Abstract

After decades of fundamental research investigating mechanisms giving rise to spinal motor plasticity following exposure to (low dose) acute intermittent hypoxia, we harnessed this plasticity to improve breathing and limb function in people with chronic incomplete spinal cord injury (as well as ALS). In this talk, I will review fundamental research guiding translation of this novel neurotherapeutic strategy, and then feature more recent efforts to optimize plasticity and functional gains by recognizing and controlling factors that constrain plasticity and therapeutic efficacy.