HDACi resminostat in combination with sorafenib reverses platelet-mediated pro-tumorigenic effects in hepatocellular carcinoma

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1. Sorafenib’s but not resminostat’s efficacy depends on the epithelial and mesenchymal phenotype

A. Epithelial MesoHCC

B. Cell invasion assay PLC/PRF/5

C. CRAC

D. Crystal violet

2. Sorafenib’s anti-proliferative efficacy is plateau dependent, whereas resminostat’s efficacy is not affected by platelets

A. Cell line

B. Cell invasion assay PLC/PRF/5

3. The anti-proliferative effect of the resminostat/sorafenib combination is determined by resminostat

A. Cell line

B. Cell invasion assay PLC/PRF/5

4. Platelets induce cell invasion of HCC cells

A. Cell invasion assay PLC/PRF/5

B. Crystal violet

5. Platelet-induced cell invasion of HCC cells is reversed by resminostat in combination with sorafenib

A. Cell invasion assay PLC/PRF/5

B. Crystal violet

6. Resminostat/regorafenib combination reduces invasion

A. Cell invasion assay SNU-475

B. Crystal violet

Conclusions

Pre-clinical evidence for a platelet-dependent therapeutic benefit of resminostat in combination with sorafenib:

- Platelet factors and the mesenchymal phenotype reduce the anti-proliferative effect of sorafenib, but not of resminostat
- Resminostat determines the anti-proliferative response of the drug combination
- Platelet-induced cell invasion is effectively reversed by the resminostat/sorafenib and resminostat/regorafenib combination
- Data corroborate platelet count as a potential treatment-predictive marker
- Resminostat in combination with MKI as promising treatment regimen in solid cancers with platelet-driven disease

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http://www.4sc.com/science/publications-presentations-posters/resminostat/