Aimedis establishes a collaboration with PREPAiRE

DUBAI, UNITED ARAB EMIRATES, June 19, 2023 /EINPresswire.com/ -- Prepaire Labs, an innovator in AI-driven drug discovery, is proud to announce a collaboration with Aimedis, a leader in digital healthcare. The new collaboration is leveraging advanced machine learning techniques to innovate in the field of drug discovery and personalized medicine.

Here's a simplified summary of what they are doing:
Advanced Algorithm Use: The company is using Convolutional Deep Neural Networks (CNN) and Generative Adversarial Networks (GANs), both of which are complex machine learning models. CNNs are primarily used in pattern recognition within images, while GANs can generate new data that resembles the input data.

Chemical and Biological Modeling: With these algorithms, PREPAiRE is creating models that can identify the interactions between proteins and other substances (ligands), generate molecular structures with desired properties, and prepare synthetic data for drug discovery and personalized treatment. These models could potentially streamline the process of finding viable drug candidates.

Precision Medicine: The company is also working on integrating whole-genome sequencing with deep phenotyping to create a comprehensive view of a patient's disease profile. This could enable more precise and effective treatment plans.

CRISPR and IPS Technologies: The utilization of advanced technologies such as CRISPR (a gene-editing tool) and IPS (induced pluripotent stem cells, which are a type of cell that can be guided to become any type of cell in the body) can establish new approaches for disease treatment and prevention.

Platform Integration: PREPAiRE's platform aims to combine prediction done in silico (performed on computer or via computer simulation) with high-throughput wet-lab validation, which means testing these predictions in a lab environment. This iterative cycle of prediction and validation allows for continuous improvements and increases in efficiency, accuracy, and reliability.

In essence, PREPAiRE is pushing the boundaries of personalized medicine by combining advanced technologies and machine learning techniques to predict and validate effective treatments at an individual level. This could potentially revolutionize the drug discovery process

and the way we approach disease treatment and prevention.

What does the collaboration look like?
The first part of the collaboration combines an Avalon representation of Prepaire to visualize on different services and procedures down to a genetic level. The information from population scale data, cell based disease models and predicitve insights will be a first part in the usage of the Aimedis NFT data marketplace to start mainstreaming on that type of information. Prepaire will also enable Avalon users to get genetic information by sending in a blood sample that is being used to extract specific genetic information that then can be combined with the digital twin inside the Aimedis platform.

In combination of health data, socio economic data, IoT and pharmaceutical data and the genetic information, AI is being used to further predict the likelyhood of future disease to help prolong life and health for decades to come.

About Aimedis:
Aimedis is an innovative blockchain-based healthcare ecosystem, designed to revolutionize the medical industry by optimizing patient care and streamlining data management. Through its secure, decentralized platform, Aimedis empowers patients to manage their medical records, engage with healthcare professionals, and access telemedicine services. Aimedis DataXChange, an integral component of the ecosystem, facilitates seamless data sharing among healthcare providers while ensuring compliance with privacy regulations. This feature fosters collaboration, research, and innovation in healthcare, ultimately improving patient outcomes. Aimedis Avalon, another key element, is a groundbreaking mixed reality (MR) environment that enhances patient experiences by enabling immersive therapy, remote consultations, and virtual healthcare support and brings the healthcare economy to Web3. By integrating these cutting-edge technologies, Aimedis aims to transform the healthcare landscape, promote data-driven decisions, and elevate the standard of care for patients worldwide.

About Prepaire Labs:
Prepaire Labs is a pioneering healthcare technology company focused on revolutionizing drug discovery and precision medicine. Through the integration of deep learning and biology, Prepaire Labs develops predictive models, innovative technologies, and data-driven solutions to drive advancements in healthcare and improve patient outcomes.

By leveraging population-scale data, Prepaire Labs constructs predictive models grounded in human genetic, phenotypic, and clinical data. These models provide insights into the underlying architecture and biology of diseases, facilitating the development of more accurate predictive models. Additionally, Prepaire Labs utilizes patient-derived induced pluripotent stem cells (iPSCs), genome editing, high-content cellular phenotyping, and machine learning to create in vitro disease models that optimize genetics, cell-type, environment, and multidimensional data collection for increased predictability of human clinical outcomes.

Prepaire Labs' innovative approach holds the potential to revolutionize the field of drug discovery, enabling the development of new medicines and improving patient outcomes.

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