Dear Editors,

Please find enclosed our revised manusript JoVE59280 "Assembly of gold nanorods into chiral plasmonic metamolecules using DNA origami templates".

The manuscript is revised according to editorial comments.

Our responses to comments are below.

We hope the manuscripts is now suitable for publication in JoVE.

With kind regards, Anton Kuzyk

Editorial comments:

The manuscript has been modified and the updated manuscript, **59280_R1.docx**, is attached and located in your Editorial Manager account. **Please use the updated version to make your revisions.**

- 1. Please take this opportunity to thoroughly proof read the manuscript to ensure that there are no spelling or grammar issues.
- 2. For steps that are done using software, a step-wise description of software usage must be included in the step. Please mention what button is clicked on in the software, or which menu items need to be selected to perform the step.

We added step-wise description of software.

3. Please convert centrifuge speeds to centrifugal force (x g) instead of revolutions per minute (rpm) or rcf.

We converted all centrifuge speeds to centrifugal force as requested.

4. Please use h, min, s for time units. We edited the time units as requested

5. Steps 1.1-1.4: These steps cannot be filmed unless detailed software usage is provided.

We modified the section 1 of the protocol with software usage instructions. Step 1.1 is removed from filming.

- 6. Step 3.4: What's the composition of loading buffer? *We added a description for the composition of loading buffer.*
- 7. Figure 4: Please provide a short description of the figure in addition to the figure title in Figure Legend.

We added a short description to Figure 4.

8. Figure 5: Please provide a short description of the figure in addition to the figure title in Figure Legend.

We added a short description to Figure 5.

- 9. Please revise the Discussion to explicitly cover the following in detail in 3-6 paragraphs with citations:
- a) Critical steps within the protocol
- b) Any modifications and troubleshooting of the technique
- c) Any limitations of the technique

We added description of limitation of the techniques.

Note: the critical steps are already covered by the paragraph

For achieving reliable and reproducible optical responses of chiral assemblies, we strongly recommend adapting the protocols for AuNRs synthesis⁴⁰, since the quality and optical properties of commercial products may vary between batches. Additional annealing (step 6.2) is often crucial for ensuring the correct attachment of AuNRs to DNA origami templates (**Figure 6**).

We really do not have anything to add for points b).