NicheVision Forensics Will Continue to Distribute STRmix in the Americas

Exclusive Distribution Rights Also Include DBLR, FaSTR DNA

WASHINGTON, DC, UNITED STATES, August 3, 2023 /EINPresswire.com/ -- STRmix Limited announced today that STRmix™ – sophisticated forensic software capable of resolving mixed DNA profiles previously regarded as too complex to interpret – will continue to be distributed in North, South, and Central America by Ohio-based NicheVision Forensics, LLC.

> “STRmix™ has proven to be very effective in producing usable, interpretable, and legally admissible DNA evidence in more than 380,000 criminal cases worldwide. ”
>
> *STRmix™ Co-Developer John Buckleton DSc, FRSNZ*

NicheVision will also continue to distribute two related software applications:

- DBLR™, an application which when used with STRmix™ allows forensic laboratories to undertake extensive kinship analysis, carry out rapid database searches, visualize the value of their DNA mixture evidence, and carry out mixture-to-mixture matches; and
- FaSTR™ DNA, expert forensic software which seamlessly integrates with STRmix™ (when in use) to rapidly analyze raw DNA data generated by genetic analyzers and standard profiling kits and assigns a number of contributors (NoC) estimate.

In combination with STRmix™, these applications complete the full workflow from analysis to interpretation and database matching.

Founded in 2007, NicheVision has had exclusive distribution rights to STRmix™ in the Americas since 2014. In that time, STRmix™ has become the preeminent software for deconvolution of forensic mixtures used in the U.S. and Canada, with significant adoption elsewhere.

“NicheVision is very proud of its role in supporting the uptake of innovative DNA analysis software by forensic laboratories and of our continued relationship with the STRmix team,” says Luigi Armogida, President and CEO of NicheVision.

According to Vic Meles, Vice President of NicheVision, 80 federal, state, and local agencies in the U.S – including forensic laboratories operated by the FBI and the Federal Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) – are now using STRmix™. It is also being used by numerous agencies and universities in Canada.

Beyond North America, STRmix™ is in use in forensic laboratories in the United Kingdom, Europe, Asia, the Middle East, and the Caribbean, as well as all nine state and territory forensic labs in New Zealand and Australia.

Dr. John Buckleton DSc, FRSNZ, Principal Scientist at the New Zealand Institute of Environmental Science and Research (ESR) and one of the developers of STRmix™, credits the software's widespread popularity to its success in resolving low-level, degraded, or mixed DNA samples from multiple contributors.

According to Dr. Buckleton, "STRmix™ has proven to be very effective in producing usable, interpretable, and legally admissible DNA evidence in more than 380,000 criminal cases worldwide. It is particularly effective in resolving violent crime and sexual assault cases, as well as cold cases in which evidence originally dismissed as inconclusive was able to be reexamined."

Unlike previous methods of DNA analysis, which depended on the application of fixed stochastic thresholds and other biological parameters to manually analyze DNA samples, STRmix™ assesses how closely a multitude of potential DNA profiles resemble or can explain an observed DNA mixture.

Relying on proven methodologies routinely used in computational biology, physics, engineering, and weather prediction, STRmix™ calculates the probability of observed DNA evidence by assuming the DNA originated from either a person of interest or an unknown donor. These two probabilities are then presented as a likelihood ratio (LR), which infers the value of the findings and the level of support for one proposition over the other.

The latest version of STRmix™ was released in December 2022. STRmix™ v2.10 contains several new features, including the introduction of a Visualize Weights module to help analysts investigate DNA interpretation results and additional improvements to dropout modelling which will allow forensic labs using FaSTR™ DNA to set a low, or even no, analytical threshold.

New versions of both DBLR™ and FaSTR™ DNA were also recently launched. DBLR™ v1.3 enables forensic labs to apply Population Stratification and utilize sequence-based data (including mixture deconvolutions) in the Kinship, Search Database, and Explore Deconvolution modules; use the novel batching tool within the Kinship module to apply calculations to many samples in one go; and leverage probabilistic links within the Kinship module to probabilistically condition on the presence of a sample donor. FaSTR™ DNA v1.1.1, meanwhile, features the ability to analyze .promega files for 8-color multiplexes from the new Spectrum CE System developed by Promega Corporation.

For more information, visit http://www.strmix.com

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