General conclusions

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Occupational cancers are the primary cause of work-related deaths in our industrialised societies, with more than 100,000 people losing their lives each year through being exposed to carcinogens while at work. Latest estimates set the share of work-related cancers at 8% of all new cancer cases (6 - 12% for men and 3 - 7% for women). These cancers are morally unacceptable, as they could easily have been avoided through adequate prevention measures. They are also unfair. Exposure to carcinogens at work are the cause of major social inequalities in health in Europe, as in the rest of the world. Labourers or nurses are much more likely to contract an occupational cancer than engineers or bankers. Indeed, a socio-occupational map can be drawn for the different types of cancer, tracing them back to these social inequalities. Similarly, if we compare the research budgets assigned to studying respectively genetic factors and occupational factors causing cancer, the former has considerable resources while the latter has to make do on 'peanuts'. In an article published in 2018, Aaron Blair and Lin Fritschi pointed out that, in the fifteen main scientific journals dedicated to cancer, the number of articles relating to occupational cancers "declined dramatically from around 80-90 per year from 1991-2003, to about 30 in 2009". This situation, completely irrational in terms of public health, can be explained by two factors.

First, genetic research is susceptible to commercial appropriation, with its objective not exclusively guided by scientific or public health considerations but also by a desire to gain patents in the field of detecting and treating cancers. When US actress Angelina Jolie decided in 2013 to have her breasts removed following a genetic test pointing to an increased personal risk of breast and ovarian cancer, we saw a sharp rise in the value of Myriad Genetics shares, a company marketing this test on the basis of an exclusive patent for analysing DNA segments. Such private-sector appropriation of biological information implies that the test in question is reserved for the affluent due to its €2,300 price tag.

Second, genetic research in this field contributes to social peace, avoiding having to deal with questions of power in companies, production choices guided by profit or the deliberate neglect of prevention measures.

While not questioning the relevance of genetic research on cancer and its causes, we want to highlight the imbalance between this work considered to be high-priority and research into the role of occupational exposure. This book – while far from being

Blair A. and Fritschi L. (2018) Are we doing enough to identify and prioritise occupational carcinogens?, Occupational and Environmental Medicine, 75 (8), 543-544.

exhaustive – has looked at various aspects of this research, highlighting in particular the links between this research, the European legislative framework and practical efforts to achieve effective prevention.

The societal cost of occupational cancers is enormous. The study commissioned by our research institute and presented in this book estimates that the total cost of workrelated cancers is between €270 and 610 billion a year in the EU-28. The ability to pass on virtually all associated costs to the victims, national social security and public health systems helps reduce to almost zero any motivation for companies to implement effective measures for preventing occupational cancers. On examining risk assessments, we find very little attention accorded to carcinogens and reprotoxic substances. It is therefore particularly important to have a precise, detailed and demanding legislative framework and to regularly adapt it to new data. The directive adopted by the European Union in 1990 played an important role in improving national legislation in Member States, generating a positive momentum which was to last for ten years or so. But then the whole development ground to a halt. During the two terms of office of José Manuel Barroso as head of the European Commission (2004 - 2014), no progress was made at all. This can be seen as part of the more general context of dramatic rises in social inequality, the implementation of ultra-liberal policies which considered many legislative acts (especially those related to employees and their working conditions) as administrative burdens weighing down on company competitiveness and economic growth in Europe. Widening social inequalities in health and resulting in thousands of avoidable deaths, these choices have been disastrous.

Even so, we need to acknowledge that the arrival of Jean-Claude Juncker as President of the European Commission and Marianne Thyssen as Commissioner for Social Affairs has led to significant improvements being made to the Carcinogens Directive. Prompted by certain Member States and the European Trade Union Confederation, the process of revising this directive has gained new impetus. European occupational exposure limits (OELs) have been adopted for commonplace carcinogens such as crystalline silica and hexavalent chromium and will soon be adopted for diesel engine exhaust emissions and formaldehyde. Though the trade union target of achieving binding OELs for at least 50 carcinogens before 2020 will not be achieved, we can be proud of getting some 20 substances covered.

In many occupations, exposure implies a heightened risk of contracting cancer. Moreover, these carcinogens are often to be found away from workplaces, polluting the environment. Similarly, they can be found in products on the market. This ripple effect has already been observed with regard to asbestos and its three waves of possible exposure: in paid work, in unpaid domestic work (for instance washing workclothes, a chore generally done by women) and in the environment. The same three waves can be found with many other carcinogens. Primary prevention at the workplace – with priority given to substitution – involves greatly reducing the carcinogenic burden weighing down on human health.

Such prevention cannot be organised in a piecemeal fashion, company by company. It has to be backed by government programmes promoting substitution and reflecting the

forms of exposure specific to different sectors. Highlighting a necessity common to all occupational health problems, it needs to be based on a threefold process: visualising the invisible, collectivising what *prima facie* appears to be an individual issue, and transforming the needs identified for the defence of occupational health into concrete demands.

In publishing this book, we hope to have contributed to this overall movement. We are convinced that the current state of knowledge allows much more effective preventive action than is currently the case and that we need to bring the regulations governing occupational health up to the same level as those found in other public health fields. We are similarly convinced that trade union mobilisations against occupational cancers act as an impetus for scientific research into the relevant issues, enabling better responses to social needs. Our attitude towards occupational cancers can be seen as a weather vane, reflecting the vision of society that we defend. If we shut our eyes to the inequalities and privileges, this issue is of no great concern. But if we want all inhabitants of our planet to have access to dignified and humane working and living conditions, changing the working conditions becomes a key priority for action.