National Institutes of Health
Turning Discovery Into Health

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MEDIA AVAILABILITY

NIH scientists develop new metric to measure influence of scientific research

What: A new metric, known as the Relative Citation Ratio (RCR), will allow researchers to measure the influence of a scientific article, regardless of publication and scientific field. While RCR cannot replace expert review, it does overcome many of the issues faced by previous metrics. RCR was developed by scientists with the Office of Portfolio Analysis (OPA), Division of Program Coordination, Planning and Strategic Initiatives (DPCPSI), part of the National Institutes of Health. A description of the new metric will be published in PLOS Biology on Sept. 6, 2016.

Currently, metrics are determined at the journal level, and the influence of an article is based on the journal in which it was published. Individual articles and researcher performance are evaluated based on the assumption that all articles published in high impact journals are uniformly of high impact, and that high impact science is not published in lower impact factor journals. Researchers also recognize the importance of each other's work based on citations; however, citation practices vary between fields.

To address these issues, RCR uses a co-citation network that is formed from the reference lists of papers that cite the article in question, defining a unique field for each article. In addition, RCR is benchmarked to a peer comparison group to determine the relative influence of an article, assuming citations are a measure of influence, and to allow comparisons between similar types of articles, or output from similar institutions.

RCR is not intended to, and cannot replace, expert opinion and is not a direct measure of the relative importance of the science described in publication. iCite, a free, easy to use web tool, has offered to calculate RCR values for user-selected articles listed in PubMed.

Article: Hutchins BI, Yuan X, Anderson JM, Santangelo GM (2016) Relative Citation Ratio (RCR): A New Metric That Uses Citation Rates to Measure Influence at the Article Level. PLoS Biol 14(9): e1002541. doi:10.1371/journal.pbio.1002541

Who: Dr. George Santangelo, director of the NIH Office of Portfolio Analysis, is available for comment.

Contact: To schedule an interview, please contact Renate Myles, mylesr@od.nih.gov or call cell: 301-675-2920.

About the **Division of Program Coordination, Planning, and Strategic Initiatives** (DPCPSI): DPCPSI, in the NIH Office of the Director, identifies emerging scientific opportunities, rising public health challenges, and scientific knowledge gaps that merit further research. The Division plans and implements trans-NIH initiatives supported by the Common Fund and coordinates research related to AIDS, behavioral and social sciences, women's health, disease prevention, dietary supplements, tobacco regulatory science, Tribal health, Sexual and Gender Minorities and supports research infrastructure and science education activities.

About the **National Institutes of Health** (NIH): NIH, the nation's medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatments, and cures for both common and rare diseases.