



July 13, 1993

Carl E. Olsen
P.O. Box 4091
Des Moines, IA 50333

Dear Mr. Olsen:

This replies to your May 13, 1993, letter asking several questions about drugs.

It is true that a good many drugs useful in therapeutics can be extracted from herbs. Some drugs have an animal origin, e.g., many hormones. A synthetic drug is a drug that is made by chemically combining various starting materials to make the desired product. The product then is identical in all respects to the product isolated from a plant source. Such a product can be marketed under the same name. For example, cortisone is synthesized from a yam that grows in Mexico and it is identical to cortisone extracted from adrenal tissue.

A synthetic drug would be in the same schedule as its naturally occurring twin. For example, synthetic lysergic acid amide is in the same schedule as lysergic acid amide derived from the plant source.

Please let me know if I can be of further assistance on drug matters.

Sincerely yours,

A handwritten signature in cursive script that reads "Harold Davis".

Harold Davis
Consumer Safety Officer
CDER Executive Secretariat Staff (HFD-8)
Center for Drug Evaluation and Research