

# Making Equity, Diversity, and Inclusion matter in Research

Developed and delivered by:  
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# Hello!

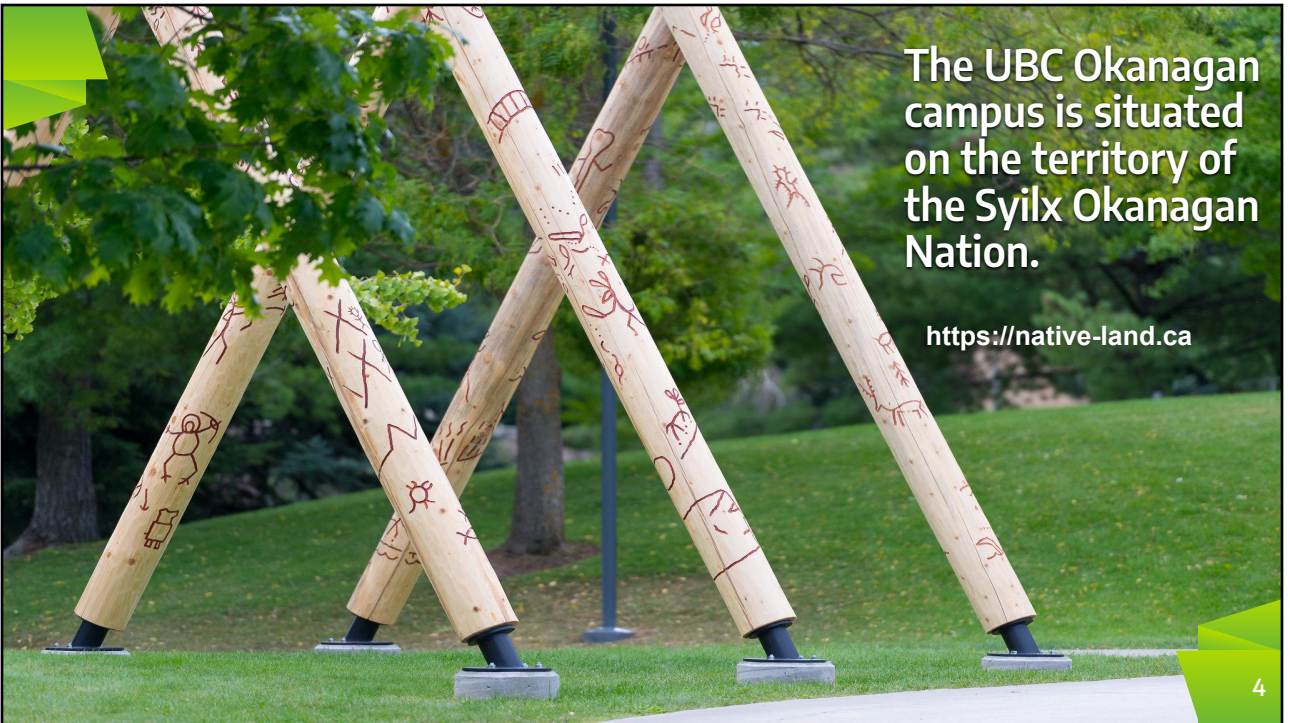


**Rachael E. Sullivan PhD**  
Equity Facilitator  
Equity & Inclusion Office  
2014-Present

- PhD in Sociology
- Qualitative Methods
- Equity issues & conflict
- My identity dimensions



UBC Point Grey campus is situated on the *traditional, ancestral* and *unceded* territory of the of the xwmə0-kwəy'əm (Musqueam) people



The UBC Okanagan campus is situated on the territory of the Syilx Okanagan Nation.

<https://native-land.ca>

# Overview of the Session - A Primer

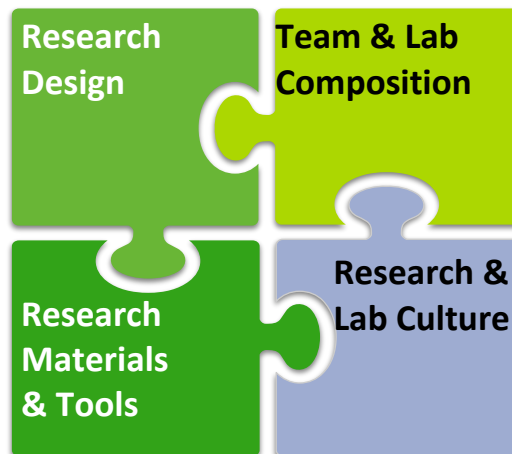
- ▷ What is Equity, Diversity & Inclusion (EDI)?
- ▷ Why is EDI important in research?
- ▷ EDI through the research process
  - Research Design
  - Research Materials & Tools
  - Research Team & Lab Composition
  - Research Team & Lab Culture
- ▷ Review & Closing

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# Research as an Interlocking Process

“By analyzing gender and sex in **all stages of the research process**, from the initial considerations of problem choice to the development of methodological design and data analysis, **scientists may add important new dimensions to research**”

(Nielsen, M. W et al. 2017)



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# 2

## What is Equity, Diversity & Inclusion ?

Let's start with definitions & examples

### Equity, Diversity & Inclusion at UBC

#### **Equity:**

refers to achieving parity in policy, process and outcomes.

It also considers *power, access, opportunities, treatment, impacts,* and *outcomes* in three ways:

- ▷ Representational equity
- ▷ Resource equity
- ▷ Equity-mindedness

#### **Diversity:**

refers to the lived experiences and perspectives of people that may include race, ethnicity, colour, ancestry, place of origin, political belief, religion, marital status, family status, physical disability, mental disability, sex, gender identity or expression, sexual orientation, age, class, and/or socio-economic situations.

#### **Inclusion:**

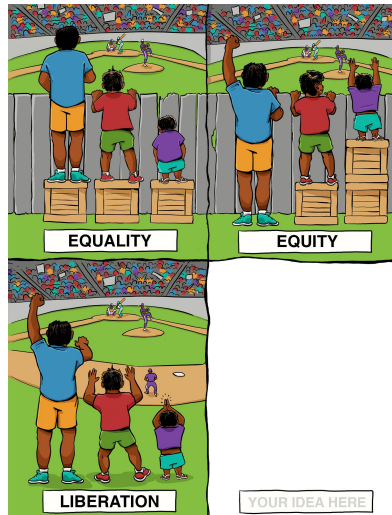
an active, intentional, and continuous process to:

- ▷ Address inequities in power and privilege
- ▷ Build a respectful and diverse community that ensures welcoming spaces
- ▷ Opportunities to flourish for all.

# Equity, Diversity & Inclusion

## Equity:

It requires the identification and elimination of barriers that prevent the full participation of some groups.



# Equity, Diversity & Inclusion

## Diversity:

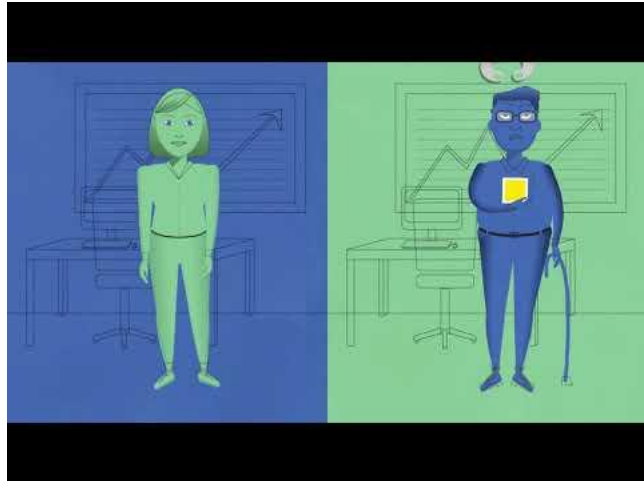
Representational diversity in addition to diversity in education, expertise and lived experiences is fundamental to achieving research and training excellence.



Image: Diversity Wheel from [http://web.jhu.edu/dlc/resources/diversity\\_wheel/](http://web.jhu.edu/dlc/resources/diversity_wheel/)

# Intersectionality

- ▶ An approach used by researchers to better understand and address the multiple barriers and disadvantages that individuals face with intersecting social identities, such as race, gender, sexuality and class.



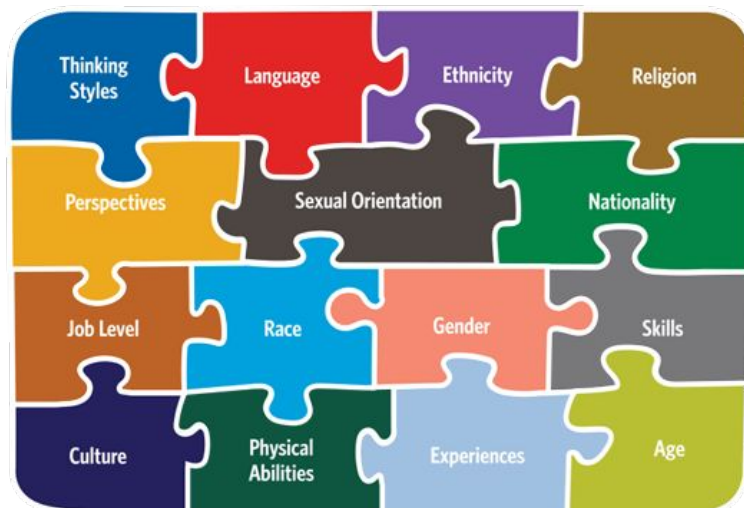
<https://www.annualreviews.org/shot-of-science/story/indispensable-work-understanding-intersectionality>

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# Equity, Diversity & Inclusion

## **Inclusion:**

Ensuring that all team members are integrated and supported is fundamental to achieving research and training excellence.



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## Equity & Inclusion Office

About ▾ How We Can Help ▾ Resources ▾ Get Involved ▾ Workshops & Events ▾ News ▾ UBC Okanagan

Home / Resources

About ▾

How We Can Help ▾

Resources ▾

Activating Inclusion Toolkit ▾

Policies & Reports ▾

Academic Programs and Research ▾

Days of Significance ▾

Gender Diversity ▾

Accessible and Inclusive Event Planning ▾

Responsibility of Managers and Administrative Heads ▾

Resources for Respectful Debate ▾

Equity Enhancement Fund ▾

Equity & Inclusion Scholars Program ▾

- Activating Inclusion Toolkit
- Policies & Reports
- Academic Programs and Research
- Days of Significance
- Gender Diversity
- Accessible and Inclusive Event Planning
- Responsibility of Managers and Administrative Heads
- Resources for Respectful Debate
- Equity Enhancement Fund
- Equity & Inclusion Scholars Program
- Equipment Accommodation Fund
- Positive Space Campaign
- Media Library
- For UBC Students
- For UBC Faculty
- For UBC Staff
- For Community Members
- Equity Considerations in Virtual Interviews
- Equity & Inclusion Glossary of Terms
- Communication Guidelines & Resources

### and resources available to the UBC

Inclusion Office at any time to make an appointment, and are invited to a confidential, safe and welcoming environment to clarify their situation and if specific to trans inclusion or gender diversity, please [contact us](#) to connect.

related to UBC [students](#), [faculty](#), and [staff](#). For resources applicable to all, please see below.

### Individuals who identify as part of the

source providing information, education and intervention services for individuals who identify as part of the community. We do not formally investigate complaints and help address harassment and other forms of discrimination and to support an equitable, respectful environment at UBC, for faculty, staff and students. We provide information, education and facilitation on equity, diversity, human rights and respectful environment. We do not formally investigate complaints nor do we have disciplinary authority, but we may help with informally and impartially resolving concerns (e.g. through mediation or other means) where possible and appropriate. We support and collaborate with Faculties/Schools, Departments and other agencies at the University by providing expertise related to equity, diversity, human rights, and respectful environment to create and maintain healthy, respectful, welcoming environments. We can also provide information on available formal complaint options and procedures in a safe, confidential setting and are an "open door" throughout that process.

# 2

## Why Equity, Diversity & Inclusion (EDI)?

Benefits and barriers of EDI in research

# Why Equity, Diversity, & Inclusion?

## → Academic training & Mentorship

- ◆ Individuals from underrepresented groups are most likely to leave STEM fields at two particular checkpoints: graduating with an undergraduate STEM degree and the postdoc to faculty transition (Meyers et al., 2018)

## → Research Design:

- ◆ 8 of 10 drugs withdrawn from the United States market between 1997 and 2000 posed “greater health risks for women than for men” (U.S. General Accounting Office (GAO) (2001) Drug Safety: Most Drugs Withdrawn in Recent Years Had Greater Health Risks for Women (Government Publishing Office, Washington, DC7u)

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# Why Equity, Diversity, & Inclusion?

## → Research Labs & Teams

- ◆ A 2018 report published by the Canadian Association of University Teachers (CAUT), [\*Underrepresented and Underpaid: Diversity & Equity Among Canada's Postsecondary Education Teachers\*](#), highlights the persistent lack of diversity in the academic workforce and wage gaps between men and women, and between white, Indigenous and racialized staff.

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## Why Equity, Diversity, & Inclusion?

### → **Collaboration:**

- ◆ Joshi (2014) found that across 60 interdisciplinary teams of more than 500, women more often than men accurately recognize the expertise of fellow team members and they are more likely to emphasize educational qualifications when evaluating expertise, whereas men tend to be distracted by irrelevant cues, such as gender.

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## Why Equity, Diversity, & Inclusion?

### → **Innovation & Problem Solving:**

- ◆ Over 600 participants were placed into same- and mixed-gender groups and asked to solve basic and complex problems (Woolley et al. 2010)
- ◆ These researchers found that the 'collective intelligence' factor of mixed-gender groups was a better predictor of group performance than the IQ of individual group members. Moreover, neither all-men nor all-women teams were the most effective in problem solving.

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# Why Equity, Diversity, & Inclusion?

## → Productivity:

- ◆ Research has shown that more diverse **research labs are more productive** than those that are homogeneous (AlShebli et al., 2018)
- ◆ Research suggests that publications produced by **gender-diverse groups appear to be higher quality** because they tend to receive more citations from their peers, (Campbell et al. 2013)

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# Let's review some concepts

## Equity

achieving parity in policy, process and outcomes for historically and/or currently underrepresented and/or marginalized people.

## Intersectionality

used by researchers to better understand and address the multiple barriers and disadvantages that individuals with intersecting social identities, such as race, gender, sexuality and class, face.

## Diversity

refers to the lived experiences and perspectives of people including all of the identities they hold and perspectives they bring to a group and/or field.

## Inclusion

an active, intentional, and continuous process to address inequities in power and privilege, and build a respectful and diverse community.

On to Part 2...

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# Making Equity, Diversity, and Inclusion matter in Research

## PART 2!

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# 3

## How EDI matters in the Analytical Process

How to bring EDI into research development

## Starting with GBA+



### What is GBA+ ?

- ▷ is an analytical process
- ▷ using critical questions and engagement
- ▷ determines how diverse groups of women, men and non-binary people may experience research outcomes (policies, programs & initiatives)
- ▷ ‘+’ going beyond gender

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## Central questions to consider for GBA+

1. Do I believe that the issues I work on are *gender neutral*? Or *culturally neutral*? *Ability neutral*? Is this based solely on my own experience?
2. Is it possible that *my assumptions prevent me* from asking questions and hearing or understanding answers that are outside my own experience?
3. How might *attitudes and norms* – my own, those of my organization, and those of the institutions and society that surround me – limit the range of policy options I consider and propose?

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## GBA+ Framework – Key Lessons Learned

- ▶ **No single element of GBA+ is enough**; all are necessary to achieve sustainability.
- ▶ To be effective, a GBA+ Framework needs to incorporate an accountability structure (e.g., a GBA+ Champion in senior management, an intra-departmental working group) to promote accountability and visibility.
- ▶ The responsibility and use of GBA+ needs to extend across the entire organization (e.g., from the senior managers to the subject-matter experts) to ensure researchers are working to embed EDI in all facets of their work.

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# 4

## How EDI matters in the Research Process

Design & Data to Team Development



Research  
Design

Research  
Materials &  
Tools

## EDI in Research: A Framework

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### EDI in Research Design

#### Parts of Research Design:

- ▷ Research Questions
- ▷ Population & Recruitment
  - ▶ Indigenous peoples
  - ▶ Insider/Outsider
- ▷ Methodology
- ▷ Data Collection & Testing
- ▷ Deliverables

#### Assumptions:

- ▷ Western/colonial bias in STEM disciplines
- ▷ Research area(s)
- ▷ Bias in questions asked
- ▷ Power differential with research population

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# EDI in Research Design

## Impact:

- ▷ Limited results
- ▷ Missing populations
- ▷ Misalignment between methods used and population or data sets

## Antidotes

- ▷ Incorporate diverse 'worldviews' to ensure the results and deliverables meet a greater/broader need
- ▷ Diverse literature/research
- ▷ Draw on diverse research networks and clusters

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## Indigenous knowledge & statistical modeling



Rowenna Gryba, PhD Candidate -

“Before conducting the interviews we talked with representatives of the communities about the project to make sure they supported our approach. We also developed consent letters for the hunters that we interviewed to ensure they understand the project and know that ***we view the information they share with us as theirs, not ours.*** We note they will be added as authors to any papers, if they want. We also made trips back to the communities to review how I interpret the information they shared so they can correct me if needed, and will do trips to share the final results”.

- <https://medium.com/@bcscience/stats-66080540930>

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“

“While there are research projects in which [diversity,...] may not be relevant in terms of the research content, it is well established that, where relevant, not integrating [diversity,...] into the design, implementation, evaluation and dissemination of the research can lead to poor results and missed opportunities”

~ [https://www.nserc-crsng.gc.ca/doc/EDI/Guide\\_for\\_Applicants\\_EN.pdf](https://www.nserc-crsng.gc.ca/doc/EDI/Guide_for_Applicants_EN.pdf)

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## EDI in Research Materials & Tools

### Parts of Research Design:

- ▷ Research Materials
  - ▶ Tests & Instruments
  - ▶ Equipment
- ▷ Data Collection & Testing
- ▷ Deliverables

### Assumptions:

- ▷ Alignment between methods used & research questions
- ▷ Research Tools are exempt from EDI analysis
- ▷ Everyone has the same access to tools, equipment and lab time

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# EDI in Research Design

## Impact:

- ▷ Misalignment between methods used and population or data sets
- ▷ Research tools can potentially be exclusionary to those who this work is trying to benefit

## Antidotes

- ▷ Review **access** to tools, equipment, instruments and data collection methods using EDI & GBA+ lenses
- ▷ Utilize diverse research networks to review their use of tools and materials in different contexts

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## Connecting the disparate - while staying grounded



UBC Okanagan students in discussion - [UBC Okanagan](#)

Margo Seltzer, PhD - UBC Computer Science

“We have this image of a hacker in a dark room eating Cheetos. However, the reality is that computer science is highly collaborative, and that collaboration propels both people and ideas. [...] Chamber musicians communicate without a leader. They’ve come up with ways to teach that. Meanwhile, in computer science we ask people to do group work but we don’t have a formal way to teach them how to do it. We could learn from them.”

- <https://medium.com/ubcscience/seltzer-7979b533dc92>

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A diagram consisting of three puzzle pieces. On the left is a large, light blue rounded rectangle. To its right are two smaller puzzle pieces stacked vertically. The top piece is light green and contains the text 'Research Team & Lab Composition'. The bottom piece is light blue and contains the text 'Research & Lab Culture'.

Research  
Team & Lab  
Composition

Research  
& Lab  
Culture

## EDI in Research: A Framework

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“

“Systemic change eludes many Canadian universities because the affinity bias, homosocial culture, and embedded practices that give rise to the production of professorial and administrative replicas have been regularized”

-from *The Equity Myth* (Smith et al. 2017, Ch11, p.292)

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# EDI in Research Teams & Lab Composition

## Research Teams & Labs:

- ▷ Demographics
  - ▶ Identities
  - ▶ Education
  - ▶ Expertise
  - ▶ Lived experience
- ▷ Hiring practices
- ▷ Onboarding & expectations

## Assumptions:

- ▷ All researchers will have the same access to resources, training, and experiences
- ▷ Biases & stereotypes
- ▷ Same or similar schedules

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# EDI in Research Teams & Lab Composition

## Impact:

- ▷ Lack of diverse thought, perspective, and problem solving
- ▷ Limits the impact of research findings

## Antidotes

- ▷ Utilizing EDI in hiring:
  - ▶ Development of JD's
  - ▶ Selection & Interviews
  - ▶ Decision making

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# EDI in Research Teams & Lab Culture

## Teams & Lab Culture:

- ▷ Mentorship & Promotion
- ▷ Training & Professional Development
- ▷ Communication
- ▷ Accommodations
  - ▷ Disability
  - ▷ Schedules
  - ▷ Celebrations

## Assumptions:

- ▷ All supervisors treat research trainees the same (lack of bias in team/lab)
- ▷ Mental health is not a concern among researchers by either supervisors or trainees
- ▷ Same or similar schedules

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# EDI in Research Teams & Lab Culture

## Impact:

- ▷ Serious disruptions to lab dynamics and research productivity if supervisors do not recognize and respect the inherent differences among their trainees (i.e., religion, race, gender, sexuality differences, etc.)
- ▷ Ignoring mental health concerns can be detrimental to wellbeing of researchers and research productivity

## Antidotes

- ▷ Begin each research team introductions with an overview into what EDI is, how to mitigate bias
- ▷ Create a process for engaging in conflict and microaggressions
- ▷ Establish clear work/life boundaries to increase wellbeing

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# Finding Strength in Numbers



Malabika Pramanik's office. Photo: Paul Joseph.

Mentorship is a crucial part of STEM retention efforts, especially for women, Indigenous youth and recent immigrants

“The goal is to create, with help from all communities, a sustainable framework where young people can view themselves as a part of a supportive and inclusive environment that celebrates their diverse strengths, where they do not feel isolated,” says Pramanik. “And one day they can pay it forward with their own mentorship.”

<https://medium.com/@malabika/science/strengthinnumbers-25d7fe2598fe>

## Let's review some concepts

### **Equity**

achieving parity in policy, process and outcomes for historically and/or currently underrepresented and/or marginalized people.

### **Intersectionality**

used by researchers to better understand and address the multiple barriers and disadvantages that individuals with intersecting social identities, such as race, gender, sexuality and class, face.

### **Diversity**

refers to the lived experiences and perspectives of people including all of the identities they hold and perspectives they bring to a group and/or field.

### **EDI Research Design**

From the questions asked to the GBA+ process to ensure that all aspects of research design are considered, explored and revised based on new and EDI informed perspectives.

### **Inclusion**

an active, intentional, and continuous process to address inequities in power and privilege, and build a respectful and diverse community.

### **Research Team/Lab Culture**

Like all workplaces, team/lab composition and culture is impacted by utilizing EDI in hiring, training & development, and open communication to ensure team members are welcomed and included.

# Thanks!

For any questions?

**Equity & Inclusion Office**

Vancouver Campus

2306 – 1874 East Mall  
Vancouver, BC Canada V6T 1Z1  
Tel 604 827 1773  
Website: [equity.ubc.ca](http://equity.ubc.ca)  
Email: [info@equity.ubc.ca](mailto:info@equity.ubc.ca)

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Kelowna, BC Canada V1V 1V7  
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Website: [equity.ok.ubc.ca](http://equity.ok.ubc.ca)  
Email: [equity.ubco@ubc.ca](mailto:equity.ubco@ubc.ca)

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## Equity, Diversity & Inclusion



Find more maps at [slidescarnival.com/extra-free-resources-icons-and-maps](http://slidescarnival.com/extra-free-resources-icons-and-maps)

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