Sorafenib In Vivo Activity

**Methods**

- In vivo testing was performed utilizing DIMSCAN, a semiautomatic fluorescence-based digital image microscopy system that quantifies viable (using fluorescein diacetate [FDA]) cell numbers in tissue culture multiwell plates.
- Using combined VEGFA probe set expression data or only expression data for the most 7 probe set (2015126_k_at), there is a trend for greater growth inhibitory activity for sorafenib against the PPTP solid tumor xenografts with higher VEGFA expression (p=0.09 and 0.04, respectively).

**Conclusions**

- Highest VEGFA expression occurs for selected xenografts in the osteosarcoma panel and for xenografts in the brain tumor panel (ependymomas and glioblastomas).
- All xenografts and cell lines generally have very low VEGFA expression.
- Sorafenib was well-tolerated in vivo at the dose and schedule studied (1.2% toxicity).
- The in vivo antitumor activity observed for sorafenib against the PPTP childhood cancer models consisted of tumor growth inhibition.
- Sorafenib was ineffective against the ALL xenografts.
- Sorafenib in vivo activity against the PPTP xenografts was associated with the level of VEGFA expression as assessed at the RNA level.
- Sorafenib is under clinical evaluation for children with cancer.

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