

# The Virtual Labs Project

simPHYSIO™ Physiology series



## Overview

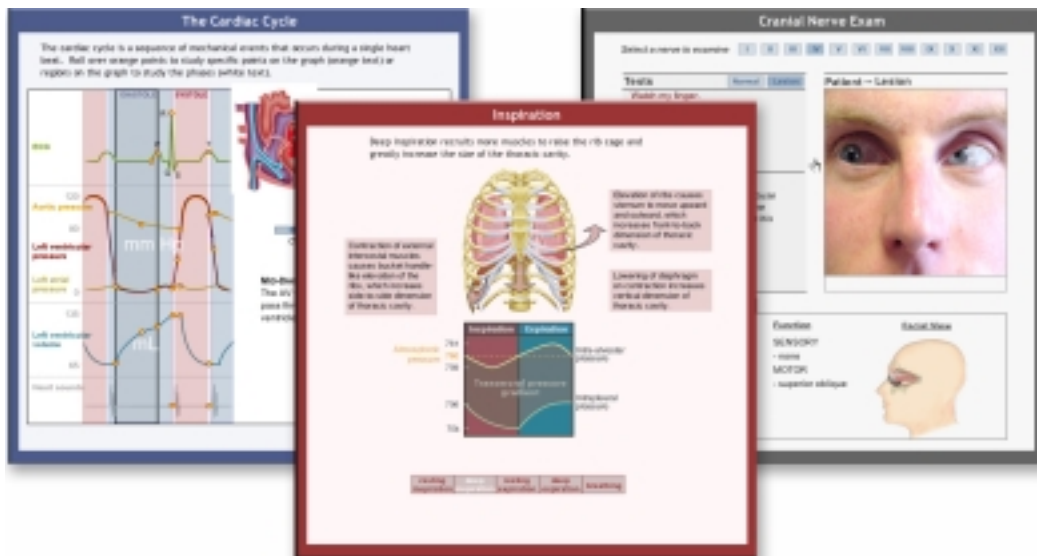
New tools in physiology are needed because of the persistent difficulties in dynamic visualization and conceptual understanding of temporal and causal relationships. The goal of the Virtual Labs Project is to develop engaging web-delivered interactive media with solid instructional design and evaluation protocols. Understanding, motivation, and growth of the learner drive our learner-centered design.

## Status

simPHYSIO™ is a suite of immersive interactive visual and simulation-based teaching modules in physiology (neuro, cardiovascular, respiratory, gastrointestinal, and renal systems) delivered by web or CD. The content is designed to be engaging and to promote active learning. The learner can see multiple-linked representations, make predictions, learn problem-solving skills with a “hands-on” approach, apply and test scientific methodologies, and see immediate outcomes from their manipulations.

## Features

- Media-rich graphics and animations
- Interactive simulations and quizzes
- Virtual experimental laboratories and methodologies
- Online database-driven problem sets
- Personalized notepad with hyperlinks
- Chat room for online discussions
- Scalable material for curriculum customization
- Full-featured backend database of user tracking data for evaluation



## Future Directions

Other units will include endocrinology, reproduction, immunology, exercise and altitude physiology, skeletal muscle system, autonomic nervous system, and neuron physiology. *simPHYSIO: Vision* will be available November 2002; more units will be available in the future.

## Funding

Howard Hughes Medical Institute

## Project Personnel

H. Craig Heller, Ph.D., Principal Investigator  
Camillan Huang, Ph.D., Project Director

## For More Information

<http://summit.stanford.edu/hhmi>

<http://www.bayarea.com/mld/mercurynews/living/health/3717371.htm>