

## Cell Science, Stem Cell Research & Pharmacological Regenerative Medicine

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## Enriched platelet factors (EnPLAF™), an alternative to PRP for regeneration and rejuvenation applications

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platelet rich plasma (PRP) is basically a preparation of autologous concentrated platelets derived from one's own blood. Over the years, PRP has been used for multiple clinical and aesthetic applications. Multiple commercial kits are available to derive PRP and mostly all the companies selling them have their own protocols that they claim can best concentrate higher number of platelets. When it comes to deriving the PRP in clinical practice the actual number of platelets concentrated from each blood sample is more so often an unknown variable. Therefore, PRP has been unsuccessful at delivering consistent results in clinical practice especially in treatments related to pain management and tissue rejuvenation. Also, there are several drawbacks to PRP like it has no shelf life and loses activity and potency upon minimal storage and PRP injections are painful. Moreover, evidence from scientific research shows that it is the growth factors that reside in the platelet granules and which are secreted by the cells upon activation, that are responsible for inducing healing and regeneration. This is called paracrine action of cells where they release these beneficial growth factors at site of injury. The cells themselves do not survive in this external environment, but it is these growth factors and cytokines that help healing and regeneration. So, the solution to the drawbacks of PRP is a process that can concentrate just the growth factors using a standardized

protocol. We have perfected this process to develop Enriched platelet factors (EnPLAF $^{\text{TM}}$ ) technology which can derive beneficial biological factors from patient's own blood platelets, but do not contain any live cells. EnPLAF $^{\text{TM}}$  is rich in growth factors like platelet derived growth factor (PDGF), vascular endothelial growth factor (VEGF). Since EnPLAF $^{\text{TM}}$  is a non-cellular, growth factors only product it can be stored, has great shelf life and is not painful to inject. Also, since EnPLAF $^{\text{TM}}$  is derived from the patient's own blood, there is no risk of having an allergic reaction. When used as directed, EnPLAF $^{\text{TM}}$  can stimulate faster healing and regeneration as well as reduce pain and inflammation.

## **Speaker Biography**

Nathan Katz has 20 year's experience in the field of stem cells, human biology and genetics, with a solid background in commercialization of scientific achievements in this area. He is recognized as one of most experienced professionals practicing single cell micro-manipulation, nuclear transfer and genetic diagnosis. His record includes top notch peer-reviewed publications and dozens of scientific presentations. He is involved in commercial projects around the world utilizing his professional knowledge and experience, promoting new methodological approaches in private markets. Being involved daily in clinical embryology, he has been exposed to field of embryonic stem cells; adult stem cells came into focus of attention as less controversial and potentially powerful source for tissue regeneration. His personal experience and leadership qualities are key factors that led to founding and early success of Jointechlabs Inc., stem cells technology venture. He is also the Co-founder and Scientific Director of NeoKine Laboratories.

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