AB035. P006. Activity of heat shock protein-90 (HSP90) inhibitors against pancreatic cancers grown in 3 dimensions

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Background: Pancreatic ductal adenocarcinoma (PDAC) is one of the most deadliest cancers for which few curative therapies are available to date. Heat shock protein (HSP) inhibitors have shown some activity in other cancers and accordingly offer great potential for the targeted treatment of this disease.

Methods: *In vitro* effects of HSP-90 inhibitors on cell growth were evaluated, using three representative low-passage pancreatic cell lines (Panc10.05, Panc215, A6L). We screened them with five commercially available HSP-90 inhibitors: allylamine, AT 13387, AUY-922, ganetespib, rifabutin and three experimental HSP inhibitors: ICPD 26, ICPD 47, ICPD 62. IC50s were calculated for each in 2D and 3D assays.

Results: In 3 dimensions rifabutin was profounding inhibiting in all three pancreatic cell lines (Panc10.05, Panc215, A6L) by 80%. IC50s of rifabutin in 3D were sufficiently low (Panc10.05: 71.48, Panc215: 20.04, A6L: 18.38) while other HSP inhibitors were significantly less active.

Conclusions: Our data suggest that rifabutin (HSP-90 inhibitor) is a promising candidate for the treatment of PDAC and needs further testing *in vivo*.

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