Tivozanib was developed to optimize the VEGFR blockade while minimizing off-target toxicities. The most common grade 3/4 treatment-related AE was hypertension, reported in 35 (20%) patients treated with tivozanib. The safety profile was characterized by a limited number of unique toxicities, with a low rate of Grade 4 toxicities. The most common Grade 3/4 treatment-related AE was hypertension, reported in 35 (20%) patients treated with tivozanib.

Study Design
- Study design: TIVO-3 (Phase 3, multicenter, randomized, double-blind, placebo-controlled trial. Patients were randomized 1:1:1 to receive tivozanib (3 mg once daily in 28-day cycles), sorafenib (400 mg twice daily), or placebo. Tivozanib and sorafenib were dosed for 21 days on, 7 days off per cycle. The study was terminated early due to the superior efficacy of tivozanib.

Results
- OS in patients who received a prior CPI plus VEGFR TKI or 2 prior VEGFR TKIs is presented in Figure 2. In the May 1, 2020, final OS analysis, with a median follow-up of 38 months for tivozanib and 40 months for sorafenib, significantly more patients achieved a response in the tivozanib group than in the sorafenib group (18% vs. 4%; P = 0.017; Table 3). Median OS of 16.4 months vs. 19.2 months (P = 0.78). Figure 3 shows the Kaplan-Meier curves for OS in patients receiving tivozanib and sorafenib.

Conclusions
- The findings of the final analysis of the TIVO-3 trial demonstrated clinical advantages of tivozanib compared with sorafenib in the treatment of patients with advanced RCC.
- Tivozanib demonstrated improved ORR, DFS, and OS compared with sorafenib.

References
5. Nakamura K et al. 2011;17:7156-7163.

Table 1. Key Baseline Patient Demographics

<table>
<thead>
<tr>
<th>Tivozanib (n=173)</th>
<th>Sorafenib (n=172)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>60 (10)</td>
<td>60 (10)</td>
</tr>
<tr>
<td>Male</td>
<td>126 (73)</td>
<td>108 (63)</td>
</tr>
<tr>
<td>ECOG PS 0 or 1</td>
<td>87 (51)</td>
<td>87 (51)</td>
</tr>
<tr>
<td>IMDC risk category</td>
<td>34 (20)</td>
<td>34 (22)</td>
</tr>
<tr>
<td>Intermediate</td>
<td>76 (44)</td>
<td>76 (44)</td>
</tr>
<tr>
<td>Advanced</td>
<td>16 (9)</td>
<td>16 (9)</td>
</tr>
<tr>
<td>Prior CPI + VEGFR TKI</td>
<td>102 (90)</td>
<td>102 (90)</td>
</tr>
<tr>
<td>Prior VEGFR TKIs</td>
<td>27 (16)</td>
<td>27 (16)</td>
</tr>
<tr>
<td>Prior CPI plus VEGFR TKI</td>
<td>27 (16)</td>
<td>27 (16)</td>
</tr>
</tbody>
</table>

Table 2. OS in Select Patient Subgroups

- OS in patients who received a prior CPI plus VEGFR TKI or 2 prior VEGFR TKIs is presented in Table 3. In the May 1, 2020, final OS analysis, with a median follow-up of 38 months for tivozanib and 40 months for sorafenib, significantly more patients achieved a response in the tivozanib group than in the sorafenib group (18% vs. 4%; P = 0.017; Table 3). Median OS of 16.4 months vs. 19.2 months (P = 0.78). Figure 3 shows the Kaplan-Meier curves for OS in patients receiving tivozanib and sorafenib.

Conclusions
- The findings of the final analysis of the TIVO-3 trial demonstrated clinical advantages of tivozanib compared with sorafenib in the treatment of patients with advanced RCC.
- Tivozanib demonstrated improved ORR, DFS, and OS compared with sorafenib.

References