Renzafungin is a novel once weekly echinocandin antifungal (Figure 1) in development for treatment of candidemia and invasive candidiasis, and for prevention of invasive fungal diseases caused by Candida, Aspergillus, and Pneumocystis. Vulnerable patient populations, such as those undergoing intensive chemotherapy or transplants may receive antifungal treatment or prophylaxis particularly with azole antifungals, with risks of drug-drug interactions (DDIs) that can significantly alter the pharmacokinetics (PK) of immunosuppressive or anticancer agents. This study was conducted to evaluate the effect of renzafungin on cyclosporine, mycophenolate mofetil, venetoclax, and ibrutinib.

Once weekly IV administration of renzafungin with single doses of cyclosporine, ibrutinib, mycophenolate mofetil and venetoclax did not result in any clinically meaningful change in the exposure of the concomitant medications. No dose adjustments of cyclosporine, mycophenolate mofetil, ibrutinib, or venetoclax are expected to be necessary when given in combination with renzafungin.

The administration of renzafungin 400 mg followed by 2 once weekly doses of 200 mg, coadministered with cyclosporine, ibrutinib, and mycophenolate mofetil or venetoclax, in healthy subjects was considered generally well-tolerated with an acceptable safety profile.

Overall, all study drugs were well tolerated. Ten subjects (29.4%) experienced adverse events (AEs) following the administration of the substrate drugs alone and 15 subjects (46.9%) experienced AEs for the substrate drugs with renzafungin. There were no deaths or serious adverse events. The most commonly reported AEs were headache and nausea. The majority of AEs were of mild intensity. Two subjects had one severe AE each (abdominal pain related to both renzafungin and venetoclax and esophagitis related to cyclosporine). No trends in safety laboratory results were identified.

The PK of all 4 drugs were similar with and without renzafungin. Comparison of the exposure (AUC and Cmax) of the drugs given alone or with renzafungin is presented in Table 1, with geometric mean ratio and 90% confidence intervals also shown in Figure 3. There were no clinically meaningful changes in exposure.