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Synthesis and preliminary in vitro kinase inhibition evaluation of new diversely substituted pyrido[3,4-*g*]quinazoline derivatives

Wael Zeinyeh[a,b], Yannick J. Esvan[a,b], Lionel Nauton[a,b], Nadège Loaëc[c], Laurent Meijer[c], Vincent Théry[a,b], Fabrice Anizon[a,b], Francis Giraud[a,b,*], Pascale Moreau[a,b,*]

[a] Université Clermont Auvergne, Université Blaise Pascal, Institut de Chimie de Clermont-Ferrand, BP 10448, F-63000 Clermont-Ferrand, France,

[b] CNRS, UMR 6296, ICCF, F-63178 Aubière, France,

[c] ManRos Therapeutics, Centre de Perharidy, 29680 Roscoff, France.

Abstract – The synthesis of new diversely substituted pyrido[3,4-*g*]quinazolines is described. The inhibitory potencies of prepared compounds toward a panel of five CMGC protein kinases (CDK5, CLK1, DYRK1A, CK1, GSK3), that are known to play a potential role in Alzheimer's disease, were evaluated. The best overall kinase inhibition profile was found for nitro compound **4** bearing an ethyl group at the 5-position.

Keywords – Pyrido[3,4-*g*]quinazoline / Protein kinase inhibition / CLK1 / DYRK1A / CDK5 / GSK3 / CK1.

* Author to whom correspondence should be addressed:
Phone number: +33 (0) 4 73 40 79 63 (PM), Fax number: +33 (0) 4 73 40 77 17.
E-mail address: Pascale.MOREAU@univ-bpclermont.fr

Phone number: +33 (0) 4 73 40 71 27 (FG), Fax number: +33 (0) 4 73 40 77 17.
E-mail address: Francis.GIRAUD@univ-bpclermont.fr