

## Green Nanotechnology of MGF-AuNPs for Immunomodulatory Intervention in Prostate Cancer Therapy

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**Toxicity profile of MGF-AuNPs *in vivo*.** The body weight and blood parameter of all the experimental animals (SCID mice) were measured to evaluate the toxicity of all the treatments groups. In this study, normal control group (5<sup>th</sup>) was added which were not treated and not inoculated with tumor cells. The body weight in the group of MGF-AuNPs (1.5 mg/kg bw) treatment were found similar to the normal control group (Figure S1A). However, the body weight in the saline treated control group was found lower as compared to the normal control group.

Blood parameters were compared between the treatment and control groups with baseline levels obtained from a fifth group of SCID mice that received no manipulations. Analysis of variance followed by a post hoc Dunnett's test was employed. Red blood cell and white blood cells counts between the three groups varied only slightly, by approximately 10%, and the hematocrit was not different between the three groups (Figure S1B). Platelet levels were elevated by 8% from baseline for the untreated tumor bearing animals ( $686 \pm 29 \times 10^3 / \mu\text{L}$  vs.  $815 \pm 100 \times 10^3 / \mu\text{L}$ ;  $p < 0.05$ ), while those from the MGF-AuNPs group ( $743 \pm 84 \times 10^3 / \mu\text{L}$ ) showed no significant difference ( $p > 0.05$ ).

### Figure:

**Figure S1:** Effect of MGF-AuNPs on animals' health in terms of (A) body weight, (B) blood count and (C) MGF-AuNPs showing anti-angiogenesis effects. The body weight and blood data were compared with normal control group (no treatment and no tumor). Body weights were observed twice per week for all groups, for approximately 2-4 weeks. Animals were sacrificed at the end of the study. Tumor tissues were harvested and fixed with formalin. The tissues were utilized for immunohistochemistry analysis by staining with CD31 antibody to observe blood vessels.