David McClain, Interim President University of Hawaii 2444 Dole Street Bachman 202 Honolulu, HI 96822

RE: University of Hawaii's patents on three taro varieties

Dear President McClain,

We are writing to request that the University of Hawaii abandon its U.S. patents, as well as any World Intellectual Property Organziation patents it may hold, on three varieties of Hawaiian taro (*Colocasia esculenta*) – Pauakea, Pa'lehu and Pa'akala. On each of these U.S. patents, Eduardo E. Trujillo is listed as "inventor," while the University of Hawaii is the assignee.

Pa'akala	U.S. Patent No. PP12,342	Granted January 8, 2002
Pa'lehua	U.S. Patent No. PP12,361	Granted January 22, 2002
Pauakea	U.S. Patent No. PP12,772	Granted July 16, 2002.

Our grounds for this request are as follows:

- 1) Prior art: According to the patents, the female parent of all three patented varieties is "Maui Lehua," an unpatented cultivar that "belongs to the Group Lehua of Hawaiian-Polynesian taros." As you know, Hawaiian-Polynesian taros derive from a few varieties first introduced to Hawaii in the 4th to 5th century A.D. by the Islands' earliest settlers. From these few varieties, Hawaiians conducted extensive breeding over centuries to generate over 300 types of taro suited to differing microenvironmental and cultivation conditions. These varieties of taro were developed for food as well as ceremonial and medicinal uses. Roughly 63 varieties, including Maui Lehua, are extant. Therefore, the qualities of the patented varieties derive to a considerable extent from Maui Lehua, whose properties are the result of many centuries of breeding efforts by native Hawaiians. Thus, the patent claims for the three patented varieties are invalidated by considerations of prior art.
- 2) <u>Failure to validate claimed properties:</u> Irrespective of prior art considerations, the patents are invalid due to the failure of the "inventor" to properly validate claimed properties of the patented varieties. In a bulletin of the College of Tropical Agriculture and Human Resources released in August of 2002, soon *after* the third patent was issued on July 16, 2002 (for Pauakea), the "inventor" and his colleagues candidly admit that:

"To date, only preliminary observations are available on the soil and nutrient requirements, *disease susceptibility*, crop duration, and *yield* of the three new cultivars

¹ Cho, John J. "Breeding Hawaiian Taros for the Future." Cho is a professor at UH's Dept. of Plant and Envrionmental Plant Sciences, Maui Agricultural Research Center.

[i.e. the three just-patented varieties]. No controlled experiments have yet been done to confirm the preliminary observations mentioned here." (emphasis added)²

In each of the patents, "resistance to leaf blight caused by *Phytophthora colocasiae*," "(high) tolerance to root rot caused by *Pythium spp*." and "(extra-)large mother corm size" are explicitly cited as claimed properties of the patented varieties. The first two claimed properties fall under the head of "disease susceptibility," while the latter claimed property is the primary determinant of "yield." Thus, the patents were granted on the basis of putative properties that were ascribed on the flimsy basis of "preliminary observations" that had not been confirmed by controlled experiments.

3) <u>Licensing agreement:</u> In addition, we object to several aspects of the licensing agreement that farmers must sign in order to obtain the patented cultivars, such as the collection of a 2% royalty on gross sales of corm. The collection of royalties from farmers whose taxes already support the University's operations, including taro breeding activities, is abhorrent. It represents a superfluous and unjust levy on Hawaiian taro farmers.

The licensing agreement also prohibits Hawaiian farmers from selling, breeding or conducting research on the licensed plants. Such provisions can only stifle creative breeding and research on the part of Hawaiian farmers, which UH, as an institution charged with serving the public good, should encourage rather than prohibit.

Finally, the licensing agreement requires farmers to grant UH unrestricted access to their property to inspect, evaluate or retrieve samples of the plants. Such provisions invest UH with police-like powers to conduct intrusive inspections of farmers' private property, powers unbefitting a publicly-funded institution whose mission is to serve rather than police Hawaiian citizens, including its farmers.

On the basis of the foregoing, we respectfully request that the University of Hawaii abandon the U.S. patents assigned to it for the taro cultivars Pa'lehua, Pa'akala and Pauakea, and also abandon any world-wide patent rights it has obtained for the same.

Failing a positive reply to our request, we will be forced to take legal action at the U.S. Patent and Trademark Office through our counsel to have these patents revoked.

Sincerely,

Walter Ritte, Chris Kobayashi

² Trujillo, Eduardo E. et al. "Promising New Cultivars with Resistance to Taro Leaf Blight: 'Pa'lehua', 'Pa'akala', and 'Pauakea'," Cooperative Extension Service, College of Tropical Agriculture and Human Resources, University of Hawai'i at Manoa, August 2002.

Denise Konan, Interim Chancellor, UH at Manoa Richard F. Cox, Director, Office of Technology Transfer & Economic Development Andrew Hashimoto, Dean, College of Tropical Agriculture and Human Resources UH Board of Regents Senator Clayton Hee Senator Gary Hooser