Content archived on 2023-03-02

Scientists propose creating unique identification codes for biobanks

All biobanks (collections of human biological samples) should be given a unique identification code, EU-funded scientists suggest. Writing in the Journal of the American Medical Association (JAMA), they argue that such a scheme would optimise the use of these resources and ope...



All biobanks (collections of human biological samples) should be given a unique identification code, EU-funded scientists suggest. Writing in the Journal of the American Medical Association (JAMA), they argue that such a scheme would optimise the use of these resources and open up new avenues for genetics studies.

Biobanks consist of samples of human biological material such as blood or tissue, together with the data associated with them such as clinical information. They are often used in wide-ranging studies designed to identify the genes associated with a particular disease or condition, for example. Ultimately the results of these studies can lead to the development of new treatments.

However, these studies require large numbers of samples to carry out reliable statistical analyses. Obtaining this critical mass of samples would be easier if researchers could find and access data from other biobanks. The problem is that it is currently very difficult to trace biobanks.

To overcome this problem, the authors propose that each biobank be allocated a unique, structured code, similar to the International Standard Book Number (ISBN), which has been used in the book world for over 40 years. The ISBN is made up of a number of elements identifying the language or geographical region, the publisher and the specific edition of the publication.

A similar system could be applied to biobanks, with the different elements identifying the custodian of the biobank, its home country, and the individual collection. If set up along the same lines as the ISBN system, 'it would be easy to identify a biological collection, the various surveys in a longitudinal study, or an international programme made of collections built up in various countries,' the authors claim.

Biobanks would receive their code at the time of ethical approval, and the system could be applied retroactively to existing studies and collections.

The authors are clear about the advantages offered by their system. Firstly, it would permit individuals to trace the uses made of a given biobank and find out the results generated.

By including information on the collector of the samples and data, such a system could also provide recognition of the hard work involved in building up a biobank.

The registration number could also be given to study participants, enabling them to follow the use of the collection and see how their sample and data are being used, even if they are anonymised.

Some questions still remain to be answered, such as who would maintain the system, who would fund it, and how uptake would be ensured.

The EU projects supporting the proposal are: GA2LEN ('Global allergy and asthma European network') and PHOEBE ('Promoting the harmonisation of epidemiological biobanks in Europe'), both of which are financed under the Sixth Framework Programme, and GEN2PHEN ('Genotype to phenotype databases: a holistic solution') and BBMRI ('Biobanking and biomolecular resources research infrastructure'), both of which are funded through the Seventh Framework Programme (FP7).

Related articles



European biobanking infrastructure to complete prototype system in 2010

30 June 2009

Last update: 23 May 2008

Permalink: <u>https://cordis.europa.eu/article/id/29470-scientists-propose-creating-unique-identification-codes-for-biobanks</u>

European Union, 2025