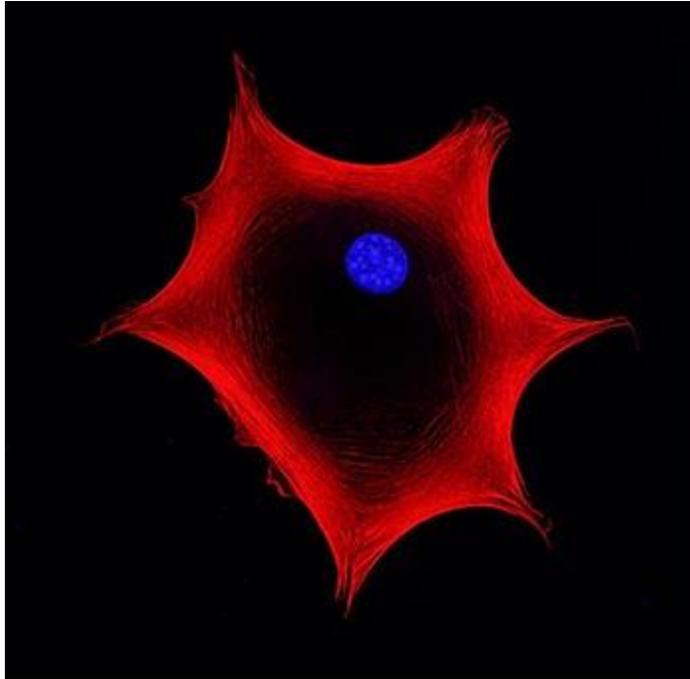


**Genetically engineered iPSCs offer improved efficiency and cost savings.**

**AMSBIO** has launched a range of *genetically engineered Induced Pluripotent Stem Cells (iPSCs)* developed to provide improved model fidelity over cell lines and biochemical assays used for drug discovery and cell therapy research.



**Image captions:** A: image of a quiescent pluripotent stem cell with cytoskeletal protein actin in red, nucleus in blue.

#### **These iPSC cell lines**

offer improved efficiency and cost savings compared to animal models, enhancing high-throughput reporter lines, human disease models and toxicity screening. The new range includes iPSCs genetically engineered to express Cas9 either constitutively or upon doxycyclin induction (tet-on). These cells can be transfected or transduced with a cDNA encoding single-guide RNA(s) targeting specific gene(s) of interest to generate knockout, mutated, or knock in cells.

#### **Eliminating the expression of a cellular protein**

can provide valuable research insights. Using CRISPR/Cas9 technology, to selectively knockout target proteins can change cellular properties. AMSBIO's B2M Knockout iPS cell line offers the full functional capacity of iPSCs, but has extremely low immunogenicity, thereby providing a useful tool for allogeneic cell therapy research.

### **Engineered to express**

a conditional reporter gene, a new range of StemBright™ Reporter iPSCs have been introduced that will respond to the activation of a transcription factor within a cell signaling pathway of interest, or constitutively express luciferase or eGFP for cell tracking. In addition, AMSBIO offers iPSC custom services to accelerate your research by designing an engineered iPSC of interest, differentiating large numbers of cells or screening compounds on iPSC / differentiated cells.



**Image captions:** B: iPSC colonies

### **For further information**

on genetically engineered iPSCs please visit <https://www.amsbio.com/cell-gene-therapy/genetically-engineered-ipscs/> or contact AMSBIO on +31-72-8080244 / +44-1235-828200 / +1-617-945-5033 / [info@amsbio.com](mailto:info@amsbio.com).

### **AMS Biotechnology (AMSBIO)**

Founded in 1987, AMS Biotechnology (AMSBIO) is recognized today as a leading transatlantic company contributing to the acceleration of discovery through the provision of cutting-edge life science technology, products, and services for R&D in the medical, nutrition, cosmetics, and energy industries. AMSBIO has in-depth expertise in extracellular matrices to provide elegant solutions for studying cell motility, migration, invasion, and proliferation. This expertise in cell culture and the ECM allows AMSBIO to partner with clients in tailoring cell systems to enhance organoid and spheroid screening outcomes using a variety of 3D culture systems, including organ-on-a-chip microfluidics. For drug discovery research, AMSBIO offers assays, recombinant proteins, and cell lines. Drawing upon a huge and comprehensive biorepository, AMSBIO is widely recognized as a leading provider of high-quality tissue specimens (including custom procurement) from both human and animal tissues. The company provides unique clinical grade products for stem cells and cell therapy applications. This includes GMP cryopreservation technology, and high-quality solutions for viral delivery.



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