

## **AST-OPC1**

AST-OPC1 is comprised of oligodendrocyte progenitor cells manufactured from our pluripotent embryonic stem cell platform. The AST-OPC1 stem cell lines were derived from an embryo that was originally meant for an in vitro fertilization procedure in the late 1990's. The embryo was no longer needed by the couple, however, and the embryo was going to be discarded. The couple consented to donate that embryo and the cell line was derived from it. Of note, this cell line was formally approved as "ethically derived" by both the Bush and Obama administrations. Importantly, Asterias has never used fetal tissue of any kind in any of its research programs. Asterias has banks of these embryonic stem cells, derived from this cell line, which the company can multiply to make cells as needed and, in turn, convert them into oligodendrocyte progenitor cells for use in clinical trial evaluation in patients. The cell line used by Asterias, which was originally derived in the 1990s, is sufficient to supply ALL of the AST-OPC1 needed for clinical trials and for potential commercialization of the product following regulatory approval. The clinical program is testing the utility of AST-OPC1 in spinal cord injury patients. A large body of preclinical studies has demonstrated the safety and efficacy of AST-OPC1 in models of thoracic (back) and cervical (neck) spinal cord injury. These potential indications are currently being evaluated through preclinical studies.