

## ATTAGENE unveils a groundbreaking technology to screen for chemical hazards to humans and wildlife.

Research Triangle Park, NC. October 21, 2020.

<u>Attagene</u> Inc. has presented its innovative Ecotox FACTORIAL<sup>®</sup> platform. "This is the first to market technology that can evaluate chemicals' hazards for multiple species simultaneously," says Sergei Makarov, CEO of Attagene. "Our platform covers mammal1s, fishes, birds, amphibians, and reptiles."

Today, tens of thousands of human-made chemicals infiltrate our environment. Many chemicals that affect cellular nuclear receptors can disrupt the endocrine system, leading to reproductive dysfunction, diabetes, metabolic diseases, and cancer. Only a fraction of existing chemicals have been adequately tested for the adverse effects on humans. Even less is known about their influence on wildlife.

"Our Ecotox FACTORIAL is a cell-based reporter assay. It detects the endocrine and metabolic disrupting activities of chemicals," says Alexander Medvedev, R&D Director at Attagene. "The assay encompasses the estrogen, androgen, thyroid, and PPAR receptors of multiple species."

To enable the multi-species assessments, Attagene researchers invented a parallel detection approach. "What's important, we can profile chemicals' effects on multiple nuclear receptors of different species by a single assay," Medvedev says. "That harmonizes the cross-species assessments and ensures remarkable consistency of results."

To validate the new technology, Attagene researchers tested hundreds of chemicals. They also showed that the Ecotox FACTORIAL permitted efficacious biological evaluation of contaminated water sources. These studies were done in collaboration with the U.S. Environmental Protection Agency.

The Attagene technology permits to begin cost-effective, high-throughput screening of environmental chemicals and water samples for their hazardous potential to humans and wildlife.

Papers on the new technology and the validation studies are published in journals <u>Environmental</u> <u>Science and Technology</u> and <u>Toxicology In Vitro</u>.

## About the company:

Attagene Inc. is a life science company. It develops innovative solutions for the comprehensive biological evaluation of pharmaceuticals, environmental chemicals, and natural products. The company provides research services for the industry, academia, and regulatory agencies.

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