A Principal Investigator (PI) at a leading pharmaceutical company called on DSI Data Services to help solve a bottleneck in her data analysis methodology. The PI's group conducts discovery research in rodent sleep models and uses DSI's NeuroScore™ software to perform the sleep scoring.

The Challenge. The PI had developed a customized method for visualizing comparative statistics between groups following sleep scoring. However formatting the data into this proprietary set of tables in Microsoft Excel® could consume 6-8 hours for a single study. It commonly took several days for the PI to complete the visualization, delaying decisions based on the results. In addition, it was difficult to avoid user-errors in cutting and pasting the data for each chart and the PI had not successfully trained any staff to create the tables.

The Solution. DSI Data Services observed that the problem with reproducibility could be solved by using an Excel macro. The PI provided a representative study with the output from NeuroScore and the desired set of tables and charts. DSI Data Services developed a macro capable of creating the tables in 30 seconds. The tables were ready to be used in the graphical program without any re-formatting.

The Outcome. Instead of being hindered by the process of visualizing the data, the PI is now focused on the results of each study and drug development decisions.
The PI realizes:

- Time savings of 6-8 hours of work for each study.
- No delay between sleep scoring and visualization, as the macro can be run by any group member with the press of a button.
- Elimination of user-error from cutting and pasting selected data.

The DSI Data Services team's experience in data processing allowed them to understand the problem of reproducibility and develop a solution that minimized time spent on tedious labor.