



June 28, 2016

National Cancer Moonshot Initiative
National Cancer Institute
9609 Medical Center Drive
Bethesda, MD 20892-9760

Re: Request for Information – Document Citation No. 81 FR 29871

To Whom it May Concern,

On behalf of Creative Commons (CC), I am writing to respond to the Request for Information issued on May 13, 2016 with regard to the National Cancer Moonshot Initiative.

Creative Commons is a 501(c)(3) nonprofit organization dedicated to making it easy for people to share and build upon the work of others, consistent with the rules of copyright.¹ CC provides standard, free, open licenses and other legal tools to mark creative work with the freedoms the creator wants it to carry. Creators have applied CC licenses to over 1.2 billion copyrighted works of every type: from photos and video, to scholarly research, data, and educational resources.

We applaud the bold goals of the National Cancer Moonshot Initiative, and agree that its success will depend both on breaking down barriers of access to research, and promoting information sharing and collaboration.

Today the public invests heavily in cancer research through federal tax dollars, but the current academic publishing environment hampers innovation and discoveries. Research articles are hidden behind paywalls, and delayed from release by long embargoes. Research data remain unavailable, or are restricted from being machine-readable to allow deeper analysis. An alternative system, where all publicly-funded cancer research and data are required to be shared, would allow researchers to unlock their content and data for re-use with a global audience, and co-operate towards new discoveries, analysis, and cancer treatments.

We've identified four actions that we can take right now to accelerate the speed and probability of discovery for new cancer treatments and cures.²

¹ <https://creativecommons.org/>

² A similar version of these recommendations are also described at <https://medium.com/cancer-moonshot/four-things-we-can-do-now-to-unlock-the-cure-for-cancer-9c6759ce5b44#.bl4tnmfgx>

1. Make open access the default for cancer research articles and data

All government-funded and subsidized cancer research articles should be fully open and reusable, which means they must be published under an open license such as Creative Commons Attribution International 4.0 license (CC BY), which requires only attribution to re-use, translate, and otherwise copy and republish.³ Most important, the research articles need to be openly licensed so that they can be copied and retained for text and data mining (TDM)— highly-intensive computer analysis that allows for massive pattern recognition across thousands of cancer studies.⁴

All government-funded and subsidized data sets about cancer should also be fully open and reusable, preferably published in the global public domain under the CC0 Public Domain Dedication.⁵ Requiring researchers to share the underlying data that fuels their experiments can support research verification and enable subsequent discoveries. Data should be shared when consistent with privacy regulations. To the extent that privacy limits data sharing, it should be an allowable cost, and grantees should be encouraged to de-identify data to enable broader reuse and analysis.

2. Take embargo periods on research articles and data to zero

All government-funded and subsidized research articles and data should be made available immediately upon publication. Several existing policies—including the NIH Public Access Policy⁶ and the OSTP Directive on Increasing Access to the Results of Federally Funded Scientific Research⁷—require that research results be deposited in a public archive within 12 months of publication. There is no compelling argument against sharing the final peer-reviewed research immediately. A goal of the National Cancer Moonshot Initiative is to make ten years of progress in cancer treatments and cures in half that time. If we want to drive innovation and discovery, the first step is accelerating the pace at which everyone can read and use the research and data we fund.

3. Build and reward a culture of sharing and collaboration

Even with immediate open access to government-funded research articles and data, another challenge will be changing the culture around the sharing of scholarship. Today, researchers are discouraged from sharing their data because other scientists might “scoop” their research and discover a novel cancer treatment before they do. The current publishing

³ <https://creativecommons.org/licenses/by/4.0/>

⁴ In the United States, users do not need to ask permission (or be granted permission through a license) to conduct text and data mining because the activity either falls outside of the scope of copyright or is squarely covered by fair use. However, most other jurisdictions do not have as liberal an interpretation of text and data mining rights, thus the CC BY license would be useful to guarantee these users the permission to engage in TDM on those articles.

⁵ <https://creativecommons.org/publicdomain/zero/1.0/>

⁶ <https://publicaccess.nih.gov/policy.htm>

⁷ https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf

ecosystem essentially rewards researchers who keep their data closed. In a “publish or perish” culture of academic advancement, this puts researchers at odds with each other, instead of working collaboratively towards a common goal. Agencies funding cancer research should incentivize researchers to share their data and articles widely by actively rewarding this behavior in their promotion and funding processes. This could be accomplished by providing grants for the organization and publication of open data, tools, and resources that enhance opportunities for collaborative progress, by providing incentives to place new intellectual property in the public domain, and by structuring experimental protocols in ways that enable the widest possible public participation.

4. Share cancer education and training materials as open educational resources

The U.S. government is already a leader in the support and adoption of open education resources—that is, materials used in teaching and learning that are cost-free to users and guarantee the legal rights to use, adapt, and share.⁸ The Department of Labor’s \$2 billion Trade Adjustment Assistance Community College and Career Training (TAACCCT) program⁹ supported 700 community colleges to produce openly licensed education and training materials that can easily and freely be re-used, updated, and repurposed.

The benefit of this as part of the Cancer Moonshot would be two-fold: (1) improved access to the best, most up-to-date, most effective cancer education resources for teaching and training medical professionals, developed in a collaborative environment, and (2) a reduction in the overall cost of cancer education curriculum and textbooks across the board.

In order to accelerate cancer research and discovery, the U.S. government should require full, immediate open access to government-funded cancer research, data, and educational resources. Creative Commons is standing by to assist in this important—and urgent—endeavor.

Thank you for the opportunity to provide input. We are happy to answer any questions about our recommendations.

Sincerely,

Ryan Merkley
CEO, Creative Commons
ryan@creativecommons.org

⁸ <https://creativecommons.org/education/>

⁹ <https://doleta.gov/taaccct/>