AxoSim Extends Leadership in Human Organoids for Neurological Drug Discovery with Acquisition of StemoniX microBrain™ Technology

AxoSim
Human Data, **Faster.**

AxoSim is a leader in the use of **human organoid models** to speed new drug R&D for neurological diseases such as MS, epilepsy, Parkinson's and Alzheimer's disease. Organoid models are composed of living human stem cells that are grown in the lab to accurately mimic human biology. They are especially important in neurology where major progressive diseases like Parkinson's and Alzheimer's can be devastating but lack curative therapies.

- AxoSim's StemoniX acquisition includes:
  - The microBrain™ drug discovery platform— now giving AxoSim **3 different platforms** that each address different aspects of new drug R&D.
  - A **14,000 square foot R&D and manufacturing facility** near Minneapolis, Minnesota.
  - Nine additional patents and associated intellectual property.
  - A team of veteran scientists who developed microBrain™ and are experts in its application.
- Drug development for neurological conditions has been held back by the complexity of the diseases and the fact that data from animal models is often not relevant to humans. It currently has the lowest probability of success and is among the slowest and most costly of any therapeutic area.
- Our human organoid models are designed **to deliver human data faster**, providing researchers with human data on candidates early in the R&D process rather than after long and costly clinical trials.
- By providing translational human information much earlier, we allow drug developers to focus their efforts on the most promising candidates, only advancing those that have shown signs of safety and efficacy in our organoid models—thereby increasing the speed, efficiency, and probabilities of success of the drug development process.
- AxoSim's three platform include:
  - **NerveSim®**- studies whole nerve conduction to support drug discovery for chronic pain, neurotoxicity, and peripheral neuropathy.
  - **BrainSim®**- includes key brain cell types to study myelination-related conditions such as multiple sclerosis.
  - **microBrain™**- charts brain electrical activity in epilepsy, Rett Syndrome, and Parkinson's disease.
- There are several factors that make this an especially promising time for the adoption of human biomimetic organoid platforms like AxoSim's:
  - The FDA Modernization Act authorizes the use of these technologies for FDA marketing approval.
  - There is growing regulatory support for the use of alternatives to animal testing, and human organoids are ideal for this application.
  - The increasing sophistication, analytic capabilities, and automation of biomimetic technology are driving greater use. AxoSim is committed to leadership in these areas.
  - The accelerating pace of adoption by major pharmaceutical firms is spurring others to innovate with these live biomimetic models.
- **AxoSim already counts 20 of the top 25 pharmaceutical firms in the world** as customers and expects this number to continue to increase.

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Gina Jackson
Director of Special Projects
gina.jackson@axosim.com