

Getting Started with SimBioSys (pronounced sym-bio-sis) Version 2.x
BI-374, Dr. C. S. Tritt, Spring '06

SimBioSys is a numerical physiological simulation program. It allows virtual investigation of human physiological processes. The simulated “patients” respond to interventions and treatment just as real patients would (although the rates of action of some drugs have been sped up to make the simulations more interesting). Interventions are not scripted. You can do whatever you want to the virtual patients. You don’t even need to get their informed consent. Keep in mind that while the SimBioSys is quite good, there are limitations with all numerical simulations. This is particularly true as the physiological state of a simulated patient becomes quite unusual and/or pathological.

Work in groups of 2 or 3. Keep notes and answer questions from the procedures a Word document. Provide sufficient documentation to prove you completed the exercises and paid attention while doing so. Submit this document next week at the start of lab. Submit one document per group.

SimBioSys should already be installed on your laptop as it part of the BE image.

Getting Familiar with the SimBioSys Interface

Start the SimBioSys program by double clicking on the *SimBioSys* desktop icon or clicking on the Windows’ *Start* button and selecting *Programs | SimBioSys | SimBioSys Physiology Labs*.

Familiarize yourself with the SimBioSys system by:

Selecting *Help | Physiology Help | What is SimBioSys?* on the menu bar at the top of the SimBioSys window and reading about SimBioSys.

Selecting *Help | Using SimBioSys* and reading all the subtopics.

SimBioSys Exercises

Complete the attached SimBioSys exercises E1 (Systemic and Pulmonary Hemodynamics) and E2 (Cardiac Function). Be sure to load the exercise files into SimBioSys using *File | Load Exercise | c:/program files/SimBioSys Physiology/* before beginning to work through the procedures. You may want to minimize the *Clinical View* window before proceeding with the exercises. These exercises should introduce you to the SimBioSys software and provide a review of material you covered last quarter in BI-373.