Instructions for running malathion models

An acslX workspace must be created in order to run the codes and corresponding m files.

1. Open the acslX program.
2. From the pull-down menu at the top, select “new workspace”.
3. A window that says “add new project” will come up. For New Project Name, use “adult\_rat”. Keep the location as C:\acslX\Examples\Workspace 1 or it won’t run correctly.
4. A window will come up with the .csl extension. In the folder you received with the model code, click on the Adult Rat folder and then open the file acslX model file entitled “adult\_rat”. It will open in acslX Libero.
5. Copy and paste all of the code into the csl file within the acslX program.
6. Go under File and click “Save Project”.
7. You will next have to add the parameter file and m files. To do this, go under Runtime Files in the left panel. Right click on Runtime Files and select “add new” and select “m file”.
8. A window will come up asking for a file name. Name it “rat\_parameters.m” and click open.
9. Go back to acslX Libero where the adult rat model code is open. Go under File, and click “open” and then “open script”. Select the file called “rat\_parameters”. This will then open in acslX Libero.
10. Copy the text and then paste it into the m file you created called “rat\_parameters.m”. Save the file.
11. You will need to do this for the remaining m files that go along with the adult rat model code (i.e., create the m file in acslX, open it from the folder in Libero, and copy and paste the text into the file you created in acslX). All of the m files associated with the adult rat that you need to create are listed in the table that you were given. Name them in the same way that they are listed in the table.
12. Once you have the code and m files copied and pasted into your acslX workspace for the adult rat, close acslX Libero or the acslX program will not run correctly.
13. The m files that plot observed data along with the simulations or require input doses will require xls or csv files. These should all be included in the Adult Rat folder. In order for acslX to use these files, you will need to copy and paste these into the folder on your computer where you have created your acslX workspace for the adult rat model.

Building/compiling code and running the model

1. In the acslX program, go under the Execute tab and click “Build” to build/compile the code. When this is complete, it should say “Build successful” in the command window below the code.
2. To run the model with the different m files, right click on the m file you want to run, and click “Run”. When the simulation is done, plots will appear for whatever the m script is supposed to simulate (e.g., metabolite concentrations or AChE inhibition).

To build the postnatal rat code and human model code, you will need to go through the same procedure of creating a workspace, csl file with the code, and all of the m scripts. You will receive separate folders that contain the model code and associated m files, xls, and csv files for the postnatal rat and human models.