Reviewer’s report

Title: Modeling of chemical inhibition from amyloid protein aggregation kinetics.

Version: 1 Date: 29 October 2013

Reviewer: Ashwin S Vaidya

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Review: Modeling of chemical inhibition from amyloid protein aggregation kinetics
October 26, 2013

1. Is the question posed by the authors well defined? Yes it is well stated and an important question.
2. Are the methods appropriate and well described? Yes.
3. Are the data sound? Yes, the data is taken from previously published works.
4. Does the manuscript adhere to the relevant standards for reporting and data deposition? Yes.
5. Are the discussion and conclusions well balanced and adequately supported by the data? Yes, for the most part they are. I also make some comments about this below.
6. Are limitations of the work clearly stated? No. This is not clearly mentioned in the discussion.
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes.
8. Do the title and abstract accurately convey what has been found? Yes.
9. Is the writing acceptable? Yes. There are a few minor errors which I point out below.

Specific Comments

• Compulsory Revisions:
  1. There is no discussion about previous attempts to fit the data.

Since the experimental data are taken from the literature, I imagine there must have been some attempts to conduct some analysis on them.

2. It is essential to include discuss the possible short comings of this work.

• Minor Essential Revisions:
  1. Page 3, line 76-80: This sentence is far too long and unclear. This sentence
needs to be restated.
2. Page 4, line 85: ‘underlying in’ should be changed to ‘underlie’.
3. Page 4, line 87: What does the author mean by the term ‘geometrical’?
4. Page 4, lines 89-91: this sentence is grammatically incorrect. Please state this sentence simply. Page 4: line 93: not sure what is meant by ‘capacity of #t’.
5. Page 5, lines 117-120: The sentence is too long. Please break it up into more readable segments.
6. Page 5, line 121: what does the author mean by ‘#xible’ equation?
7. Page 6, line 136-139: move these lines right after the equation. It is best to define the parameters right after the equation.
8. Page 7, line 171: what does the author mean by the ‘over all aggregation process rate’? Even though this is shown in #gure 1, it needs to be stated clearly whether the slope is being averaged between the entire second phase of the aggregation graph or in the ‘linear’ portion of this phase.
9. Figure 1, right panel: The labels #m#, Xm#, v m# need to be clari#ed.