CFO: Readme

Step 1: Select the trial application.

(a) For phase I trials, select the **CFO for phase I Trial** tab;

(b) For phase I/II trials, select the **CFO for phase I/II** tab;

(c) For dose-combination trials, select the **CFO2d** tab.

Step 2: Navigate through different tabs to access various functionalities of this App.

(a) Tab **Dose for Next Cohort** is used in an ongoing clinical trial. After inputting data from the current cohort, this tab applies the CFO design to recommend the most appropriate dose level for the next cohort.

To use this feature, first input the trial design parameters and current observational data in the **Trial Setting** panel. Next configure safety-related thresholds in the **Safety Control** panel. For the **CFO for Phase I/II** trial, set **Efficacy threshold** as the minimum acceptable efficacy rate.

(b) Tabs **Select MTD** or **Select OBD** are used upon completion of the trial. These tabs employ the CFO design to determine the maximum tolerated dose (MTD) or optimal biological dose (OBD) based on the complete trial data.

To use this feature, input the trial design parameters and the complete observational data in the **Trial Setting** panel, and configure the relevant safety thresholds in the **Safety Control** panel.

(c) Tabs **Single Simulation** or **Multiple Simulations** are designed to perform single or multiple clinical trial simulations.

- **Single Simulation**

  Configure the trial scenario and CFO algorithm parameters in the **Configuration for CFO Design** panel. First select the appropriate type of CFO design and then specify additional parameters. If using TITE-CFO, TITE-aCFO, fCFO, or f-aCFO, additional design parameters related to late-onset toxicity are required. The late-onset toxicity setting interface will appear after selecting the corresponding CFO design type.

- **Multiple Simulations**

  Configure the trial scenario and CFO algorithm parameters in the **Configuration for CFO Design** panel. First select the appropriate type of CFO design. If using CFO, aCFO, or rCFO, one only needs to specify additional parameters and the number of simulation iterations. For TITE-CFO, TITE-aCFO, fCFO, or f-aCFO, additional design parameters related to late-onset toxicity are required. The late-onset toxicity setting interface will appear after selecting the corresponding CFO design type.

(d) The odds ratio threshold plot can be generated based on the **gamma table** available in the **CFO for Phase I Trial** tab.

After configuring the parameters and running the simulations, results will appear on the right side of the interface. The overall results can be viewed under the **Summary** tab, and plots are shown by selecting the **Plot** tab.