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.

Before sending this manuscript out for review, we are hoping that you could provide us with some editorial guidance on a few of the manuscript’s components. For example, do you have preference for one of the two titles (please see attached main text); we are happy to use either of them. Second, we have a draft of a 5th Box titled “Filtering of low-coverage, low-quality datasets” that we would be happy to refine and add if desirable (*e.g.*, many studies using historical or ancient samples have low-quality DNA and these data require different filtering steps, such as filtering based on genotype likelihoods)? Lastly, we would be happy to incorporate comments on this manuscript from 2-3 expert colleagues within ~2-3 weeks if desired (*e.g.*, Paul Hohenlohe – Univ. of Idaho; Jonathan Pritchard – Stanford University). This should further improve the manuscript before the formal review process, as could any sort of internal editorial feedback. In short, we are happy to follow any 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