

# NEWSLETTER

## CONFERENCE STARS!



*Professor Sir Stephen Holgate*, who has just received a Knighthood in the Queen's Birthday Honours' List for services to medical research, will update Conference on progress for clean air action.

*William Wilson of Wyeside Consulting* will speak to Conference about COP 26 and key issues at a turning point for climate negotiations.

*Professor Eloise Scotford of UCL* will give an update and commentary on the Environment Bill.

*Neil Wait, Environmental expert advising the HS2 project* will present his findings on assessing and resolving the environmental challenges.

*Tom Burke, Environmental Policy Adviser E3G*, will share his thoughts on the Future of Environmental Policy.

These are just some of our EPUK stars presenting at Conference 2020. Don't keep it to yourselves though, tell your colleagues and collaborators about it both here in the UK and overseas.

Sign up here today: <https://www.environmental-protection.org.uk/events/epuk-events/annual-conference-2020/>

## HIGHLIGHTS IN THIS MONTH'S ISSUE

### Leaflets Go Electronic

Our much sought-after EPUK Leaflets are nearing the end of their updating. They will be available to all members on our EPUK website just as soon as they are completed.

### Ultrafines Update

EPUK has been pressing for more attention to be given to the health effects of ultrafine particles. Our latest update is presented in this month's Newsletter.

### The Royal Society

The Royal Society publishes on air quality, reviewing the past and forecasting the future.....see below....

## Recent developments with ultrafines.

David Muir (AQC) reports that evidence appears to be growing on the wide range of adverse health effects associated with ultrafine (<100 nm) particles. At Conference last year we heard an excellent presentation from Professor Barbara Maher on the possible association between iron-rich ferromagnetic ultrafines and dementia. Barbara has now been a co-author in two recent papers that are even more disturbing.

One (Liu *et al*, *Science of the Total Environment*. 751 (2021) 142235) investigates the presence of ultrafines in placental tissue cells. Earlier work by Mark Miller (*Future Cardiology*. (2012) 8(4), 577–602., *ACS Nano* 2017, 11, 4542–4552.) has demonstrated how inhaled ultrafine gold enters the bloodstream very rapidly. That work, however, described how the particles persisted in the bloodstream for up to three months. The new work found that in all the samples (15 in total) of placenta collected at the Royal London Hospital between 2017 and 2019 there were ultrafine carbonaceous particles. Further, these particles also contained iron-rich

ferromagnetic material. The paper's final conclusions are that "resident phagocytes in tissues distant from the lung are exposed to, and interact with, translocated nanoparticles, most probably sourced from heavily-trafficked urban roads. It is likely therefore that the foetus is exposed to such pollution-sourced nanoparticles."

The second (Calderón-Gardcidueñas *et al*, *Environmental Research*, 191 (2020)110139) reports on work carried out in Metropolitan Mexico City (MMC). The study examined brainstems from 186 MMC autopsies of people aged 11 months to 40 years with sudden causes of death not involving the brain. Iron rich ferromagnetic particles were found, in varying concentrations, in all the samples. Although there is no indication that any of the subjects had suffered any degeneration of the brain, Barbara Maher's work suggests that dementia could have developed in later years. Further, although the paper concentrates on inhalation as being the source of the particles in the brainstem, the Liu paper suggests the possibility on babies being born with ultrafine particles already in their systems.

Finally, a Canadian study (Weichenthal *et al*, *Epidemiology*: March 2020 - Volume 31 - Issue 2 - p 177-183) looks at ultrafines in urban areas and brain tumours in adults. This found an association between ultrafines and brain tumour incidence but no such relationship for either PM<sub>2.5</sub> or NO<sub>2</sub>.



## **The Royal Society**

Royal Society Publishing has recently published a special issue of *Philosophical Transactions A* entitled; '**Air quality, past present and future**' organised and edited by David Fowler, John Pyle, Mark Sutton and Martin Williams and the articles can be accessed directly at [www.bit.ly/TransA2183](http://www.bit.ly/TransA2183)

They are also looking for new theme issues and so if any members are interested in submitting, please visit the website at:

<https://royalsocietypublishing.org/rsta/guest-editors>; or contact the Editorial Office on [philtransa@royalsociety.org](mailto:philtransa@royalsociety.org) for more information

## **WHO Guidelines update**

It seems that the 2005 WHO Guidelines are about to be reviewed and updated. There are strong indications that this could lead to tightening of some of the current Guidelines. Most notably NO<sub>2</sub> and PM, in the light of recent work suggesting that there are significant health effects at concentrations below the current guideline values. This has long been recognised for PM but a tightening for NO<sub>2</sub> could have wide ranging implications.

## **iCheme Special Interest Groups webinar**

Alun McIntyre's free and open webinar on "Odours" is on 4<sup>th</sup> November 2020. Click the link below for access:

<https://www.icheme.org/membership/communities/special-interest-groups/environment/events/04-11-20-odour-compliance-and-environmental-permitting-leislative-technical-and-practical-aspects/>

For more information, email: [specialinterestgroups@icheme.org](mailto:specialinterestgroups@icheme.org)

## **New range of merchandising coming soon**

We are in the process of investigating companies to launch a small range of EPUK branded products which should be ready for sale before too long. Face masks and tote bags with the EPUK logo are definitely on the list and if you have any other suggestions, please let us know. Please support EPUK and buy some of your Christmas gifts from our website.

AND FINALLY, FROM THE PRESS

# THE PRESS

## YORK'S AIR QUALITY IMPROVES BY 30%

Daniel Willers reports in the city of York's, The Press, that new data shows that the city's air pollution has significantly reduced during the coronavirus lockdown. This is the conclusion from a study by Dr David Carslaw, a local researcher with over 20 years' experience in air pollution science. He has analysed data collected by City of York Council as part of his ongoing research there:

<https://ee.ricardo.com/news/analysis-of-covid-19-lockdown-on-uk-local-air-pollution>

Cllr Paula Widdowson, the council's executive member for the environment and climate change, is quoted: "We all have a responsibility to improve York's air quality and this is an issue we have prioritised here in York, from launching the UK's first voluntary Clean Air Zone, to investing in electric charging points across the city."

## MEMBERSHIP

*We are always looking for new members. Please recommend EPUK and its services to your colleagues and any organisation you feel would benefit from membership. Follow the link below for more information regarding types of membership and associated cost.*

<https://www.environmental-protection.org.uk/membership/>

*Or ask us for a Membership Booklet by emailing [info@environmental-protection.org.uk](mailto:info@environmental-protection.org.uk)*

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