Reviewer 3

In principle the MS reports on an interesting system. The material characterization is fine but I have concerns on the kinetics investigation. There are almost no trends and only the plateau region was evidenced (Fig 4) therefore the kinetics constant and modelling is weak. I also doubt statistical relevance on the cytotoxicity investigation. Authors should apply proper statistical analysis.

Response: Thank you for reviewer’s kind comments. As reviewer pointed out, present data seemed to focus plateau region than overall release trends due to display method of release patterns. In result & discussion section of manuscript, we already discussed that in release patterns of GML-I, there was no difference between neutral physiological condition and lysosomal condition. In contrast, GML-R show pH-dependent release profile at initial time as well as plateau region. For reinforcing discussion about release profile using quantitative analysis, we performed kinetic fitting and discussed kinetic parameter. The kinetic constant of Elovich equation, $a$ and $b$, also similar result with release tendency. In GML-I $a$ and $b$ values were similar both pH condition, while GML-R showed pH-dependent kinetic constants with higher $a$ and $b$ values in acidic pH condition. However, as we mentioned above, present release pattern was hard to recognizing. In order to identify the trends, we displayed Figure 4 in different way. Initial release pattern until 15 min were showed separately. So, we expect that readers can be recognized different tendency in neutral physiological condition (pH 7 PBS) and lysosomal condition (pH 4.5 HBSS).

In order to confirm relevance on cytotoxicity, we checked and re-calculated our cytotoxicity results. As a result, we newly displayed Figure 5 as below. The revised data exhibited cell viability more than 100% at all samples in all concentration. The result of statistical analysis using Student’s t-test revealed that all samples were biocompatible with over 100% cell viability. As the purpose of cytotoxicity assay in our study was finding maximum concentration without cell death, we think that our cell viability result was not problem. Therefore, we revised Figure 5 as below.

![Figure 5. Cytotoxicity of GM (open square), GML-I (open circle) and GML-R (open triangle) against MG-63 cell line](image-url)