

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ALPHATEC HOLDINGS, INC. and ALPHATEC SPINE, INC.
Petitioners,

v.

NUVASIVE, INC.,
Patent Owner.

Case No. IPR2019-00362
Patent No. 8,361,156
Claims 1-3, 5, 9, 10, 12-21, 23, 24, and 27

DECLARATION OF JIM A. YOUSSEF, M.D.

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I, Jim A. Youssef, M.D., declare as follows:

I. QUALIFICATIONS

1. I am an orthopaedic surgeon, board certified by the American Board of Orthopaedic Surgery, and fellowship trained in spine surgery.
2. I received an undergraduate degree in Genetics from the University of California at Berkeley in 1986. I received my medical degree from the University of California, Irvine School of Medicine, in 1991.
3. I completed an internship in general surgery at Oregon Health Sciences University in 1992. I performed my orthopaedic surgery residency at Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire from 1992-1996. I was chief resident of orthopaedic surgery at the VA Medical Center in White River Junction, Vermont from 1995-1996. Subsequently, I did my spine fellowship training at the University of California, Davis Medical Center in Sacramento, California from 1996-1997.
4. I have been a practicing spine surgeon for over two decades. Since 2000, I have been the Medical Director of the Spine Service at the Mercy Regional Medical Center in Durango, Colorado.
5. I am the founder of Spine Colorado, P.C., a multidisciplinary comprehensive center focused on spine care. There, I have an active surgical practice focused on the treatment of degenerative spine diseases, complex adult

spinal deformity, and spinal injuries, which includes, among other things, spine surgery.

6. I have received Achievement Awards from the American Academy of Orthopaedic Surgeons in 2010, 2011 and 2018.

7. I am a board member and the Past President for the Society of Lateral Access Surgery. I am a founding member of the Society of Minimally Invasive Surgery. I am a member of the American Orthopedic Association, a prestigious leadership society in orthopedic surgery. I am also a fellow of the American Academy of Orthopaedic Surgeons. I am a member of the North American Spine Society, the Cervical Spine Research Society, and the Lumbar Spine Research Society, and the Scoliosis Research Society.

8. I have an active research department and have participated not only in my own original research, but in several clinical trials involving new technology. I have founded a non-profit organization focused on resources for medical collaboration. As a result of my academic interests and publications, I have been invited to speak and participate in Grand Rounds at a number of different hospitals throughout the United States and internationally. I have given over 190 presentations at various spine or orthopedic societies related to spine maladies, spine treatments, spine surgery, and my own research.

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