



Department of Chemistry and Biology

# CHANNEL ISLANDS ALZHEIMER'S INSTITUTE

Presented By:

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## Mission Statement

The Channel Islands Alzheimer's Institute (CI-AI) provides interdisciplinary experiential learning opportunities in the area of Alzheimer's disease drug discovery for CSU Channel Islands faculty and undergraduate and graduate students.

## Overview of the Channel Islands Alzheimer's Institute

With the full and enthusiastic support of the CSU Channel Islands' Biology and Chemistry programs, a self-supporting academic research institute, the Channel Islands Alzheimer's Institute (CI-AI), is proposed to be created on campus. The Alzheimer's Institute (AI) will conduct interdisciplinary research projects with CSUCI faculty and students that involve hands-on, collaborative research, which cross the traditional disciplines of biology, biochemistry, biotechnology, chemistry, and medicinal chemistry. Funding for CI-AI will be obtained through directed donations through the CSUCI Foundation and/or through grants submitted through the Office of Research and Sponsored Projects. Furthermore,

projects will create new intellectual property in the form of novel drug leads that are protected as composition-of-matter patent applications. This will create the opportunity for collaboration with pharmaceutical industry partners.



Student researchers, Hiromi Arai, Zoya Kai, Cody Fullenwider, and CIAI Director Gil Rishton.

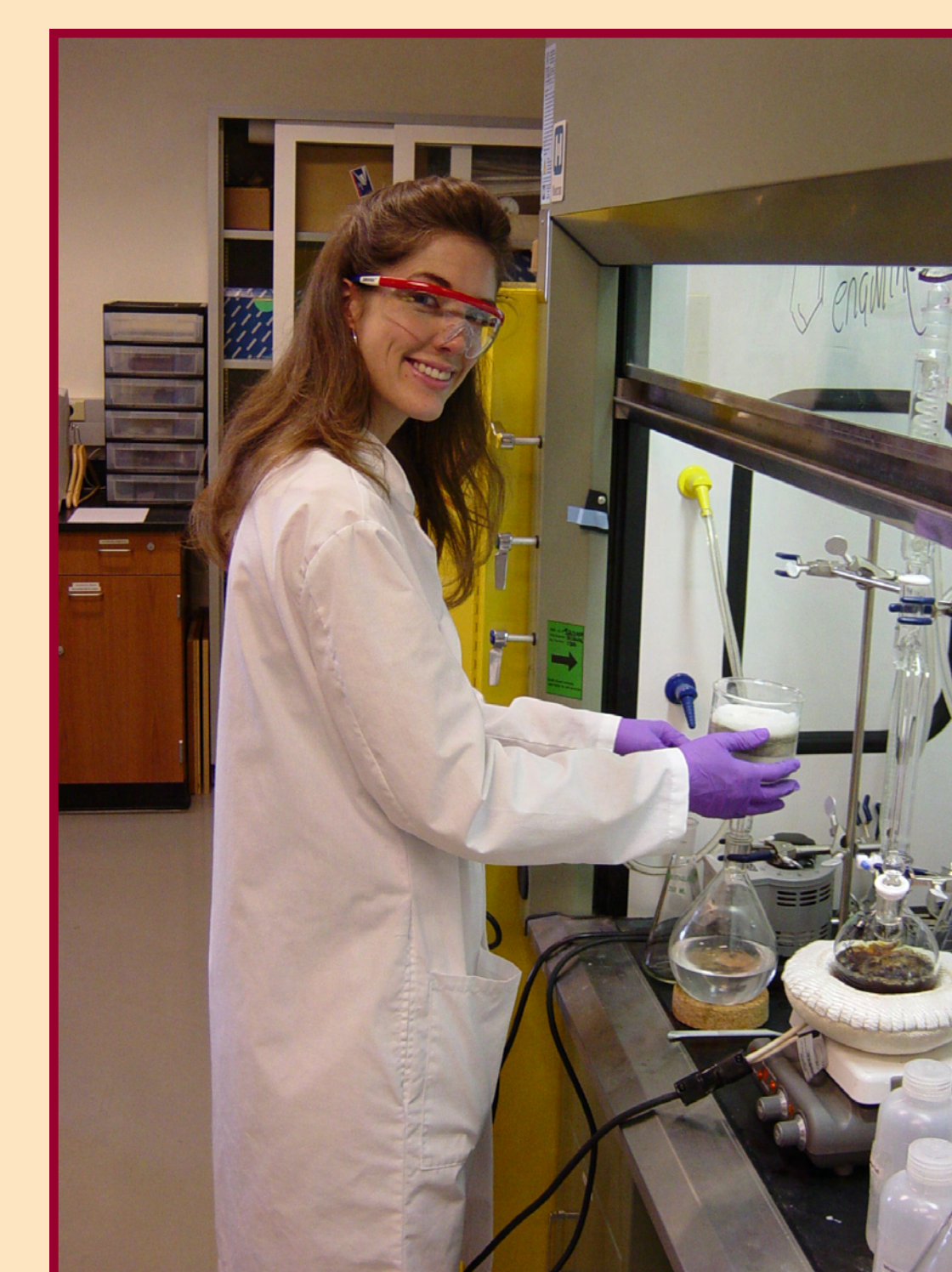


Blake Gillespie and Phil Hampton during the installation of the new 500 MHz NMR instrument that is central to our chemistry and drug discovery research.

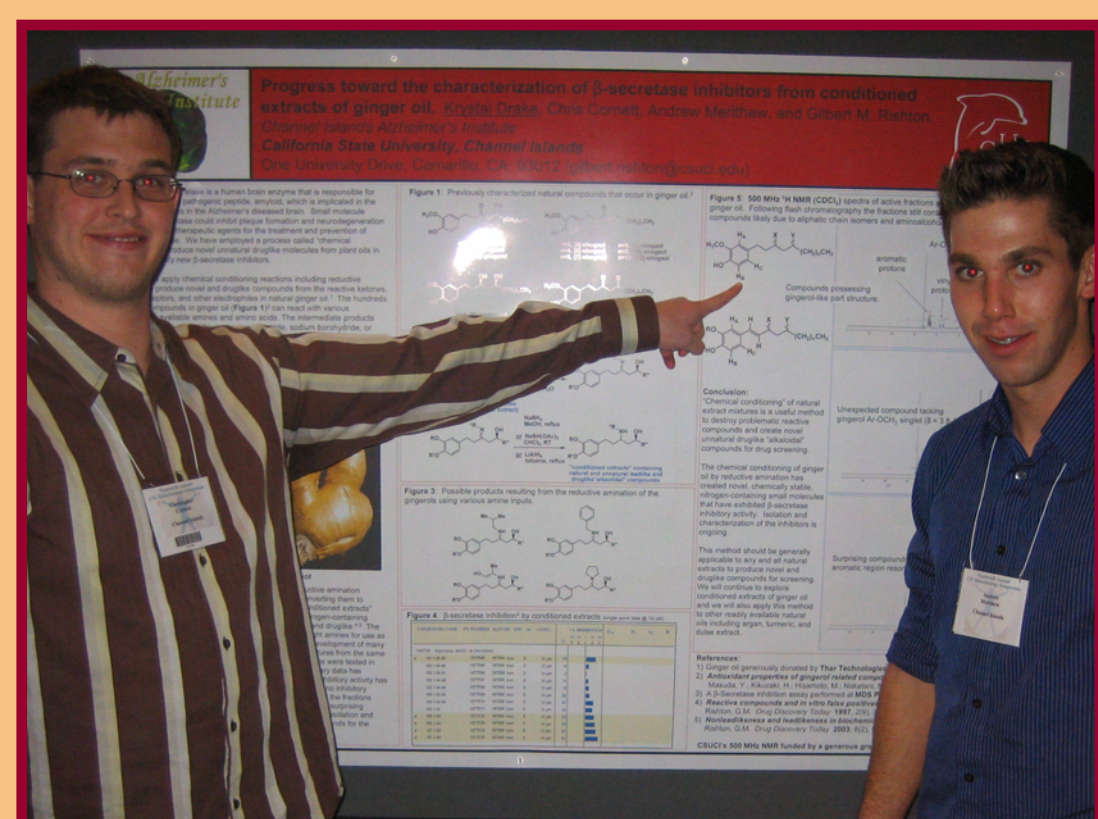
## Scientific Focus

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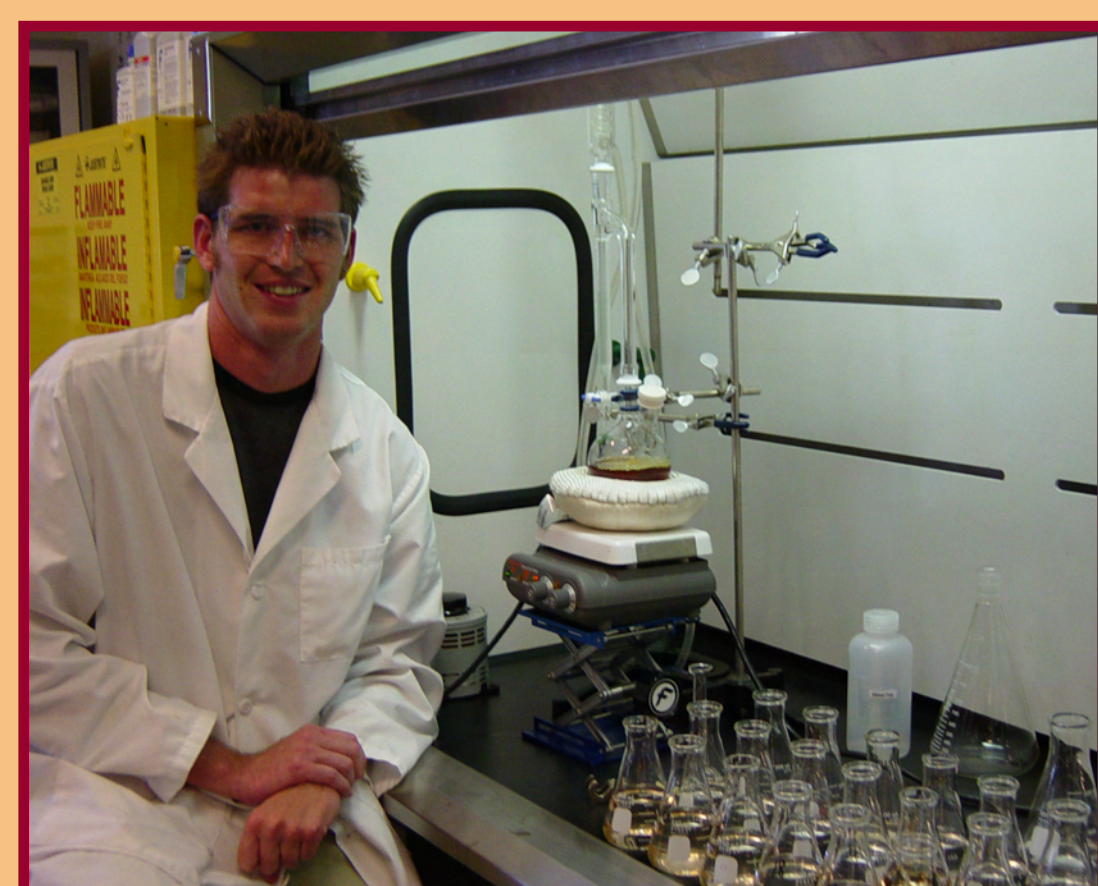
CI-AI projects focus on the discovery of new mechanism-based drug leads for Alzheimer's disease in the areas of neurodegeneration and neurogenesis. We aim to characterize these drug leads using instrumental methods including 500 MHz NMR and GC-MS (with Prof. Hampton). Current projects include the inhibition of the secretase enzymes to prevent amyloid formation and plaque, and also the differentiation of adult neural stem cells to encourage the formation of new nerve cells (with Prof. Wang).



Student researcher, Krystal Drake, performs a conditioned extraction procedure and a vacuum filtration procedure.



Student researchers, Chris Cornett and Andrew Merithew, present CIAI research progress at the 2007 CSUPERB Biotechnology Symposium.



Student researcher, Cody Fullenwider, performs a conditioned extraction procedure.

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