The pharmaceutical industry is an important contributor to the health of the UK economy, with 65,000 people directly employed and many more in support industries [1]. It delivered a net trade surplus of £2.6 billion to the UK economy in 2002 and was rated as the highest value-adding industry, with £78,000 of value added to the economy per industry employee in the same period. It is a highly competitive global industry with significant high-risk, long-term investment in increasingly costly drug discovery and development activity. It takes ~10–12 years to bring a new medicine to market and the average development cost is £350 million, with high attrition rates. The rewards are high for successful transnational players, with pre-tax profits of 30% on sales [2].

The industry presents particular challenges to occupational health practitioners engaged in the delivery of effective occupational health services. The demands of a highly technical work environment must be blended with the need to maintain effective health management in a fast-paced, changing and pressured global business climate. This, combined with a high level of focus on innovation and productivity through human capital development strategies, provides a rich mix of factors to take into account when selecting and implementing health interventions that are appropriate, risk-targeted, cost-effective and acceptable to employees and management. An overview of health hazards in the industry published in 1947 provides a familiar list of headings and exposure issues to today's pharmaceutical occupational health practitioner. The contemporary collection of reviews in this issue of *Occupational Medicine* provides an update: so, has anything changed beyond the product names that populate the lists of recognized causes of exposure-related health effects? [3]

Providing rational, risk-based advice on the prediction, prevention and management of exposure-related health effects from a diverse and novel range of workplace health hazards requires increasingly specialized technical competences and industry knowledge. Binks reviews occupational toxicology and the control of exposure to pharmaceutical agents at work [4]. He provides insight into the high level of resource investment and multidisciplinary expertise applied to predicting the potential adverse effects of occupational exposure. The industry has pioneered occupational hazard categorization systems and led the way in developing novel approaches to the containment of highly potent biologically active substances.

Heron and Pickering review the published evidence for health effects related to exposure to active pharmaceutical ingredients [5]. The literature continues to be dominated by well-known historical clusters of occupational illness burden associated with particular classes of drug compounds and there is a paucity of recently published data. Is this a cause for optimism that the battle has been won?

Laboratory animal allergy (LAA) remains an important and potentially life-threatening cause of occupational sensitization, often with significant career implications for those affected. Gordon and Preece [6] present a summary of the state of the art in preventing this condition. They offer encouragement that investment in a policy-driven integrated approach to allergen exposure control can result in a reduction in incidence. The lower level of importance of occupational health interventions, such as health surveillance, compared to other components of LAA risk management systems is noted. However, occupational health practitioners remain well placed to play a key role in facilitating and co-ordinating the
preventive efforts of health and safety professional colleagues, scientists and the animal technician specialists who normally manage and operate animal facilities.

It is important not to overlook the occupational health needs of the pharmaceutical sales force amidst the distraction of the more obvious workplace health hazards. This special population forms up to 20% of the workforce of pharmaceutical companies and performs a critical business function in marketing products to health care prescribers. Harris et al. provide a review of the relevant occupational risks and how they can be addressed [7]. Driver safety, including the importance of accident prevention interventions that target human factors, is highlighted as road traffic accidents continue to be the leading cause of occupational mortality in the industry globally.

Data on occupational illnesses diagnosed during 2002 derived from The Health and Occupation Reporting network (THOR: http://www.coeh.man.ac.uk/thor) have been collated to evaluate reporting trends in UK industry sectors. Cases involving employees engaged in work in the pharmaceutical industry were identified by word-searching of case reports in the chemical industry (R. Agius, personal communication, July 2003). The data presented in Figure 1 represent estimated numbers of cases occurring during 2002 among the UK pharmaceutical industry’s 65,000 employees. Musculo-skeletal disorders ($n = 159$) accounted for the most frequently reported disease category, with the highest proportion of cases estimated to be upper limb disorders ($n = 110$). Skin disorders were next in frequency, closely followed by mental ill-health cases and respiratory disorders. The pattern is similar to most other industries and highlights the importance of morbidity resulting from more subtle exposures (such as ergonomic and psychosocial hazards) and the need to invest in risk-control systems beyond the higher profile product hazards [8].

Increasingly, the demand for a strategic approach to health management will facilitate integration of the purpose, structure and processes of occupational health services with business and human resource strategies, to maximize business value. Changing the role of occupational health from a tool to practise excellence in risk management to strategic partner in the quest for competitive advantage raises the stakes. The chance of success in securing a place at the core of the organization’s strategic intent risks losing sight of the ‘old’ skills. It also presents ethical dilemmas when sharing the benefits of innovations in workplace health interventions with competitors is discouraged. Careful management is called for to balance the needs of all stakeholders and nurture the ‘new’ skills while retaining the ‘old’. The industry cannot afford a return to the bad old days of high levels of workforce occupational disease burden as a consequence of exposure to products during bucket-and-spade chemical manufacturing processes.

Occupational health in the UK pharmaceutical industry has remained a predominantly in-house function, despite the trend across most other industries and the public sector to outsource part or all of the delivery of services. Occupational health faces a crossroads: can the existing structures continue successfully to juggle the roles of strategic partner, technical specialist and delivery machine of efficient and effective transactional health management services? Increasing recognition of the different skill-sets required for these roles and the growing

![Figure 1. Estimated numbers of cases occurring during 2002 among the UK pharmaceutical industry's 65,000 employees.](https://academic.oup.com/occmed/article-abstract/53/6/354/1367331/1921331)
demand for improved cost-effectiveness may prompt a move to new models of service delivery.

References