



Genomenon's Machine Learning Algorithm Identifies Key Biomarkers for Rare Genetic Disorders of Obesity

Genomenon Partners with Rhythm Pharmaceuticals to Identify Genomic Mutations Associated with Monogenic Forms of Obesity in the Scientific Literature

ANN ARBOR, MICHIGAN - April 24, 2018 - Genomenon, the leading genomic data search company, today announced a partnership with Rhythm Pharmaceuticals (NASDAQ: RYTM), a biopharmaceutical company aimed at developing and commercializing therapies for the treatment of rare genetic disorders of obesity, to create a database of genetic mutations associated with obesity as documented in the medical literature.

Through the partnership, Genomenon deployed the Mastermind Genomic Search Engine to develop a database of genes and variants associated with obesity, including a list of clinically relevant citations for every disease-variant association found in the medical literature. This evidence-based view of the genetic factors contributing to obesity will be used by Rhythm to inform their understanding of rare genetic disorders of obesity.

Mastermind is the world's first genomic search engine that connects genomic data with evidence from the scientific literature. Using Genomic Language Processing (GLP) and automated machine learning techniques, Genomenon's bioinformaticians were able to mine documented disease-mutation associations from millions of scientific articles. Genomenon's team of scientists reviewed the data for final approval.

The biomarker database of over 10,000 mutations in 120 genes associated with obesity was developed in less than 60 days, including scientific evidence complete with literature citations for each mutation. The machine learning driven process replaced approximately one person-year of manual research of the scientific literature to find obesity-related mutations.

"We are combining computational variant analysis and population studies with the published scientific evidence identified and collated by Genomenon to create a knowledgebase on the molecular genetics related to obesity," said Lex Van der Ploeg, Chief Scientific Officer of Rhythm. "The evidence provided by Genomenon's advanced machine learning tools and genomic search database may help identify patients who might be appropriate for treatment with therapies specifically targeted towards genetic pathways that contribute to obesity."

"This is an exciting demonstration on how genomic language processing and machine learning can drive important advances in drug development," said Mike Klein, CEO of Genomenon. "We're thrilled to be working with Rhythm Pharmaceuticals and look forward to our ongoing work together."

About Genomenon

Genomenon connects patient genomic data with evidence from the scientific literature to diagnose and deliver better patient outcomes. Our web-based Mastermind Genomic Search Engine has indexed the scientific evidence from millions of medical articles, cataloguing the genetic relationships between DNA and human diseases, including cancer. For more information, visit www.genomenon.com.

Genomenon's biomarker selection algorithms use machine learning on the data from its Mastermind Genomic Database to find relevant gene- and variant-specific therapeutic, prognostic, and diagnostic information from the scientific literature. This data empowers customers to make fully informed, evidence-based decisions on molecular genetics related to specific diseases of interest.

Press Contact

Jessica Francis 440.840.4987 or email jessicafrancisPR@gmail.com