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Dear Professor Nicola Maffulli,

I am submitting an original research article entitled ‘Evaluation of the Bone Morphology Around Four Types of Porous Metal Implants Placed in Distal Femur of Ovariectomized Rats’ by Stanislav Bondarenko et al. to be considered for publication in your journal, Journal of Orthopaedic Surgery and Research.

Biological fixation of highly porous biomaterials in total hip arthroplasty plays an important role long term survivorship of acetabular implants. It has been established that osteoporosis can affect the fixation and osteointegration of implants. We focused on the experimental study of the fixation properties of three porous titanium materials, as well as their comparison with tantalum implants on the ovariectomized rats.

So, we compared structural features of the cancellous bone adjacent to four different tantalum and titanium porous materials. We report on, in osteoporosis, the highest bone area in the femur was obtained for Tantalum Trabecular Metal but it was not statistically significant compared to other titanium materials, except titanium material ATLANT. This is important because these porous titanium materials – TTM (AK Medical, Beijing, China) and CONCELOC (Smith & Nephew, Memphis, USA) can be selected for patients with low bone mineral density.

One of authors, Ran Schwarzkopf, has potential competing interests. He is a paid consultant of Smith & Nephew, Memphis, USA.

We confirm that this manuscript has not been published elsewhere and is not under consideration by another journal. All authors have approved the manuscript and agree with its submission to Journal of Orthopaedic Surgery and Research.

We believe that the findings described in this manuscript will be of special interest to the readers of Journal of Orthopaedic Surgery and Research because it showed biologic response to materials for total hip arthroplasty made from titanium alloy Ti6Al4V using additive technologies in vivo on the ovariectomy animal model. And we hope that you will consider this manuscript suitable for publication in your journal.

Thank you for your consideration of this manuscript.

Sincerely,

Stanislav Bondarenko, MD, PhD