International Iberian Nanotechnology Laboratory
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Neuro-behavioural changes associated with diesel exhaust particles exposure

Recent research reveals neuro-behavioural changes associated with exposure to diesel exhaust particles.

In a ground-breaking study published in the **Environment International journal**, researchers from the International Iberian Nanotechnology Laboratory (INL) unveiled significant findings regarding the impact of diesel exhaust particles on neurobehavioral functions. This research marks a crucial advancement in understanding the complex relationship between air pollution and neurological health.

While the association between air pollution and neurodegenerative diseases like Alzheimer's and Parkinson's is well-established, the precise mechanisms involved remain poorly understood. Diesel exhaust particles, known for their carcinogenic properties, pose considerable health risks, particularly concerning neurodegenerative conditions.

The Nanosafety research group at INL, in collaboration with 3B's associate laboratory and the University of Minho, used Caenorhabditis elegans (C. elegans) to study the effects of diesel exhaust particles on neurodegeneration.

Nivedita Chatterjee - the study's first author - states that "to establish these models we use C. elegans, which is a very small and transparent roundworm that has been extensively studied in the field of biology. The knowledge gained from these studies on C. elegans often has broader implications for understanding more complex organisms, including humans."

The research team's findings indicate that exposure to diesel exhaust particles induces significant neurobehavioral alterations, shedding light on the potential mechanisms underlying neurodegenerative diseases.

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