

INVENTION OR RESEARCH PROJECT NAME

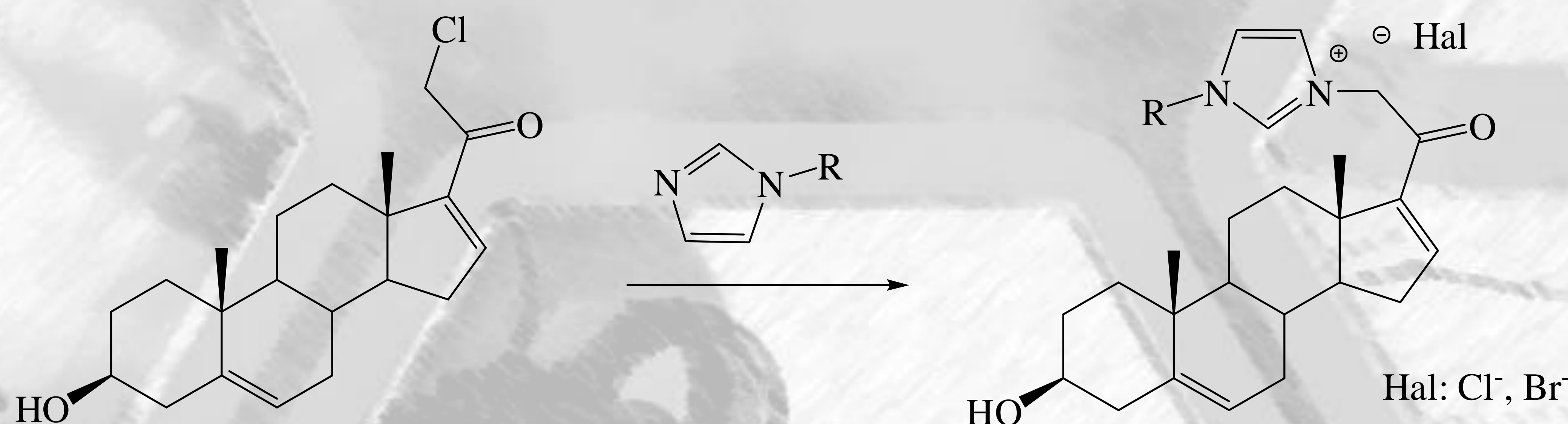
RESEARCH PROJECT NUMBER: 22.80013.8007.1BL (Synthesis of steroids with an azole moiety in the D ring and/or in the side chain as building blocks for the development of drugs for the treatment of prostate cancer.)

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APPLICATION FIELDS: Pharmacy and Medicine

AIM: Search for potent inhibitors of androgen biosynthesis by examining pregnane steroids that incorporate an azole fragment in the D cycle and/or in the side chain; investigate the impact of these compounds on the growth of prostate tumour cells; select the most effective substances for further study to develop drugs for prostate cancer treatment.

SOLUTION: The scientific project solved the problem of expanding the repertoire of antitumour preparations against prostate cancer by developing new compounds from the steroid class with CYP171A inhibition action. The essence of the findings lies in the identification of substances that demonstrate promising activity against prostate cancer. The effective concentration range for these new compounds is between **0.5 and 2 μM**



ADVANTAGES: A series of substances was obtained, the activity of which exceeds the activity of the drug abiraterone, which is used in medicine for the treatment of prostate cancer.

IMPLEMENTATION STAGE: laboratory level

ACKNOWLEDGMENTS: This research project was supported by the NARD of the Republic of Moldova