

ANSWERING REVIEWERS

January 7th, 2014



Dear Editor,

Please find enclosed the edited manuscript in Word format

(file name: 7545-revision1.doc).

Title:“Stop Ne(c)king around”: How interactomics contributes to functionally characterize Nek family kinases

Authors: Meirelles GV, Perez AM, de Souza EE, Luisa Basei FL, Papa PF, Hanchuk TDM, Cardoso VB, and Kobarg J.

Name of Journal:*World Journal of Biological Chemistry*

ESPS Manuscript NO: 7545

The manuscript has been improved according to the suggestions of reviewers:

Format has been updated. Specifically we included a new table 1 in the manuscript according reviewer's # 1 suggestion. We also changed the title as suggested by reviewer #3 and shortened it to the length of 12 words in accordance to the journals "review guidelines, point 4".

Please read now a detailed answer point-by-point to the reviewers suggestions:

Revision has been made according to the suggestions of the reviewer

Reviewer # 1 (Identity: 00227710):

- 1.Suggested we include a new table 1 where we should sum up essential information on the function of Neks for the reader's convenient overview. A great suggestion. We included such a table now. This also answers one point of reviewer #2, who pointed out that several nek's have additional synonyms, which should be included in a table. We included synonyms in table 1 to also address this important point.
2. Recommended we should check the manuscript for language flaws. This was thoroughly done.

Reviewer # 2 (Identity: 00289614):

Praised our manuscript and suggested basically that we should polish the language.

- 1./2. Specifically he recommended several minor changes, all of which we addressed in the appropriate fashion.
3. He suggested we include in a table the synonyms of the Neks where applicable. We included a column

for these synonyms in the new table 1 (see above in the answer to reviewer #1).

4. He suggested we include references in the paragraphs 3 and 4 p. 16. We totally agree and included appropriate references to document the main points.

5. He asked that we explain in more detail how we imagine that Nek6 is regulating SNX26 and CDC42 function given the fact that Nek6 interacts with both proteins. This is really a speculative part and hence we do not agree with him to speculate in more depth about it since what we have so far are just interactions.

6. Yes, indeed, this is a good point. Possibly different Neks have specialized on different DNA damage forms. This is speculative still but it is a good point to be emphasized here. We added a phrase to point this possibility out clearly.

7. This sentence and paragraph refer to figure 3 and mainly to the data from the literature and not as understood by the reviewer to figure 4. Figure 4 does not differentiate the possible different forms of damage. It's main point is to compare different interactions and overlapping functional contexts of Neks. Since the sentence refers to the literature and figure 3 there is no need to change figure 4.

Reviewer # 3 (Identity: 00253930):

A major point raised by this reviewer is that we should rather join several functionally related Neks in groups to avoid repetition. We do however not agree with him in this. Several previous reviews already proceeded like this and we believe the main novelty here is just the fact to treat all 11 Neks individually, even if some points are repetitious, or even better specially because several points are repetitive. That is in the end the main point of our review: that the Neks have several functional contexts in common. However we also believe that the previous attempts to join Neks in groups flawed from the fact that they were possibly over-simplifying and neglecting the large amount of functional cross-connections and possible redundancy among Neks.

Smaller points as listed by the reviewer:

1. The title is too long. We agree and shortened it. It is much better now. We do not agree that the title is "too informal". The phrase "stop ne(c)king around"...is instigating and aims to catch the attention of the reader. We changed "systems biology" to "interactomics", because this is at the heart of the analysis in the figures of the review. The title has now the maximum allowed length of 12 words. We also supplied a short and informative running title.

2. We agree that the part on Nek6 was repetitious. We deleted the repetitious part in question from the middle section because we believe this part fits better in the conclusion/ discussion section.
3. We changed the title to “interactomics” instead of “systems biology”. Interactomics are an essential part of systems biology and from the figures and their discussion it is obvious that the protein interactions we describe are the main strategy addressed here.
4. We changed this little language error as advised.

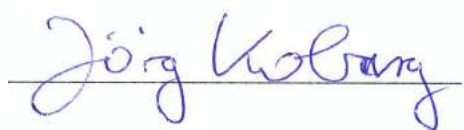
References and typesetting were corrected thoroughly throughout the text. We believe the English is now of satisfactory quality and does not need to be reviewed by a professional editing company.

We think we addressed all the raised issues in an appropriate fashion and think that our review due to the constructive criticisms has improved substantially. Thank you again for publishing our manuscript in the *World Journal of Biological Chemistry*.

P.S. To the type-setter/editor:

We'd like to call attention to the fact that figures 2 and 3 contain symbols and small letters. This requires they be printed in the largest possible, preferably full page format (without the legends!, which should be on a separate page!) to allow readers to read all small abbreviations in these two figures.

Sincerely yours,

A handwritten signature in blue ink that reads "Jörg Kobarg". The signature is written in a cursive style and is positioned above a horizontal line.

Jörg Kobarg, PhD

Researcher - Molecular Biology

Laboratório Nacional de Biociências - LNBio

CNPEM - Centro Nacional de Pesquisa em Energia e Materiais

Rua Giuseppe Máximo Scolfaro 10.000, Caixa postal 6192

CEP 13083-970 Campinas-SP, BRASIL

Fone: 0055-19-3512-1125

Fax: 0055-19-3512-1006

Jorg.kobarg@lnbio.cnpem.br