

6<sup>th</sup> World Congress on**MEDICINAL CHEMISTRY AND DRUG DESIGN**

June 07-08, 2017 Milan, Italy

**5 $\alpha$ -steroidal amines: Synthesis and biological activity****N Nadaraia, M Merlani, N Barbakadze, N Amiranashvili and M Kakhabishvili**

Tbilisi State Medical University, Georgia

**S**teroidal amines are characterized with wide spectrum of pharmacological activities such as antitumor, anti-inflammatory, antibacterial and anti-arrhythmic activity. On the basis of epiandrosterone acetate, product of transformation of tigogenin (isolated from plant *Yucca gloriosa*), eight possible epimer of 3-amino-17-hydroxy- and 17-amino-3-hydroxy-5 $\alpha$ -androstane have been synthesized and their radioprotective and antiarrhythmic activities have been investigated. Among epimeric aminoalcohols the highest radioprotective activity showed 3 $\beta$ -amino-5 $\alpha$ -androstan-3 $\beta$ -ole, while with the highest antiarrhythmic activity is characterized 17 $\beta$ -amino-5 $\alpha$ -androstan-3 $\beta$ -ole. Based on these results some conclusion about structure- activity relationship of synthesized compounds could be made. For radioprotective activity more profitable is diaxial orientation of amino- and hydroxy groups; whereas, diequatorial orientation is favorable for the antiarrhythmic activity. Some synthesized of N-alkyl- and N-dialkylamino acetyl derivatives of 17 $\beta$ -amino-5 $\alpha$ -androstan-3 $\beta$ -ole and 17 $\beta$ -amino-5 $\alpha$ -androst-2-ene exhibit antiviral, antitubercular and antitumor activities.

**Biography**

N Nadaraia has completed her PhD from Mendeleev Moscow Chemical-Technological Institute. She is a lead research scientist at Tbilisi State Medical University. Her field of interest is a Chemistry and synthesis of biologically active compounds. She is the author of more than 40 papers in reputed journals and has presented at 50 international scientific conferences.

nnadaraia@ymail.com

**Notes:**