

Sangamo and Biogen enter global collaboration to develop gene regulation therapies for neurological diseases

Collaboration Overview



- Strategically partners Sangamo's Alzheimer's and Parkinson's programs with Biogen's world-class neuroscience expertise
- Biogen's access to Sangamo's gene regulation therapies complements its expanding efforts in gene therapy across diverse neurological diseases
- Zinc finger protein transcription factors (ZFP-TFs) are ideally suited to neurological disorders due to ability to up or down regulate gene expression, targeting disease pathology at its genesis
- Sangamo's balance sheet significantly strengthened by Biogen's investment

Scope and responsibilities



- Exclusive global rights to 3 neurological targets: tau (Alzheimer's), alpha-synuclein (Parkinson's), and one neuromuscular target
- Option for exclusive rights for up to 9 additional targets over 5 years
- Access to Sangamo's zinc finger protein technology (ZFP-TFs and ZFNs) and novel AAV serotypes
- Sangamo to lead early research; Biogen responsible for global development and commercialization
- Sangamo responsible for GMP manufacturing activities for use in initial clinical trial for first 3 products, leveraging in-house capacity and capabilities; Biogen responsible for subsequent GMP manufacturing activities

By the numbers

\$350M

Upfront payment of \$125M and \$225M purchase of ~24M Sangamo shares at \$9.21/share

\$2.37B

Milestone payments include \$925M for precommercial activities and \$1.445B at first commercial sale and sales threshold milestones

Royalties

High single to sub-teen double digits percent of net sales

"There are currently no approved disease modifying treatments for patients with many devastating neurodegenerative diseases such as Alzheimer's and Parkinson's, creating an urgency for the development of medicines that will not just address symptoms like the current standards of care, but slow or stop the progression of disease."

Sandy Macrae
Sangamo's Chief Executive Officer

"As a pioneer in neuroscience, Biogen will collaborate with Sangamo on a new gene regulation therapy approach, working at the DNA level, with the potential to treat challenging neurological diseases of global significance. We aim to develop and advance these programs forward to investigational new drug applications."

Alfred Sandrock Jr.
Biogen's EVP of Research and Development