

Prof. Zdenko Machala
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After completing dual PhD. In gas and plasma physics at University Paris XI in France and Comenius University in Bratislava, Slovakia, he was a postdoctoral researcher at Stanford University, USA. Since 2004 he became a professor at Comenius University in Bratislava, Slovakia where he established a research group focused at biomedical plasma applications. He has also been a visiting professor at Ecole Centrale Paris in 2011 and University of California, Berkeley in 2013-14. He served as the president of the International Society for Plasma Medicine (2017-18), chaired the International Conference on Plasma Medicine (2016) and is a member of various international scientific boards. He was a finalist of the prestigious ESET Science award (2019), won the Stefanik award for the best Franco-Slovak bilateral cooperation (2013), Slovak vice-prime minister award Personality of science and technology under 35 (2009), and other awards.

Zdenko Machala's research focus are biomedical, agriculture and environmental applications of cold atmospheric plasmas and electrical discharges in air, including studies of the mechanisms of plasma-liquid interactions, their diagnostics, and effects of plasma activated water. Some examples include disinfection and sterilization, wound healing, root canal treatments, selective induction of apoptosis for cancer treatment, and plant growth promotion.