citation practices could play a vital role
- ...but wider take up depends upon these being given greater value in key assessment processes.

EXPERT ADVISORY GROUP ON DATA ACCESS

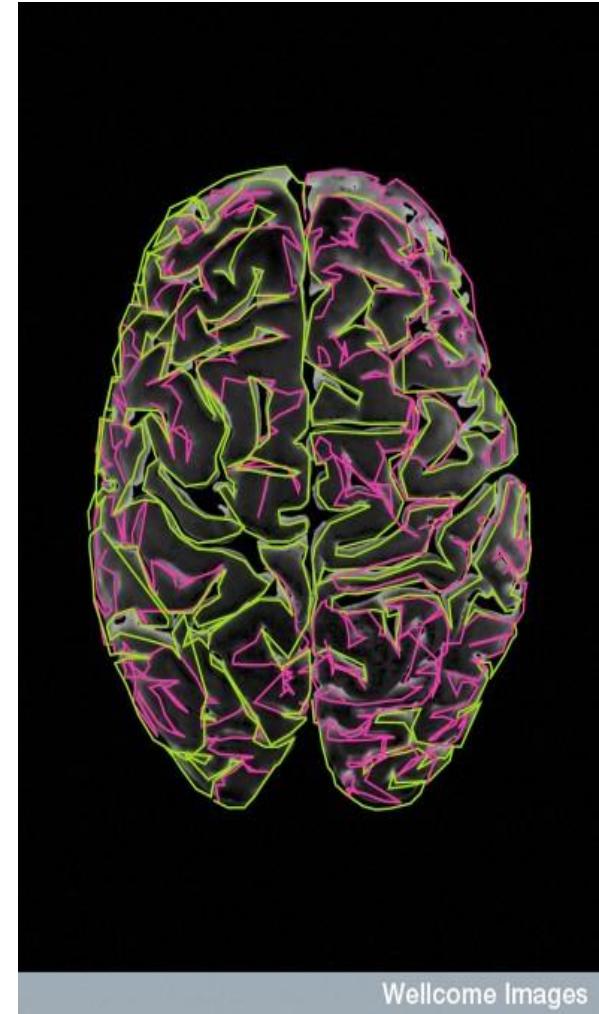
ESTABLISHING INCENTIVES
AND CHANGING
CULTURES TO SUPPORT
DATA ACCESS

May 2014

CANCER RESEARCH UK ESRC MRC wellcome trust

Closing thoughts...

- funders committed to maximising the availability and use of research outputs in order to maximise benefit
- we are working in partnership with each other and the wider research community to overcome barriers
- as a funder, assessing the impact of our activities is a considerable challenge, measuring the effect of open access on this is harder still
- but open access in itself is helping to enable us to measure impact in new ways...



Any Questions?

[Home](#) | [Blog](#) | [Wellcome Trust websites](#) | [Media office](#) | [Jobs](#) | [Contact us](#) | eGrants: [About](#) | [Log In](#)

[Search](#)

wellcome trust

[Our vision](#) | [Funding](#) | [Managing a grant](#) | [Education resources](#) | [News](#) | [Investments](#) | [About us](#)

[Publications](#) | [Jobs](#) | [Policy](#) | [Strategy](#) | [Organisation](#) | [History](#) | [Timeline](#) | [Logo usage](#) | [Contact us](#) | [Get involved](#)

[▼ Policy and position statements](#)

[▼ Consultation responses](#)

[▼ Spotlight issues](#)

[▼ Data sharing](#)

[Data management and sharing](#)

[Public health and epidemiology](#)

[Guidance for researchers](#)

[Large-scale genetics research](#)

[EAGDA](#)

[Access to clinical trial data](#)

[Human Fertilisation and Embryology Act](#)

[Influenza](#)

[Open access](#)

[Personal information](#)

[Mitochondrial diseases](#)

[EU funding for stem cell](#)

Data sharing

We aim to ensure that the data generated by the research we support is managed and shared in a way that maximises the benefit to the public.

We work actively with the research community and other relevant stakeholders to shape and apply good practice with regard to the management of research data.

In addition to implementing our policy, which applies across the full breadth of the research we support, we are taking forward targeted activities in partnership with others to promote data sharing in specific research fields.

 Data management and sharing policy
Our policy on the management and sharing of data that arises from the research we fund.

 Public health and epidemiology
We are exploring mechanisms for developing codes of conduct for data sharing among epidemiological and public health researchers.

 Expert Advisory Group on Data Access
Provides strategic advice on the emerging scientific, legal and ethical issues associated with data access for human genetics research and cohort studies.

 Large-scale genetics research
We have a long track record of maximising access to genetic datasets and are working to address associated ethical issues.

 Requirements for publishing Wellcome Trust-funded research papers
[Download PDF](#)

 REPORT
Ethical, legal and social issues arising from the use of GWAS in medical research

d.carr@wellcome.ac.uk

<http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Data-sharing/index.htm>