

## Central Lancashire Online Knowledge (CLoK)

Title	Expression and pharmacological inhibition of TrkB and EGFR in glioblastoma
Type	Article
URL	<a href="https://clock.uclan.ac.uk/id/eprint/34652/">https://clock.uclan.ac.uk/id/eprint/34652/</a>
DOI	<a href="https://doi.org/10.1007/s11033-020-05739-2">https://doi.org/10.1007/s11033-020-05739-2</a>
Date	2020
Citation	Pinherio, Kelly V, Thomaz, Amanda, Kunler Souza, Barbara, Metcalfe, Victoria Anne, Hogetop Freire, Natalia, Tesainer Brunetto, Andre, Brunette de Farias, Caroline, Jaegar, Mariane, Bambini-Junior, Victorio et al (2020) Expression and pharmacological inhibition of TrkB and EGFR in glioblastoma. <i>Molecular Biology Reports</i> , 47. pp. 6817-6828. ISSN 0301-4851
Creators	Pinherio, Kelly V, Thomaz, Amanda, Kunler Souza, Barbara, Metcalfe, Victoria Anne, Hogetop Freire, Natalia, Tesainer Brunetto, Andre, Brunette de Farias, Caroline, Jaegar, Mariane, Bambini-Junior, Victorio, Smith, Christopher George severin, Shaw, Lisa and Roesler, Rafael

It is advisable to refer to the publisher's version if you intend to cite from the work.  
<https://doi.org/10.1007/s11033-020-05739-2>

For information about Research at UCLan please go to <http://www.uclan.ac.uk/research/>

All outputs in CLoK are protected by Intellectual Property Rights law, including Copyright law. Copyright, IPR and Moral Rights for the works on this site are retained by the individual authors and/or other copyright owners. Terms and conditions for use of this material are defined in the <http://clock.uclan.ac.uk/policies/>

**Supplementary information for:**

## **Expression and pharmacological inhibition of TrkB and EGFR in glioblastoma**

**Kelly de Vargas Pinheiro**<sup>1,2</sup> • **Amanda Thomaz**<sup>1,2,\*</sup> • **Bárbara Kunzler Souza**<sup>1,2,3</sup> • **Victoria Anne Metcalfe**<sup>4</sup> • **Natália Hogetop Freire**<sup>1</sup> • **André Tesainer Brunetto**<sup>1,3</sup> • **Caroline Brunetto de Farias**<sup>1,3</sup> • **Mariane Jaeger**<sup>1,3</sup> • **Victorio Bambini**<sup>4</sup> • **Christopher G.S. Smith**<sup>4</sup> • **Lisa Shaw**<sup>4</sup> • **Rafael Roesler**<sup>1,2</sup>

<sup>1</sup> Cancer and Neurobiology Laboratory, Experimental Research Center, Clinical Hospital (CPE-HCPA), Federal University of Rio Grande do Sul, 90035-003 Porto Alegre, RS, Brazil

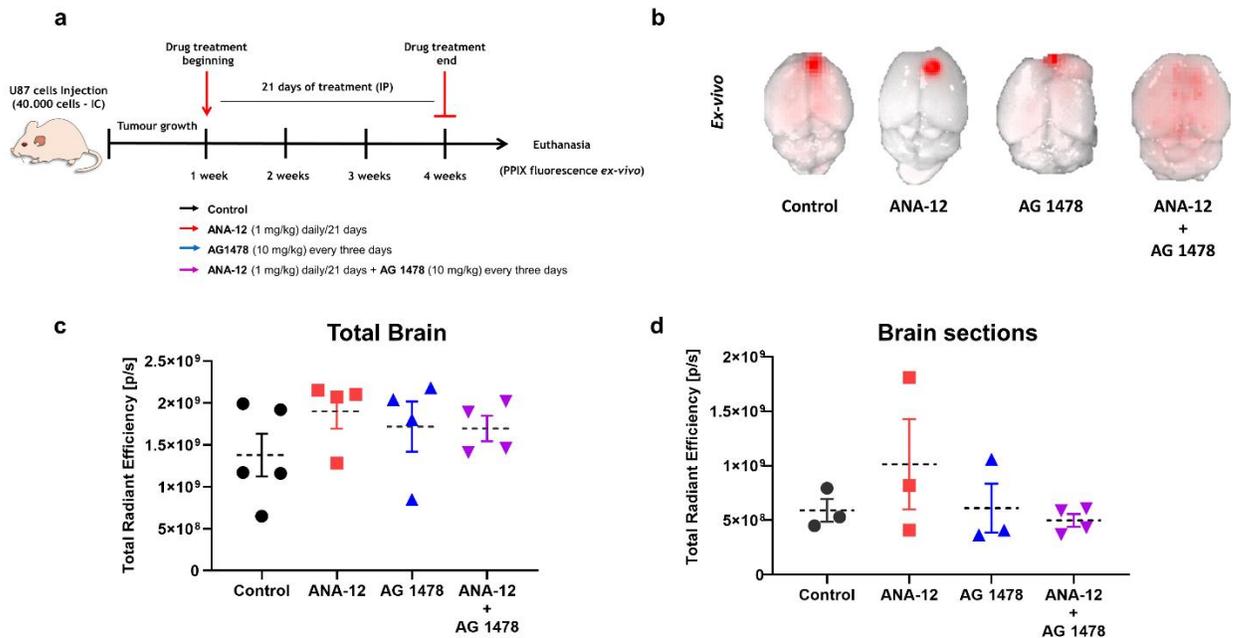
<sup>2</sup> Department of Pharmacology, Institute for Basic Health Sciences, Federal University of Rio Grande do Sul, 90050-170 Porto Alegre, RS, Brazil

<sup>3</sup> Children's Cancer Institute, 90620-110 Porto Alegre, RS, Brazil

<sup>4</sup> School of Pharmacy and Biomedical Sciences, Faculty of Clinical and Biomedical Sciences, University of Central Lancashire, Preston, Lancashire, PR1 2HE, United Kingdom

**Correspondence:** Rafael Roesler, Department of Pharmacology, Institute for Basic Health Sciences, Federal University of Rio Grande do Sul, Rua Sarmiento Leite, 500 (ICBS, Campus Centro/UFRGS), 90050-170 Porto Alegre, RS, Brazil. E-mail: [rafaelroesler@hcpa.edu.br](mailto:rafaelroesler@hcpa.edu.br)

\* Current address: Division of Biomedical and Life Sciences, Faculty of Health and Medicine, Lancaster University, Lancaster LA 4YG, United Kingdom.



**Supp. Fig. S1** Inhibition of TrkB and EGFR in an intracranial GBM mouse model. (A) A total of 40,000 U87MG cells were intracranially (i.c.) injected into nude mice. Drug treatments started on the seventh day after cell implantation. The animals were randomly divided in 4 groups ( $n=5$  per group) to receive intraperitoneal (i.p.) injections for 21 days, and were treated by a blinded investigator with ANA-12 (1 mg/kg daily plus vehicle every 3 days), AG1478 (10 mg/kg every three days plus vehicle daily), ANA-12 (1 mg/kg daily) plus AG 1478 (10 mg/kg/every three days) and vehicle (DMSO) daily. After 21 days of treatment, the animals received an i.p. injection of 5-ALA (50 mg/kg) and after 1 h mice were euthanized by cervical dislocation and the brains were removed to be analyzed (B) Representative IVIS images of harvested brains acquired at day 29 after transplantation. (C) Corresponding data of 5-ALA (PPIX) radiant efficiency from the whole brain. (D) After performing images of the intact brain, a brain matrix was used to cut sequential 1-mm slices through the region containing the tumor. Slices were imaged using IVIS and

fluorescence images were collected. Data are expressed as mean  $\pm$  SEM. Statistical analyses were performed using one-way ANOVA followed by Tukey's post-hoc tests. No statistical differences were observed between experimental groups.