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**Title:**

On Calcium Channels, Synapses and Sandwiches

**Abstract:**

The cell bodies of dorsal root ganglia neurons are mostly isolated from each other by individual sheathes of satellite glial cells. However, a significant fraction are in close contact, separated only by a narrow, single glial membrane sheet. Double voltage clamp recordings showed that stimulation of one neuron soma with a train of impulse-like depolarizations reliably triggered a slow response in the partner soma. Transmission was found to be transglial with two synapses in series. We term this novel mechanism of inter-neuron communication, which may be common in the nervous system, a 'Sandwich Synapse'.