lition, maintenance, brake repair, household repairs, and do-it-yourself construction. The Institute for Medical Research and Occupational Health in Zagreb identifies asbestos by presence and type in bulk materials using a certified standard method (Health and Safety Executive Book, UK, Method for the Determination of Hazardous Substances-Series 77—Asbestos in bulk materials; HRN EN ISO 9001:2002; HRN EN ISO/IEC 17025:2004). The article includes recommendations for proper procedure in response to positive asbestos findings. The future approach to the asbestos issue in Croatia will by all means depend on revised regulations, which are expected to conform to the recommendations of the European Union.

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Mechanistically identified suitable biomarkers of exposure, effect and susceptibility for silicosis: Validation of biomarkers of early effect

Mary Gulumian[1,2], Kerry Downs[1], Berry Girdler-Brown[3], Jill Murray[4,5], Paul Borm[6], Val Vallyathan[7], Vince Castranova[7], Ken Donaldson[8]

[1] *Department of Toxicology, NIOH, P.O. Box 4788, Johannesburg 2000, South Africa;* [2] *Department of Haematology and Molecular Medicine, Wits University, South Africa;* [3] *School of Health Systems and Public Health, University of Pretoria, South Africa;* [4] *Department of Pathology, NIOH, South Africa;* [5] *School of Public Health, Wits University, South Africa;* [6] *Particle Research Core, medizinische Forschung, gGmbH, Dusseldorf, Germany;* [7] *NIOSH and West Virginia, University Medical Center, Morgantown, WV, USA;* [8] *ELEGI Colt Laboratory, Wilkie Building, University of Edinburgh, Medical School, Teviot Place, Edinburgh EH9 8AG, United Kingdom*

Clinical detection of silicosis is currently dependent on radiological abnormalities, a late manifestation of disease. A need for markers of prediction and early detection of pneumoconiosis is imperative for the early evaluation of dust allaying strategies. Understanding of the underlying mechanisms of the etiology of silicosis was instrumental in proposing numerous biomarkers that have been evaluated to assess effects following exposure to crystalline silica dust. Human validation studies have substantiated some of these proposed biomarkers and have argued in favour of their use as biomarkers for crystalline silica-induced pneumoconiosis. A number of 'ideal' biological markers of effect were identified through literature review, viz. TNF-α, IL-8 and ROS measurement by chemiluminescence (monocyte release), CC16, 8-isoprostanes, total antioxidant levels measured by TEAC, glutathione, glutathione peroxidase, glutathione *S*-transferase, and PDGF (serum). These identified biomarkers were then evaluated in South African gold miners exposed to silica with and without clinical evidence of silicosis and in control group of men with no silica dust exposure.

Results showed that three out of the 10 biomarkers investigated were significantly affected by exposure to silica dust, independently of any effects due to HIV infection, ARV treatment, smoking or age, to an extent that would enable them to be used as biomarkers of early effects due to exposure to crystalline silica.

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Risk groups and pneumoconiosis in Turkey

Arif Çımrın

Dokuz Eylul University Medical School, Department of Pulmonary Medicine, Izmir, Turkey

In Turkey as a developing country, 4,220,000 (20.7%) of a total number of 51,202,000 economically active population work in the industry (Home Population Workforce Statistics, 2005; www.die.gov.tr). Beside this, 98.1% of 850.928 workplaces are small-scale enterprises which have less than 50 employees (www.ssk.gov.tr). As a result of this, Turkey is a late industrized country at where agricultural employment is still important, an artificial condition occurred in the service sector and small-scale enterprises are dominating.

According to official data, the diagnosed occupational diseases is decreasing during the past few years, the total number of occupational disease is 384 at 2004 and the incidence is less than 0.001%. Regarding to the European Union data of 2002 which reveals the incidence of occupational diseases is 0.3–0.5%; the number of diagnosed occupational diseases every year in Turkey should be at least 20,000.

The pneumoconiosis related studies in Turkey are limited. Most of them are work place based and cross-sectional studies. At the last evaluation, the CWP preva-