**The body acoustic: ultrasonic neuromodulation for translational medicine**

Daniel M. Ventre [1], Abigail N. Koppes [2]

[1] Northeastern University, Department of Bioengineering, Boston, MA, USA

[2] Northeastern University, Department of Chemical Engineering, Boston, MA, USA

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| **Model** | **Target** | **Response** | **Mode** | **Frequency** | **Intensity** | **Reference** |
| turtle and frog | nerve/musculature | neuromuscular stimulation | C | 0.34 MHz | Not reported | [Harvey, 1929] |
| feline | lateral geniculate nucleus | reversible suppression of visually evoked potentials | C | Not Reported | Not Reported | [Fry et al., 1958] |
| feline | spinal cord | reversible suppression and activation of spinal reflexes | P | 2.7 MHz | Not Reported | [Shealy and Henneman, 1962] |
| feline | cortex | suppression of seizures | P | 2.7 MHz | 840 W/cm2 | [Manlapaz et al., 1964] |
| human | somatosensory receptors in hand | thermal, tactile, and pain sensations elicited | P | 0.48 - 2.67 MHz | 8-3000 W/cm2 | [Gavrilov et al., 1976] |
| feline | cochlea and auditory nerve | stimulation of both regions | P | 5 MHz | 30 W/cm2 | [Foster and Weiderhold, 1978] |
| feline | optical tract and lateral geniculate nucleus | visually evoked potential suppression | P | 0.975 MHz | 7-63 W/cm2 | [Adrianov et al., 1984 |
| human | cochlea and auditory nerve | created auditory sensations | P | 2.5 MHz | 0.02-1.5 W/cm2 | [Tsirulnikov et al., 1988] |
| frog | sciatic nerve | nerve block, suppression of AP firing | P | 2-7 MHz | 100-800 W/cm2 | [Mihran et al., 1990] |
| human | basilar artery | created auditory sensations | P | 2 MHz | < 0.5 W/cm2 | [Magee and Davies, 1993] |
| rat | sciatic nerve | improved recovery time from nerve crush injury | C | 1-2.25 MHz | 0.25-5 W/cm2 | [Mourad et al., 2001] |
| frog | sciatic nerve | amplitude modulation of evoked compound AP | C | 3.5 MHz | 1-3 W/cm2 | [Tsui et al., 2005] |
| rabbit | sciatic nerve | nerve block, suppression of AP firing | C | 3.2 MHz | 1940 W/cm2 | [Foley et al., 2007] |
| mouse | ex vivo brains/hippocampal slice culture | AP stimulation, neurotransmitter release | P | 0.44-0.67 MHz | 2.9 W/cm2 | [Tyler et al., 2008] |
| rat | sciatic nerve, slice injury, with nerve guidance channel | increased nerve regeneration rate | P | 1 MHz | 0.4 W/cm2 | [Park et al., 2010] |
| rat | Schwann cells (in vitro) from sciatic nerve | modulation of cell proliferation, apoptosis, and cytokine profile | C,P | 1 an 3 MHz | 0-2 W/cm2 | [Tsuang et al., 2011] |
| rat | thalamus | suppression of seizures | P | 0.69 MHz | 2.6 W/cm2 | [Min et al., 2011] |
| rat | abducens nerve | rotation of eye | P | 0.35 MHz | 8.6 W/cm2 | [Kim et al., 2012] |
| mouse | motor cortex | muscle contraction | C,P | 0.25-0.6 MHz | 0.01-100 W/cm2 | [King et al., 2013] |
| salamander | ex vivo retina | activation of interneurons | P | 43 MHz | 10-30 W/cm2 | [Menz et al., 2013] |
| human | somatosensory cortex | modulation of somatosensory evoked potentials | P | 0.5 MHz | 5.9 W/cm2 | [Legon et al., 2014] |
| rat | somatomotor cortex | muscle contraction | P | 0.35 MHz | 4.9-5.6 W/cm2 | [Kim et al., 2014] |

**Supplemental Table 1: Collection of Published Parameters for Ultrasonic Neuromodulation.** Brief list of published ultrasound parameters used for neuromodulation across a variety of animal models and tissue targets. For the “Mode” of ultrasound used, continuous wave is denoted as “C” while pulsed wave is denoted as “P.” The reader is encouraged to refer to the references for more detailed parameters of each experiment, especially for the specific metrics by which intensity is reported. Adapted with permission from [Tufail et al., 2011] and [Foundation, 2014].