



**Dr Marin VODANOVIC, DDS**  
**Faculté de Médecine Dentaire – Université de Zagreb (Croatie)**

- Associate professor, Vice dean at University of Zagreb School of Dental Medicine; Scientific advisor with tenure; Specialist of dental pathology and endodontics at the University Hospital Centre Zagreb, Croatia; Forensic dentist
- Marin Vodanovic, born 1975 in Germany, studied dental medicine at the School of Dental Medicine, University of Zagreb, Croatia and received his dental degree in 1999. In 2005 he obtained his Master of Science degree, and 2008 his PhD degree. He is a specialist of dental pathology and endodontics at the University Hospital Centre Zagreb. In 2014 he became head of the Department of dental anthropology, School of Dental Medicine, University of Zagreb and in 2015 Vice Dean at School of Dental Medicine, University of Zagreb. His main areas of research expertise are in paleodontology, forensic dentistry, dental anthropology endodontics, occupational diseases, dental terminology and application of artificial intelligence in dentistry. He is author or coauthor of more than 250 publications including several books, textbooks, dictionaries and book chapters. He is editor in chief of the Bulletin of the International Association for Paleodontology. In 2006 he was awarded with Republic of Croatia National Science Award.
- e-mail: [vodanovic@sfzg.hr](mailto:vodanovic@sfzg.hr) / web page: [www.marinvodanovic.com](http://www.marinvodanovic.com)

**Possibilities of application of artificial intelligence  
in forensic dentistry**

- ▶ Marin Vodanović, Luka Banjšak, Denis Milošević, Marko Subašić
- ▶ Artificial intelligence is more or less visibly used in all areas of modern human life. More and more research teams are working to discover the possibilities of applying artificial intelligence in forensic dentistry. Already developed artificial intelligence models are based on either artificial neural networks or convolutional neural networks. The results of the studies related to age and sex estimation in forensic dentistry are promising. At the University of Zagreb, a software for orthopantomograms analysis based on computer learning and artificial intelligence has been developed. The lecture will provide an overview of the possibilities of using artificial intelligence in dentistry and forensic dentistry including the presentation of own research results in application of the software in forensic age and sex estimation.
- ▶ This paper has been supported by the Croatian Science Foundation under the project (IP-2020-02-9423)