Prolonged-acting, Multi-targeting Gallium Nanoparticles Potently Inhibit Growth of Both HIV and Mycobacteria in Co-Infected Human Macrophages

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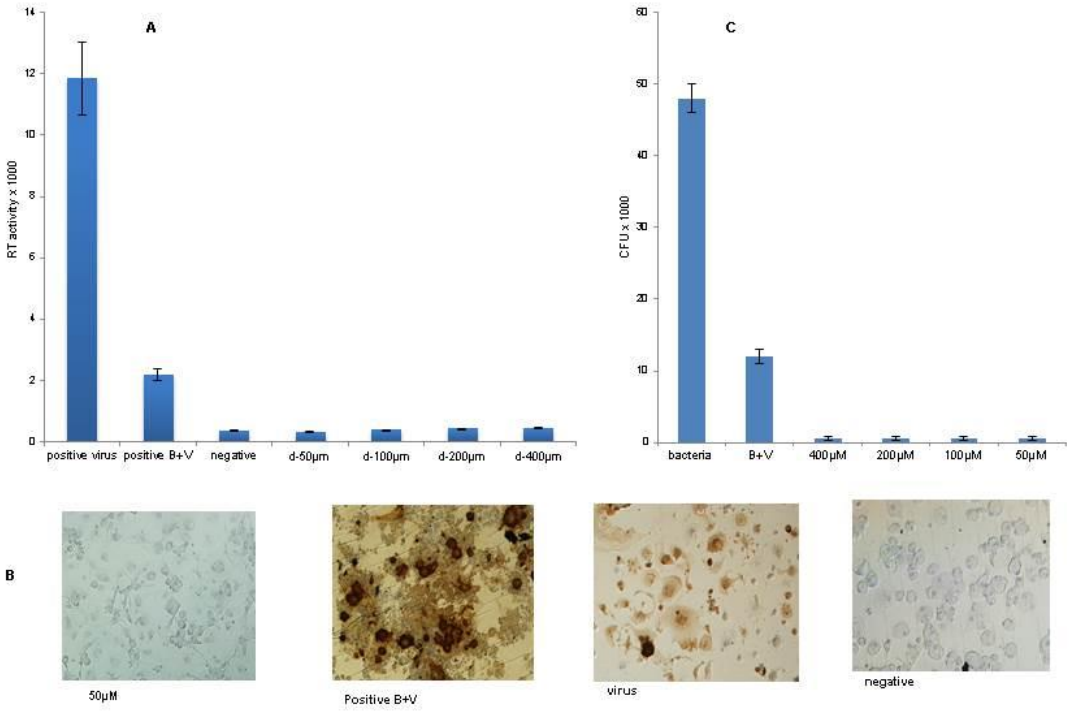
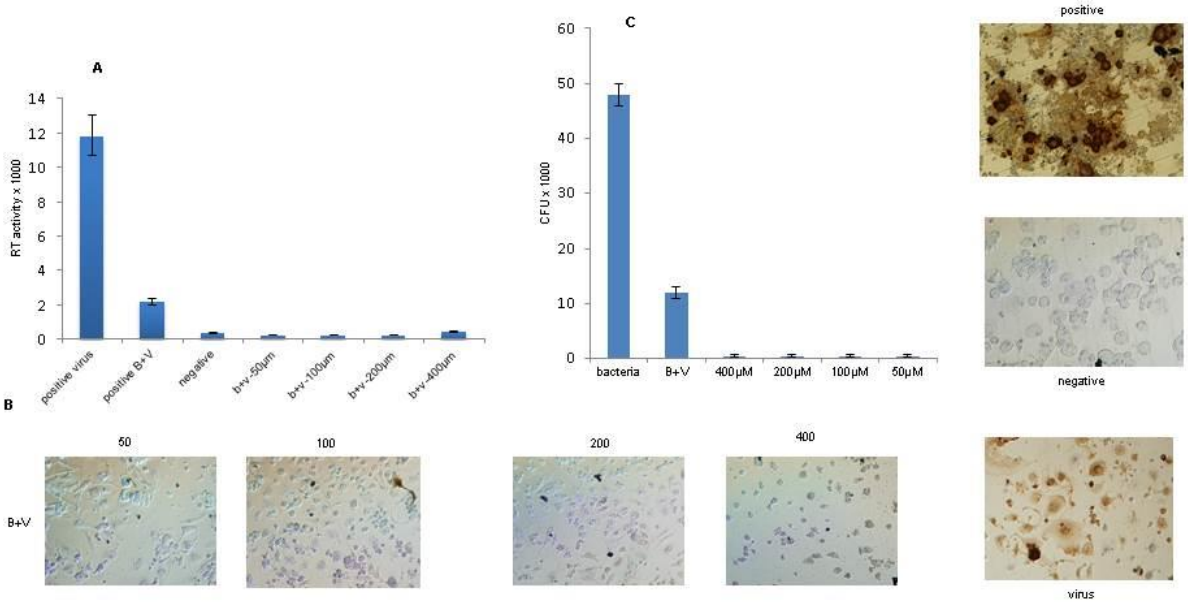
Supporting information

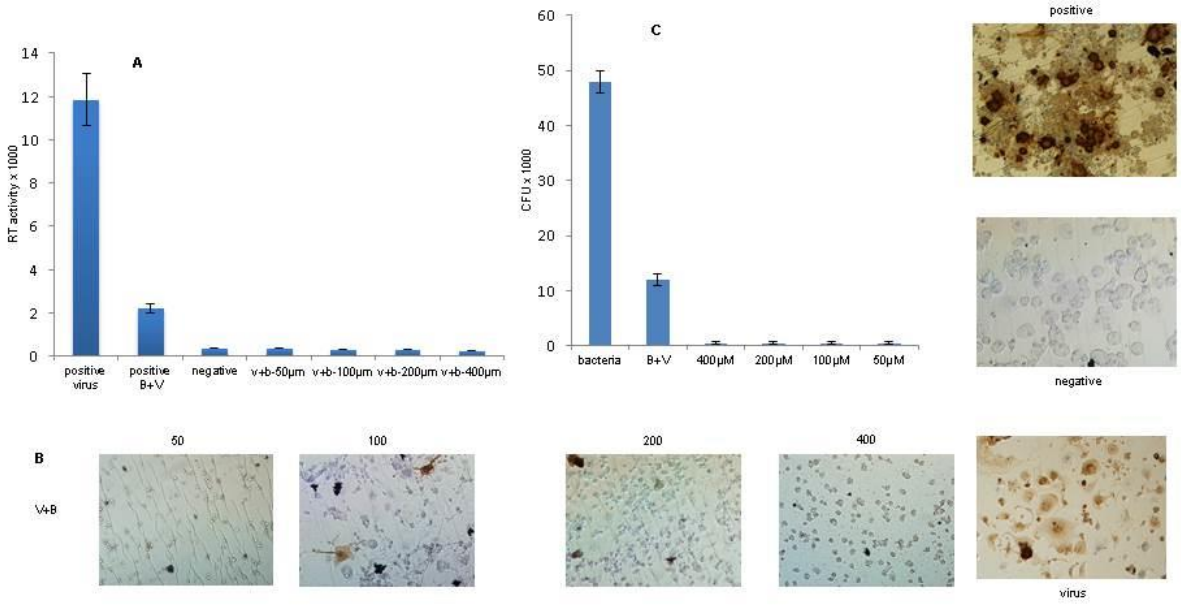
Supplementary Figure 1: **Combined HIV-smegmatis infection and use of isoniazid, rifampin, tenofavir, nevirapine combination**. A). RT assay of HIV from co-infection showing no HIV growth, Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 9, $P < 0.05$. B). P24 staining of co-infected macrophage showing no HIV growth, C). CFU counting of mycobacteria from co-infection showing no bacterial growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 3, $P < 0.05$.



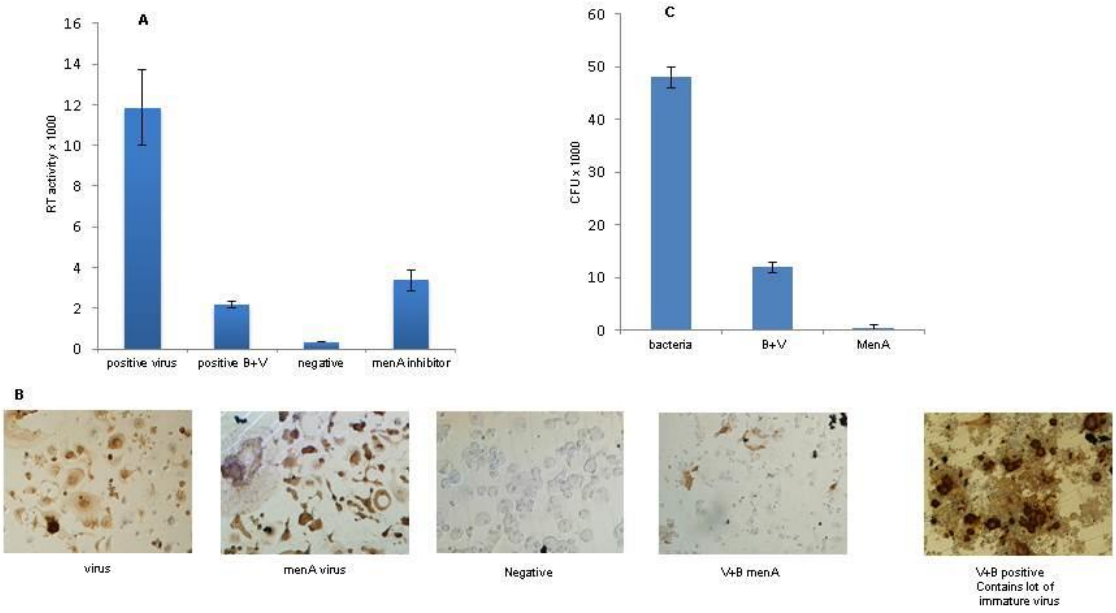
Supplementary Figure 2: **Bacterial infection followed by HIV infection and use of isoniazid, rifampin, tenofavir, nevirapine combination**. A). RT assay of HIV from co-infection showing no HIV growth, Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 9, *P* < 0.05. B). P24 staining of co-infected macrophage showing no HIV growth, C). CFU counting of mycobacteria from co-infection showing no bacterial growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 3, *P* < 0.05.



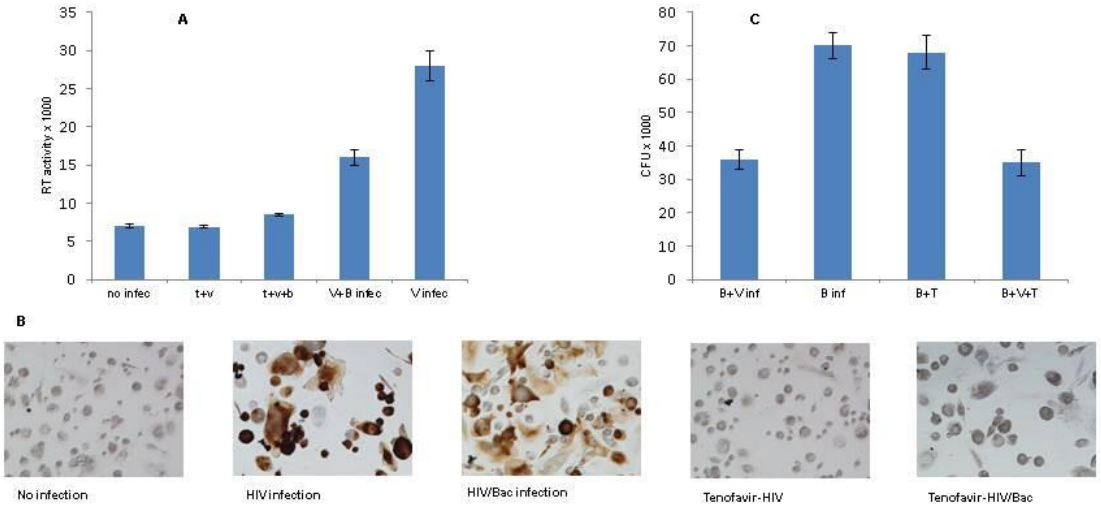
Supplementary Figure 3: **HIV infection followed by bacterial infection and use of isoniazid, rifampin, tenofavir, nevirapine combination.** A). RT assay of HIV from co-infection showing no HIV growth, Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 9, *P* < 0.05. B). P24 staining of co-infected macrophage showing little immature HIV growth, C). CFU counting of mycobacteria from co-infection showing no bacterial growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 3, *P* < 0.05.



Supplementary Figure 4: **Combined HIV-smegmatis infection and use of anti-TB drug.** A). RT assay of HIV from co-infection showing normal HIV growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 9, $P < 0.05$. B). P24 staining of co-infected macrophage showing normal HIV growth, C). CFU counting of mycobacteria from co-infection showing no bacterial growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 3, $P < 0.05$.



Supplementary Figure 5: **Combined HIV-smegmatis infection and use of antiviral drug (tenofavir).** A). RT assay of HIV from co-infection showing no HIV growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 9, $P < 0.05$. B). P24 staining of co-infected macrophage showing no HIV growth, C). CFU counting of mycobacteria from co-infection showing normal bacterial growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 3, $P < 0.05$



Supplementary Figure 6: **Combined HIV-smegmatis infection and use Ga-NP.** A). RT assay of HIV from co-infection showing no HIV growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 9, $P < 0.05$. B). P24 staining of co-infected macrophage showing no HIV growth, C). CFU counting of mycobacteria from co-infection showing no bacterial growth. Data are analysed using the t-test. Data are shown as mean +/- s.e.m. for n = 3, $P < 0.05$.