The introduction of echinocandins, a novel class of antifungal agents, has revolutionized the treatment of candidemia and invasive candidiasis. CD101 is a novel, long-acting echinocandin under development for the treatment of candidemia and invasive candidiasis. CD101 is a novel, long-acting echinocandin under development for the treatment of candidemia and invasive candidiasis. CD101 is a novel, long-acting echinocandin under development for the treatment of candidemia and invasive candidiasis. CD101 is a novel, long-acting echinocandin under development for the treatment of candidemia and invasive candidiasis.

**RESULTS (cont’d)**

### Table 3. Summary of mutants possessing fks mutations

<table>
<thead>
<tr>
<th>Strain</th>
<th>fks-1</th>
<th>fks-2</th>
<th>fks-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. krusei ATCC 477</td>
<td>D666N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. parapsilosis CP01</td>
<td></td>
<td>R1378S</td>
<td></td>
</tr>
<tr>
<td>C. glabrata ATCC 6258</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Conclusions

- CD101 selected mutants were tested with different IC50 values increasing from highest resistance to echinocandin under development for the treatment of candidemia and invasive candidiasis.
- Echinocandin resistance was observed for all mutants.
- Mutations conferring >2-fold MIC shifts to all echinocandins are even less frequent than the values derived in these plating experiments.
- Development of echinocandin resistance is often associated with reduced susceptibility to concomitant fks and cas mutations.
- Mutations in fks and cas genes can encode the catalytic subunit of the gene.
- Mutations in the fks gene, which encodes the catalytic subunit of this complex, have been associated with reduced susceptibility to concomitant fks and cas mutations. A high proportion of patients develop resistant clones.
- Mutations in fks and cas genes can encode the catalytic subunit of the Fks1 or Fks2 glucan synthase enzyme complex.
- Echinocandins target the 1,3-β-D-glucan synthase enzyme complex. Mutations in the fks gene, which encodes the catalytic subunit of this complex, have been associated with reduced susceptibility to concomitant fks and cas mutations. A high proportion of patients develop resistant clones. A front-loaded treatment paradigm may have advantages from an efficacy standpoint and could help prevent or slow the development of resistance. The current study was to investigate the frequency of the four-dimensional basis for spontaneous, single-step mutations in Candia spp. which cause reduced susceptibility to CD101.

**ACKNOWLEDGEMENTS**

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**References**