Project Description Specific Aims/Objectives

The short term goal of this project is to collect baseline data on the current state of honey bee heath using monitoring technologies, with a long term goal of reducing the loss rate of managed colonies. Specifically, we hope to develop a system that can be used to alert beekeepers to health problems with their hives using visual, audio, and electromagnetic sensors, and to network the sensors to permit aggregation of data on hive health for future analysis. We have developed three objectives to address these goals.

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W e will develop and test a multimodal, noninvasive, networked beehive health monitor, that would be distributed among apiculturists to aggregate data on beehive health in real-time.

W e will perform controlled experiments, with a set of sensor-equipped beehives, to evaluate the effectiveness of the system in determining hive stressors.

W e will publish our results and use them to pursue further funding from government agencies.