## Adaptations to Federal Funding and Research Regulation: NIH Perspective

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Virtual GUIRR Meeting Series: Learning from Rapid Response, Innovation, and Adaptation to the COVID Crisis

Thursday, October 15, 2020

Virtual Meeting

Disclosures: None



#### Headlines...

### THE WALL STREET JOURNAL.

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https://www.wsj.com/articles/medical-research-is-locked-down-too-11588629492

OPINION | COMMENTARY

### Medical Research Is Locked Down, Too

Clinical trials grind to a halt as patients are told to stay home and research personnel are redeployed.

By Kevin Sheth May 4, 2020 5:58 pm ET

I lead clinical trials for medications to treat crippling disorders such as stroke and brain hemorrhages. During the past few months, every one of these studies has come to a grin halt. The pandemic has thrown clinical trials, the lifeblood of new treatments, into disar

### STAT

Covid-19 has shuttered scientific labs. It could put a generation of researchers at risk

By Justin Chen

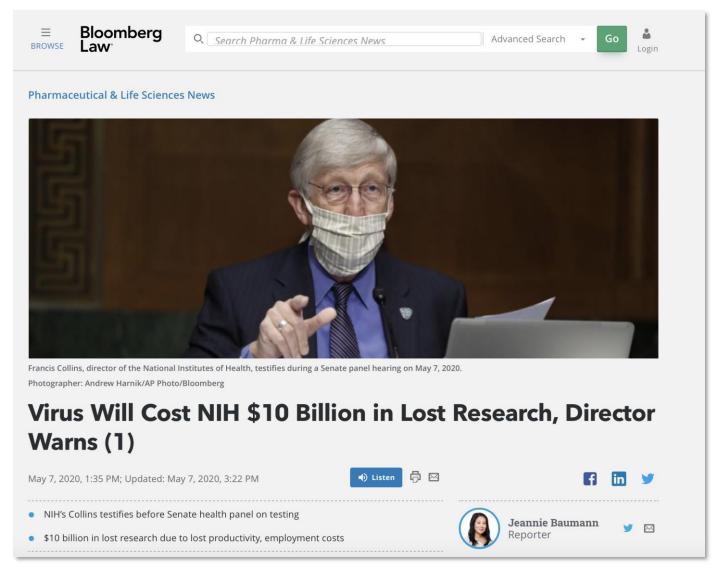
May 4, 2020



Kena Betancur/Getty Images



#### **Real Losses**





#### Remarkably Prescient ...



# Effects of COVID-19 on the Federal Research and Development Enterprise

April 10, 2020





### **Extensive Disruption**

- Laboratories closed or nearly so
- Communications suboptimal
- Conferences and meetings cancelled or disrupted
- Supply chains interrupted; resources lost
- Widespread financial losses
- Required telework has disparate effects (e.g. childcare)
- Anxiety high, especially for early career investigators

https://crsreports.congress.gov/product/pdf/R/R46309

#### **Disproportionate Effects**





# Unequal effects of the COVID-19 pandemic on scientists

COVID-19 has not affected all scientists equally. A survey of principal investigators indicates that female scientists, those in the 'bench sciences' and, especially, scientists with young children experienced a substantial decline in time devoted to research. This could have important short- and longer-term effects on their careers, which institution leaders and funders need to address carefully.

Kyle R. Myers, Wei Yang Tham, Yian Yin, Nina Cohodes, Jerry G. Thursby, Marie C. Thursby, Peter Schiffer, Joseph T. Walsh, Karim R. Lakhani and Dashun Wang



#### **Impact on Productivity**

## **ARE WOMEN PUBLISHING LESS DURING THE PANDEMIC?** HERE'S WHAT THE DATA SAY

Early analyses suggest female academics are posting fewer preprints than men, and starting fewer projects.

#### By Giuliana Viglione

uarantined with a six-year-old child underfoot, Megan Frederickson wondered how academics were managing to write papers during the COVID-19 pandemic. Lockdowns implemented to stem coronavirus spread meant that, overnight, many households worldwide had become an intersection of work, school and home life. Conversations on Twitter seemed

#### PREPRINT DROP-OFF

Two separate analyses show that women's posting rate on preprint servers has slowed during the coronavirus pandemic.

#### All-author analysis

When compared with March and April 2019, the number of male authors on preprints posted to bioRxiv and arXiv has grown faster than the number of female authors in that period this year.

Mar-Apr 2019 Mar-Apr 2020

arXiv: 2019 vs 2020

bioRxiv: 2019 vs 2020

Nature, May 28, 2020

https://media.nature.com/original/magazine-assets/d41586-020-01294-9/d41586-020-01294-9.pdf

#### The Virus Moved Female Faculty to the Brink. Will Universities Help?

The pandemic is a new setback for women in academia who already faced obstacles on the path to advancing their research and careers.



Lisa Warner in her lab at Boise State University. Alex Hecht for The New York Times

#### **Accommodations and Flexibilities**

- Application deadlines, post-submission data
- All peer review remote through Spring 2021
- Salaries and stipends until September 30, 2020
- Human subject research, clinical trials
- Animal research, guidance to IACUCs
- Extensions on reporting; flexibility on expenditures
- Accommodations for loss of time, ESI extension



## Table 1\*: Number of R01-equivalent applications received between May 1 and June 5 in 4 consecutive years.

	Number	All Women (%)	All Men (%)	Other (%)
2017	6398	24.6%	61.7%	11.5%
2018	6481	26.4%	59.8%	11.2%
2019	6171	25.8%	60.9%	10.7%
2020	6799	25.7%	56.8%	14.8%





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#### **Open Mike**

Helping connect you with the NIH perspective, and helping connect us with yours

Posted on October 5, 2020 by Mike Lauer

# Encouraging Participation in Upcoming NIH Surveys to Identify Impacts of COVID-19 on Extramural Research

NIH has been working diligently to support the extramural research community since the pandemic began in March. We are now preparing to reach out with surveys to gather data on how COVID-19 is impacting our extramural researchers and their institutions. If you receive



Dr. Michael Lauer is NIH's Deputy Director for Extramural Research, serving as the principal scientific leader and advisor to the NIH Director on the NIH extramural research program.





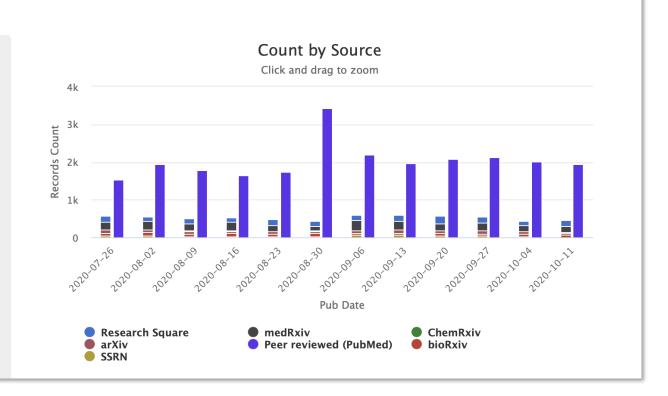
#### The Other Side of Research



Search Query

#### Welcome to the COVID-19 Portfolio

The *iSearch* COVID-19 portfolio is NIH's comprehensive, expert-curated source for publications and preprints related to either COVID-19 or the novel coronavirus SARS-CoV-2. Our COVID-19 Portfolio tool leverages the cutting-edge analytical capability of the *iSearch* platform, with its powerful search functionality and faceting, and includes articles from PubMed and preprints from arXiv, bioRxiv, ChemRxiv, medRxiv, Research Square, and SSRN. The portfolio is updated daily with the latest available data.



AND

OR



### **Searching for Preprints**

#### **Open Mike**

Helping connect you with the NIH perspective, and helping connect us with yours

Posted on June 9, 2020 by Kathryn Funk

## **Emerging Research Now Available Through New NIH**Preprint Pilot





Kathryn Funk,
Program Manager
for PubMed
Central, National
Library of Medicine



#### **Timely Publications with Implications for Practice**

The NEW ENGLAND JOURNAL of MEDICINE

#### ORIGINAL ARTICLE

## Remdesivir for the Treatment of Covid-19 — Final Report

J.H. Beigel, K.M. Tomashek, L.E. Dodd, A.K. Mehta, B.S. Zingman, A.C. Kalil, E. Hohmann, H.Y. Chu, A. Luetkemeyer, S. Kline, D. Lopez de Castilla, R.W. Finberg, K. Dierberg, V. Tapson, L. Hsieh, T.F. Patterson, R. Paredes, D.A. Sweeney, W.R. Short, G. Touloumi, D.C. Lye, N. Ohmagari, M. Oh, G.M. Ruiz-Palacios, T. Benfield, G. Fätkenheuer, M.G. Kortepeter, R.L. Atmar, C.B. Creech, J. Lundgren, A.G. Babiker, S. Pett, J.D. Neaton, T.H. Burgess, T. Bonnett, M. Green, M. Makowski, A. Osinusi, S. Nayak, and H.C. Lane, for the ACTT-1 Study Group Members\*

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#### **Perspectives For the Future**





Leading Edge

**Commentary** 

## How Support of Early Career Researchers Can Reset Science in the Post-COVID19 World

Erin M. Gibson, <sup>1,12,\*</sup> F. Chris Bennett, <sup>2</sup> Shawn M. Gillespie, <sup>3</sup> Ali Deniz Güler, <sup>4</sup> David H. Gutmann, <sup>5</sup> Casey H. Halpern, <sup>6</sup> Sarah C. Kucenas, <sup>4</sup> Clete A. Kushida, <sup>1</sup> Mackenzie Lemieux, <sup>7</sup> Shane Liddelow, <sup>8</sup> Shannon L. Macauley, <sup>9</sup> Qingyun Li, <sup>10</sup> Matthew A. Quinn, <sup>11</sup> Laura Weiss Roberts, <sup>1</sup> Naresha Saligrama, <sup>5</sup> Kathryn R. Taylor, <sup>3</sup> Humsa S. Venkatesh, <sup>3</sup> Belgin Yalçın, <sup>3</sup> and J. Bradley Zuchero <sup>6</sup>

"The COVID19 crisis has magnified the systemic issues plaguing academic research ... oftenstifling excess requirements in publication, tenure, and grant processes; the reliance on funding from national agencies that is catered towards senior level researchers; and the lack of diversity in academic research due to the attrition of women and racial or ethnic minorities during early career stages ... An unprecedented opportunity to reset ... will require a concerted effort between funding agencies, universities, and the public to rethink how we support scientists, with a special emphasis on early career researchers."



#### **Closing Thoughts**

- Impact on research "bipolar"
- Real losses of productivity, lost time and opportunities
- Extensive, and disproportionate, disruption
- NIH monitoring: please answer survey if asked!
- Dramatic changes in results dissemination
- Opportunity for a future reset?

