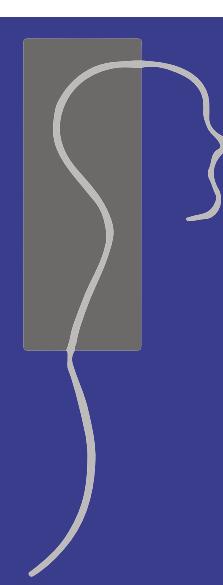


Clinical experiences with the use of a biological bone graft substitute

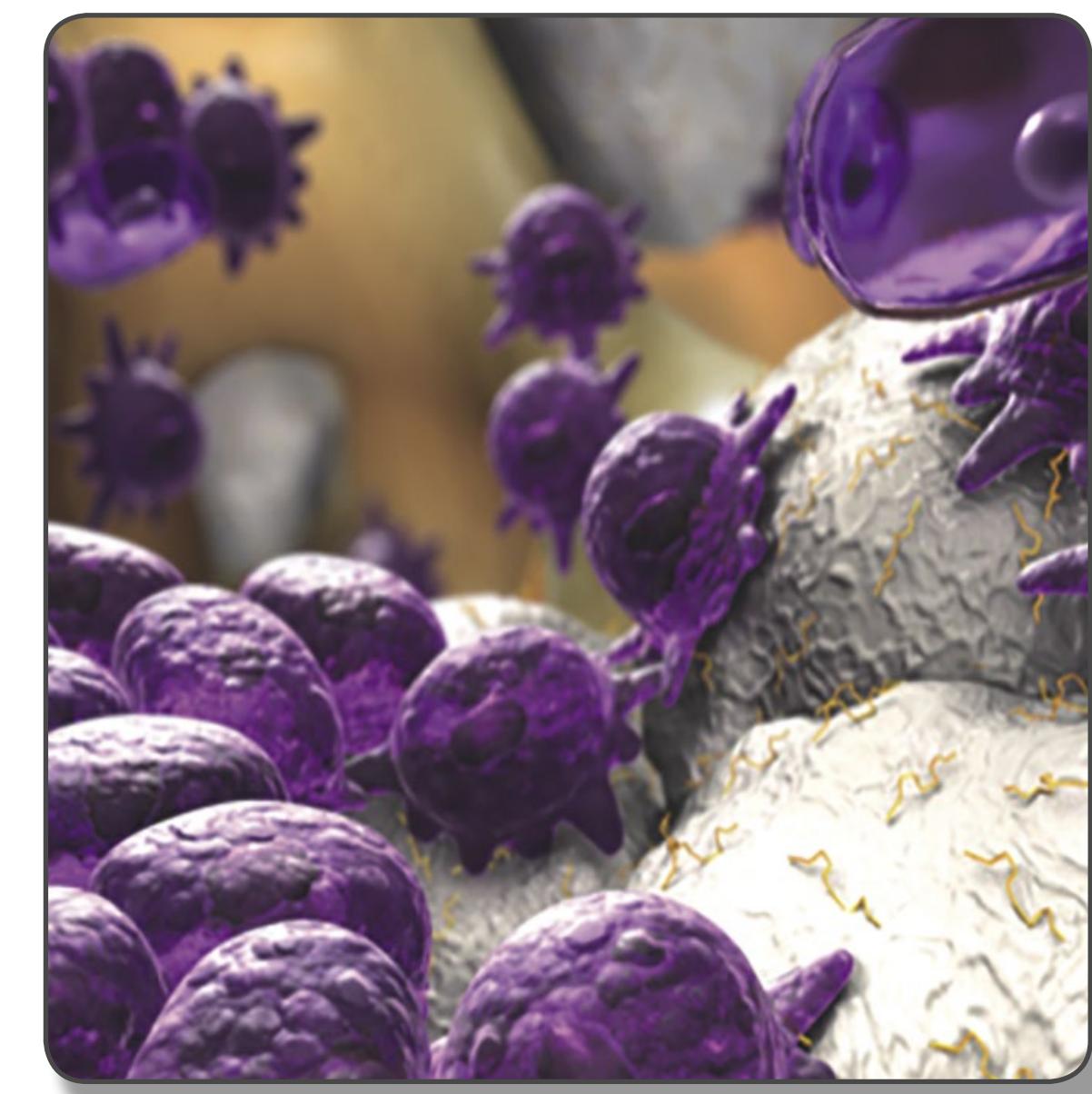


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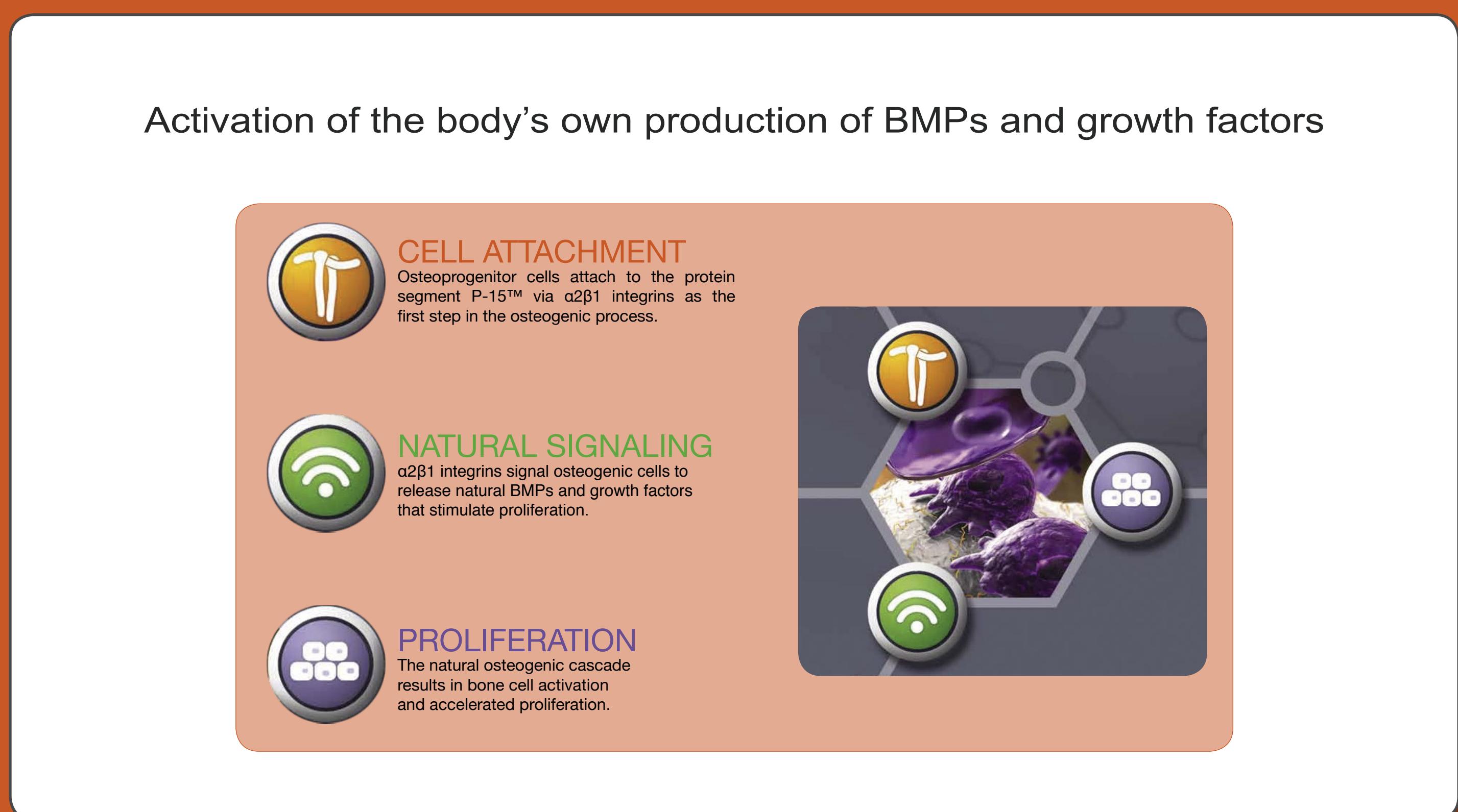
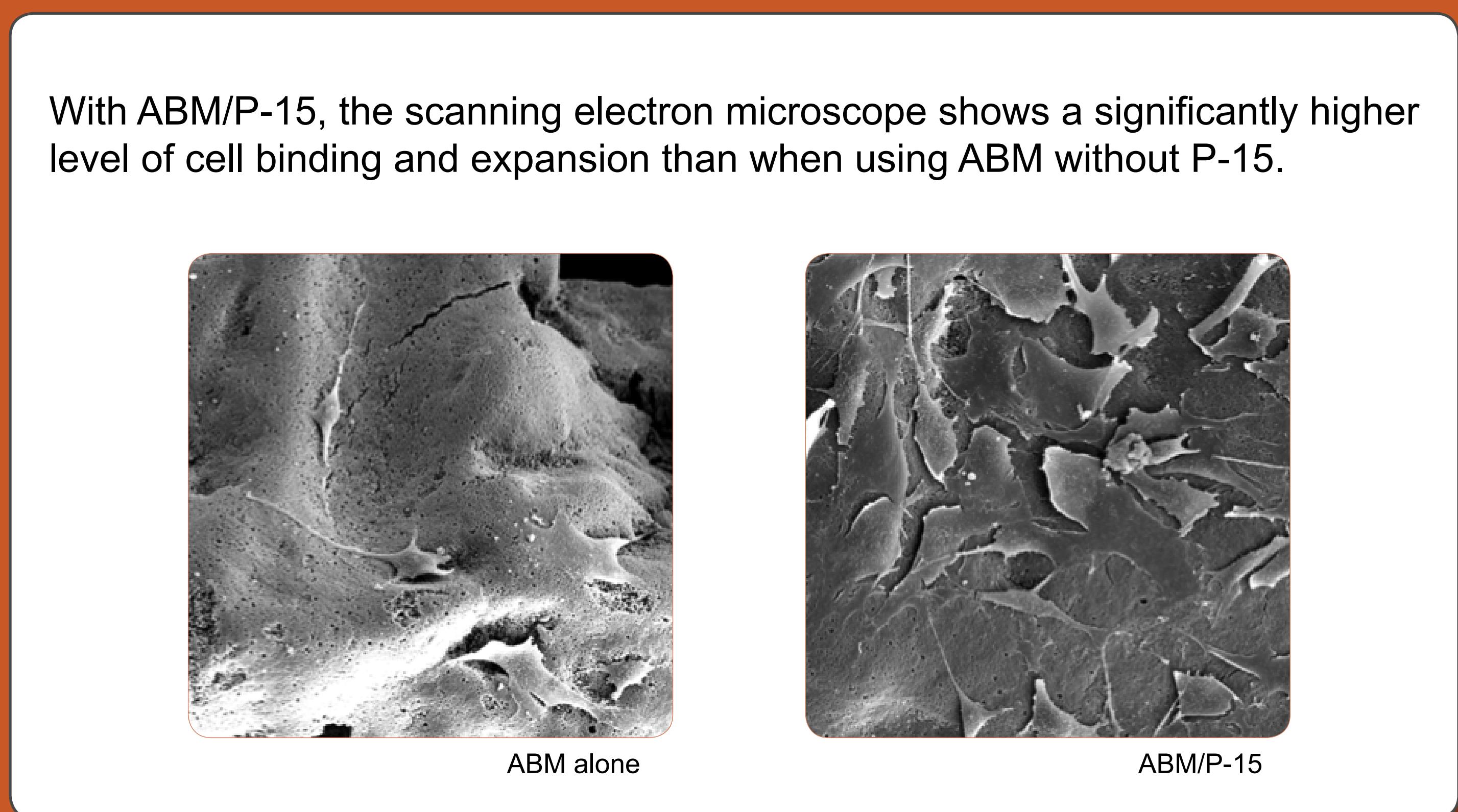
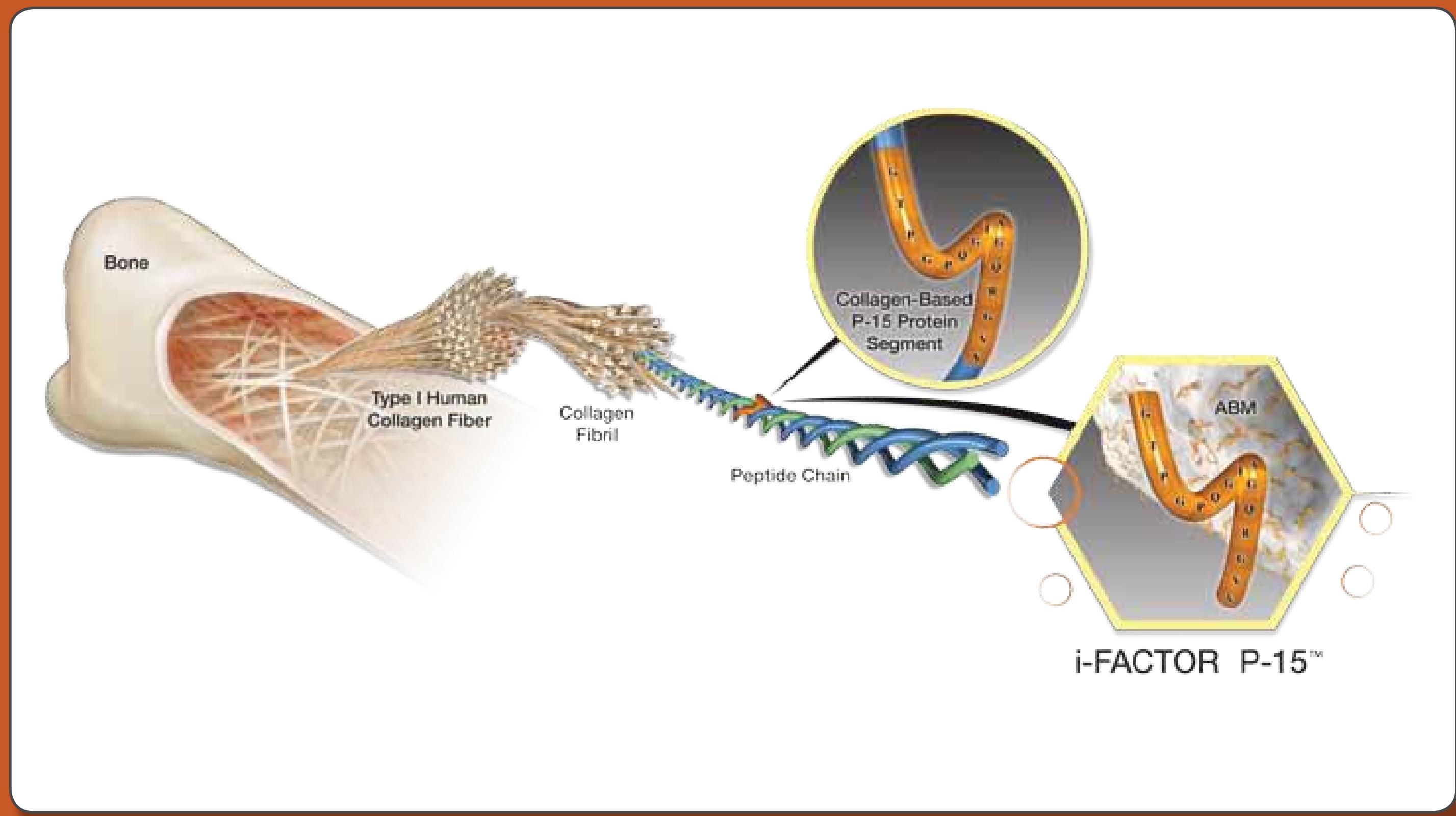
Question: How can the use of the biological i-FACTOR™ bone graft substitute accelerate the fusion process after a ventral discectomy using an intervertebral PEEK Cage?

Background: With regard to intraspinal discogenic space requirements, anterior cervical discectomy and fusion using a cage has been an established standard procedure in spinal surgery for many years. The time required to achieve bone fusion has a significant effect on the ability of the cervical spine to cope with stress and therefore the patient's mobility after surgical intervention. i-FACTOR™ is the only bone graft substitute that binds a small, synthetically produced peptide (P-15) to an inorganic bone mineral (ABM). This unique combination of ABM and P-15 acts as a bonding agent for osteogenic cells. This new effect mechanism enhances the body's natural healing process and therefore leads to reliable, predictable bone formation.

Method: During the pre-operative preparatory stage, an X-ray image was obtained of the spine in the lateral and posterior-anterior beam path in all patients. This was used to determine the sagittal alignment in the respective spinal segment. The cage was implanted intraoperatively and filled with the biological i-FACTOR™ bone graft substitute. This result was reviewed both intraoperatively and postoperatively using X-ray images at both levels. The further reviews take place postoperatively at an interval of 6 weeks and 6 months during the clinical follow-up examinations.



Case studies:



Results: With these case studies, a very good result was achieved both radiologically and clinically. Regarding bone fusion in particular, a very good result was identified at just 6 weeks when using the i-Factor. This therefore demonstrates that the use of a biological bone graft substitute may accelerate the healing process for the patient, meaning that cervical spine mobilisation can be started at an earlier stage and quality of life can be improved.