Children's Cancer Therapy Development Institute collaborates globally with Atomwise using newly published AI technology

HILLSBORO, OREGON, UNITED STATES, April 2, 2024 /EINPresswire.com/ -- The Children's Cancer Therapy Development Institute (cc-TDI), proudly announces a global Artificial Intelligence (AI) collaboration with Atomwise, resulting in a new publication in the journal Scientific Reports.

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> *Scientific Director, Charles Keller MD*

The paper, "AI is a viable alternative to high throughput screening: a 318□target study" comes from the AI computation drug design company, Atomwise (https://www.atomwise.com/) in San Francisco, CA, USA. cc-TDI was among 282 Institutions across the world to work with Atomwise to use the AtomNet artificial intelligence model, which is a graph convolution network architecture, to predict compounds that dock to a given disease-related protein. cc-TDI previously published results of their target in the British Journal of Cancer (https://www.nature.com/articles/s41416-023-02222-0) related to the adolescent and young adult cancer, Clear Cell Sarcoma.

cc-TDI's Scientific Director Charles Keller MD remarked, "the breadth of this collaboration across so many types of proteins (enzymes, nuclear receptors, transcription factors, DNA/RNA binding proteins, ion channels, transporters and GPCRs) and the observation that these computational-derived compounds bound and affected function of these proteins is remarkable". cc-TDI has done similar work with the IBM-created World Community Grid (https://www.worldcommunitygrid.org/research/scc1/researchers.s) and related pilot studies with Microsoft Azure HPC (https://techcommunity.microsoft.com/t5/azure-global/large-scale-docking-for-drug-design-on-azure/ba-p/4044613), lending confidence that the first stage of drug development can be rapid, inexpensive, and tractable for rare childhood cancers.

About cc-TDI: The Children's Cancer Therapy Development Institute (cc-TDI, www.cc-tdi.org), is a 501c3 non-profit biotech organization whose mission is to translate scientific discovery into clinical trials by understanding and proving new disease-specific treatment options for children with cancer. cc-TDI's research team of biologists and engineers work closely to identify targets on

cancer cells and provide evidence-based testing for the selection of new drugs to be used in childhood cancer phase I and phase II clinical trials.

Erika Ellis
Children's Cancer Therapy Development Institute
+1 503-985-6016
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