<table>
<tr><td>Technology/ Title</td><td colspan="3">DBPR728 — A Kinase Inhibitor Targeting MYC Driven Cancers</td></tr>
<tr><td>Subtitle</td><td colspan="3">A precision medicine strategy for cancers</td></tr>
<tr><td>Technology Type</td><td>☐ Biotechnology
■ Pharmaceutical</td><td colspan="2">☐Device/Diagnostics</td></tr>
<tr><td rowspan="3">Contact Person</td><td colspan="2">Name: Cindy Hsieh</td><td>Title: Manager</td></tr>
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<tr><td>Link</td><td colspan="3"></td></tr>
<tr><td>Technology Description</td><td colspan="3">DBPR728 is an oral-available novel Aurora kinase inhibitor which was selected based on its potency to reduce levels of c-MYC and N-MYC oncoproteins. DBPR728 efficiently induces cell apoptosis and inhibits proliferation of several cancer cell lines. Head-to-head comparison of DBPR728 with the phase II investigational drug alisertib demonstrated superiority of DBPR728 on the regression or suppression of multiple tumor xenografts (e.g. small cell lung cancer, triple-negative breast cancer, liver cancer, pancreatic cancer, medulloblastoma and neuroblastoma) overexpressing c-MYC and/or N-MYC. In addition, oral administration of DBPR728 at 300 mpk once a week or 200 mpk twice a week showed similar tumor regression potency, as compared to the dosage of 100 mpk 5W for 2 weeks. DBPR728 also showed synergy with everolimus (an mTOR inhibitor) in regressing MYC-overexpressing small cell lung cancer tumor xenografts. No significant hematological toxicity was observed in mice receiving DBPR728 at 100 mpk 5W for 14 days or 300 mpk QW for 3 weeks. A PCT international patent treaty (WO 2021/178485) has been filed for this technology.
COMPETITIVE ADVANTAGES
➤ Deregulation of MYC is frequently associated with poor prognosis and unfavorable patient survival. DBPR728 was designed based on its potency to reduce levels of c-MYC and N-MYC oncoproteins in addition to its inhibitory activity to Aurora kinases.
➤ DBPR728 is superior to alisertib in degrading c-MYC oncoprotein in the tumor xenografts.
Amplification or overexpression of c-MYC/N-MYC can serve as a biomarker for selection of patients who are potentially responsive to DBPR728.</td></tr>
<tr><td>Intellectual Property</td><td colspan="3">PCT filed on March 3, 2021</td></tr>
<tr><td>Key Publications</td><td colspan="3">1. https://pubs.acs.org/doi/10.1021/acs.jmedchem.0c01806
2. https://aacrjournals.org/mct/article-abstract/23/6/766/745468/Discovery-of-a-Long-Half-Life-AURKA-Inhibitor-to?redirectedFrom=fulltext</td></tr>
<tr><td>Business Opportunity</td><td colspan="3">Patent licensing, co-development</td></tr>
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DBPR728: Targeting MYC-Driven Cancers in Human and Canine Patients