Information in Pallidal Neurons Increases with Parkinsonian Severity
Alan D. Dorval, Abirami Muralidharan, Alicia L. Jensen, Kenneth B. Baker, and Jerrold L. Vitek

Supplement

**Figure S1.** Diagram of conceptually distinct connections in four basal ganglia nuclei: striatum, GPe, GPi and STN. Solid black arrows depict glutamatergic, excitatory projections; solid grey circles depict gabaergic, inhibitory projections; dashed lines depict dopaminergic projections from SNc that can be excitatory (black) or inhibitory (grey) depending on dopamine receptor type (D1 or D2). Striatal input arrives from cortex through 3 conceptually distinct channels: S1 drives the direct pathway, S2 drives the indirect pathway, and S0 represents cortico-striatal information common to both. Cortico-subthalamic signals through the hyperdirect pathway are divided into 3 analogous channels – H1, H2, and H0, respectively – that drive GPi and GPe through E1 and E2 respectively. Information sent from GPe to GPi can transit I0, or route through STN via I1 and I2. Processing performed by this network affects behavior via GPi efferents to thalamus.