United States Senate WASHINGTON, DC 20510

March 30, 2016

Francis S. Collins, M.D., Ph.D Director National Institutes of Health 9000 Rockville Pike Bethesda, Maryland 20892

Betsy L. Humphreys
Acting Director and Deputy Director
National Library of Medicine
National Institutes of Health
Bldg. 38, Room 2E17A
8600 Rockville Pike
Bethesda, Maryland 20894

Dear Dr. Collins and Ms. Humphreys:

We write to urge the National Library of Medicine (NLM) to require disclosure of funding sources or other activities that could present a conflict of interest for all articles on PubMed, NLM's free online search engine of more than 25 million article citations from more than 5,600 journals on health and medicine, and other databases of scientific papers that NLM indexes. This is a simple, commonsense measure that would significantly enhance transparency in the health sciences.

With industry now employing more scientists than nonprofits, universities, and the government combined¹, and industry funding the research of many independent researchers, there are growing concerns about objectivity in numerous scientific disciplines – including nutrition science and research on health risks from chemicals. Last August, the *New York Times* published an article detailing how the Coca-Cola Company funded research aimed to obscure the link between soda products and obesity, diabetes, and heart disease.² Furthermore, in February 2016, the *Center for Public Integrity* released an investigative series documenting how industry has influenced research and its subsequent publication in scientific journals to promote confidence in their products and downplay the dangers of harmful chemicals such as lead and asbestos.³ Additionally, studies have found that financial conflicts of interest may bias the outcome of research in the field of sugar-sweetened beverages, weight gain, or obesity.⁴

While scientists regularly use PubMed to conduct and inform research, millions of non-scientists—consumers, journalists, policymakers, and others—also make use of this public resource. It is critical that PubMed make information about funding of research or other

¹ http://www.nsf.gov/statistics/infbrief/nsf12311/

² http://well.blogs.nytimes.com/2015/08/09/coca-cola-funds-scientists-who-shift-blame-for-obesity-away-from-bad-diets/

http://www.publicintegrity.org/2016/02/18/19307/brokers-junk-science

⁴ http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001578#s3

activities that could present a conflict of interest more readily available. Making such disclosures mandatory would be consistent with the conflict of interest policies that most journals already have in place. As you know, scholarly journals often have policies that require authors to disclose funding sources for the work they conduct, as well as other activities that could create conflicts of interest, when they submit an article.

Since most of the articles indexed on PubMed cost money to access, many PubMed users, particularly non-academics, depend solely on an article's abstract—typically a summary of a study's background, methodology, results, and conclusions—to obtain a study's central information. Accordingly, it is troubling that the abstract or other bibliographic information presented in a PubMed entry does not communicate authors' potential conflicts of interest, such as funding sources or significant investments, which is only disclosed in the full text of an article.

While the full text of articles published by researchers receiving NIH funding is available without cost through PubMed Central, and includes the funding disclosure information required by each journal, this information is not displayed with the abstract on the main PubMed page. For PubMed to remain valuable and relevant to its users, it is important that it provides them with the basic information necessary to form their own judgements about *any* research article's scientific objectivity and impartiality – not just those that were supported in whole or in part by NIH funding. If a journal does not require a conflict of interest disclosure, we believe this fact should also be clearly disclosed to PubMed users.

Given PubMed's vital public mission and its potential to strengthen transparency in the health sciences, we urge you to include conflict of interest and funding disclosure information alongside a journal article's abstract so that it is accessible to all users of the PubMed database. We respectfully request information about how you would implement such a disclosure, any action to date, and a potential timeline. As the premier online database for scientific journals, and a public resource made possible with taxpayer dollars, PubMed has the unique opportunity and responsibility to make significant strides in improving the integrity of scientific research. Thank you for your attention to this letter.

Sincerely,

RICHARD BLUMENTHAL

United States Senate

ELIZABETH WARREN

United States Senate

EDWARD J. MARK

United States Senate

BRIAN SCHATZ

United States Senate

RICHARD DURBIN United States Senate