

Assoc. Prof. [Jan G. Švec](#)

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Jan G. Švec, Ph. D. is an internationally renowned Czech physicist performing basic research on production of human voice. He holds a MSc degree in fine mechanics and optics and PhD degrees in biophysics as well as in medical sciences. He has worked as a research scientist at the Center for Communication Disorders, Medical Healthcom, Ltd. in Prague, the Czech Republic, at the National Center for Voice and Speech in Denver, CO, USA and at the University of Gröningen, the Netherlands. Currently he is at the Palacký University Olomouc, the Czech Republic and serves also as an associate research scientist at the Voice and Hearing Centre Prague. He designed videokymography, the method for high-speed

visualization of vocal-fold vibrations, which is used for advanced diagnosis of voice disorders. His broad research interests include acoustics, biomechanics, voice measurement methodology, as well as singing voice. He collaborates with numerous research teams in Europe and USA and lectures world-wide. From 2004 to 2011 he served as the chairman of the Voice Committee of the International Association of Logopedics and Phoniatics (IALP).

Keynote Talk title: *Voice and medicine*

Many neuromuscular, biomechanical and acoustic processes inside human body influence voice and speech characteristics. When some of these processes are disturbed, the impairments can occur as voice disorders. Understanding how the different factors influence human voice and speech production has been a major challenge for improving the possibilities of diagnosis and treatment in voice medicine. Since increasingly more people have been relying on voice as an occupational tool, evaluation and treatment of voice disorders have gained in importance through the last decades. In this lecture, we will provide a general overview of the different voice evaluation approaches, put them into a broader context and discuss their relevance for medical purposes.