

# Outcomes of technology's epic success stories in field of regenerative medicine and tissue engineering

## Editorial

The first step was to collect the stories of the past that had made the largest validation in my life. It's actually the so-called small stories or small intervals that had the unrealizable gold that I'm searching for. So evolve the intervals from my life that made the largest validation and see into more specifically why it made such a considerable impact.

For me, I had attracted and established some of my post graduate students of Diploma, M. Sc. and Doctorate of Clinical Pathology inside my Epic Stem Cell, Regenerative Medicine, Nanotechnology and Tissue Engineering (SRNT) Group. In this group, I transmitted unthinkable student teaching, providing or showing inventive talks, and shrewdness to help my students live the collaborated target and mission. I presented for students a lecture series on Stem Cell, Regenerative Medicine, and Nanotechnology that encourage Faculty departments with Stem Cell, Regenerative Medicine, and Nanotechnology programs to organize an open lecture/seminar for students, so they can better understand what the program is about and what avenues and possibilities Stem Cell, Regenerative Medicine, and Nanotechnology can open for them. The program teaches students about what it takes to be a successful expert in the field of Stem Cell, Regenerative Medicine, and Nanotechnology and inspire a new generation of innovators in our community. I led this unthinkable group with love because we were all ranged to our fate and the restitutions of performance were returning tenfold. Leading my target bring my goal to life so I can start making an epic effect and work in a business that is truly aligned!

I found this is a good chance to introduce my latest scientific achievements in relation to advances in regenerative medicine and tissue engineering, but I preferred to continue with the success story – Putting technology into practice, which I previously presented in my editorial 2016 published in the journal of Advances in tissue engineering and regenerative medicine (Adv Tissue Eng Regen Med), titled "Regenerative Medicine and Tissue Engineering-Driven Innovation of Medical Science and Technology".<sup>1</sup> As the team of the journal informed me that recently they received citation report of their journal in which my editorial 2016 article captured vast citations all over the globe.

The story started with justifications of my nomination by the Council of Menoufia University, Egypt to TWAS prize 2016 in Medical Sciences of the World Academy of sciences for the advancement of science in developing countries and also to Award of Nano Science Research Excellence 2016 (NML Researcher Award for outstanding researcher in Nanotechnology), to introduce my outstanding contributions to the application of science and technology and scientific research achievements of outstanding significance for the development of scientific thought through my leadership of research since more than 18 years in the field of stem cell biology, regenerative medicine, nanotechnology and tissue engineering. The justifications completed with the Success Story - Putting Technology into Practice as the M.Sc. of Clinical Pathology,<sup>2</sup> which was discussed in the February 7, 2016 and entitled: "Platelet-rich plasma preparation

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applications in knee osteoarthritis" under my supervision as the main supervisor and principal investigator who selected the subject of the research, the jury board had recommended the adoption of the thesis and for being fabulous scientific breakthrough with 92.8% success rate for the first time in Egypt, addresses the Faculty Council on 21 February 2016 to put into clinical application in cases of knee Osteoarthritis and the practical application of this method for being a scientific prestigious achievement for Menoufia Faculty of Medicine and the Department of Clinical Pathology.

In this concern we applied a simple, efficient, and minimally invasive method<sup>3</sup> of obtaining a natural concentration of autologous growth factors to be obtained from specific amount of blood. Our endorsed procedure used precise injection of patients own blood platelets to help their body's ability to heal damaged cartilage. Our objectives were to investigate whether PRP therapy for primary knee osteoarthritis is associated with good clinical outcomes and to determine the predictive value of transforming growth factor beta-1 (TGFβ-1) and platelet count in PRP, prepared for intra-articular injection in improvement of knee Osteoarthritis.<sup>2</sup>

This leading M.Sc. thesis which started in Feb. 2013 and terminated in Feb. 2016 was responsible for spread of this new concept and large number of the research on pioneered application of platelet-rich plasma (PRP) procedure in series of applications in regenerative medicine at our Department of Clinical Pathology and in many Clinical Departments at our Faculty of Medicine.

The Orthopedic resident doctor who assisted in injection of the PRP into the knee of osteoarthritic patients was the young brother of our M.Sc. candidate of Clinical Pathology. This was partially a contributing factor in the success of the application of this inimitable method and the rapid injection of patients immediately after the preparation of PRP in a timely manner according to my decisive instructions contributed to the success of the experiment and the safety of application.

It was known that during the application of this thesis there was rush of patients seeking to treat with this successful method. That rush of patients seeking that successful treatment persist even after the thesis terminated and the M.Sc. candidate travelled abroad to work as a specialist in Clinical Pathology and as an expert in the field of application of this fabulous technique and when she applied for a doctorate and submitted copy of her M.Sc. thesis, but as the main supervisor and principle investigator of her M.Sc. thesis they sent me an email to validate it. While the orthopedic resident doctor became famous and became required to the hospitals and orthopedic clinics as an expert in application of this inimitable method of intra-articular injection to the patients at Menoufia governorate and also in the neighboring provinces in the middle of the Delta of Nile, so the restitutions of performance were returning tenfold.

Editors in Chief of many eminent Journals appreciate my article "Regenerative medicine and tissue engineering-driven innovation of medical science and technology" and invite me to contribute a manuscript for the upcoming issue of their Journals and also invited me as an honorable editorial Board member/peer reviewer.

Also I received and till now a lot of invitations from many distinguished Journals to publish the full-length article in their journals<sup>4-5</sup> of my abstracts presented at many international conferences and also to be an honorable editorial Board member/peer reviewer for their Journals. Now I appointed as an honorable editorial Board member/peer reviewer for six International Journals.

For how many years I received a lot of invitations from all over the world to contribute invited research lectures and colloquia in more than twenty nations worldwide, some to present a Keynote speech, from all over the globe: from Guangzhu, China at the East to San Diego, California, USA at the West of the globe, and from Arab World and Middle East to Europe, the last invitation from Europe was to present a Keynote speech at World Biotechnology Congress July 2018, Berlin, Germany.<sup>6-17</sup> So my pioneer deep-experience is an example of a scientific and research success and in my opinion the restitutions of performance are returning more than tenfold.

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None.

## Conflict of interest

Author declares that there is no conflict of interest.

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