Under the leadership of President John Fry and Executive Vice President and Nina Henderson Provost, Paul Jensen the next dean will have the opportunity to provide strategic planning, vision, and lead the implementation of academic offerings that increase student enrollment. The next dean will build on the significant momentum in research and nurture the careers of all faculty and staff. Additionally, the dean will continue to build on the success of the FIRST initiative, the Urban Health Collaborative, the Ubuntu Center on Racism, Global Movements, and Population Health and work together with faculty, staff, students, and supporters of the School to identify possibilities for national distinction and bring the best options to life. The dean will build upon existing partnerships and develop new partnerships within Drexel and beyond the University as well as seek external funding for the School by working with University Advancement leaders to identify and cultivate relationships with foundations, corporations, alumni, and donors who support the mission and vision of the School.

The full prospectus is available here.

For best consideration, please send all nominations and expressions of interest to:

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STRengthening Analytical Thinking for Observational Studies (STRATOS): Introducing the Open Science Panel

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This article continues the series describing the STRATOS initiative and its topic groups and panels. In this note, we introduce the newly formed Open Science Panel. The aim of this panel is to promote open science practices, both within the STRATOS initiative and more broadly, by providing accessible guidance for the scientific community on ways to make research more transparent, reproducible and credible.

Why do we need an open science panel? In recent years, the realization that published research findings across many disciplines are not as reliable as previously assumed has led to a "replication crisis" or "statistical crisis in science" [Gelman and Loken, 2014]. In response to this crisis, the scientific community, publishers, funders and other stakeholders are increasingly encouraging open science practices reflecting the idea that "scientific knowledge of all kinds, where appropriate, should be openly accessible, transparent, rigorous, reproducible, replicable, accumulative and inclusive" [Parsons et al., 2022]. Despite a growing awareness of the advantages of a research culture that builds on these principles, the uptake of open science practices in biomedical research is relatively slow [Wallach et al., 2018]. There are many examples of impactful work led by statisticians, but much more needs to be done by statisticians and researchers from many other disciplines [Seibold et al., 2021]. To help remove challenges and perceived barriers that still exist in the adoption of open science practices [Allen and Mehler, 2019], the STRATOS steering group decided to start an open science panel in December 2022.

Concerning open science practices within the STRATOS initiative, there is a general consensus that STRATOS publications should be open access. Moreover, they should use open access data sets (or a synthetic resemblance of it) to make results more easily reproducible. The Open Science and the Publication panels will work together to promote Open Science best practices for STRATOS publications, including development of an Open Science review process for STRATOS publications to undergo prior to submission to a journal.

Concerning guidance on adopting open science practices in observational studies, we plan to develop a paper for biomedical researchers which will outline approaches to dealing with uncertain choices in the analysis of observational studies (also referred to "researcher degrees of freedom" [Simmons et al., 2011]). Although there is increasing awareness of the dangers related to questionable research practices including "HARKing" [Kerr, 1998] and "p hacking", many researchers are unaware of the consequences of seemingly innocuous decisions concerning data pre-processing and model choice that may often occur after considering several possible results on the analyzed data sets. It is important to increase awareness of the problems caused by result-dependent selective reporting and to give an overview of solutions that exist to deal with researcher degrees of freedom without invalidating statistical inference [Hoffmann et al., 2021]. We additionally plan to provide researchers with practical advice to improve the transparency about decisions during data processing and analysis made in their work through a tutorial paper and videos on the STRATOS website about how to make their analysis code readable and reproducible.

Furthermore, data sharing is another pressing topic in biomedical research for which guidance is urgently needed [Mansmann et al., 2023]. If data is FAIR (Findable, Accessible, Interoperable, Reusable), science becomes more efficient, collaborative and transparent. Although data sharing is increasingly encouraged by journals and funding agencies, biomedical researchers remain hesitant to share

data, often with the best intentions. There is therefore a need for guidance on data sharing approaches that aim to find a way forward that both preserves privacy protection and the validity of statistical inference. Development of this guidance is a long-term aim of the Open Science panel.

The panel is presently chaired by Sabine Hoffmann. Further members are Anne-Laure Boulesteix, Daniela Dunkler, Roman Hornung, Michael Kammer, Kim Luijken, Pamela Shaw, Willi Sauerbrei, Fabian Scheipl and Ewout Steyerberg. The panel is looking for members interested in contributing. Please reach out to learn more.

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