

Review of: "Dynamics of blood cells during a routine laboratory examination"

Gabriel Salierno¹

¹ University of Massachusetts at Lowell

Potential competing interests: No potential competing interests to declare.

The author addressed the dynamics of blood cells during a routine laboratory examination through the application of a simplified version of the Fokker-Planck equation composed with the Langevin equation. The findings of this study are interesting and could help to improve the accuracy of blood tests and to develop new treatments for blood disorders. However, the hypothesis of the model are hardly checked and the verification of the model is not clear and not statistically significant. Figures only show the results of the model without any comparison with the experimental results cited in ref [30].

Moreover, the colloquial way of expressing the deduction of the equations is often vague. It would be helpful if the authors were more specific about the mathematical methods they are using (WolframAlpha, Haskell, by hand?). For example, in section V, the author arrives to an expression 'after some algebra', which sounds obscure.

Overall, the study is interesting, the intention is good, and could be a valuable contribution to the field. I suggest the author to perform major revisions to the present version of the article, more research is needed to verify the findings and to determine the clinical significance of the results.