

Identifying proteins and metabolic pathways associated with the neuroprotective response mediated by tibolone in astrocytes under an induced inflammatory model

Daniel Osorio^{1,2,3} Janneth Gonzalez² Andrés Pinzon³

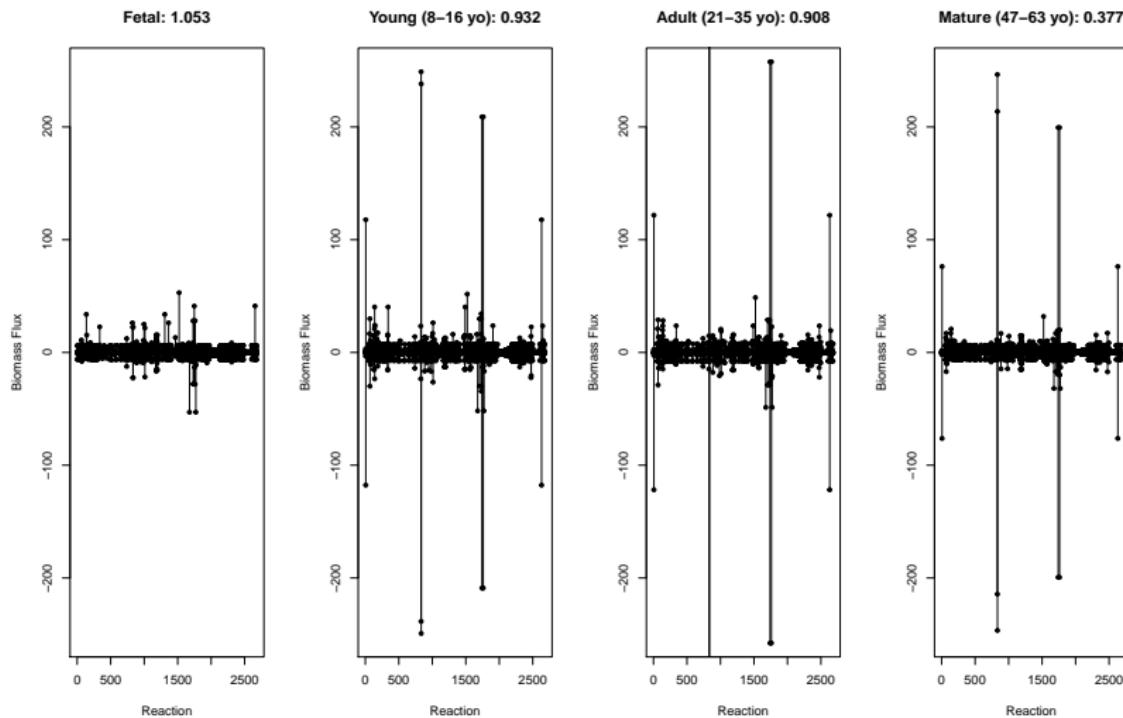
¹Departamento de Ingeniería de Sistemas e Industrial
Facultad de Ingeniería, Universidad Nacional de Colombia

²Grupo de Investigación en Bioquímica Experimental y Computacional
Facultad de Ciencias, Pontificia Universidad Javeriana - Bogotá

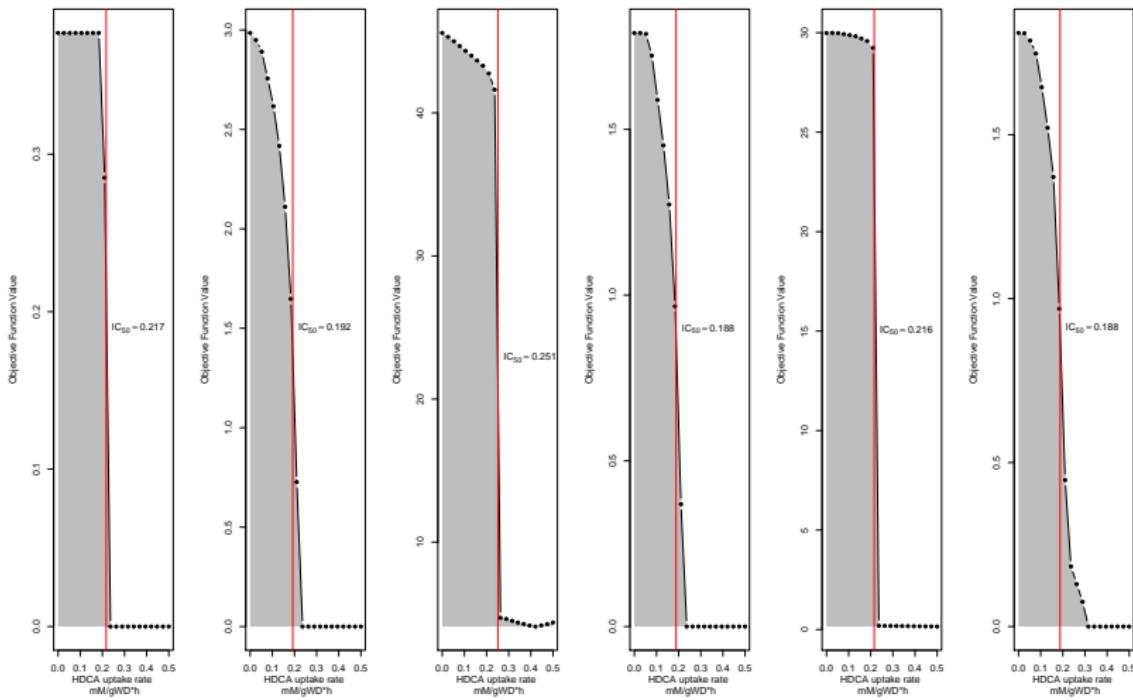
³Grupo de Investigación en Bioinformática y Biología de Sistemas
Instituto de Genética, Universidad Nacional de Colombia

Universidad Nacional de Colombia, November 2016

Age Related Metabolic Changes in Astrocytes



$$IC_{50} = 0.209 \pm 0.025 \text{ mMgDW}^{-1}\text{h}^{-1}$$



Software Development



'minval' Package

An R Package for MINimal VALidation of stoichiometric reactions

Daniel Osorio, Janneth Gonzalez and Andres Pinzón-Velasco.

Language: R

Stable: CRAN

Development: gibbslab/minval

License: GPL-2

Binaries: Windows - Linux - Mac

Software Development



'g2f' Package

An R Package to Find and Fill Gaps for genome-scale metabolic networks

Kelly Botero, Daniel Osorio, Janneth Gonzalez and Andres Pinzón-Velasco.

Language: R

Stable: CRAN

Development: [gibbslab/g2f](#)

License: [GPL-2](#)

Binaries: Windows - Linux - Mac

Software Development



'exp2flux' Package

An R Package to convert expression data to FBA fluxes

Daniel Osorio, Kelly Botero, Janneth Gonzalez and Andres Pinzón-Velasco.

Language: R

Stable: CRAN

Development: [gibbslab/exp2flux](#)

License: [GPL-2](#)

Binaries: Windows - Linux - Mac

Advances of this work were presented as:

Metabolic inflammation effects over the gliotransmitters release in mature astrocytes: a network-based approach.

Daniel Osorio MSc., Janneth Gonzalez PhD., Andrés Pinzón-Velasco PhD.
Bioinformatics and Computational Systems Biology Lab, Universidad Nacional de Colombia.



at: _____



CDMX, México
Short Talk



Barcelona, España
Poster

ICGEB Course on Bioinformatics and Computational Neuroscience



Bogotá, Colombia
Short Talk

This study is under development at the:



Bioinformatics and Computational Systems Biology Lab

Institute for Genetics - Universidad Nacional de Colombia

CONTACT:

Daniel Osorio
dcosorioh@unal.edu.co

Andrés Pinzón PhD
ampinzonv@unal.edu.co