

## LETTER TO THE EDITORS

**Donor/recipient sex mismatch and survival after heart transplantation: only an issue in female recipients?**

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Dear Sirs,

It was with great interest that we read the article by Martinez-Selles *et al.* [1] published recently in the journal. We commend the authors on their work. The issue of sex mismatch is important to consider in thoracic organ transplant.

In their article, Martinez-Selles *et al.* found that sex mismatch was associated with worse outcomes for only male recipients. This is a topic we have examined in both lung transplant [2–6] and heart transplant [7,8]. In our analysis of the United Network for Organ Sharing transplant registry, we were able to examine sex matching in 31,634 transplants [7]. Our data and the results of Khush *et al.* [9] demonstrate that sex mismatch is associated with worse outcomes in female recipients in analyses adjusted for donor–recipient weight differences. The failure to detect this association in the recent article [1] is certainly attributable to power limitations as the cohort included fewer than 1000 female recipients.

More importantly, women have considerably smaller thoracic organs than men do independent of measures of weight and height. As such, attempts to study issues of sex mismatch that utilize height differences (lung) or weight differences (heart), rather than predicted organ size, are inherently confounded by sex-related organ size differences. While our unadjusted models mirrored the results of Martinez-Selles *et al.*, after controlling for organ size differences, our adjusted models yielded results supporting the opposite conclusion: sex mismatch is only an issue in female recipients.

Robert M. Reed<sup>1</sup> and Michael Eberlein<sup>2</sup>

*1 Division of Pulmonary and Critical Care Medicine,  
University of Maryland School of Medicine, Baltimore, MD,  
USA*

*e-mail: rreed@medicine.umaryland.edu*

*2 Division of Pulmonary and Critical Care Medicine,  
University of Iowa School of Medicine, Iowa City, IA, USA*

**Conflict of interest**

No author involved in this work reports any conflict of interest, either real or perceived.

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