

Basic Science: Mysteries and Mechanisms of Acupuncture

Richard C. Niemtzow, MD, PhD, MPH

*“There are more things in heaven and earth, Horatio,
than are dreamt of in your philosophy.”*

—Hamlet (Act 1, Scene V)¹

EVERY DAY, ACUPUNCTURISTS INSERT tiny metal needles into acupuncture points located on meridians, hoping to combat a myriad of clinical pathologies. For the most part, we practitioners are witness to a clinical benefit. Otherwise, physicians would have stopped performing this technique several thousand years ago, and we would not be using it today. However, while we witness healing, none of us has ever seen an acupuncture point let alone a meridian. Modern investigational technology, at its best, fails to provide evidence of these two very basic structures.

With this in mind, I know that many of us have asked: “How does acupuncture work?” Perhaps we depended, somewhat, on mythical explanations influenced by the classic readings. When I hypothesized Western mechanisms that might offer an explanation, I was told, by one of my esteemed colleagues, that acupuncture does not follow Newtonian physics. I thought, perhaps, that was an excuse to avoid “drilling” deeper to uncover the same mechanisms that enriched our understanding of allopathic medicine. My wife, who was trained in acupuncture in China, told me that exploring acupuncture on a molecular level to seek an explanation as to “how it works” is, somewhat, a fallacy. She posited that, to understand acupuncture, one must explore its relationships to the environment, animal and plant life, weather, seasons, and the universe. However, I have to admit that I am an “old die hard”; for me, natural events do have scientific explanations and placing a needle in an acupuncture point on a meridian and producing a physiological effect could be understood by using the scientific technology used to understand allopathic medicine.

When Dr. Richard Hobbs approached me with the idea of a special issue of *Medical Acupuncture* dedicated to basic science

research, I welcomed the proposal and agreed that it would be a challenging project. This was an opportunity to look at the latest methodology and mechanisms to explore nature’s secrets.

A collection of high-quality basic science articles is very difficult to obtain, given the fact that, over the years, we have received and only published a few articles on this topic. Even the review of these articles is challenging for an editorial board more accustomed to, and familiar with, clinical research.

Nevertheless, our editorial team rose to the task. Dr. Anne Hendren, our Consulting Editor, Ms. Julia Chapman, our Interim Managing Editor, and the Editorial Board, along with the leadership of Dr. Hobbs, succeeded in bringing this Special Basic Science Issue of *Medical Acupuncture* to fruition.

I understand and appreciate my wife’s naturalistic point of view and might suggest that the two explanations—one scientific, the other environmental—might both elucidate how acupuncture works. While preparing and reviewing the contents of this issue, I was told by one of my patients that a “high pressure cold front” was coming because her headaches had become more frequent. This weather front had not yet been announced; however, before it arrived, and when it did arrive, it influenced our environment and affected our health in ways that we, perhaps, had not dreamt about in our “drilled down” view of acupuncture.

REFERENCE

1. Mabilard A. Quick Quote. Shakespeare Online. August 20, 2000. Online document at: www.shakespeare-online.com/quickquote/quickquotehamletdreamt.html Accessed March 19, 2013.

—Richard C. Niemtzow, MD, PhD, MPH
Editor-in-Chief

The opinions and assertions contained herein are the private views of the author and are not to be construed as official or as reflecting the views of the United States Air Force Medical Corps, the Air Force at large, or the Department of Defense. The author indicates that he does not have any conflicts of interest.