The R Journal July 19, 2019

Dear Editor,

Please find enclosed our paper entitled "**Assembling Pharmacometrics Datasets in R: the puzzle package**" for your consideration.

Considerable challenges exist when working in data management with an industrial setting that must comply with rules and regulations under the scrutiny and control of regulatory agencies. In this environment, the important task of analysis dataset building should not be underrated. The amount of time required to construct a pharmacometrics dataset can sometimes be higher than the effort required for the modeling per se. In fact, it is often claimed that the process of cleaning and preparing the data could take up to 80% of data analysis. In addition, data preparation is not just a unique step, as it usually has to be repeated multiple times as new data become available. Pharmacometrics datasets normally imply multiple doses, several routes of administration, different treated arms and/or sequences, time in- and/or dependent covariates, metabolite, and/or urine data, and/or information regarding one or multiple responses. These additional components tend to significantly increase the complexity of the data assembling. To simplify the process, Syneos Health's pharmacometrics team has created a series of functions, conveniently stored in the puzzle R package, aimed at simplifying and facilitating the time consuming and error prone task of assembling pharmacometrics datasets. In this tutorial, we present the first open source tool to automatically assemble pharmacometrics ready data sets in R.

We deeply believe that our work would be of interest for the readers of the R Journal.

Best regards,

Mario Gonzalez Sales