COMMENTARY

Infect Dis Clin Microbiol 2026; 8(1): 117–9

Beyond Parity: Gender Inequities and Recommendations in Infectious Diseases and Clinical Microbiology Research

Müge Çevik[1], Katharina Last[2,3], Cihan Papan[2,3], Angela Huttner[4], Sarah Delliere[5,6]

[1] Division of Infection and Global Health Research, University of St Andrews School of Medicine, St Andrews, United Kingdom
[2] Institute for Hygiene and Public Health, University Hospital Bonn, Bonn, Germany
[3] German Centre for Infection Research (DZIF), Partner Site Bonn-Cologne, Bonn, Germany
[4] Division of Infectious Diseases, Geneva University Hospitals and Faculty of Medicine, Geneva, Switzerland
[5] Department of Parasitology-Mycology, Assistance Publique-Hôpitaux de Paris, Hôpital Saint-Louis Paris, France
[6] Immunology of Fungal Infection, Institut Pasteur, Université Paris Cité, Paris, France

Keywords: Gender equity, gender balance, clinical microbiology, infectious diseases

INTRODUCTION

Women and gender minorities remain underrepresented in senior academic roles across medicine, and this is particularly true in infectious diseases (ID) and clinical microbiology (CM). Despite near parity at the trainee level, women remain underrepresented in leadership, authorship, and decision-making positions. These gaps are not only about fairness—they shape who leads research, which questions are prioritized, and how findings influence patient care and public health. While progress has been made in increasing the number of women entering the field, barriers remain at the stages of leadership, recognition, and visibility. This commentary examines the systemic barriers that sustain inequities, describes how so-called "parity traps"—gender-neutral policies that ignore structural disadvantages—reinforce them, and offers practical recommendations for advancing equity within ID and CM research communities.

GENDER INEQUITIES IN ID/CM RESEARCH

Persistent gender gaps in infectious diseases (ID) and clinical microbiology (CM), as well as academic medicine more broadly, continue to limit equity and excellence. Although women make up nearly half of early-career ID professionals, their representation in leadership, senior authorship, and editorial positions remains disproportionately low. Although women comprise approximately 50% of ID trainees, only 20%

Corresponding Author:
Müge Çevik

E-mail:
mc349@st-andrews.ac.uk

Received: August 22, 2025
Accepted: September 27, 2025
Published: January 30, 2026

Suggested citation:
Çevik M, Last K, Papan C, Huttner A, Delliere S. Beyond parity: Gender inequities and recommendations in infectious diseases and clinical microbiology research. Infect Dis Clin Microbiol. 2026;1:117–9.

DOI: 10.36519/idcm.2026.823

achieve full professorships (1,2). This underrepresentation hampers scientific innovation, clinical translation, and the pursuit of equitable global health outcomes (3).

Recent work highlights that parity traps—gender-neutral policies that assume equity without addressing structural barriers—allow inequities to persist (4). Without proactive gender-responsive strategies, the field risks reinforcing biases that systematically disadvantage women.

Disparities in research funding are a key concern. Women researchers receive fewer grants and lower funding amounts compared to their male counterparts (5). Moreover, grant applications authored by women are systematically more likely to be summarized by reviewers in modest, less compelling language, negatively impacting funding success (6). Compared with women academics, men academics have received more start-up and grant funding, have been more frequently invited to speak at conferences, selected for awards, and perceived as leaders (4,5). Designing a grant program that includes leadership as a criterion might introduce systemic bias, as the review criteria may unfairly favour male principal investigators because of cumulative advantage. These funding inequities perpetuate gaps in research independence and visibility.

Gender disparities extend to scientific authorship and editorial leadership. A cross-sectional study by Last et al. (7) found an association between women's representation among journal editors and the proportion of women first and senior authors in ID journals. Journals with more women editors published significantly more articles authored by women, underlining the importance of diverse editorial leadership in promoting gender equity.

Conference representation also reveals persistent gaps. An analysis of major ID and CM conferences found that women, especially from low- and middle-income countries, remain underrepresented among invited speakers and chairs (8). These disparities limit the visibility of women's contributions and perpetuate inequitable career advancement opportunities.

In policymaking, pandemic response leadership has been male-dominated. This gender imbalance likely contributed to policy blind spots, including insufficient attention to gendered caregiving burdens, domestic violence risks, and personal protective equipment (PPE) fit for women. Clinical research leadership reflects similar gender inequities. Women were significantly underrepresented as principal investigators in COVID-19 clinical trials. Cevik et al. (9) found that only 28% of COVID-19 clinical trial leaders were women, highlighting the persistent barriers to women's leadership even during urgent global health emergencies. Underrepresentation in trial leadership affects not only visibility and career progression but also the diversity of research priorities and participant recruitment strategies.

Career progression barriers in clinical microbiology are profound. Parenting and caregiving responsibilities disproportionately impact women's careers, as highlighted by Last et al. (10) in their survey among clinical microbiologists. The study emphasized the urgent need for institutional reforms to support work-life balance, including flexible work arrangements and parental leave policies.

Consequences of Gender Inequity

The cumulative effect of these inequities is profound. Gender imbalances limit the diversity of research questions pursued, skew the translation of evidence into policy, and reinforce systemic disadvantage for women—particularly those from low- and middle-income countries. Excluding diverse perspectives weakens the field's ability to comprehensively address global health challenges. In short, inequity not only undermines fairness but also constrains scientific and clinical progress.

Recommendations for Advancing Gender Equity

Addressing these inequities requires systemic and sustained action. Equity in funding should be promoted through gender-blind review processes, and transparency in funding and hiring must be improved. Gender-blind evaluations have been shown to reduce bias. For instance, gender-blind grant review increases the proportion of successful women-led projects by 20% (6).

Work-life balance should be supported with flexible career pathways. Redesigning academic career pathways can support retention. Institutions offering tenure clock adjustments for caregiving and comprehensive parental leave policies report improved female faculty retention (2).

Institutions must establish accountability through systemic institutional reforms, including gender equity task forces and formal monitoring structures. Institutions implementing gender equity programs achieved increases in women's representation in leadership within five years. Beyond these measures, equity must be mainstreamed into research and policymaking to avoid blind spots.

Practical examples of effective reforms include providing childcare support during conferences—a measure highlighted by Last and Papan following initiatives at European Congress of Clinical Microbiology and Infectious Diseases (ECCMID)/ European Society of Clinical Microbiology and Infectious Diseases Global Congress (ESCMID Global), which enhanced conference accessibility for parent-researchers (8). Offering childcare and family-friendly policies during major academic events signals institutional commitment to inclusivity. Together, these strategies can create a more equitable and inclusive academic environment in ID and CM.

CONCLUSION

Infectious diseases and clinical microbiology research must evolve from passive assumptions of equity to active dismantling of structural barriers. Parity traps thrive when systemic biases are left unaddressed under the guise of neutrality. Evidence-based strategies—transparent funding processes, inclusive editorial and conference leadership, family-friendly institutional policies, and mandatory gender analysis—are essential to closing the gender gap. Equity is not only a moral obligation but a scientific necessity for achieving better health outcomes worldwide.

Ethical Approval: N.A.

Informed Consent: N.A.

Peer-review: Externally peer-reviewed

Author Contributions: Concept – All authors; Design – M.Ç. S.D.; Analysis and/or Interpretation – M.Ç., S.D.; Literature Review – All authors; Writer – M.Ç.; Critical Reviews – All authors.

Conflict of Interest: The authors declare no conflict of interest.

Financial Disclosure: The authors declared that this study has received no financial support.

Acknowledgements: This commentary draws on discussions from an educational session on gender gaps in infectious diseases and clinical microbiology held at ESCMID Global 2025 (Vienna, Austria), titled *"Diversity in CM and ID: gender gaps and policy."* The session included contributions from Dr Müge Çevik and Dr Sarah Delliere, which informed the perspectives presented in this article.

REFERENCES

1 Manne-Goehler J, Kapoor N, Blumenthal DM, Stead W. Sex differences in achievement and faculty rank in academic infectious diseases. Clin Infect Dis. 2020;70(2):290–6. [CrossRef]

2 Marcelin JR, Manne-Goehler J, Silver JK. Supporting inclusion, diversity, access, and equity in the infectious disease workforce. J Infect Dis. 2019;220(220 Suppl 2):S50–S61. [CrossRef]

3 Yang Y, Tian TY, Woodruff TK, Jones BF, Uzzi B. Gender-diverse teams produce more novel and higher-impact scientific ideas. Proc Natl Acad Sci U S A. 2022;119(36):e2200841119. [CrossRef]

4 Heidari S, Bachelet VC. Sex and gender analysis for better science and health equity. Lancet. 2018;392(10157):1500–2. [CrossRef]

5 Marcotte LM, Arora VM, Ganguli I. Toward gender equity in academic promotions. JAMA Intern Med. 2021;181(9):1155-6. [CrossRef]

6 Régner I, Thinus-Blanc C, Netter A, Schmader T, Huguet P. Committees with implicit biases promote fewer women when they do not believe gender bias exists. Nat Hum Behav. 2019;3(11):1171–9. [CrossRef]

7 Last K, Hübsch L, Cevik M, Wolkewitz M, Müller SE, Huttner A, et al. Association between women's authorship and women's editorship in infectious diseases journals: a cross-sectional study. Lancet Infect Dis. 2022;22(10):1455–64. [CrossRef]

8 Last K, Hübsch L, Marcelin JR, Huttner A, Cevik M, Papan C. Gender and geographical representation at infectious diseases and clinical microbiology conferences. Lancet Infect Dis. 2024;24(3):e153–4. [CrossRef]

9 Cevik M, Haque SA, Manne-Goehler J, Kuppalli K, Sax PE, Majumder MS, et al. Gender disparities in coronavirus disease 2019 clinical trial leadership. Clin Microbiol Infect. 2021;27(7):1007–10. [CrossRef]

10 Last K, Schwierzeck V, Koch CM, Becker SL, Forster J, Jazmati N, et al. Parenting and caregiving duties as career challenges among clinical microbiologists: a cross-sectional survey. Future Microbiol. 2022;17:589–98. [CrossRef]