

To: mark.nagumo@uspto.gov

From: Steve Openshaw

Novartis Seeds, Inc.

I am responding as an individual.

Thank you for the opportunity to respond to USPTO guidelines.

1. Naturally occurring DNA sequences should not be patentable. This includes ESTs, full length genes, and entire genomes.

a. They are not human inventions, they occur in nature.

b. They should be considered part of our natural heritage.

c. It is to the public's best interest that they be freely available for research.

e. Patenting is not necessary to promote gene discovery and genome sequencing.

e. The DNA sequence in itself has no substantial utility.

f. Due to technology advances, today genome sequencing is rather routine to those skilled in the art, provided they can afford state-of-the art sequencing equipment.

g. A naturally occurring DNA sequence that has been modified to enhance function or provide a new and useful utility could be considered a human invention.

h. Patent claims should be specific to demonstrated substantial utilities. They should not be allowed for speculative utilities or variants that are not known or do not exist.

2. The patent should disclose the invention.

Presently, patents are issued for plant inbred lines and hybrids which include a description but tell nothing of why the invention works or how it was developed. For example, a hybrid is composed of crossing two inbred lines. See US patent 6,018,109 which gives no identification or information re: these essential features of the invention.

3. The invention should not be obvious to one who is skilled in the art and knowledgeable of previously publicly described methods. See US patent 5,492,547, which uses common statistical tools to demonstrate results that are based on methods that were clearly described in previous public publications.

4. Patents should allow for others to learn from and improve the invention, so that society and the inventor benefits.

Utility Patent claims should not be allowed that restrict the use of a patented plant variety as breeding material for developing improved plants. Further more, in the over whelming majority of cases, utility of such uses is speculative and undemonstrated at the time the patent is filed. See for example US Patent 6,018,109 whose claims include pollen (no demonstrated utility) and use of plant as breeding material (no demonstrated utility, prohibits improvement of the invention).

Sincerely,

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