Dr Steven Sadhra PhD, MFOH,CMIOSH,FFOM (Hon.)

Senior Lecturer and Director of Education for Occupational Health

Occupational and Environmental Medicine

Contact details

Telephone **+44 (0)121 414 6008 (tel:+44 121 414 6008)**

Email **s.sadhra@bham.ac.uk (mailto:s.sadhra@bham.ac.uk)**

Occupational and Environmental Medicine
School of Health and Population Sciences
College of Medical and Dental Sciences
University of Birmingham
Edgbaston
Birmingham
B15 2TT
UK

About

Steven Sadhra is a Senior Lecturer and Head of Education for Occupational Health at the School of Health and Population Sciences. He is the programme lead for the MSc in Occupational Health and CPD programmes. Steven is also the joint lead for another MSc programme (Science of Occupational Health, Safety and the Environment) which he developed with Environmental Health and Risk Management (EHRM) in the School of Geography, Earth and Environmental Sciences (GEES).

Steven has published over 60 research papers and government reports and is the co-editor of two text books and has written 8 book chapters. He is the co-editor of the first Oxford Hand Book of Occupational Health.

He heads the departmental research on the evaluation of occupational health services and the development of workplace interventions for risk reduction. Steven has a particular interest in methods for assessing exposures to pollutants in the workplace and is a qualified Occupational Hygienist.

Steven has over 20 years experience in research, teaching and training in Occupational Health and his contribution has been recognised through Honorary fellowships of the Faculty of Occupational Medicine (FOM) and the Society of Occupational Medicine (SOM). More recently he was awarded the RoSPA international award for services to Occupational Health.

Qualifications

- Fellow of the Society of Occupational Medicine (Hon) 2009
- Member of Institution of Safety and Health 2007
- Fellow of the Faculty of Occupational Medicine (Hon) 2004
- Member of Faculty of Occupational Hygienists 2005
- PhD in Occupational Health 1991
- BSc (Hons) Applied Sciences, Nottingham University 1985

Biography

Steven qualified with a BSc (Hons) in Applied Sciences from Nottingham University in 1985. He came to University of Birmingham in 1986 to study for his PhD in Occupational Health (occupational contact dermatitis) at the Institute of Occupational Health (IOH). He was appointed as a Lecturer at IOH in 1991 and continued his research on the investigation and identification of new contact allergens in complex mixtures such as rosins, greases and oils. The research methodology developed combined chemical analytical techniques with patch testing of patients.

Steven's research on occupational contact allergens introduced him to the workplace environments where he developed his interest in the prevention of occupational disease through better understanding of workplace factors, exposure pathways and exposure profiles. This also led to developed of expertise in the design of engineering controls particularly for reducing exposure airborne pollutants.

The interest in science behind the prevention of occupational diseases lead to consultancy /research work for over 20 national and international organisations with over 50 reports over a three year period. Steven took his professional examinations in Occupational Hygiene and became a Member of the Faculty of Occupational Hygiene Society in 2006 and Chartered Member of the Institution of Safety and Health in 2007.

Steven has worked as a WHO consultant in Malaysia where he was appointed to the Ministry of Health to develop national occupational health research priorities. This project led to the formulation of a national research strategy occupational health. He has also a led a major European wide project on the human health assessment for a metal industry.

Steven has been external examiner for Post Graduate courses in Occupational Health at Surrey University and is currently external examiner at Nottingham University. He has also been the examiner for the Faculty of Occupational Medicine since 2000. He was awarded Honorary fellowship by the FOM in 2004 and Fellowship of the Society of Occupational Medicine in 2010.

Steven was appointed as the Director of education for Occupational Medicine at University of Birmingham in 2007 and presented with the RoSPA International award in 2009 for services to Occupational Health.

Teaching

Teaching programmes

- **Occupational Health MSc/Diploma (/postgraduate/courses/taught/med/occupational-health.aspx)** MSc /PGD – Occupational Health - Programme lead and lead for

the following modules
- o Principles and practice of occupational health
- o Occupational exposure and risk assessment
- o Risk management

• **Occupational Health MSc/Diploma (/postgraduate/courses/taught/med/occupational-health.aspx)** MSc/PGD –Science of Occupational Health, Safety and the Environment – department lead for this joint programme with School of Geography, Earth and Environmental Sciences. Lead for the following modules on this programme:
- o Occupational Health and Hygiene
- o Risk and Safety Management

• **Teaching on other PG courses**
- o MSc Toxicology, MSc Environmental

• **Departmental lead for CPD professional course** including FOM Diploma in Occupational Medicine, Hand-arm Vibration Syndrome, Occupational Ergonomics, Occupational mental health.

• **Medicine and Surgery MBChB (/undergraduate/courses/med/medicine.aspx)** Undergraduate Medical students (year 2)

Postgraduate supervision

Steven is interested in supervising PhD projects in the following areas:

- Workplace interventions for risk reduction for a range of occupational diseases including noise induced hearing loss, contact dermatitis and respiratory disorders
- Evaluation of the effectiveness of occupational health services including health surveillance programmes.
- Assessment of occupational exposure to occupational hazards in particular airborne pollutants.

Research

Research areas

- Effectiveness of occupational health services and interventions studies –development of methods to assess the different types of occupational health services provided in different occupational settings. This research will help to understand which elements of service works and in which context as well identification of suitable interventions for improvements.
- Skin health surveillance programmes – development of field methods including bio-engineering techniques to improve methods for early identification of contact dermatitis amongst workers exposed to irritant and contact allergens in the workplace.
- Assessment of the effectiveness of control measures used in the workplace to reduce the risk of development of occupational diseases e.g. noise induced hearing loss and occupational respiratory disorders.
- Methods for integrating human exposure to chemicals via different routes (dermal and inhalation) and from different compartment i.e. estimating total internal dose for a chemical to which individuals may be exposed at work, in the outdoor environment and through consumer products. The group has completed this work for the European Copper Industry (ECI).

Other activities

- Representative of the Society of Occupational Medicine on the National Occupational Health and safety Committee
- Member of the examinations committee for the Faculty of Occupational Medicine, Royal College of Physicians.

Publications

Wheatley A D and Sadhra S (2010). Carcinogenic risk assessment for emissions from clinical waste incineration and road traffic. **International Journal of Environmental Health Research,** 20(5), 313-327.

V.C Moore, P.Cullinan, S. Sadhra and P.S Burge (2009). Peak expiratory flow analysis in workers exposed to detergent enzymes. **Occupational Medicine**: 59:418-423.

Sajiw N, Chaiear N and S. Sadhra. Exposure to wood dust and its particles size distribution in a rubber wood sawmill in Thailand (2009). **Journal of Occupational and Environmental Hygiene**, 6: 483-490.

T. Sorahan D. Pang, N. Esmen and S. Sadhra (2008). Urinary concentrations of toxic substances: an assessment of alternative approaches to adjusting for specific gravity. **Journal of Occupational and Environmental Hygiene**. 5:721-723.

S. Sadhra, A. Wheatley and H. Cross (2007). Dietary exposure to copper in the European Union and its assessment for EU regulatory risk assessment. **Science of the Total Environment** 374; 223-234.

S. Sadhra and Wheatley A.D (2007). Polyaromatic hydrocarbon emissions from clinical waste incineration. **Chemosphere** 66, 2177-2184.

A Wheatley S. Sadhra, I. Schoeters K. Delbeke, R. Gaunt (2007). EU Copper Voluntary Risk Assessment: Human Health –Exposure Assessment. **http://echa.europa.eu/chem_data/transit_measures/vrar_en.asp (http://echa.europa.eu/chem_data/transit_measures/vrar_en.asp)**

J. Smedley, F. Dick and **S. Sadhra** (2007). Oxford Handbook on Occupational Health. Oxford University Press.

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