



## Pathology Biology Section – 2006

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### **G49 VIRTOPSY (Virtual Autopsy) - Past, Present, and Future**

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After attending this presentation the attendee will get an upgrade of the cutting edge technologies in forensic imaging/radiology.

This presentation will impact the forensic community and/or humanity by providing an actual overview of upcoming imaging technologies in forensic medicine.

The aim of the VIRTOPSY project ([www.virtopsy.com](http://www.virtopsy.com)) is utilizing 3D body-surface documentation and minimal-invasive, image-guided virtual autopsy utilizing optical and radiological scanning to push low-tech documentation and autopsy procedures in a world of high-tech medicine in order to improve scientific value, to increase significance and quality in the forensic field. The Institute of Forensic Medicine, University of Berne is, in collaboration with a well selected national and international research team, evaluating and validating several cutting-edge technologies such as 3D optical and photogrammetric surface scanning, computed tomography (CT), magnetic resonance imaging (MRI), magnetic resonance (MR) spectroscopy, micro-CT, micro-MR, postmortem biopsy, postmortem angiography and synthetic body models. The term VIRTOPSY was created from the terms virtual and autopsy: Virtual is derived from the Latin word 'virtus', which means 'useful, efficient, and good'. Autopsy is a combination of the old Greek terms 'autos' (=self) and 'opsomei' (= I will see). Thus autopsy means 'to see with ones own eyes'. Because the goal was to eliminate the subjectivity of "autos", the two terms virtual and autopsy were merged - deleting "autos" - to create VIRTOPSY. Today the project VIRTOPSY combining all the research topics under one scientific umbrella, is characterized by a trans-disciplinary research approach that combines Forensic Medicine, Pathology, Radiology, Image Processing, Physics and Biomechanics to an international scientific network. The paper will give an overview of the Virtopsy change process in forensic medicine.

**Virtopsy, Virtual Autopsy, Forensic Radiology**