Title of abstract**: Introduction to current high demand and market leading bio stimulator in Korea, Poly-D,L-Lactic acid, JUVELOOK**

Affiliation: SeoAhSong Dermatologic Clinic
Authors: Suk Bae Seo

Polylactic acid is a substance known for its ability to regenerate collagen and is commonly used by injecting it into the subdermal layer to increase the extracellular matrix (ECM). Sculptra®(PLLA), which is a representative form of polylactic acid, contains L-form chains that are connected, forming a crystalline structure. This substance has been used for tissue regeneration and volume enhancement. However, a drawback of PLLA is the formation of nodules, which can be clinically challenging. To address this issue, an improvement was made by incorporating the carbon isomer D-form and L-form in an irregular chemical arrangement, resulting in a loosely structured molecular configuration called Poly-D,L-Lactic acid (PDLLA, **Juvelook**). PDLLA is easy to produce in a spherical foam-like shape and has a soft texture, making it an excellent material for skin regeneration purposes. Its duration of presence in the tissues is shorter than PLLA, and it shows a milder foreign body reaction. PDLLA has a lower glass transition temperature of up to 40°C when hydrated, which means it can be more rapidly degraded and rendered pliable when subjected to heat. PDLLA can be administered through various methods, including simple syringes, fine multi-needle injectors, or micro-jet injections using laser propulsion. It can be injected into the subdermal or intradermal layers to achieve different effects. Its minimal foreign body reaction enhances safety, leading to a significant increase in usage. Although nodules may occur, they can be easily resolved with slight manipulation of RF heating and compression. PDLLA stimulates long-term skin regeneration and has been shown to regenerate collagen and elastic fibers, as well as recruit and proliferate adipose-derived mesenchymal stem cells. In this presentation, I provide detailed information on the preparation process and various techniques of using PDLLA.