

Hydrogen sulphide-mediated sulfhydration of the K⁺ channel Kv2.1: A new signalling pathway to target in the treatment of Alzheimer's disease.

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United Kingdom

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Hydrogen sulphide-mediated sulfhydration of the K⁺ channel Kv2.1: A new signalling pathway to target in the treatment of Alzheimer's disease.

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3

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Research Abstract

Oxidative damage of lipids and proteins is a hallmark feature of the early stages of Alzheimer's disease (AD). One key protein known to undergo oxidation is the K⁺ channel Kv2.1, resulting in increased vulnerability to apoptosis. We have discovered that hydrogen sulfide (H₂S), now

accepted as a biological signalling molecule of widespread importance, directly modulates Kv2.1 activity and protects against apoptosis. In this study, we will establish the neuroprotective effects of H₂S – acting via modulation of Kv2.1 – against the oxidative stress of AD. Our results will determine whether H₂S has potential as a novel therapeutic approach to the treatment of AD, as it is for several other disorders.

Further information available at:

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Investments < €500k

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United Kingdom

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