CLAIMS

1. 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 deleted, wherein the at least one gene is a gene that expresses a psychoactive cannabinoid selected from the group consisting of THCA, THC, THCVA and THCV;

(b) establishing a callus culture for forming a somatic embryo;

(c) forming a bio-ink comprising the somatic embryo; and

(d) three-dimensional (3D) printing the seed.

2. The process according to claim 1, wherein step (a) comprises obtaining cells from a wild-type *Cannabis* plant and genetically deleting the at least one gene that express psychoactive cannabinoids, wherein the *Cannabis* plant contains a high level of CBDV content.

3. The process according to claim 2, wherein the gene is the THCA synthase gene.

4. The process according to any one of the preceding claims, further comprising the step of replacing the at least one gene that expresses a psychoactive cannabinoid with a reporter gene.

5. The process according to claim 4, wherein the at least one reporter gene further comprises a detectable label.

6. The process according to any one of claims 4 or 5, wherein the reporter gene is the firefly luciferase gene.

7. The process according to any one of the preceding claims, further comprising encapsulating the somatic embryo prior to the 3D printing step (d).

8. The process according to any one of the preceding claims, wherein the step (d) prints a seed having a shape other than that of a naturally occurring wild type *cannabis* seed.