



November 19, 2015

Linda Porter, Ph.D.
National Institute of Neurological Disorders and Stroke
National Institutes of Health
31 Center Drive
Bethesda, MD 20892

Re: Nomination to Interagency Pain Research Coordinating Committee

Dear Dr. Porter,

The American Society of Anesthesiologists (ASA), representing over 53,000 members, is pleased to nominate Gary Brenner, M.D., Ph.D., to the Interagency Pain Research Coordinating Committee (IPRCC) at the National Institutes of Health (NIH). ASA believes that Dr. Brenner possesses the crucial experience in pain medicine to be a valuable contributor to the IPRCC.

Dr. Brenner's academic activities are divided between fundamental and translational neuroscience research, clinical duties at the Massachusetts General Hospital (MGH) Department of Anesthesia, his teaching position as Associate Professor at Harvard Medical School, and national advocacy for the advancement of pain training. All of these activities are inter-related through their focus on pain medicine—science, clinical care, education, and national advocacy.

Dr. Brenner's initial research at MGH focused on the contribution of changes in NMDA-R phosphorylation state and subcellular trafficking to the development of central sensitization. This and other work related to pain sensitization was NIH-funded and conducted under the mentorship of Clifford J. Woolf, M.D., Ph.D., an internationally renowned neuroscientist who focuses on neuroplasticity as it relates to pain.

Dr. Brenner's more recent research efforts have focused on sensory systems, both peripheral and central, and have included the role of immune mechanisms in the generation of central sensitization; the role of bone morphogenetic protein (BMP) signaling pathways in peripheral nerve regeneration; investigation of putative pain-processing pathways in the brain via virally-delivered optical channels (i.e., 'optogenetic' modulation using channel rhodopsin and halorhodopsin); and the generation of a novel mouse-models of neurofibromatosis (NF) and the development of new therapeutic strategies – in particular, gene therapy – for the treatment of these peripheral nervous system tumors, termed schwannomas.

Dr. Brenner's interest in NF stems from his clinical practice; MGH is a major NF treatment center and Dr. Brenner has multiple patients with persistent, severe pain caused by this disease. Working with Dr. Xandra Breakefield, Dr. Brenner developed a novel gene therapy for NF disease and in 2012 and was awarded an R01 by the National Institute of Neurological Disorders and Stroke (NINDS) to further investigate the mechanism of action of this gene therapy. These studies are related as they all involve investigation of the response of peripheral and central sensory systems to injury and all ultimately seek to improve the care of individuals with pain. Most recently, he has received both R01 and T-R21 (Translational R221) grants from NINDS to fund investigations necessary to continue the

translation of schwannoma gene therapy to clinical trials. A patent application has also been submitted on the novel gene therapy.

Dr. Brenner's primary clinical responsibility is at the MGH Center for Pain Medicine within the Department of Anesthesia, Critical Care and Pain Medicine. Since 2002, he has been the Program Director of the MGH Pain Medicine Fellowship and is responsible for the organization, oversight, and development of this ACGME-accredited training program. During his tenure as Program Director, the fellowship has grown both in number of trainees and in the scope of outside departments and institutions in which the fellows train, including neurology, neurosurgery, psychiatry, palliative care, radiology, and orthopedic spine. In addition, Dr. Brenner developed a year-long course for Pain Medicine Fellows that focuses on the fundamental neuroscience underlying the practice of pain medicine, as well as a novel medical simulation-based training program designed to improve the ability of pain fellows to respond to critical events that can occur during outpatient interventional pain practice. A manuscript related to this training program was recently published in the journal *Anesthesia and Analgesia*.

Through involvement in three national organizations, Dr. Brenner works towards the continued development of pain medicine training at the national level. He was elected President, currently serving as Immediate Past President, of two national pain education/advocacy organizations: the National Association of Pain Medicine Program Directors (APPD) and the Association of Anesthesiology Subspecialty Program Directors (AASPD). Dr. Brenner will hold the position of immediate past president until the end of 2016. He is a member of the governing council of the AASPD's parent organization - the Society of Academic Anesthesiology Associations. In addition, since 2010 Dr. Brenner has been a member of the American Board of Anesthesiologists (ABA) Pain Medicine Committee.

If selected to serve on the IPRCC, Dr. Brenner is enthusiastically willing to accept the appointment and commit to the meetings required.

ASA is pleased to have the opportunity to nominate Dr. Brenner to the IPRCC and hopes that the IPRCC will seriously consider his appointment. Dr. Brenner is a recognized leader in pain medicine and provides a diverse and broad expertise that will benefit the important mission of the committee. If you have any questions, please do not hesitate to let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Cole". The signature is fluid and cursive, with a large initial "D" and "C".

Daniel Cole, M.D.
President
American Society of Anesthesiologists