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Sawhney

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(54) **IN SITU POLYMERIZABLE HYDROGELS**

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Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(58) **Field of Search** 623/11, 16, 11.11, 623/16.11, 23.58, 23.59, 23.61, 924, 926; 523/113, 115

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(57) **ABSTRACT**

Compositions and methods for forming hydrogels in situ through a combination of physical and chemical crosslinking processes are provided in which physical crosslinking is mediated by one or more natural or synthetic components that stabilize the a hydrogel-forming precursor solutions at a deposition site for a period of time sufficient for more resilient chemical crosslinks to form. Methods of using such hydrogels as tissue coatings to prevent postsurgical adhesion formation, as tissue augmentation or luminal occlusion aids, as matrices for carrying cells, drugs or other bioactive species, as tissue sealants or adhesives, and as medical device coatings also are provided.

32 Claims, No Drawings