EXECUTIVE SUMMARY [NON-CONFIDENTIAL, NON-TECHNICAL ABSTRACT FOR PUBLIC INFORMATION OR PROGRAM PROMOTION]: State in layman's terms the application's broad, long-term objectives and specific aims, making reference to the potential public benefits of the project relevant to California. Do not include proprietary or confidential information. This may be distributed before the funding decision has been finalized.

Nematodes are a serious plant pest, causing millions of dollars in crop losses every year in pepper. Some pepper varieties are inherently resistant to various nematodes. We are interested in mapping the genes that confer this resistance onto the genetic map of the pepper chromosomes. We already have two pepper chromosome maps with many different DNA markers on them. We propose to screen different types of peppers for resistance to nematodes that can be found in California and to map the corresponding resistance genes to specific locations on our pepper chromosome maps. These efforts will enable plant breeders to use our DNA markers to assist in their creation of new, nematode-resistant types of pepper.