Student Support for Funding of Nutraceutical Production and Training Facility

WHAT THIS GRANT WOULD PAY FOR
A new facility is needed and well deserved by the Agripharmatech program at Windward Community College for the training, production, and distribution of plant-based nutraceuticals. Already, this program has published four volumes of ethnopharmacognosy research and demonstrated the ability to create successful graduates and entrepreneurs, despite limited infrastructure. The existing facility is built within a narrow shipping container, is difficult to maneuver within, and does not give students sufficient space to observe demonstrations during lab.

BIOMEDICINAL STUDIES IN HAWAII
Dr. White’s Ethnopharmacognosy program is the only certificate offered in the state that focuses on the medicinal properties of plants, how various cultures use them, and hands-on nutraceutical production. Otherwise, students seeking a higher degree in botanical medicine have no programs available in the state. Students are limited to fields such as ethnobotany, botany, or agricultural engineering, or must seek further education out of state.

The proposed facility will remedy existing difficulties, allow significant expansion of the nutraceutical program at WCC, and allow students to gain real world experience in a nutraceutical production and research facility. Such a program would be a superb resource for students of biomedicine, potential and current nutraceutical entrepreneurs, and a competent workforce to carry out nutraceutical production.

PLANTS AS MEDICINE IN HAWAII
Inherent to the culture of the Hawaiian Islands is a desire to be connected to the land. Both historically and currently, this connection depends on the use of indigenous and important introduced flora. L‘au lapa‘au, or Hawaiian plant medicine, is the traditional knowledge of plant uses from Hawaiian culture. However, L‘au lapa‘au alone does not utilize modern science, and the usefulness of traditional knowledge is limited without the proper facilities to keep up with current plant-based product technologies. The proposed facility would fill this void, blending traditional knowledge with scientific research, and thereby reduce or reverse the emigration of the state’s scientific talent.

For Hawaii in particular, a local market for plant-based nutraceuticals is crucial given its isolation. Due to its inclination to import, the state teeters on potential crisis prevented only by the uninterrupted arrival of container ships. By utilizing the technologies learned in WCC’s Ethnopharmacognosy program, entrepreneurs can
source ingredients locally for enticing nutraceutical products, reduce dependence on imported goods, and create businesses that are both economically profitable and ecologically sustainable.

The proposed facility is a potent opportunity for collaboration with the University of Hawaii John A. Burns School of Medicine Department of Integrative Medicine, and could provide a dispensary of locally produced biomedicine and nutraceutical products. Naturopathic doctors, lā‘au lapa‘au practitioners, health food stores, and the community could also be provided with these products.

CONCLUSION

The study and production of biomedicine is fundamental to the evolving culture of the Hawaiian Islands. The growing success of the first and only certified program in Hawaii dealing with medicinal properties of plants and advancements in related technologies makes the Nutraceutical Production and Training Facility an exemplary candidate for consideration. The facility will give students the opportunity to have hands-on experience that will inspire them to higher education, encourage a sustainable business market, and train a competent workforce to support the market.