DSCM P19 **STRUCTURE OF 2-[-3-(4-METHYLPHENYL)-1-(PYRIDIN-2-YL)PROP-2-EN-1-YLIDENE]HYDRAZINE-1-CARBOTHIOAMIDE**

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During the recent years, a large number of chalcone-derived thiosemicarbazones are found to have potential therapeutic applications. They possess diverse biological activities including anti-inflammatory, antimicrobial and as cell growth inhibitor. It was found that the biological properties of these complexes correlate with their structures and the metal coordination leads to an improvement of chalcone-thiosemicarbazones pharmacological activities and synergistic effects. The aim of this work is the synthesis and the determination of structural and biological properties of 2-[-3-(4-methylphenyl)-1-(pyridin-2-yl)prop-2-en-1-ylidene]hydrazine-1-carbothioamide (**I**).

In C=N-NH-CS backbone of **I** the S atom is in *trans* to azomethine N atom. This core of the studied ligand is essentially planar within 0.01 Å. In **I** the dihedral angles of aromatic rings with mentioned backbone are equal to 30.0 and 32.2° respectively. In the crystal the molecules form the centro symmetric dimers *via* N-H···S hydrogen bonds which in turn join through the N-H···N H-bonds.

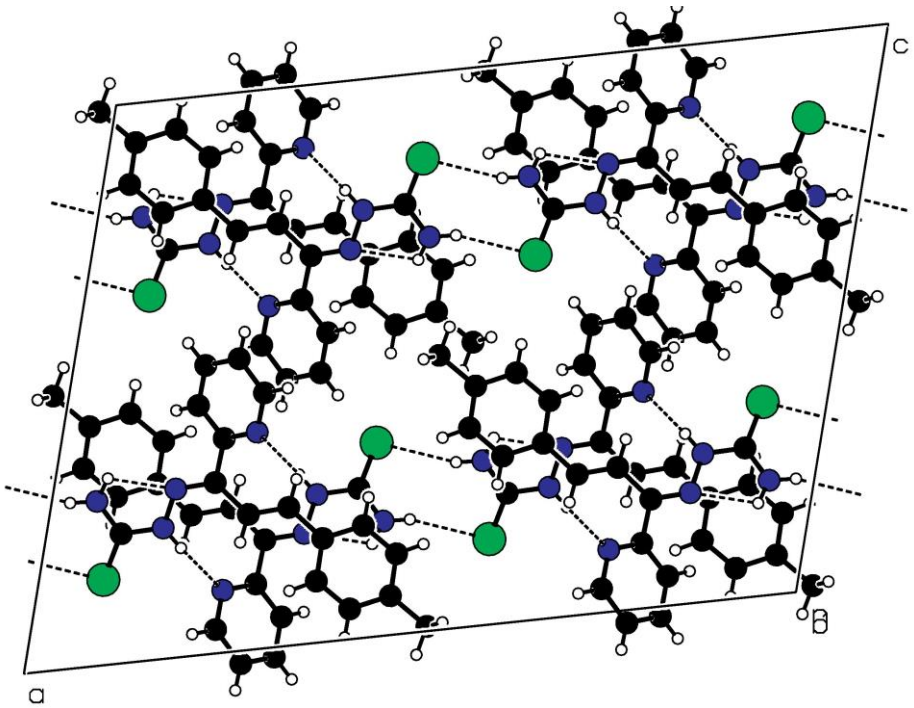

Figure. The crystal structure **I**.

The synthesized compound **I** shows the moderate inhibition of HeLa, BxPC-3, TC-1 cancer cells in the range of concertation of 10-1 μM.

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