

## Scientific Tracks

### The therapeutic potential of human umbilical cord derived mesenchymal stem cells for the treatment of premature ovarian failure

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Premature ovarian failure (POF) affects 1% of women under 40, leading to infertility. The clinical symptoms of the POF include hypoestrogenism, lack of mature follicles, hypergonadotropinism, and amenorrhea. POF can be caused due to genetic defects, autoimmune illnesses, and environmental factors. The conventional treatment of POF remains a limited success rate. Therefore, an innovative treatment strategy like the regeneration of premature ovaries by using human umbilical cord mesenchymal stem cells (hUC-MSCs) can be a choice. To summarize all the theoretical frameworks for additional research and clinical trials, this review article highlights all the results, pros, and cons of the hUC-MSCs used to treat POF. So far, the data shows promising results regarding the treatment of POF using hUC-MSCs. Several properties like relatively low immunogenicity, multipotency, multiple origins, affordability, convenience in production, high efficacy, and donor/recipient friendliness make hUC-MSCs a good choice for treating basic POF. It has been reported that hUC-MSCs impact and enhance all stages of injured tissue regeneration by concurrently stimulating numerous pathways in a paracrine manner, which are involved in the control of ovarian fibrosis, angiogenesis, immune system modulation, and apoptosis. Furthermore, some studies demonstrated that stem cell treatment could lead to hormone-level restoration, follicular activation, and functional restoration of the ovaries. Therefore, all the results in hand

regarding the use of hUC-MSCs for the treatment of POF encourage researchers for further clinical trials, which will overcome the ongoing challenges and make this treatment strategy applicable to the clinic in the near future.

**Biography:** Greene is a residency and fellowship-trained orthopedic surgeon who has shifted completely into business. He started a healthcare internet marketing company, US Lead Network, that helps medical and dental practices acquire patients on the web in a pay-for-performance manner. The company is now using Artificial Intelligence for marketing which is lowering the cost per lead substantially. He has written two books on Healthcare Internet Marketing that are available for purchase on Amazon. He has been featured as a Top 20 Expert Author by Ezines.com, the top article directory site in the world. Out of over 470,000 authors, Greene ranks #15 as an Expert Author and #1 in the Pain Management category. He also started a regenerative medicine company, R3 Stem Cell, that offers marketing, an IRB-approved protocol, and top products for practices nationwide. R3 offers stem cell training courses that are second to none at <https://stemcelltrainingcourse.org>.

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