Leading cancer scientist warns plastic helps cancer become more aggressive

- Researchers found plastic particles increased the tendency for cell migration, potentially spreading cancer cells further round the body
- Prof Dr Lukas Kenner, cancer researcher and Deputy Director Clinical Institute for Pathology, Medical University of Vienna warns unborn children at greatest risk of plastic health impact
- Global campaigners call for immediate action on plastic’s health impact ahead of UN negotiations

TODAY a leading cancer scientist has warned plastic can help cancer become more aggressive in humans.

New research from Professor Lukas Kenner, cancer researcher and Deputy Director Clinical Institute for Pathology, Medical University of Vienna revealed that cancer cells spread at an accelerated rate after contact with microplastics in cancer cells.

While more testing is needed, Kenner believes that if plastics would play a key role in early-onset cancer genesis, the worst is to come as plastic production and accumulation in the environment continues to increase.

University of Vienna researchers also found plastic particles were transferred between cells during division and remained present for a prolonged period of time.

Plastic Soup Foundation and Resilient Foundation, both charities campaigning for environmental protections based in The Netherlands, joined forces to make a short documentary about Prof. Kenner and his research findings.

Speaking with the campaigners, Kenner went on to describe how the continued breakdown of plastic in the environment has created an “avalanche of plastic coming towards us”.

He details how unborn children are at the greatest risk of being victims of plastic’s human health impact with microplastics being present in the placenta being transferred to embryos.

The Austrian researcher stated, “the findings scare me, and I hope it scares other people too”.

Globally, 500 million tonnes of plastic were produced in 2023, including synthetic fast fashion, with 16,000 known component chemical ingredients many of which are associated with endocrine disruption, decreased fertility and heart disease.

The gastrointestinal tract studied by the Austrian researchers serves as the primary entry point for daily exposure to micro- and nanoplastics.

Plastic particles, 0.25 μm in size, were found to increase the propensity for cell migration, and potential for pro-metastatic effects.
During cell division researchers observed no signs of elimination from the cells indicating the prolonged short-term exposure to 0.25 μm particles significantly amplified cell migration.

Observations underscored the potential of micro- and nanoplastics as hidden catalysts for tumour progression, particularly through enhancing cell migration and possibly fuelling metastasis.

The University of Vienna is now working to establish to what extent plastic particles promote the formation of tumours throughout the body.

The report comes ahead of the fourth round of negotiations for a UN Global Plastics Treaty in Ottawa, Canada (23–29).

The Plastic Health Council, a group of scientists and campaigners, co-founded by Plastic Soup Foundation and newly endorsed by the Resilient Foundation, are fighting to ensure that human health is a key focus of the negotiations and any future treaty.

The council argues that an impactful treaty led by science must reduce the production volumes of plastics, eradicate all but verifiably essential single-use plastic items, mandate proper testing of all chemicals in plastics, and call upon governments to protect generations to come.

Lukas Kenner, Cancer Researcher and Pathologist at the University of Vienna:

“The study’s findings are an indication that plastic not only resides in tumor cells but also accelerates the migration of these cells. This is being investigated further but the evidence we have already on plastic’s health impact is startling and requires the immediate attention of policymakers globally.

“This research scares me, and I hope it scares others too. Governments and businesses must fund research into the impact of plastic on human health and work to eradicate this dangerous pollutant from our daily lives.”

Maria Westerbos, Founder, Plastic Soup Foundation & Co-Founder, Plastic Health Council:

“There should be no doubt in the fact that plastic is killing us on the long term. We have seen study upon study demonstrating the stark reality that we must work towards a future free from toxic plastic with immediate effect.“

“The Global Plastics Treaty represents a milestone moment in the trajectory of the plastics crisis. But change will only happen if policymakers remove their heads from the sand and listen to the science.”

For more information visit www.plasticsoupfoundation.org, www.plastichealthcouncil.com, and https://resilient.foundation/