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PRESS RELEASE  
FOR IMMEDIATE RELEASE

## NÜVÜ CAMĒRAS ENHANCES RAPID NEURONAL IMAGING PLATFORM FOR DRUG EFFECTIVENESS ASSESSMENT

**Montreal, February 4<sup>th</sup> 2015** — Cutting edge EMCCD cameras manufacturer Nüvü Camēras offers state-of-the-art tools for pharmaceutical research and drug discovery. Integrated into the new **Institut universitaire en santé mentale de Québec** neuronal imaging platform, Nüvü™'s HNü camera supports real-time precision study of the central nervous system (CNS) dynamics. In turn, the system will help understanding and perfecting drugs targeting synaptic proteins linked to neurological ailments like Alzheimer's or Parkinson's diseases, as well as mental disorders.

Details about the device's features will be presented during the upcoming talk entitled "Hyperspectral imaging to monitor simultaneously multiple protein subtypes and live track their spatial dynamics: a new platform to screen drugs for CNS diseases" at Photonics West/BIOS 2015 in San Francisco Monday February 9<sup>th</sup>.

"The goal is to see the neurons' response as a whole, not just as one or two active proteins. The platform increases the amount of proteins we can observe simultaneously during synaptic transmission", explains Simon Labrecque, post-doctoral researcher at the Institute and platform user. "It allows us to examine the altered synaptic activity due to neurodegenerative diseases or drugs."

The neuronal imaging platform is a simple yet powerful system: an optical microscope focuses light into a Photon etc. hyperspectral imager. An HNü 512 EMCCD camera and a source lamp triggering fluorescence complete the setup. The finely tuned device collects the faint light emitted by quantum dot markers bound to five different synaptic proteins. As synapses activate, the system monitors their rapid dynamics by tracking the labeled proteins signals across the visible light spectrum.

Both the HNü speed and sensitivity enhance the platform performances. The camera's robust electronics supports fast frame acquisition, necessary to visualize synaptic proteins activity in real-time. Nüvü™'s patented camera controller, together with HNü's innovative packaging, produce negligible background noise, even at high EM gains, thus further increasing the neuronal imaging platform effectiveness.

"The easy-to-use HNü camera analyses everything that we need, from unique molecules to quantum dots signals, thanks to its sensitivity and low background noise", points out Mr. Labrecque.

The neuronal imaging platform is one of the many applications that benefit from Nüvü Camēras' leading EMCCD technology. The Montreal-based company translates advancements made in demanding space developments to answer the biomedical and pharmaceutical industry needs for high-precision instruments.

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