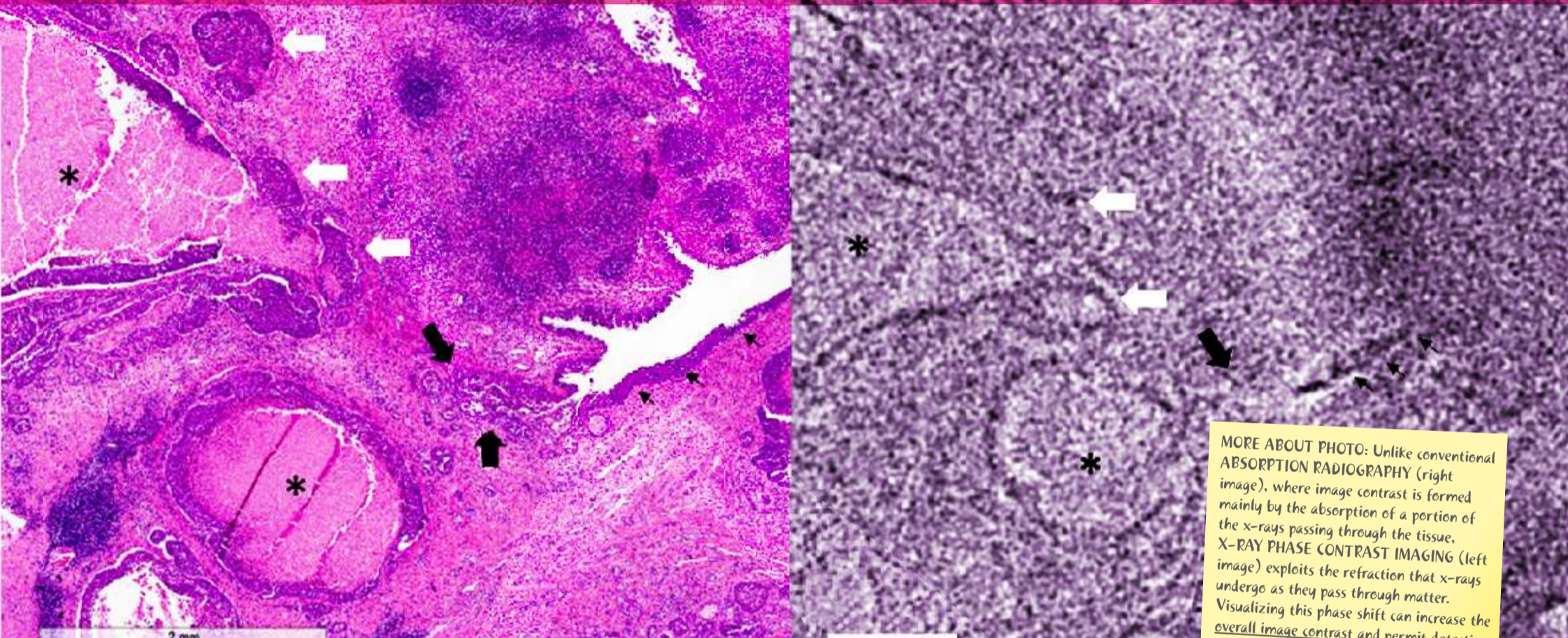


Seminar on

Synchrotron Radiation Applications in Medical Sciences

کارگاه آموزشی
کاربردهای تابش سنکروترونی در پزشکی

IMAGE CREDIT: Montgomery JE, Wesolowski MJ, Wolkowski B, et al; Demonstration of synchrotron x-ray phase contrast imaging computed tomography of infiltrative transitional cell carcinoma of the prostatic urethra in a dog. J. Med. Imag. 0001;3(1):015504.



MORE ABOUT PHOTO: Unlike conventional ABSORPTION RADIOGRAPHY (right image), where image contrast is formed mainly by the absorption of a portion of the x-rays passing through the tissue, X-RAY PHASE CONTRAST IMAGING (left image) exploits the refraction that x-rays undergo as they pass through matter. Visualizing this phase shift can increase the overall image contrast and permit detection of extra details that are classically considered x-ray transparent, such as the interfaces between soft tissues.

LECTURER



Sam Bayat, MD, PhD

Centre Hospitalier Universitaire de Grenoble Alpes, FRANCE

Sam Bayat MD Ph.D. is professor of Physiology at the Université Grenoble Alpes Medical School and head of the Lung Function Laboratory at the Grenoble University Hospital, in Grenoble, France. He is invited professor at the Department of Anaesthesia, Pharmacology and Intensive Care, of Geneva University Hospital, since 2015. Sam Bayat obtained his MD and PhD degrees at the Université Joseph Fourier in Grenoble, France. Prof. Bayat is a former visiting scientist at the European Synchrotron Radiation Facility from 2001 to 2004, where his interest focused on developing the applications of synchrotron imaging in the study of lung structure and function for investigating the pathophysiology of respiratory diseases. His current research focuses on the mechanisms of lung injury, obstructive diseases, mechanical ventilation and aerosol deposition using synchrotron imaging techniques. Prof. Bayat has a number of ongoing collaborations with recognized European Research Centers.

TOPICS

- Synchrotron imaging of lung structure and function
- Synchrotron radiation imaging of the cardiovascular system
- Investigating neurodegenerative diseases using synchrotron radiation imaging
- Synchrotron micro-radiation therapy



دوشنبه، ۱۱ اردیبهشت ماه ۱۳۹۶
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