

Electrical Stimulation of Lumbar Spinal Cord: Discovery and Mechanism of a Novel Response □ Post Stimulation Rebound Excitation (PSRE)

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Abstract □ A novel sub-dural spinal cord stimulation response was recently discovered □ Post Stimulation Rebound Excitation (PSRE). Following a sustained electrical stimulation (5s) powerful extensor contractions were produced in the hindlimb of the cat. In our poster, we will present data on 5 animals detailing PSRE under different spinal cord conditions (intact, acute transected, chronic transected) as well as methods to restore PSRE using pharmacology in the transected preparations. **Clinical Relevance** □ PSRE has the potential to enhance the benefits of electrical stimulation in patients with Spinal Cord Injury (SCI) in the sit to stand phase.