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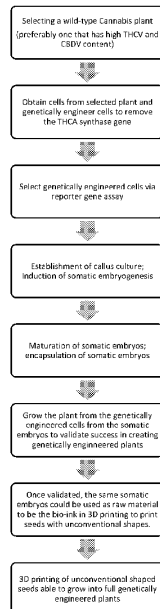
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(54) Title: PROCESS FOR PRODUCING A GENETICALLY MODIFIED SEED

Figure 1



(57) Abstract: This invention relates to a process for producing a genetically modified seed. In particular, there is provided a process for producing a genetically modified *Cannabis* seed that germinates into a plant, the process comprising: (a) preparing a cell culture comprising genetically engineered *Cannabis* cells having at least one gene that expresses a psychoactive cannabinoid deleted; (b) establishing a callus culture for forming a somatic embryo; (c) forming a bio-ink comprising the somatic embryo that is encapsulated by a hydrogel and used as an artificial seed; and (d) three-dimensional (3D) printing the artificial seed comprised in the bio-ink. Also provided the 3D-printed artificial *Cannabis* seed having a shape other than that of a naturally occurring wild type *Cannabis* seed.

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