

Insights from the Network

Building Inclusive Excellence Into Your Research Program

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The fall is often described as grant-writing season, although the reality is that for many researchers, grant-writing goes on throughout the year. Many applications for various agencies now require applicants to clearly and explicitly address the incorporation of the principles of equity, diversity and inclusion (EDI) into their applications. Being able to relate EDI principles to rigorous and impactful research has become a real differentiator these days and the strongest scientists can clearly articulate how and why they are intentionally building inclusive excellence into their research programs.

However, many applicants still struggle with what is being asked of them and indeed, sometimes the funding agencies themselves aren't always clear in what they are expecting. Based on the many talks and workshops I have given over recent years, here is some guidance.

First and foremost, we, as researchers, always aim to do the best possible research. We aspire to do inclusive and thus excellent research, because that is the research that is the most rigorous (i.e., experimentally thorough) and impactful (e.g., generalizable, translatable, etc.). Excellence is always our target and we achieve that by being intentional about how we do our research. Understanding more about the application of EDI&A (accessibility) principles in science helps us become better researchers who are doing better research.

To do this, I often suggest that researchers think about two major aspects of their research, both of which are directly relevant to the integration of the principles of EDI. First, consider WHO is doing the research and then consider HOW the research is being done. These [two](#) aspects of research are intimately connected.



Who asks the questions, frames the debate, interprets the data, decides on priorities, allocates resources, builds and leads teams, connects with the community, etc., can significantly impact the kind of research that gets done and, thus, the outcomes of that research. More diverse teams are more likely to ask a broader range of questions including, perhaps, who and what are missing in the research questions or goals. Homogenous teams lead to less generalizable and thus less impactful research – just look at the [shocking absence of research](#) on female biology and women’s health. As a research leader, you should aim to build an intentionally diverse (e.g., gender, ethnicity, race, age, socioeconomic status, etc.) team. So, how do you recruit members to your team? Does your lab website attract potential team members because you show your inclusive, productive and collaborative culture (in both philosophy and actions)? How do you create a lab culture that ensures everyone has the opportunity to contribute, feel supported, respected and appreciated? I often see codes of conduct included in training plans and the best of these are bespoke (specific to context), co-created (between the principal investigator and the team), regularly updated (annually) and have clear consequences for actions if there is a breach. Intentional strategies for recruitment and support of your research team are key elements in, and evidence of, the application of EDI&A principles in your research program and are the kinds of things reviewers are often instructed to look for. Always remember that words are cheap and easy and can look very good on paper, but it’s actions (and hard work) and outcomes (preferably measurable) that matter – just as it does in our experimental work in the lab.

At a recent talk at a biomedical science conference, I was asked by a senior researcher, “... the university expects us to hire for EDI and also that we hire based on merit – how do we do both?”. The implication here is that by seeking out individuals who are under-represented in science, we are somehow compromising on excellence (or perhaps “merit”, noting that current forms of assessing merit in academic science are [demonstrably skewed](#)). This question demonstrates a fundamental failure to understand that talent, creativity and innovation are found in all sorts of people but for a variety of reasons (e.g., historical, attitudinal, etc.), and certain people aren’t included in the scientific enterprise. The best scientists (and their applications) describe how they actively seek out talent, ideas, creativity and innovation, especially in diverse young people – even if it means challenging academic status quo and convention. Most importantly, talented applicants clearly understand and can speak eloquently to the fact that [excellence and equity are mutually conducive](#). We, as scientists, should also always be asking whether the ways we have traditionally done things are demonstrably rigorous and meritorious because often, when we look at data and evidence, they actually aren’t and we can do better.



Creating a diverse, collaborative, creative and supported research team is the first step in achieving a dynamic, productive and creative research program. Ensuring everyone has a chance to contribute means there is an increased chance of new ideas or ways of thinking about a particular question and also less likelihood of missing an important aspect of the research. This is particularly important in biomedical or clinical research where we must be intentional about ensuring we are inclusive in research design. “[The importance of understanding sex and gender as variables that affect rigor, generalizability and translation of research findings](#)” cannot be understated. CIHR provides some excellent [resources](#) for experimental design as do [SSHRC for the New Frontiers in Research Fund](#). Conducting research that is infused with EDI&A principles [raises the bar on research expectations](#) and ensures better quality research. I’m still surprised when researchers don’t know the sex of the cells they use in culture, let alone other aspects of their [origin](#) (e.g., age, ethnicity, race, etc.).

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This commonly prescribed cancer drug was supposed to help save this doctor's life. Instead, it killed him

Some provinces pre-screen patients at risk of toxic reactions, but experts say tests don't go far enough



Rosa Marchitelli, Jenn Blair - CBC News

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Anil (Monty) Kapoor died on Feb. 28 after being prescribed a cancer drug that was toxic to him. From left, brothers Dr. Vimal (Scott) Kapoor, Dr. Sunil Kapoor and Anil's son, Akshay Kapoor. (Keith Burgess/CBC)

Similarly, failure to ensure diverse populations are incorporated into research design can lead to devastating failures in clinical practice as highlighted by the [death of Dr. Amil Kapoor from 5-FU](#) toxicity (a standard chemotherapy drug). As outlined in the article “Current pre-screening guidelines are based on studies that largely leave out populations that aren't white, a known problem based on medical studies they found from North America and other parts of the world”. Rigorous experimental design is [inclusive by design](#) and there is room for improvement across all disciplines in the Canadian research community.

When putting together an application and embedding EDI principles, think about your overall philosophy and the “who” involved in your research along with the “how” of your research. Focus on evidence- and data-informed actions (just as you do in the descriptions of your actual research) and be aware of the heightened impacts and outcomes as a consequence of your EDI-infused approach. The strongest EDI-infused research applications have intellectual depth and breadth with context-specific and evidence-informed strategies. Paying attention to this in your application might just be the differentiator that nudges your application into the fundable range.