



Science benefits from diversity

Elisa De Ranieri

Editor in Chief, Nature Communications

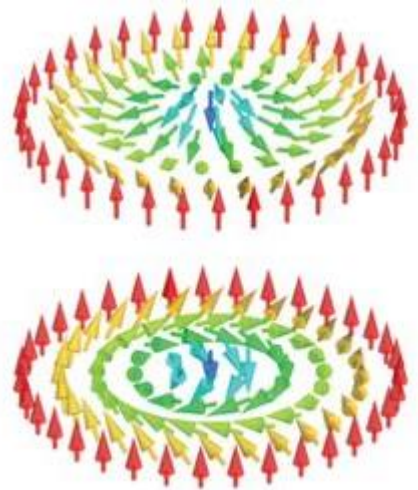
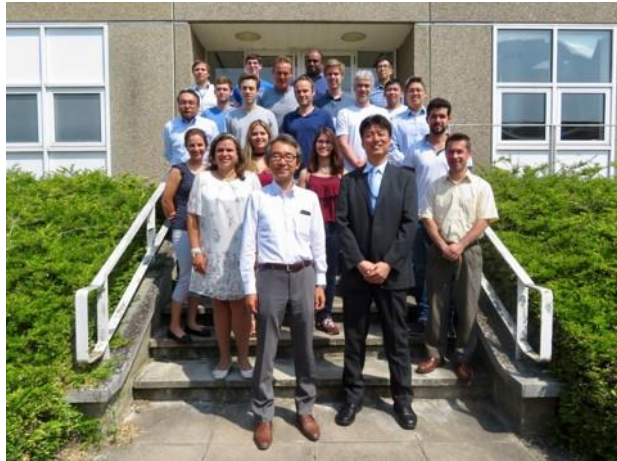
STM Week, 6 December 2018

SPRINGER NATURE

Diversity matters to me



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Diversity matters to science

“The reason is unclear, but bibliometrics suggest that **teams with greater ethnic diversity** generate papers that make **more of a splash** in the scientific literature.”

Richard B. Freeman and Wei Huang,

<https://www.nature.com/news/collaboration-strength-in-diversity-1.15912>



Image: Michelle Francl

POLICY & ETHICS

Diversity in Science: Why It Is Essential for Excellence

Science and technology are society's main engines of prosperity. Who gets to drive them?

By Fred Guteri on October 1, 2014

<https://www.scientificamerican.com/article/diversity-in-science-why-it-is-essential-for-excellence/>

“When we have to work with people who are **not like ourselves**, we tend to prepare more thoroughly and work harder to marshal our arguments, and **we do better work** as a result. Diversity is beneficial for teams precisely because we react differently to people who are different from us. If the end goal is excellence, **diversity is an essential ingredient.**”

“Minority folk bring a **fresh angle** on things... a lot of breakthroughs come from left field”.
Dame Jocelyn Bell Burnell, in The Guardian

DIVERSITY

Why Diverse Teams Are Smarter

by David Rock and Heidi Grant

NOVEMBER 04, 2016

They Focus More on Facts
They Process Those Facts More Carefully
They're Also More Innovative

<https://hbr.org/2016/11/why-diverse-teams-are-smarter>

“Science has a diversity problem”

<https://www.nature.com/collections/qsgnptgbr>

THE WORLD UNIVERSITY RANKINGS PROFESSIONAL JOBS SUMMITS RANKINGS

One in three UK universities going backwards on female professorships

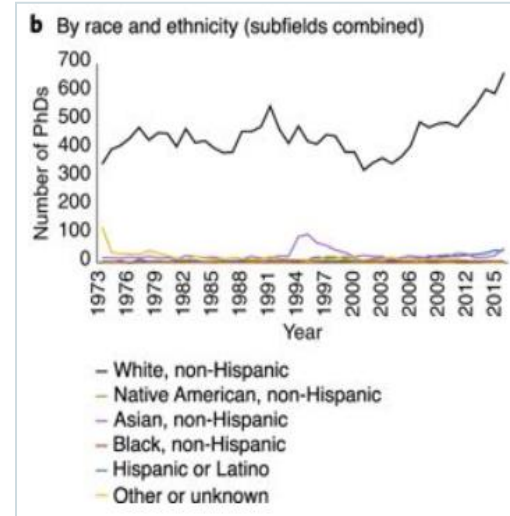
New data show proportion of professors who are women has declined at some institutions

British universities employ no black academics in top roles, figures show

Figures record zero black academics in the elite staff category of ‘managers, directors and senior officials’ for third year in a row



Universities are employing more black staff as cleaners, receptionists or porters than as lecturers



Number of PhDs, US, by race and ethnicity
Bernard & Cooper (2018), Nature Geoscience

“Socio-economic background has a strong effect on an individual’s likelihood of entering the scientific workforce.”

<https://royalsociety.org/topics-policy/diversity-in-science/uk-scientific-workforce-report/>

Why don't women win Nobel science prizes?

“Science doesn’t operate in a political vacuum,” she explains. “I think there are some sciences which can be more objective than others. But we are dealing with people, we’re not the Large Hadron Collider.”

Angela Saini, Inferior: How Science Got Women Wrong

Publishers need to do more on diversity and inclusion



72%
Report no training in diversity and inclusion

52%
Disagree with the statement that people of all ages have equal opportunities in the workplace

Our mission



To help researchers,
students, teachers and
professionals to discover,
learn and achieve more



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Diversity at Springer Nature



Diversity at Springer Nature

- Director of Diversity and Inclusion
- D&I strategy initially focused on gender and international representation at senior levels.
- Tangible activities:
 - Training on inclusive leadership for managers
 - Tools to ensure best practice in recruitment and broadening of talent pool
 - Unconscious bias training for all staff



Diversity at Springer Nature

- Mentoring for mid- level managers who are also parents and care-givers – both men and women.
- Mentoring for international managers (of all genders) who are interested in pursuing a global career and would like to learn more about different locations and culture.
- FT125 Women's Forum event programme for female employees.



Diversity at Springer Nature



Our wider role



Diversity efforts in the community

#PeerReviewWeek18

Research in progress blog

[About this blog](#)



Increasing diversity in peer review with transparent mentoring of early career researchers



[Ella Fleming](#)

Journal Development Manager at BMC

Today, four BMC journals are launching a pilot to proactively endorse peer review mentoring, which aims to increase diversity and inclusivity in peer review. In this blog, Journal Development Manager, Ella Fleming, explains the rationale behind this pilot, how it will work, and how you can get involved.

Within BMC, Ella oversees a portfolio of open-access, applied-methodology journals within health sciences that aim to improve

Research in progress blog

[About this blog](#)



How does gender influence the academic publishing process?



[Dr Dina Balabanova & Jamie Lundine](#)

Gender and diversity issues are taking center stage and there is growing awareness of the under representation of women as authors, editors and peer reviewers in academic publishing. Here we discuss with Dr Dina Balabanova (Associate Professor, London School of Hygiene & Tropical Medicine and Section Editor for *BMC Health Services Research*) and Jamie Lundine (Research Associate, University of Ottawa) – and co-authors of a [Comment](#) in the May 5th edition of *The Lancet* – their particular interests in this area and what they would like to see change in the future.

Dr Dina Balabanova is an Associate Professor in Health Systems & Policy in the Department of Global Health and Development at LSHTM, with over 20 years of experience in health systems and policy research. She is a co-

Panel on diversity at SpotOn 2018 by BMC



Diversity efforts in the community

Nature Research
Inspiring Science Award

Nature Research
Innovating Science Award



The Association of Hungarian Women in Science



Mirjana Pović
(Ethiopian Space Science and Technology Institute)

Mentoring girls in STEM



Diversity task force and steering group

nature research

- Important role of our editors, peer review models
- Advocacy in news content
- Strive for balance in:
 - commissioned content
 - pool of reviewers
 - speaker panels at Nature Conferences
 - external editors
- Initially gender, then other aspects e.g. geographical origin
- Collect demographic information for reporting purposes, annual analysis

“The proportion of female referees has increased from 12% in 2011 to 16% in 2017. [...] The percentage of female corresponding authors has remained constant at 16% over time.”

<https://www.nature.com/articles/d41586-018-05465-7>

Let's work together

We need a cross-publisher working group:

- Raise awareness.
- Commit and coordinate interventions across publishers and with research institutions and funders.
- Agree on a manifesto for diversity.
- Set industry standards for diversity similar to the Athena Swan charter.
- Collect data, track progress & report externally.



Thank you

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