

**Identification of an alternatively
spliced RNA for the Ras suppressor
RSU-1 in human gliomas**

by

Suryaprabha Chunduru, Hiroyuki Kawami, Richard Gullick,
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The study by Chunduru et al., referenced above, which was supported in part by a grant from the Childhood Brain Tumor Foundation to Dr. Mary Lou Cutler at the Uniformed Services, University of the Health Sciences, Bethesda, MD, further clarifies pathways that may be involved in glioma cell growth and proliferation. The mechanisms by which RSU-1 regulates signal transduction downstream of Ras contributes to the understanding of signal transduction in high-grade gliomas/glioblastoma. At the present time, there is great clinical interest in determining what regulates signal transduction and importantly, there are now a host of new small molecules that are being utilized in an attempt to interrupt the signaling mechanism. These molecules block both initial signaling and also are aimed at downstream targets.

Through the Pediatric Brain Tumor Consortium, studies are presently underway evaluating a molecular targeted therapy designed to interrupt signal transduction in high-grade gliomas, including Gleevec (STI-571), IRESSA (ZD1839), and oral farnysea protein transferase inhibitors. In addition, there is increasing data that similar targeted therapy may be effective in other tumor types, especially medulloblastoma. Work by MacDonald and coworkers at the Children's National Medical Center and Gilbertson at St. Jude's suggest that such approaches using new drugs including Gleevec, the oral farnysea transferase inhibitor, and Ras inhibitors may target important pathways for children with medulloblastoma.

The hope is that these drugs aimed at molecular targets will improve both the effectiveness and selectivity of brain tumor treatment.