**The 4th Scientific day of PhD Student (SDS)**

**Jonathan Kimmelman** is a James McGill Professor and the Director of the Biomedical Ethics Unit.  He holds a PhD in Molecular Biophysics and Biochemistry from Yale University. Kimmelman's research centers on the ethical, social, and policy challenges in testing novel medical technologies in human beings.

Kimmelman received the 2006 Maud Menten New Investigator Prize (Institute of Genetics), a CIHR New Investigator Salary Award (2008), a Friedrich Bessel-Humboldt Fellowship (2014), and was elected as a [Hastings Center Fellow](https://www.thehastingscenter.org/news/new-hastings-center-fellows-elected-2/) (2018). He also has served in an advisory capacity for the World Medical Association, FDA, and the Canadian Institute of Health Research.  Kimmelman formerly chaired the ethics and public policy committee of the [International Society of Stem Cell Research](http://www.isscr.org/). He has served as a member on three National Academy of Medicine Committees – including one advising NASA on [Health Standards for Long Duration and Exploration Spaceflights](https://www.nap.edu/catalog/18576/health-standards-for-long-duration-and-exploration-spaceflight-ethics-principles). He is a deputy editor at [*Clinical Trials*](http://journals.sagepub.com/home/ctj), and an associate editor at [*PLoS Biology*](http://journals.plos.org/plosbiology/).

About the lecture **The Moral Efficiency of Clinical Development in Cancer**

According to recent estimates, pharmaceutical firms spend on the order of $1.4-2.8B USD to develop each new drug. While such figures can inform policy, they fail to capture the most morally relevant inputs and outputs in drug development. In this talk, I introduce the concept of “moral efficiency,” which describes the relationship between morally significant inputs like patient welfare, outputs like clinically impactful advances, and residuals like uninformative and/or misinformative research findings. I then describe several research efforts in my group aimed at tracking various aspects of moral efficiency in cancer drug development. I close by outlining some of the ethical and policy implications of this work, its limitations, and several unresolved questions about moral efficiencies in cancer drug development.