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Elucidating How Renal Nerve Affects Salt-Sensitive Hypertension

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Summary

Nerves innervating the kidney consist of sympathetic nerves (efferent) and sensory nerves (afferent). Many papers have revealed that renal sympathetic nerves play an important role in the establishment and progression of salt-sensitive hypertension; however, roles of renal sensory nerves are still unclear. In this study, we aimed to establish the method by which renal sensory nerves can be selectively stimulated or inhibited and to elucidate the roles of renal sensory nerves in salt-sensitive hypertension.

For that purpose, we planned to microinject Cre-dependent retrograde DREADD-AAV into the kidney of *Trpv1Cre* mice. To establish the microinjection protocol, we microinjected CTB into kidneys with 3 different protocols and observed DRGs. With the established protocol, we microinjected AAV with various serotypes into the kidney of *Trpv1Cre* mice. However, we have not confirmed AAV infection so far. Now we are planning to use AAV with other serotypes and to further optimize the microinjection protocol.