Novel combination therapy effective against glioblastoma (GBM)

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Glioblastoma multiforme (GBM)

- GBM is an incurable Grade 4 tumor of the central nervous system
- Comprises about half of all malignant adult primary brain tumors

**Clinical Problem:**
- Currently, the standard regimen of surgery, radiation and temozolomide treatments result in a median survival under 2 years
- New therapies for GBM have been elusive and are desperately needed
Combination therapies for GBM

**Solution:** Researchers at the University of Virginia have shown that a combination of ritanserin, temozolomide, and chloroquine are most effective for GBM treatment.

- Ritanserin is effective synergistically with temozolomide or with chloroquine
Dual-combination treatments for GBM

U251 human glioblastoma cells treated with combinations of ritanserin and chloroquine or temozolomide, demonstrating effectiveness of dual-combination therapies for treatment of GBM.
Dual-combination treatment vs. multi-combination treatment

U251 human glioblastoma cells treated with combinations of ritanserin, chloroquine and temozolomide, demonstrating multi-combination treatment is most effective for treatment of GBM.
Relevant Publication

Intellectual Property

- UVA Tech ID: PUROW-RITTEMO
  - Title: Compositions and methods for treating cancer
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