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(54) **Title:** THERMO-SENSITIVE BONE GROWTH COMPOSITIONS

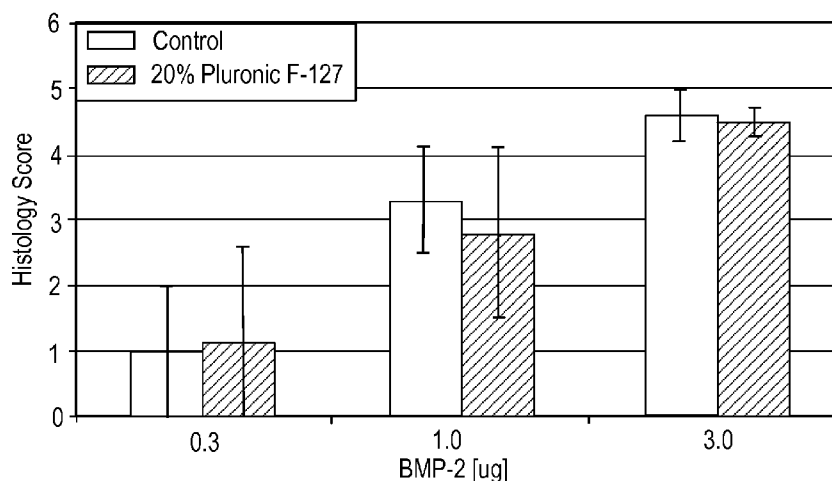


FIG. 1

(57) **Abstract:** A non-invasive injectable composition that contains type I collagen, an osteogenic growth factor (OSF), such as a bone morphogenetic protein and a reverse thermo-sensitive biodegradable polymer such as Poloxamer 407 in an aqueous vehicle. The formulation can be administered non-invasively, e.g., by injection, thus circumventing limitations of many currently marketed bone-inducing products. The injectable osteogenic formulation effectively induces bone formation at the desired locale. This injectable suspension could be used with bioresorbable bone mineral composites (e.g., Hydroxyapatite, Tri-calcium phosphate) and/or glycosaminolycans (e.g., Hyaluronic acid, Heparin sulfate) to mold as putty and/slab as bone graft substitute implants to induce new bone formation in fracture healing and spine fusion procedures.