**Nomination of John Rothwell for the Bernstein Prize 2017**

It is my pleasure and honor to nominate John Rothwell for the Bernstein Prize.

John’s scientific career started about 40 years ago and has been an example of remarkable inventiveness, rigor, consistency, and profound impact on the field of neurophysiology, including neurophysiology of movement related circuits. His contributions are too many to be adequately represented in this brief nomination letter. John studied the motor function and neurophysiological mechanisms in both healthy persons and a broad range of patients starting from arguably the first study of the motor function in a “deafferented person” published in 1982 and including patients with Parkinson’s disease, dystonia, Tourette syndrome, stroke, Huntington’s disease, multiple sclerosis, and other neurological conditions. He pioneered many of the methods involving stimulation of neural structures that are used currently in hundreds of Laboratories all over the World. These methods, including the famous TMS, have been developed for both basic and clinical research, and their modifications have been also used in clinical practice for therapeutic goals. The list of John’s publications and any of the metrics of their impact are truly humbling for his colleagues (how about the total number of citations >50K and h > 115!). But the true impact of John’s works goes well beyond those metrics and can only be measured by the deep respect of his colleagues.

John’s contributions to the field are not limited to his scientific achievements. He has been for many years Editor of “Experimental Brain Research”, arguably one of the most respected journals in the field of motor control and neurophysiology. Over the past years, John has been actively involved in the International Society of Motor Control (and served as its President), and became one of the regular speakers in the Motor Control Summer School.

The legacy of Nikolai Bernstein is broad and deep, and I see John as the most outstanding scientist who, like Bernstein himself, has been driven by excitement towards the object of study, the brain. In my humble opinion, John’s contributions toward understanding brain mechanisms of motor control make him the best candidate for the Bernstein Prize.