

ATTN: Allison Diamond, Editor, JOVE

FROM: Sakhrat Khizroev, Corresponding Author

Re. Submission of an article titled "External Magnetic Field Control of Intrinsic Electric Fields in Magneto-Electric Nanoparticles for Enabling Patient- and Disease-Specific Nanomedicine"

Date: February 1, 2012

Dear Mrs. Diamond,

On behalf of my co-authors with cross-disciplinary backgrounds, FIU Immunology Professor Madhavan Nair (an expert on HIV drugs), UC-Riverside Electrical Engineering Professor Ping Liang (an expert in 3-D imaging), Dr. Jeongming Hong (an expert on scanning probe microscopy studies), and my PhD Student Rakesh Guduru (genetic engineer with a specialization on targeted drug delivery with nanoparticles), I would like to thank you for inviting us to submit a paper to JOVE. Your invitation alone means a lot to us.

With this note, I am submitting an article we put together according to JOVE's publication standards. The article describes fabrication protocols and measurement procedures we employ with regards to our recent discovery related to using magneto-electric (instead of conventional magnetic) nanoparticles for delivery and on-demand release of an anti-HIV drug AZTTP. We have demonstrated that these new nanoparticle carriers could be used for controlled release of a drug with very high efficacy via application of a relatively low AC magnetic field. We believe that such a high-efficacy external field control of the drug release is important also for any other medical field where deep-tissue drug release is key, e.g. for cancer treatment.

Please contact me directly should you have any further questions.

Thank you,

Sakhrat Khizroev (Corresponding Author)

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