Synthesis and evaluation of a large library of nitroxoline derivatives as pancreatic cancer antiproliferative agents

Serena Veschi^a, Simone Carradori^{a,*}, Laura De Lellis^a, Rosalba Florio^a, Davide Brocco^a, Daniela Secci^b, Paolo Guglielmi^b, Mattia Spano^b, Anatoly P. Sobolev^c, Alessandro Cama^a

^aDepartment of Pharmacy, "G. d'Annunzio" University of Chieti-Pescara, Chieti 66100, Italy ^bDipartimento di Chimica e Tecnologie del Farmaco, Sapienza Università di Roma, Rome 00185, Italy

^cIstituto per i Sistemi Biologici, Laboratorio di Risonanza Magnetica "Segre-Capitani", CNR, Via Salaria Km 29.300, 00015 Monterotondo (Rome), Italy

*Corresponding author: Simone Carradori PhD, Department of Pharmacy, "G. d'Annunzio" University of Chieti-Pescara, Chieti 66100, Italy; Tel. +39 0871 3554583; e-mail: simone.carradori@unich.it Figure S1. Concentration-response curves of compounds 24, 33, 36, 40 and 44 on viability of PC cell lines. We analyzed by MTT the effect of compounds 24, 33, 36, 40 and 44 on the viability of AsPC-1, Capan-2 and BxPC-3 treated for 48 hours at concentrations ranging from 0 (vehicle, control) to 54 μ M. The compounds affected cell viability in a dose-dependent manner, with distinct sensitivities for the three PC cell lines. Data shown are the means \pm SD of two MTT assays with quintuplicate determinations. Statistically significant differences between control and each compound concentration were expressed as **p*<0.05; ***p*<0.01; *****p*<0.001; *****p*<0.0001.



Figure S2. Concentration-response curves of nitroxoline and compounds 40 on viability of normal HFF-1 fibroblast cells. We analyzed by MTT the effect of nitroxoline and compound 40 on viability of HFF-1 treated for 48 hours at concentrations ranging from 0 (vehicle, control) to 54 μ M. IC₅₀ values of both nitroxoline and compound 40 were higher than those obtained in PC cancer cell lines (Table 1). IC₅₀ values were calculated by CompuSyn software. Data shown are the means <u>+</u>SD of two MTT assays with quintuplicate determinations. Statistically significant differences between control and each compound concentration were expressed as **p<0.01; ***p<0.001; ***p<0.0001.

