



KINEXUS

Kinexus Bioinformatics Launches Online Proteomics Database

*Over 1.5 million measurements of protein expression and phosphorylation now available at
New KiNET-Antibody Microarray website*

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VANCOUVER, British Columbia – Kinexus Bioinformatics Corporation, a world-leader in molecular intelligence research, announced a major expansion in its KiNET DataBank (<http://www.kinexus.ca/ourServices/kinet/kinet.html>) for the study of cell communication systems with the launch of the KiNET-Antibody Microarray (KiNET-AM) website. This open access, online resource for the scientific community features over 1.5 million measurements of the levels and phosphorylation status of over 400 distinct protein kinases and their targets in over 2000 tissue and cell specimens. All of the data was generated in-house at Kinexus with its proprietary Kinex™ antibody microarrays with biological samples provided over the last 5 years by over 600 academic and industrial laboratories from around the globe. KiNET-AM complements the KiNET-Immunoblotting (KiNET-IB) DataBase that was first launched in 2005. KiNET-IB contains over 200,000 measurements of protein phosphorylation and expression as determined with Kinexus' Kinetworks™ Multi-immunoblotting technology. Together, KiNET-AM and KiNET-IB provide the world's largest repository of semi-quantitative proteomics data with antibody probes.

The human genome encodes at least 516 protein kinases that regulate each other and ~22,500 other diverse proteins to coordinate all cellular operations in signaling networks. Kinases function by tagging target proteins at specific locations with phosphates (P-sites), a process known as phosphorylation. These P-sites serve as molecular on/off switches. Protein kinases are well recognized by the pharmaceutical and biotech industry as highly productive targets for drug development with application to over 400 human diseases. Cancer, diabetes, Alzheimer's disease are just a few of many examples of disorders that arise from cellular miscommunication.

KiNET DataBank is one of several open access initiatives from Kinexus to promote the advancement of biomedical research into cell signaling systems for disease biomarker identification and development of specific therapeutic drugs to enable personalized medicine delivery. Earlier this year, Kinexus also updated its PhosphoNET KnowledgeBase (www.phosphonet.ca) to feature data on over 93,000 experimentally-confirmed human P-sites and 560,000 additional predicted P-sites, including prediction of which kinases individually target each of these P-sites, and their evolutionary conservation in over 20 other diverse organisms.

“While all human cells carry the same genes, the production of proteins from these genes and the subsequent regulation of proteins by phosphorylation is markedly different and constantly changing in the various cell types found in the tissues and organs of the body” commented Dr. Steven Pelech, President and Chief Scientific Officer of Kinexus and a professor in the Department of Medicine at the University of British Columbia. “Monitoring the expression and phosphorylation of specific proteins is immensely more challenging than genomic analyses, but is essential for guiding biomedical researchers in more fruitful directions to define biomarkers for disease diagnosis and kinase drug targets for development of new treatments.”

For 12 years, Kinexus has been a unique provider of proteomics services to academic and industrial laboratories to track protein kinases and their phosphoprotein targets in experimental tissue and cell specimens. The company has developed a diverse panel of microarrays and complementary technologies that can monitor the presence and activity levels of hundreds of kinases and their targets, their interactions, and the effects of promising drug candidates. The application of this knowledge positions Kinexus and its clients for improved disease diagnosis and personalized drug therapies to improve human health.

**For further information, please contact Kinexus Bioinformatics Corporation
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