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MEETING ABSTRACTS

NOVEL BISQUATERNARY HETEROAROMATIC COMPOUNDS AS POTENTIAL REACTIVATORS OF HUMAN BUTYRYLCHOLINESTERASE

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Human butyrylcholinesterase (*h*BChE) is well-known stoichiometric scavenger in case of organophosphorus (OP) intoxication. However, its major limitation lies in binding of only one OP moiety per *h*BChE molecule and thus necessity of its very high dosage prior or post intoxication. This issue might be resolved by use of *h*BChE reactivators that could cleave irreversibly bound OP moiety from the enzyme active site and restore its scavenging function. This concept has been called pseudo-catalytic scavenger. Within our contribution, we would like to present bisquaternary heteroaromatic compounds that are butyrylcholinesterase reactivators and might act as potential pseudo-catalytic bioscavengers. Recently, we have prepared and evaluated over 20 novel compounds that displayed better *h*BChE reactivation activity than clinically used reactivators.

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