

EDITORIAL

Biological monitoring is a method that aims at assessing the interaction between toxins and the human organism in order to identify early and reversible indicators that can be used to study the mechanisms of toxicity and prevent health effects in exposed subjects.

Since its inception in the 1980s, Italian researchers who dealt with occupational health and industrial hygiene became enthusiastic and prolific investigators and provided original impulses that contributed significantly to the development of this field.

Over the years important preventive measures implemented at the workplaces significantly decreased exposure levels, while the spread of pollution in the living environment was such that, in some cases, exposure of the general population could be considered comparable to that of workers and there was increased awareness that this pollution too could represent a threat for the health of exposed populations.

In this evolving situation biological monitoring needed to identify more specific and sensitive indicators that could be applied to investigate exposures that became gradually lower and also identify indices useful to detect increasingly slight effects.

The advancement of knowledge of toxicology and the availability of ever more sophisticated techniques and equipment have made it possible for biological monitoring to face the new challenges. So to traditional biomarkers, measured at ever decreasing concentrations, new indices were added and investigated, such as measurement of the effects of toxic agents on DNA at molecular level.

In this ever evolving situation several Italian groups continue to work creatively, producing valuable results, as demonstrated by the scientific publications at national and international level.

To acknowledge the vitality of this activity and the interest of *La Medicina del Lavoro* in this scientific field, a selection of papers on the subject of biological monitoring is presented in this special issue, in the hope that this will stimulate debate in the field and encourage the submission of further contributions.

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