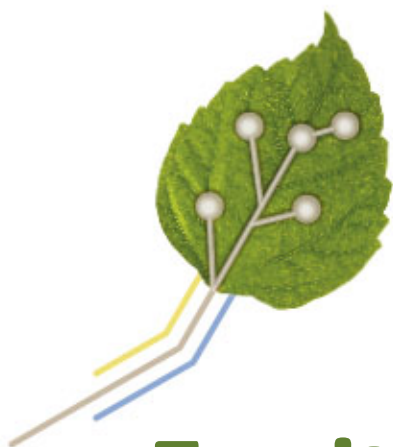




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Equity, diversity, inclusion: Lessons for science institutions & research careers

Janice Bailey
Scientific Director
April 15, 2021



Gender
Summit®

Quality Research and Innovation through Equality

1

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PRESENTATION OUTLINE

- ☐ **Women in STEM: An overview from Canada & Québec**
- ☐ **Impacts of the pandemic: Greater inequities**
- ☐ **Actions to address the situation**

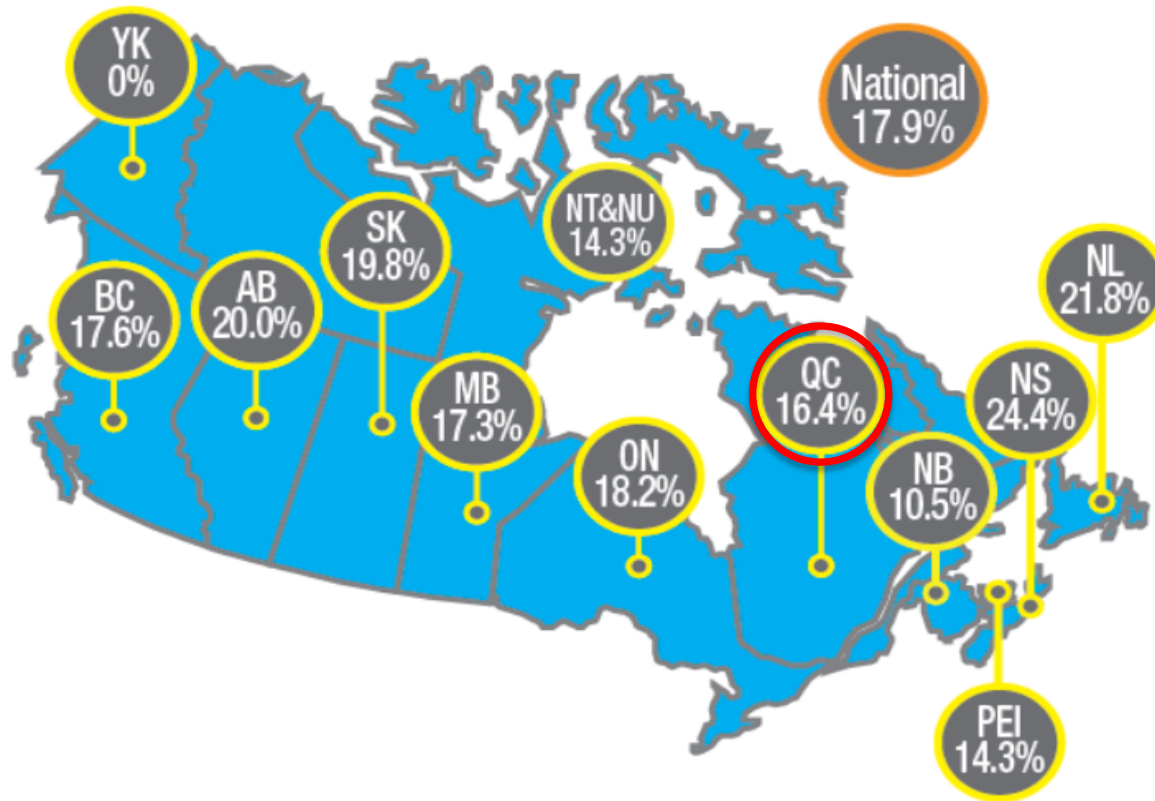
Women in STEM:

An overview from Canada & Québec

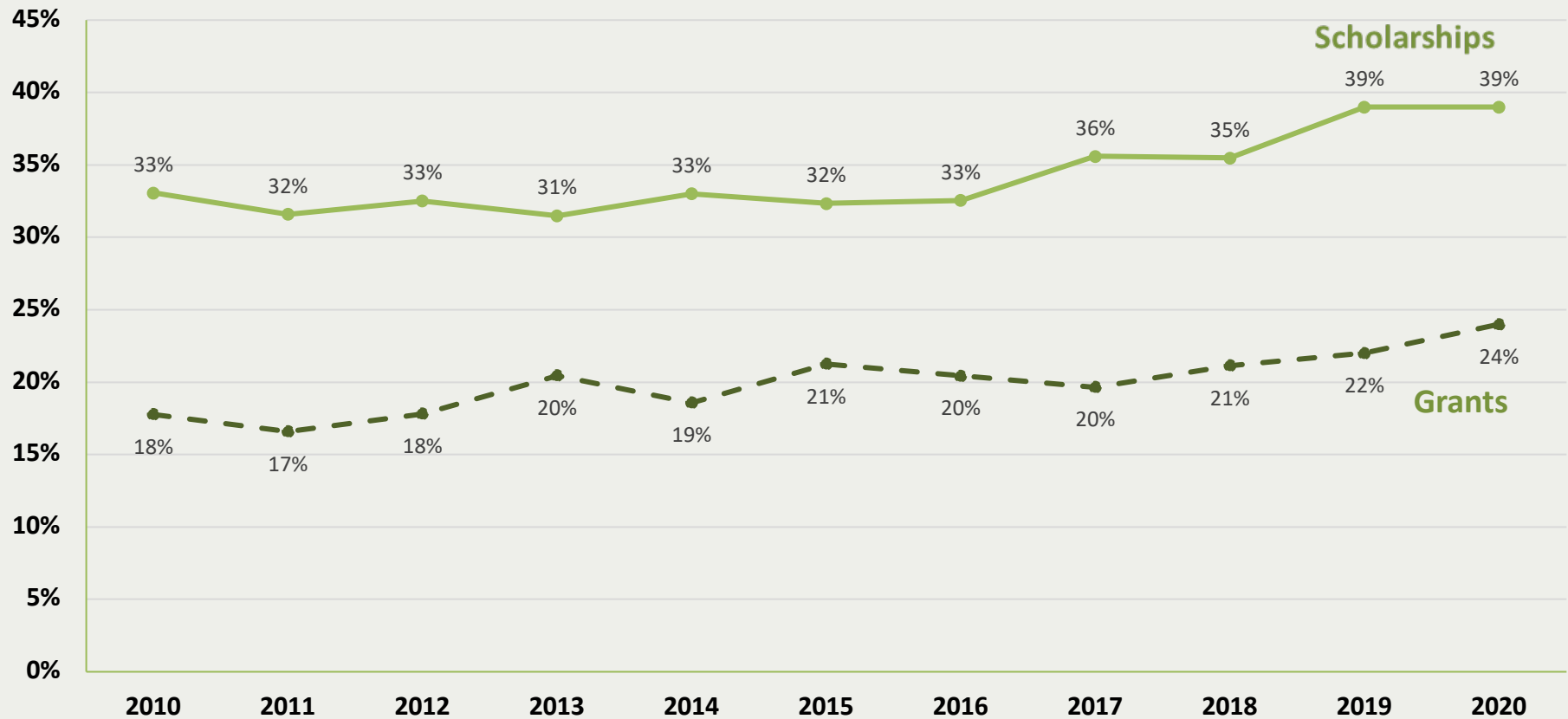
Women in Engineering

Percentages of newly licensed engineers who are women

As of December 31, 2019



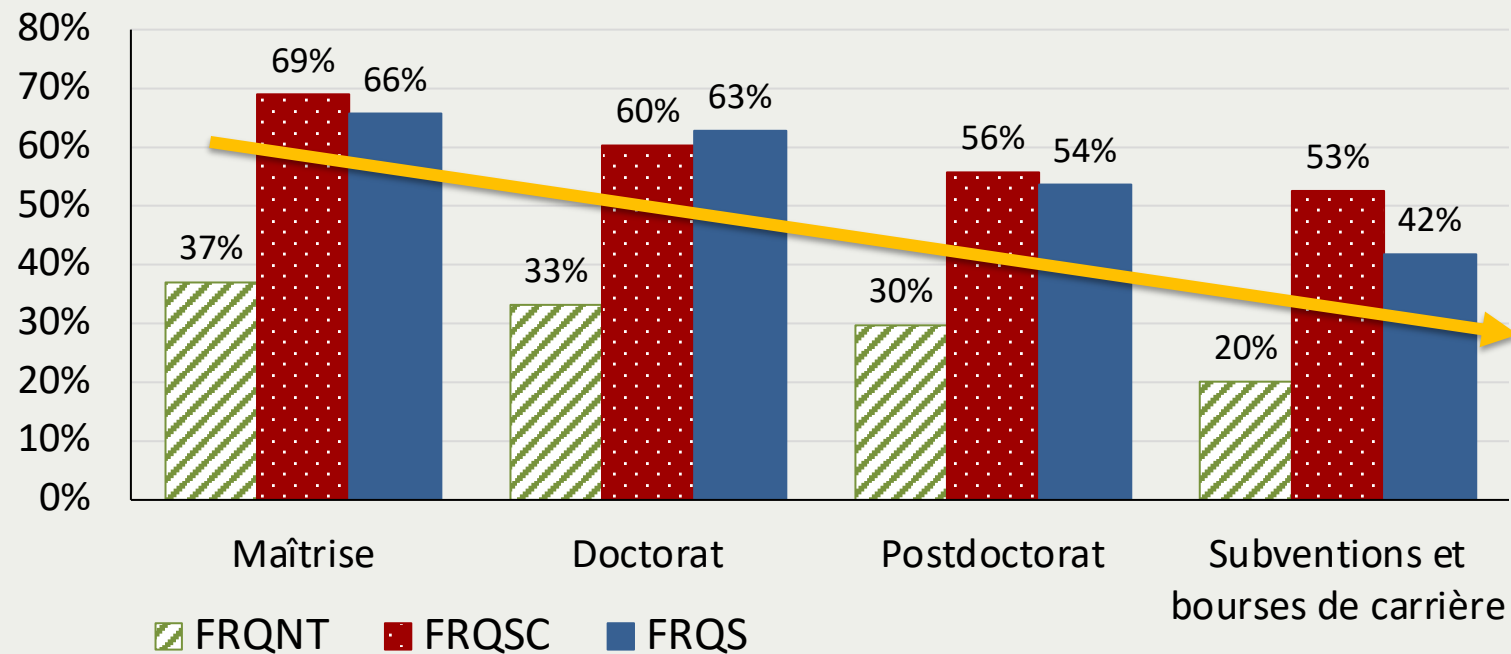
Proportion of women applicants to FRQNT (STEM) programs is increasing slowly but remains low (2010-2020)



FRQNT (STEM) success rates from 2009-2010 to 2019-2020, by gender – no difference



Proportion of women applicants to FRQNT (STEM)
is low relative to **humanities** and **health sciences**
but all have a leaky pipeline
Average over 10 years, from 2010-2011 to 2019-
2020*



* Moyenne sur 8 ans au FRQS (2012-2013 à 2019-2020)



FRQNT 2018-2022 Strategic Plan

Vision: Diversified research as a driving force for socio-economic progress

Objective: Encourage diversity and inclusion within the scientific community

→ *Beyond gender equity, the actions of the FRQNT will also aim for greater inclusion of other underrepresented groups in research and in STEM*



What are these efforts for?



Diversity and inclusion → Excellence

- Provides access to a larger pool of top talents
- Greater diversity is associated with better performing environments*

*Freeman & Huang (2015). Collaborating with People Like Me: Ethnic Coauthorship within the United States, *Journal of Labor Economics*, Vol. 33(S1), S289-S318
Hunt, V., D. Layton et S. Prince. *Diversity Matters*, McKinsey & Company, 2015
Nielsen et al (2017). Gender diversity leads to better science, *PNAS*, 114(8), p. 1740-1742

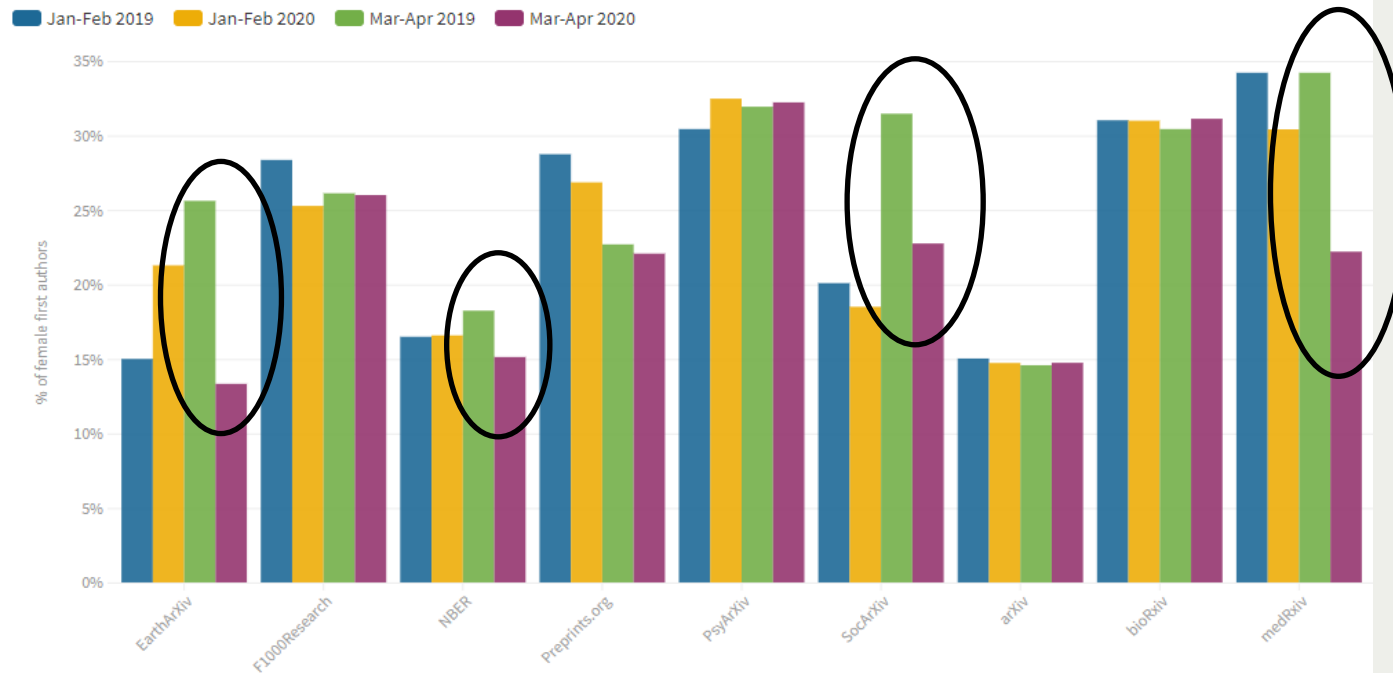
Impacts of the pandemic: Greater inequities

Impacts of the pandemic: Greater inequities



Female first authors are submitting fewer preprints

Overall, women submitted fewer papers in March and April compared to the same months in 2019, particularly to EarthArXiv, medRxiv, SociArXiv, and NBER.



Source:

Vincent-Lamarre P, Sugimoto CR, Larivière V (2020). [The decline of women's research production during the coronavirus pandemic.](#) *Nature Index.*

Impacts of the pandemic: Greater inequities



- The decline in publications by female researchers is explained by less availability for research:
 - Greater take-over, on average, of household and caring responsibilities, compared to their male colleagues
 - More academic service tasks than their male colleagues (*Faculty Workload & Rewards Project*)
- Rapid funding opportunities related to COVID-19 may have limited the ability to submit applications



Actions to address the situation

1. FRQNT awareness training for implicit biases



- All reviewers are invited to complete an on-line training module
- Does not eliminate bias, but makes people aware, which can reduce its influence
- Survey conducted with reviewers in June 2020:
 - **94%** consider the training to be somewhat or very important
 - Among the **79%** who completed the training, **88%** consider that it was possibly or definitely helpful in the review process

2. Diversity is a scientific criterion for FRQNT funding programmes



- **We do not want to know the team's composition!** (e.g., how many persons from a minority group)
 - Do not share information about other people
 - A team's diversity does not necessarily reflect efforts toward equity and inclusion
 - Avoid tokenism
- **We do not want lip service** on equity, diversity and inclusion
- **We want concrete actions**
 - Already in place or planned **by the applicant**
 - In their team, their institution, their field of research or other
 - Based on challenges in their environment

3. FRQNT COVID-19 accommodations



- ✓ Extending strategic clusters with financing for an extra year
- ✓ Extending FRQNT scholarships and flexibility regarding international scholarship recipients
- ✓ New professor grants supplements
- ✓ College research grants coupled to internships
- ✓ NOVA – early-career professors are prioritized

4. Considering the impact of the pandemic in the evaluation of funding applications



- New measure to alleviate the inequities created or amplified by the uneven impacts of the COVID-19 pandemic:
 - Applicants can describe in their application the impacts of the pandemic on their research and training activities
 - The impacts described will be taken into account in the evaluation of the applications
 - Guidelines available on our website

5. Diversity accommodations in FRQNT programs



We review our programs every year to make them better

- ✓ Paid parental leave for scholarship holders
- ✓ Paid maternity leave for bursary students supported by a grant
- ✓ Travel expenses outside Quebec for postdoctoral fellows and their families
- ✓ Childcare costs during travel for scientific activities of researchers
- ✓ Extension of eligibility windows in the event of parental leave, serious illness, major family obligations or disability
- ✓ It is now possible to use the postdoctoral fellowship at the same establishment as for doctoral studies in the case of major family obligations, serious illness or disability that limit mobility

Different types of support make a difference



What's in a Name?

ROLE MODEL

someone
you want to become

MENTOR

talks *with* you

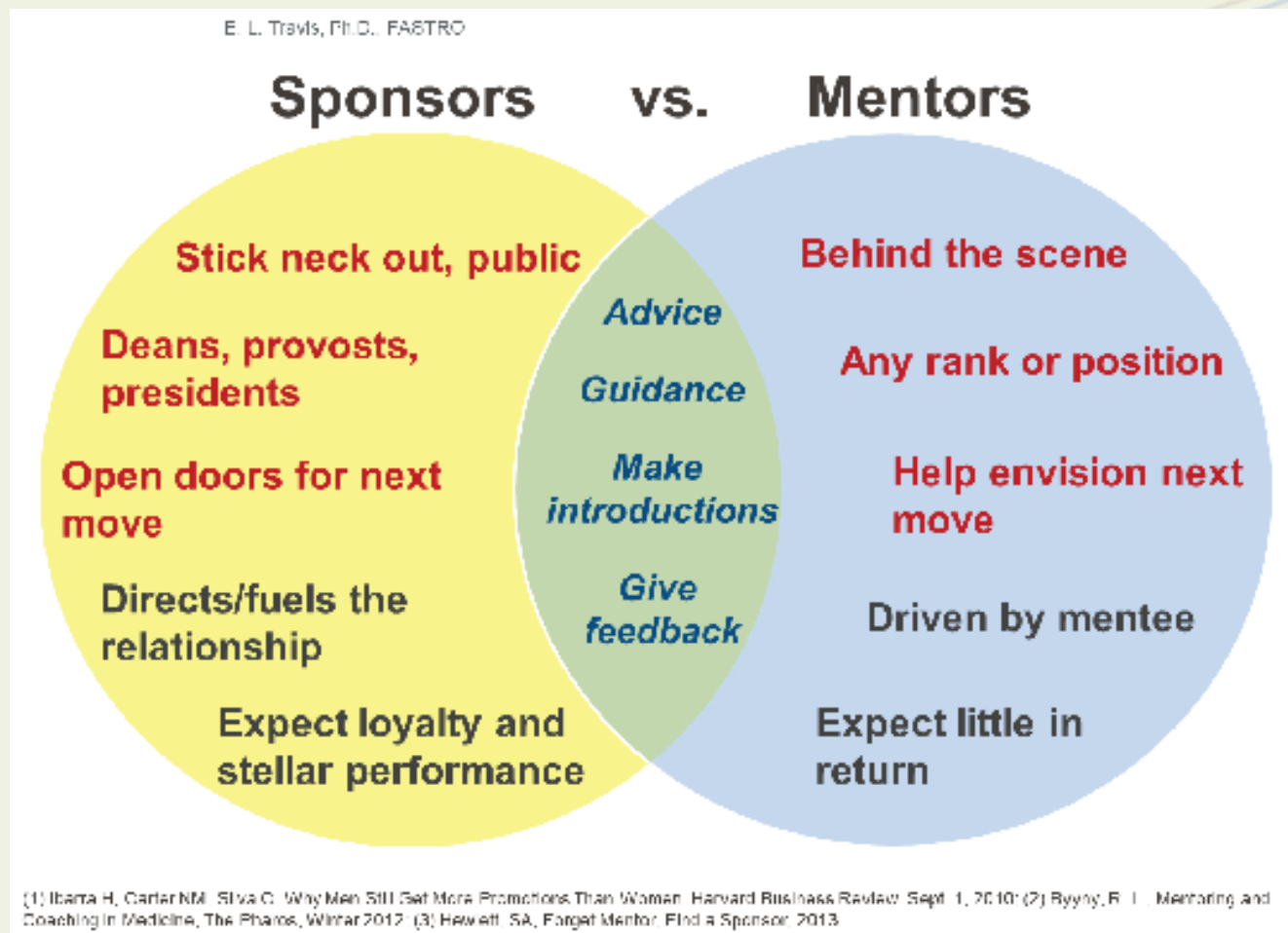
COACH

talks *at* you

SPONSOR

talks *about* you

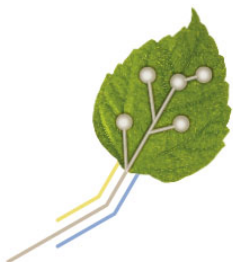
Sponsors use their power to advocate for advancement



What can you do?



- Be a role model, mentor, coach – especially a sponsor!
- Offer support and adapt expectations for trainees
- Take over some of the responsibilities of early career researchers, to give them more time for research
- Reexamine work-life balance policies within your network



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Merci!

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 @JaniceBailey6



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