STAR-0215 Is a Long-Acting Monoclonal Antibody Plasma Kallikrein Inhibitor for the Potential Treatment of HAE

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Background: Plasma kallikrein is a validated target for prevention of HAE attacks. High potency and long duration of action are key drivers of prophylactic efficacy of plasma kallikrein inhibitors. We sought to generate a monoclonal antibody (mAb) plasma kallikrein inhibitor with high potency and potential for long duration of action.

The Discovery and Design of STAR-0215

GOAL: Best-in-class plasma kallikrein inhibitor offering the most patient friendly prophylactic treatment for the prevention of HAE attacks

- High affinity and selectivity for plasma kallikrein versus prekallikrein
- Reduced immunogenicity and CMC liabilities
- Extended plasma half-life

Note: STAR-0215 was previously known as QLS-215

The Human in vitro Potency and Cynomolgus Pharmacokinetic Data Predict a Substantially Longer Duration of Action for STAR-0215 than Lanadelumab

Conclusion: STAR-0215 is a novel, potent and long-acting monoclonal antibody plasma kallikrein inhibitor with potential for the treatment of HAE with a dosing frequency of 3 months or longer.