

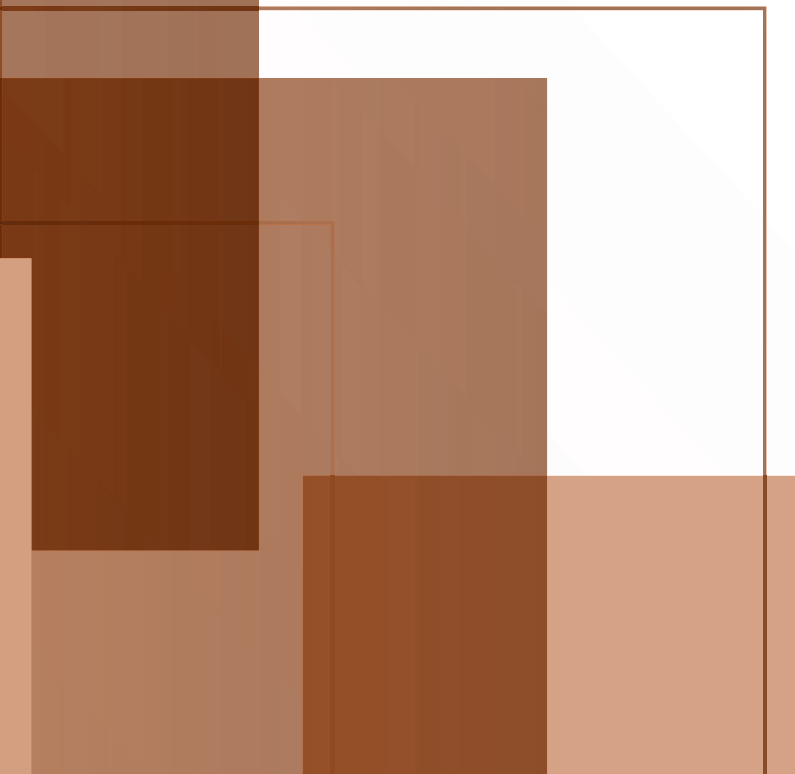
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1817<sup>th</sup> Conference

2<sup>nd</sup> World Congress on

# RADIOLOGY AND ONCOLOGY

July 16-17, 2018 Dubai, UAE



Keynote Forum (Day 1)

2<sup>nd</sup> World Congress on

## RADIOLOGY AND ONCOLOGY

July 16-17, 2018 Dubai, UAE



## Wassil Nowicky

Ukrainian Anti-Cancer Institute, Austria

### Radioprotective effects of the anti-cancer preparation NSC 631570 (Ukraine)

When NSC 631570 has been used in clinic, it was observed that the patients treated with this drug tolerate the concomitant radiotherapy much better. The adverse effects of this aggressive treatment modality were significantly reduced to minimal. This gave reason to study radioprotective properties of NSC 631570 in the *in vitro* and *in vivo* tests. The radioprotective effect of NSC 631570 has been confirmed by the infection models in mice where its effect was superior to the effect of the known radioprotector Cysteamine. Compared to other agents, NSC 631570 exerted a strong radioprotective effect similar to such of lymphokinin. These radioprotective properties of NSC 631570 were confirmed in further studies in rats at the Institute of Applied Cell Culture (Munich, Germany). Ukrain normalized the level of nuclear thyroid hormone receptors influenced by short-term, whole body gamma-irradiation of rats with 1 Gy, beginning from the first day after administration of the drug. Thus, authors concluded Ukrain can minimize the consequences of irradiation on the endocrine system of experimental animals. The radio protective effect of NSC 631570 was also studied and confirmed on *in vitro* models on the human skin fibroblasts HSF1 and HSF2 as well as lung fibroblasts CCD32-LU. Differential effects of NSC 631570 in modulating radiation toxicity of human cancer cell lines and its protective effect in normal human fibroblasts suggest that this agent may be beneficial for clinical radiochemotherapy.

### Biography

Wassil Nowicky is the Director of Nowicky Pharma and President of the Ukrainian Anti-Cancer Institute, Vienna, Austria. He has completed his study at the Radiotechnical Faculty of the Technical, University of Lviv, Ukraine. He is the author of over 300 scientific articles dedicated to cancer research. He is a member of the New York Academy of Sciences, member of the European Union for Applied Immunology and American Association for Scientific Progress, Doctor "Honoris causa" of the Open International University on Complex Medicine in Colombo, Honorary member of the Austrian Society Albert Schweizer. He has received the award for merits of National Guild of Pharmacists of America, the award of Austrian Society of Sanitary, Hygiene and Public Health Services and others.

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# RADIOLOGY AND ONCOLOGY

July 16-17, 2018 Dubai, UAE



## Sanjay Gandhi

*North Bristol NHS Trust, UK*

### Latest advances in artificial intelligence, computer-aided cancer detection and machine learning in radiology and oncology

Artificial Intelligence (AI), Computer Aided Detection (CAD) and Machine Learning are increasingly used in the assessment of a wide range of diseases including colorectal, lung, breast, prostate and many other cancers. There are many other potential uses of AI such as scan optimization, quantification. Presentation covers common pitfalls and performance related issues of commercially available CAD systems. New developments along with practical tip the use of CAD. Medical professionals, CIOs, Software developers, Healthcare and IT Executives will find this overview of AI useful.

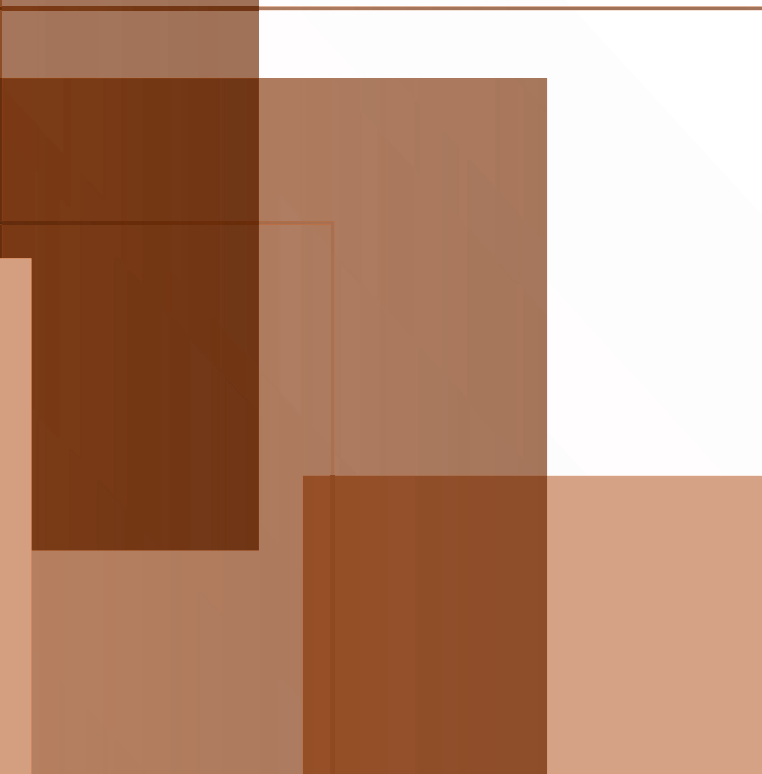
#### Biography

Sanjay Gandhi has won multiple national and international awards for his contributions to the healthcare innovations and higher education. He is core Clinical Research & Innovation Lead at one of the largest tertiary care teaching hospitals in the UK. He is the head of radiology training at the University of Bristol and the chairman of the British Institute of Radiology South West. He has published several research papers and editorials on the benefits of modern technology. He has contributed to numerous collaborative cancer trials. He is on the editorial boards of 4 international journals and has co-authored and edited 8 medical textbooks.

[gandhis@doctors.org.uk](mailto:gandhis@doctors.org.uk)**Notes:**

# RADIOLOGY AND ONCOLOGY

July 16-17, 2018 Dubai, UAE



Keynote Forum (Day 2)

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# RADIOLOGY AND ONCOLOGY

July 16-17, 2018 Dubai, UAE



## Mahesh Baj

*Portiuncula Hospital, Ireland*

### Latest trends in breast imaging

X-ray mammography is still the gold standard for routine breast cancer screening due to its costs, speed and cancer detection accuracy. But it is estimated that up to 35% of cancers are overlooked and that 10-15% of screening exams require further testing due to inconclusive results, especially in dense breast. The accuracy of mammography screening in women with dense breast tissue is much lower approximately 75%. The new recommendation is to include breast ultrasound, breast Magnetic Resonance Imaging (MRI) and other exams deemed necessary by a physician. Ultrasound is within affordable costs, widespread availability, ongoing technological advancements and significant improvements in detection accuracy when used to supplement mammography. Ultrasound and mammography screening protocol has been demonstrated to increase the detection of cancers in the breast by 28%. Automated Breast Ultrasound (ABUS) continue to improve accuracy of ultrasound. MRI is very costly and not available freely. While MRI is commonly used in diagnostic and therapeutic breast imaging applications, tomosynthesis has perhaps attracted more attention than any other breast imaging technology in recent years due to its ability to improve cancer detection accuracy and reduce patient recalls when combined with mammography. It is very expensive. Tomosynthesis scans can be acquired in less than 20 seconds at the time of mammography but there are drawbacks including increased interpretation time and image data storage requirements, additional ionizing radiation per exam. Role of other modalities like MBI (Molecular Breast Imaging) and PET (Positron Emission Tomography) will be discussed.

### Biography

Mahesh Baj is an award-winning Consultant Radiologists with more than 40 years experience of teaching radiology in India, UK and Ireland. He holds 4 Postgraduate qualifications in Radiology including MD, DMRD, FRCR and FFRCRCSI. He has written several research papers and book chapters. He is on the Editorial Board of many journals and Chairman of International Tele-Imaging Organization. He has received "Hind Rattan" Award from President of India in 2003.

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# RADIOLOGY AND ONCOLOGY

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## Arvind K Chaturvedi

*Rajiv Gandhi Cancer Institute & Research Centre, India*

### Judging response to cancer therapy RECIST and Beyond

Monitoring response after treatment of cancer is an integral component of oncology practice. Objective tumor shrinkage has been widely regarded as a standard to judge response and is routinely used in everyday clinical practice to guide clinical decision-making. Imaging studies play a critical role in quantifying tumor response. The World Health Organization in 1979 laid down the WHO criteria for response assessment. The European organization for research and treatment of cancer came up with Response Evaluation Criteria in Solid Tumors in the year 2000 (RECIST). The RECIST documentation goes beyond lesion selection, measurement and assessment of response. It also makes specific recommendations on the usage of imaging techniques. RECIST was modified in 2009 to RECIST 1.1 which is the current standard for objective response assessment in most solid tumors. However, both WHO and RECIST criteria have relied upon size alone. It is well-known that cancer response to treatment is not always by reduction in size alone. RECIST doesn't work very well with Gastro Intestinal Stromal Tumors (GIST), mesotheliomas and Hepato Cellular Carcinoma (HCC) after locoregional therapies such as TACE and ablative treatments. For this reason, modified RECIST criteria (mRECIST) for HCC and Choi criteria for GIST have evolved. With many new anti-cancer drugs, particularly molecular targeted therapies, decrease in metabolic activity precedes any reduction in size. Also, very often as in lymphomas a non-viable residual mass without any viable tumor tissue may continue to be seen. As such PET-CT is being increasingly used today to monitor response. It is a part of the new PERCIST criteria and is the standard tool in assessing response in lymphomas. With increasing use of molecular targeted therapies and immunotherapy to treat many advanced cancers there is a fundamental change in the way cancers may respond. Cancer specific and therapy specific response criteria have become relevant in an era of personalized medicine. Paradoxically increase in size and even appearance of a new lesion may well be a part of the initial response in immunotherapy. The evolution of response criteria, going beyond RECIST and evaluation of cancer and therapy specific response is the primary objective of this study.

### Biography

Arvind K Chaturvedi is currently the Chair of the Department of Radiology at the Rajiv Gandhi Cancer Institute & Research Centre, India. He has also served as the Medical Director of the Institute from 2006 to 2010. He is directing Oncological Radiology Fellowship program and has the distinction of having trained many international radiologists. He is a Member of Radiological Society of North America, European Society of Radiology, Breast Imaging Society of India and Indian Radiological and Imaging Association.

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