

ISDE NEWS



A cura dell'Associazione Medici per l'Ambiente

English Version – N°652

7 July 2017

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The documents reported on ISDE Italia Newsletter are available for members only.

The newsletter is an official press organ of the Association Doctors for the Environment - ISDE Italia by Melissa Frulloni and Roberto Romizi.

We invite you to read and spread. Send us your comments at isde@isde.it

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ISDE formed in 1990, presently has membership in over 35 countries, mostly in Europe, Canada, USA and Australia. ISDE members, medical doctors and environmentalists are professionals, who in the face of growing pollution and environmental decay, are concerned about the rising incidences of pathological conditions related to environmental degradation and are resolved to offer not only answer in terms of medical care, but also to advocate, initiate, and promote effective preventive measures/actions.

ISDE intends to reach out to all, as fellow citizens of the world.

Medical professionals, institutions, associations/organizations are welcome and encouraged to join.

Please visit www.isde.org and www.isde.it for details.

NEXT EVENTS

45th annual meeting of the European Teratology Society

The 45th annual meeting of the European Teratology Society will be in Budapest, Hungary on **4th-7th September 2017**. The conference will be held in the Courtyard by Marriott Hotel, located in the Centre of Pest (East of Danube), at easy reach from the many cultural and amusement sites offered by this Mitteleuropean Capital. The Key sessions for ETS 2017 will include: Education Course: Hormones and Brain Development, pre-term births, Safety Assessment of Herbal Drugs in Pregnancy, Transplacental Exposure to Tumorigenic Agents, IATA - Integrated Approaches to Testing and Assessment, Satellite Workshop: Best Practices in interpreting developmental toxicity data.

More info: <https://www.etsoc.com/annual-meeting>

3rd World Congress on Climate Change and Global Warming

3rd World Congress on Climate Change and Global Warming will be in Dubai, during **October 16-17 2017**. Renowned World researchers, scientists, academic scientists, society & lab researchers, scholars, decision makers and other professionals gathering in Dubai to disseminate and gain current knowledge in the area of Climate Science. The main theme of the conference is "Earth is getting Warmer!! Challenges and Solutions for a Sustainable Environment" which covers a wide range of critically important sessions from basic research to innovations in the field of Climate Science.

More info: globalwarming@geologyseries.com

“Porto Skadar Lake” a possible threat for the preservation of the environmental resources in Montenegro and a risk for the continental biodiversity

ISDE, through a letter to the President of the Parliament of Montenegro, wanted to support the initiative of Dr. Hajdukovic, a Montenegrin physicist, who's carrying on a battle against the project known as “Porto Skadar Lake” (<http://www.portoskadarlake.com>). This project, potentially leading to a wide overbuilding of a naturalistic area, might represent a threat for the preservation of the environmental resources in Montenegro and a risk for the continental biodiversity. At this moment, 39 from 81 members of the Parliament of Montenegro have signed an initiative promoted by Dr. Hajdukovic to stop immediately any construction on the territory of the Skadar Lake National Park.

Residential Exposure to Pesticide During Childhood and Childhood Cancers: A Meta-Analysis

Reference: <http://pediatrics.aappublications.org>

There is an increasing concern about chronic low-level pesticide exposure during childhood and its influence on childhood cancers. This meta-analysis, aimed to examine associations between residential childhood pesticide exposures and childhood cancers. Authors searched all observational studies published in PubMed before February 2014 and reviewed reference sections of articles derived from searches. The literature search yielded 277 studies that met inclusion criteria. Sixteen studies were included in the meta-analysis which found that childhood exposure to indoor but not outdoor residential insecticides was associated with a significant increase in risk of childhood leukemia (odds ratio [OR] = 1.47; 95% CI, 1.26–1.72; I² = 30%) and childhood lymphomas (OR = 1.43; 95% CI, 1.15–1.78; I² = 0%). A significant increase in risk of leukemia was also associated with herbicide exposure (OR = 1.26; 95% CI, 1.10–1.44; I² = 0%). A positive but not statistically significant association between childhood home pesticide or herbicide exposure and childhood brain tumors was also observed.

More info: <http://pediatrics.aappublications.org/content/early/2015/09/08/peds.2015-0006>

Differences in the carcinogenic evaluation of glyphosate between the International Agency for Research on Cancer (IARC) and the European Food Safety Authority (EFSA)

The International Agency for Research on Cancer (IARC) Monographs Programme identifies chemicals, drugs, mixtures, occupational exposures, lifestyles and personal habits, and physical and biological agents that cause cancer in humans and has evaluated about 1000 agents since 1971. Monographs are written by ad hoc Working Groups (WGs) of international scientific experts over a period of about 12 months ending in an eight-day meeting. The WG evaluates all of the publicly available scientific information on each substance and, through a transparent and rigorous process,¹ decides on the degree to which the scientific evidence supports that substance's potential to cause or not cause cancer in humans. For Monograph 112,² 17 expert scientists evaluated the carcinogenic hazard for four insecticides and the herbicide glyphosate.³ The WG concluded that the data for glyphosate meet the criteria for classification as a probable human carcinogen.

More info: <http://jech.bmj.com/content/early/2016/03/03/jech-2015-207005>

Water and pharmaceuticals – a shared responsibility

Many of the tools required to create a future with no negative environmental impact from pharmaceuticals are already available. This paper suggests that combining efforts along the whole pharmaceutical life cycle will not only be key to for sustainable development but also lead to increased transparency and understanding between stakeholders. More info: https://www.google.it/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0ahUKEwis9O-g- DUAhWjYJoKHRNCCYIQFghOMAO&url=http%3A%2F%2Fwww.siwi.org%2Fwp-content%2Fuploads%2F2016%2F04%2FSiwi-Pharma-WP-Digital.pdf&usg=AFQjCNG_jbX8VqbXAxKk7n_gNybcCWkNhQ&cad=rja

Toxic economy: Common chemicals cost US billions every year

Exposure to chemicals in pesticides, toys, makeup, food packaging and detergents costs the U.S. more than \$340 billion annually due to health care costs and lost wages, according to a new analysis. The chemicals, known as endocrine disruptors, impact how human hormones function and have been linked to a variety of health problems such as impaired brain development, lower IQs, behavior problems, infertility, birth defects, obesity and diabetes. The estimated economic toll is more than 2 percent of the nation's gross domestic product (GDP). The findings, researchers say, "document the urgent public threat posed by endocrine disrupting chemicals." The study was published Monday in *The Lancet Diabetes and Endocrinology* journal. Pete Myers—founder of Environmental Health Sciences, publisher of Environmental Health News and The Daily Climate—is a co-author on the study. The researchers estimated costs by looking at exposures, then projecting 15 medical conditions linked to the chemicals and the associated health costs and lost wages. The findings are built upon calculations made by the Endocrine Society, the World Health Organization and the United Nations Environment Program. A similar study conducted in Europe found about \$217 billion in annual costs due to exposure to these compounds.

More info: <http://www.environmentalhealthnews.org/ehs/news/2016/oct/toxic-economy-common-chemicals-cost-us-billions-every-year>

Microwaves and Alzheimer's disease

Alzheimer's diseases (AD) is the most common type of dementia and a neurodegenerative disease that occurs when the nerve cells in the brain die. The cause and treatment of AD remain unknown. However, AD is a disease that affects the brain, an organ that controls behavior. Accordingly, anything that can interact with the brain may affect this organ positively or negatively, thereby protecting or encouraging AD. In this regard, modern life encompasses microwaves for all issues including industrial, communications, medical and domestic tenders, and among all applications, the cell phone wave, which directly exposes the brain, continues to be the most used. Evidence suggests that microwaves may produce various biological effects on the central nervous system (CNS) and many arguments relay the possibility that microwaves may be involved in the pathophysiology of CNS disease, including AD. By contrast, previous studies have reported some beneficial cognitive effects and that microwaves may protect against cognitive impairment in AD. However, although many of the beneficial effects of microwaves are derived from animal models, but can easily be extrapolated to humans, whether microwaves cause AD is an important issue that is to be addressed in the current review.

More info: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5038365/>

Clear the air for children

Reference: Unicef

This report looks at how children, particularly the most disadvantaged, are affected by air pollution. It points out that around 300 million children live in areas where the air is toxic – exceeding international limits by at least six times – and that children are uniquely vulnerable to air pollution, breathing faster than adults on average and taking in more air relative to their body weight. The report also notes that air pollution is a major contributing factor in the deaths of around 600,000 children under age 5 every year and threatens the health, lives and futures of millions more. It concludes with a set of concrete steps to take so that children can breathe clean, safe air.

More info: https://www.unicef.org/publications/index_92957.html

Let's stop the manipulation of science

Around a hundred scientists ask Europe and the international community to act against endocrine disrupting chemicals. They condemn the use of strategies for manufacturing doubt employed by industries in the climate change battle. For decades now, science has come under attack whenever its discoveries raised questions about commercial activities and vested interests. Scientific evidence has been willfully distorted by individuals denying the science and actors sponsored by industry interests creating the false impression of a controversy. This manufacturing of doubt has delayed protective actions, with dangerous consequences for the health of people and the environment.

More info: http://www.lemonde.fr/idees/article/2016/11/29/let-s-stop-the-manipulation-of-science_5039867_3232.html

Living near major roads and the incidence of dementia, Parkinson's disease, and multiple sclerosis: a population-based cohort study

Reference: The Lancet

Emerging evidence suggests that living near major roads might adversely affect cognition. However, little is known about its relationship with the incidence of dementia, Parkinson's disease, and multiple sclerosis. This study aimed to investigate the association between residential proximity to major roadways and the incidence of these three neurological diseases in Ontario, Canada. In this population-based cohort study, authors assembled two population-based cohorts including all adults aged 20–50 years (about 4.4 million; multiple sclerosis cohort) and all adults aged 55–85 years (about 2.2 million; dementia or Parkinson's disease cohort) who resided in Ontario, Canada on April 1, 2001. Eligible patients were free of these neurological diseases, Ontario residents for 5 years or longer, and Canadian-born. The study ascertained the individual's proximity to major roadways based on their residential postal-code address in 1996, 5 years before cohort inception. Incident diagnoses of dementia, Parkinson's disease, and multiple sclerosis were ascertained from provincial health administrative databases with validated algorithms. Authors assessed the associations between traffic proximity and incident dementia, Parkinson's disease, and multiple sclerosis using Cox proportional hazards models, adjusting for individual and contextual factors such as diabetes, brain injury, and neighbourhood income.

More info: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)32399-6/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)32399-6/abstract)

Human health implications of organic food and organic agriculture

This study reviews existing scientific evidence regarding the impact of organic food on human health from an EU perspective, with a focus on public health. The development of environmentally sustainable and healthy food systems is an international priority. The study examines how organic food and organic agriculture can contribute to this in relation to public health. Human and animal studies directly addressing the health effects of organic food are reviewed. Furthermore, evidence linking principles and rules of organic production to human health effects is discussed.

More info:

[http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU\(2016\)581922](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU(2016)581922)

The cost of a polluted environment: 1.7 million child deaths a year, says WHO

More than 1 in 4 deaths of children under 5 years of age are attributable to unhealthy environments. Every year, environmental risks – such as indoor and outdoor air pollution, second-hand smoke, unsafe water, lack of sanitation, and inadequate hygiene – take the lives of 1.7 million children under 5 years, say two new WHO reports. The first report, *Inheriting a Sustainable World: Atlas on Children's Health and the Environment* reveals that a large portion of the most common causes of death among children aged 1 month to 5 years – diarrhoea, malaria and pneumonia – are preventable by interventions known to reduce environmental risks, such as access to safe water and clean cooking fuels. "A polluted environment is a deadly one – particularly for young children," says Dr Margaret Chan, WHO Director-General. "Their developing organs and immune systems, and smaller bodies and airways, make them especially vulnerable to dirty air and water."

More info: <http://www.who.int/mediacentre/news/releases/2017/pollution-child-death/en/>

Conflict of interest between professional medical societies and industry: a cross-sectional study of Italian medical societies' websites

131 Italian medical societies were considered. Of these, 4.6% had an ethical code covering relationships with industry on their websites, while 45.6% had a statute that mentioned the issue of conflict of interest and 6.1% published the annual financial report. With regard to industry sponsorship, 64.9% received private sponsorship for their last conference, 29.0% had manufacturers' logos on their webpage, while 35.9% had industry-sponsored satellite symposia at their last conference. The presence of an ethical code on the societies' websites was associated with both an increased risk of industry sponsorship of the last conference (relative risk (RR) 1.22, 95% CIs 1.01 to 1.48 after adjustment) and of conferences and/or satellite symposia (RR 1.22, 95% CIs 1.02 to 1.48 after adjustment) but not with the presence of manufacturers' logos on the websites (RR 1.79, 95% CIs 0.66 to 4.82 after adjustment). No association was observed with the other indicators of governance and transparency. Conclusions: this survey shows that industry sponsorship of Italian medical societies' conferences is common, while the presence of a structured regulatory system is not. Disclosure of the amount of industry funding to medical societies is scarce. The level of transparency therefore needs to be improved and the whole relationship between medical societies and industry should be further disciplined in order to avoid any potential for conflict of interest.

More info: <http://bmjopen.bmj.com/content/6/6/e011124>

Glyphosate not classified as a carcinogen by ECHA

ECHA's Committee for Risk Assessment (RAC) agrees to maintain the current harmonized classification of glyphosate as a substance causing serious eye damage and being toxic to aquatic life with long-lasting effects. RAC concluded that the available scientific evidence did not meet the criteria to classify glyphosate as a carcinogen, as a mutagen or as toxic for reproduction.

More info: <https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa>

Environment, Trade and Governance for Sustainable Development

This volume gives attention to the evolution of multilevel environmental governance in the East Asian region, including both Northeast and Southeast Asia. It examines how effective emerging environmental governance and policy have been and addresses the underlying causes of local, national, regional and global environmental challenges. Topical chapters include democratization and its effect on decision-making processes, international environmental aid, economic analysis of carbon reduction policy, regional and global environmental regimes and subsequent new financial mechanisms, as well as hybrid systems of environmental governance that emphasize the role of the private sector and civil society in contributing to environmental governance.

More info: http://sdpi.org/publications/publication_details-364-36.html

Call to action toward asbestos-free drinking water

Authors: Agostino Di Ciaula, Hanns Moshhammer, Cathey Falvo, Mahmood A Khwaja

The presence of asbestos fibres (AFs) in drinking water is a growing problem worldwide and mainly derives from the extensive use of asbestos containing materials, to their unavoidable and progressive deterioration over time, to the lack of monitoring procedures (completely absent in large geographical areas) and to inadequate directives.

Asbestos cement tanks and pipes were installed broadly in Europe, USA, Canada, and Australia from the late 1920s to the late 1980s. Additionally, although all forms of asbestos have been banned from 58 world countries [1], new water supply systems could be made with asbestos cement in countries where chrysotile is still not banned.

The WHO International Agency for Research on Cancer (IARC), stated that (i) the ingestion of AFs is, together with inhalation, a primary source of human exposure to this natural substance, which is toxic and able to induce cancer with a medium-long term latency and in several target organs; (ii) the "risks of exposure to asbestos in drinking water may be especially high for small children who drink seven times more water per day per Kg of body weight than the average adult".

More info: http://isde.org/ISDE_AF_water.pdf

Childhood cancer and environmental integrity: a commentary and a proposal

Improvements in the health standards of developed and developing societies depend primarily on the relationships between economy and environment. Recent long-term changes in the chemical composition of man-made environments may be linked to changes in the biology of human beings. Here we argue that children are at the greatest risk of being affected by the dangerous effects of these changes, with particular reference to cancer. The concept of cancer risk must be extended to new contexts. Considering the increasing rates of chemical pollution and its spreading in the environment, we illustrate a proposal aiming to protect the human health, in an intra- and intergenerational perspective. A surveillance system of occupational and residential exposures

should be implemented to prevent cancer risk in embryos and children. More info:

https://www.researchgate.net/publication/316030484_Childhood_cancer_and_environmental_integrity_a_commentary_and_a_proposal

Drinking water contamination from perfluoroalkyl substances (PFAS): an ecological mortality study in the Veneto Region, Italy

Perfluoroalkyl substances (PFAS), a heterogeneous group of highly stable man-made chemicals, have been widely used since 1960s and can be detected almost ubiquitously in all environmental matrices. In Italy, on January 2014, drinking water contamination in an area of the Veneto Region was detected mainly due to the drain of fluorinated chemicals by a manufacturing company operating since 1964. Methods: The present ecological mortality study was aimed at comparing mortality for some causes of death selected on the basis of previous reported associations, during the period 1980–2013, in municipalities with PFAS contaminated and uncontaminated drinking water on the basis of the levels indicated by the Italian National Health Institute (ISS). Sex-specific number, standardized mortality rates and rate ratios (RR) for PFAS contaminated and uncontaminated areas were computed for each cause of death through the ENEA epidemiological database. Results: In both sexes, statistically significant RRs were detected for all causes mortality, diabetes, cerebrovascular diseases, myocardial infarction and Alzheimer's disease. In females, RRs significantly higher than 1.0 were also observed for kidney and breast cancer, and Parkinson's disease. Increased risk, although not statistically significant, was observed for bladder cancer in both sexes, and for testicular cancer, pancreatic cancer and leukemia in males only. Conclusions: Higher mortality levels for some causes of death, possibly associated with PFAS exposure, were detected in contaminated municipalities in comparison with uncontaminated ones with similar socioeconomic status and smoking habits. These results warrant further individual level analytic studies to delineate casual associations. More info: <https://academic.oup.com/eurpub/article-abstract/doi/10.1093/eurpub/ckx066/3852033/Drinking-water-contamination-from-perfluoroalkyl?redirectedFrom=fulltext>