Secretase-Independent and RhoGTPase/PAK/ERK-Dependent Regulation of Cytoskeleton Dynamics in Astrocytes by NSAIDs and Derivatives

Mathieu P. Lichtenstein\textsuperscript{a,b,1}, Paulina Carriba\textsuperscript{a,b,1}, María Antonia Baltrons\textsuperscript{b,c}, Beata Wojciak-Stothard\textsuperscript{d}, Jeffrey R. Peterson\textsuperscript{e}, Agustina García\textsuperscript{b,c,1} and Elena Galea\textsuperscript{a,b,f,1,∗}

\textsuperscript{a}Institut de Neurociències, Universitat Autònoma de Barcelona, Spain
\textsuperscript{b}Departament de Bioquímica i Biologia Molecular, Universitat Autònoma de Barcelona, Spain
\textsuperscript{c}Institut de Biotecnologia i de Biomedicina, Universitat Autònoma de Barcelona, Spain
\textsuperscript{d}Department of Experimental Medicine and Toxicology, Hammersmith Campus, Imperial College London, UK
\textsuperscript{e}Fox Chase Cancer Center, Philadelphia, PA, USA
\textsuperscript{f}Institut Català d’Estudis Avançats (ICREA), Spain

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\textsuperscript{1}Equal author contribution.

∗Correspondence to: Elena Galea, PhD, Institut of Neurociències, Edifici M Universitat Autònoma de Barcelona, Bellaterra, 08193 Barcelona, Spain. Tel.: +34 93 586 8143; Fax: +34 93 581 1575; E-mail: galea.inc@gmail.com.

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Supplementary Fig. 1. Time and dose response of profen-elicited stellation under phase contrast. Astrocytes were incubated with ibuprofen (100–500 µM), R-flurbiprofen (100–500 µM), or CHF5074 (10–30 µM) for 0.5–3 h as indicated on the figures. Profens caused a time and dose dependent soma retraction and process emission. Scale bar, 25 µm.

Supplementary Fig. 2. Time and dose response of profen-elicited stellation under phase contrast. Astrocytes were incubated with ibuprofen (100–500 µM), R-flurbiprofen (100–500 µM), or CHF5074 (10–30 µM) for 0.5–3 h as indicated on the figures. Profens caused a time and dose dependent soma retraction and process emission. Scale bar, 25 µm.
Supplementary Fig. 3. Time and dose response of profen-elicited stellation under phase contrast. Astrocytes were incubated with ibuprofen (100–500 μM), R-flurbiprofen (100–500 μM), or CHF5074 (10–30 μM) for 0.5–3 h as indicated on the figures. Profens caused a time and dose dependent soma retraction and process emission. Scale bar, 25 μm.

Supplementary Fig. 4. Time and dose response of profen-elicited stellation under phase contrast. Astrocytes were incubated with ibuprofen (100–500 μM), R-flurbiprofen (100–500 μM), or CHF5074 (10–30 μM) for 0.5–3 h as indicated on the figures. Profens caused a time and dose dependent soma retraction and process emission. Scale bar, 25 μm.
Supplementary Fig. 5. Lack of effect of COX and secretase inhibitors. Cells were incubated with 10 µM NS398 (COX2 inhibitor), 25 µM TAPI (α-secretase inhibitor), 2 µM DAPT (γ-secretase inhibitor) or 1 µM BACE inhibitor IV for 30 min, and then incubated with 250 µM R-flurbiprofen for 3 additional hours. Cells were then immunostained for GFAP.

Supplementary Fig. 6. Ibuprofen-mediated stellation is PPAR-γ independent. Cells were incubated with 20 µM GW9226 (PPAR-γ receptor antagonist) before adding 250 µM ibuprofen, or pioglitazone (30–100 µM). Cells were immunostained with GFAP.
Supplementary Fig. 7. Lack of effect of ERK inhibitor in the stellation. Cells were incubated with 50 μM PD98059 (ERK inhibitor) prior adding 250 μM R-flurbiprofen. Cells were immunostained with GFAP.