

**Brief Communication abstract**

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**Small interfering RNA-mediated xCT silencing in gliomas inhibits neurodegeneration and alleviates brain edema**

Nicolai E Savaskan<sup>1,2</sup>, Alexandra Heckel<sup>3</sup>, Eric Hahnen<sup>4,5</sup>, Tobias Engelhorn<sup>6</sup>, Arnd Doerfler<sup>6</sup>, Oliver Ganslandt<sup>3</sup>, Christopher Nimsky<sup>3</sup>, Michael Buchfelder<sup>3</sup> & Ilker Y Eyüpoglu<sup>3</sup>

**Neurodegeneration and brain edema are hallmarks of human malignant brain tumors. Here we show that genetic or pharmacological inhibition of the glutamate transporter xCT ( $X_c^-$  system, encoded by *SLC7A11*) *in vivo* leads to abrogated neurodegeneration, attenuated perifocal edema and prolonged survival. These results show a crucial role for xCT in glioma-induced neurodegeneration and brain edema, corroborating the concept that edema formation may be in part a consequence of peritumoral cell death.**

1. Brain Research Institute, Swiss Federal Institute of Technology & University Zurich, Winterthurerstrasse 190, CH-8057 Zurich, Switzerland.
2. Division of Cellular Biochemistry, The Netherlands Cancer Institute, Plesmanlaan 121, NL-1066 CX Amsterdam, The Netherlands.
3. Department of Neurosurgery, University of Erlangen-Nuremberg, Schwabachanlage 6, D-91054 Erlangen, Germany.
4. Institute of Human Genetics, Institute of Genetics and Center for Molecular Medicine Cologne, University of Cologne, Zùlpicherstrasse 47, D-50674 Cologne, Germany.
5. Department of Neuropathology, University of Erlangen-Nuremberg, Schwabachanlage 6, D-91054 Erlangen, Germany.
6. Department of Neuroradiology, University of Erlangen-Nuremberg, Schwabachanlage 6, D-91054 Erlangen, Germany.

Correspondence to: Ilker Y Eyüpoglu<sup>3</sup> e-mail: [ilker.eyupoglu@uk-erlangen.de](mailto:ilker.eyupoglu@uk-erlangen.de)

Correspondence to: Nicolai E Savaskan<sup>1,2</sup> e-mail: [savaskan@gmx.net](mailto:savaskan@gmx.net)