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Dr. Farshid Guilak
Editor-in-Chief, Journal of Biomechanics
em@editorialmanager.com

Dear Dr., Guilak,

We are pleased to submit our original research article, "The influence of bicycle lean on maximal power output during sprint cycling" for your consideration. We are sincerely thankful to the International Society of Biomechanics for supporting this research through a Student International Travel Grant. One stipulation of that grant was that we submit our findings for publication in the *Journal of Biomechanics* and we are proud to do so.

In our study, we investigated whether bicycle lean affects maximal power output during sprint cycling. We devised and built a novel cycling ergometer that can lean from side-to-side but can also be locked to prevent lean. We find that contrary to conventional cycling lore, leaning the bicycle *ad libitum* does not enhance maximal power output compared to a traditional stationary ergometer. Conversely, we found that trying to minimize bicycle lean impairs maximal power output by 5% in contradiction to a recent paper published in *J. Biomech* (Bouillod et al., 2018). Our findings have obvious applications to the sport of cycling and may be translated to broader questions regarding the effects of instability on human force and power production.

The study was conducted with the approval of the University of Colorado Institutional Review Board. This manuscript has not been published before and is not under consideration for publication anywhere else. We have no conflicts of interest to disclose. The manuscript (Introduction - Discussion) is 3275 words long and includes three figures.

We have both contributed significantly to the research, analysis, and writing and concur on the submission in the present form. Dr. Wilkinson will be serving as the corresponding author and will keep Dr. Kram informed throughout the editorial review process and we will together make any revisions to the manuscript in response to the reviewers. Thank you for your service to the Journal and the field of biomechanics.

Sincerely,

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