Intellectual Property (Non-confidential)



# Novel Compound for Treating Cancer

### DESCRIPTION

This technology covers a series of novel small molecule compounds capable of effectively treating cancer and obesity. The lead compound from this portfolio is designated SR-4 and is a dichlorophenyl urea compound originally synthesized and used to modulate adipocyte cell differentiation, hypertrophy and hyperplasia, but has since shown marked anti-cancer effects in primarily melanoma and breast cancer using in vitro cultured cells (NCI-60 panel)

The mechanism of activity for SR4 is it functions as a substrate for glutathione S-transferases. This has been demonstrated via the formation of the product mono-glutationyl-SR4 (GSR4) and developed a spectrophotometric method for determination of GST-activity using this compound

SR4 appears to also be an activator of 5' AMP-activated protein kinase (AMPK). AMPK activation restores cellular bioenergetics by inhibiting anabolic pathways (such as those goes on in tumors) that consume ATP and by activating catabolic reactions that generate ATP

#### KEY ASPECTS

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• This compounds are called:

SR4

- o SR1, SR2, SR3, SR4, SR6, SR7 SR9, LR23 and LR59
- Xenograft mouse model data available upon request
- High Efficacy demonstrated against the Melanoma line B16F1
- SR4 has very low toxicity against normal cells

#### **INTELLECTUAL PROPERTY**

| Title   | International Application Number | Filed     |
|---|----------------------------------|-----------|
| Novel modulators of development of adipocyte and cancer cells | PCT/US12/23034                   | 1/27/2012 |

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