Dear Editors,

Please find attached our manuscript titled “**The ‘F-word’: Next-generation filtering in the genomics era.**” An alternative title appears in the manuscript. This manuscript provides the first comprehensive review of genomic filtering approaches and their consequences for downstream analyses. We are excited to produce this timely review that is widely needed across the genomics community. Our review should be widely cited and **helpful to a broad audience** of population geneticists, agriculturalists, evolutionary biologists, medical researchers, and others using genomics for research, management, forensics, and human health.

Importantly, our review illustrates why data-quality filtering is a crucial step in *every* project using genomic data and for any research or applied question. Our review provides clear, comprehensive guidelines for researchers faced with the massive array of confusing filtering decisions, many of which have serious downstream statistical implications that can influence biological inferences. We provide a comprehensive flow chart of filtering steps along with a checklist as “go-to guides” to help researchers improve filtering and downstream analyses. We hope that the checklist, figures, and general recommendations on the quantification of filtering effects will allow journals, reviewers, and the community to publish more useful and reliable results across many disciplines.

This manuscript has been edited following an initial round of editor review. We have removed the original Box 1 and restructured following the recommendations we received. We are grateful for the revisions and feel that they have helped us improve the manuscript quality. To replace the removed box, we would be happy to provide an additional box on filtering for RNAseq data if requested. We are also happy to suggest reviewers if helpful—specifically, we would recommend Paul Hohenlohe at the Univ. of Idaho, Jonathan Pritchard at Stanford University, and Eric Anderson at the National Oceanic and Atmospheric Administration. We are happy to follow any other guidance, recommendations, edits, reviews, or changes that you think will improve the manuscript.

Thank you for considering our review for publication in *Nature Reviews Genetics*. Given the urgent need for this review, we will quickly make any suggested revisions regarding the above or any other feedback from any editors and/or reviewers.

Sincerely,

Dr. William Hemstrom, Dr. Jared Grummer, Dr. Gordon Luikart, and Dr. Mark Christie