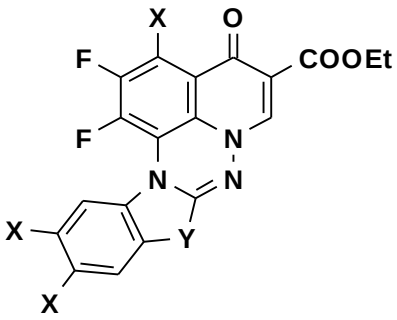
Anticancer Activity of Condensed Derivatives of Fluorinated Quinolines and Quinazolines

Emma V. Nosova, Galina N. Lipunova and Valery N. Charushin

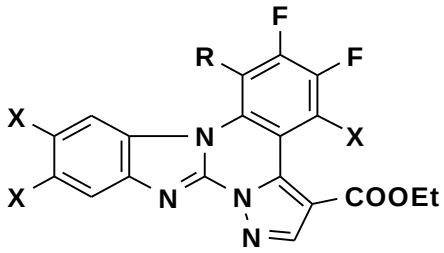
Urals State Technical University, Mira st. 19, Ekaterinburg, 620002, Russia

A number of derivatives of novel heterocyclic systems of benzazolo[2',3':3,4]-1,2,4-triazino[5,6,1-*i*,*j*]quinolines (I) and benzimidazo[1,2-*a*]pyrazolo[1,5-*c*]quinazolines (II) have been obtained.



I

X = H, F; Y= NCH_3, S



II

X= H, F; R= F, 4-methylpiperazino

I

Compounds I and II were tested as potential anticancer agents *in vitro* experiments against a number of cell lines, such as leukemia, lung cancer, melanoma, ovarian cancer, colon cancer, breast cancer, etc. Cytotoxic activity of the compound II (X=H, R= 4-methylpiperazino) against A549 (lung), SKOV-3 (ovarian) and SK-MEL-2 (melanoma) proved to be compared with that of Adriamicin which was used as a reference compound. Also the compound I (X=F Y= NCH_3) exhibited a remarkable *in vitro* activity and was selected for further testing *in vivo* Hollow Fiber Assay.