



July 31, 2013

Dr. Leslie Loew
Editor-in-Chief
Biophysical Journal

Dear Dr. Loew,

Enclosed please find the manuscript “Statistical Inference for Nanopore Sequencing with a Biased Random Walk Model” by Kevin Emmett, Jacob Rosenstein, Jan-Willem van de Meent, Ken Shepard, and Chris Wiggins, to be considered for publication as a Letter in Biophysical Journal.

Recent experimental efforts have focused on achieving precise molecular control of DNA translocation inside the nanopore as a prerequisite to accurate sequencing. In this manuscript, we demonstrate that highly accurate sequence reads can be obtained even in the presence of stochastic molecular motion with the application of the correct statistical analysis techniques, in particular parallel reads with an appropriate inference scheme. We believe these findings will be of interest to the readers of Biophysical Journal.

We declare that this manuscript is original, has not been published before and is not currently being considered for publication elsewhere. All authors have approved this manuscript and agree with its submission to Biophysical Journal.

We hope you find our manuscript suitable for publication and look forward to hearing from you.

Sincerely,

Kevin Emmett
Department of Physics
Columbia University