Abstract

**Study Design**

- Single oral, escalating dose study, placebo controlled
- Fed dose levels were 8 mg/kg high fat; 16 mg/kg low fat as oral solution
- MPC-9055 is a potent, orally bioavailable, small molecule inhibitor of HIV-1 maturation. This study targets a unique cleavage event in the HIV life cycle by inhibiting the processing of the viral capsid protein p23 to p6. Inhibition of this step in Gag processing leads to the noninfectious virion and thereby prevents subsequent rounds of HIV infection.

**Objectives**

- Primary: Characterize the safety and tolerability of MPC-9055 in the fasted state
- Assess the effect of a low fat and high fat meal on PK parameters of MPC-9055
- Assess the relative bioavailability of an oral tablet

**Demographics and Baseline Characteristics**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Mean ± SD</th>
<th>90% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
<td>25,353</td>
<td>(21,736-30,971)</td>
</tr>
<tr>
<td>Height (cm)</td>
<td>170</td>
<td>(165-175)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>25.0</td>
<td>(24.0-26.0)</td>
</tr>
</tbody>
</table>

**Conclusions**

- MPC-9055 had a favorable safety profile following single dose administration to healthy volunteers
- Most adverse events were mild with the most common being nausea, diarrhea, and lightheadedness.
- Plasma concentrations increased in a less than dose proportional manner.