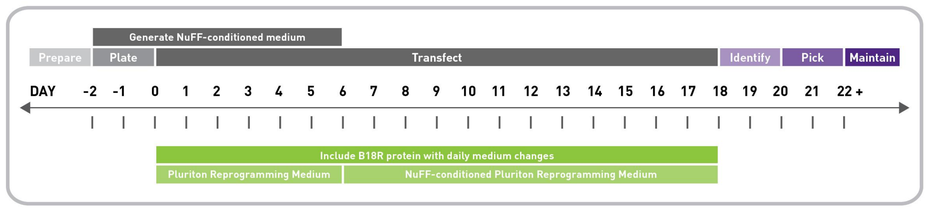
Introduction to mRNA Reprogramming

Lia Thornberry Kent
Stemgent, Cambridge, MA

mRNA REPROGRAMMING TECHNOLOGY

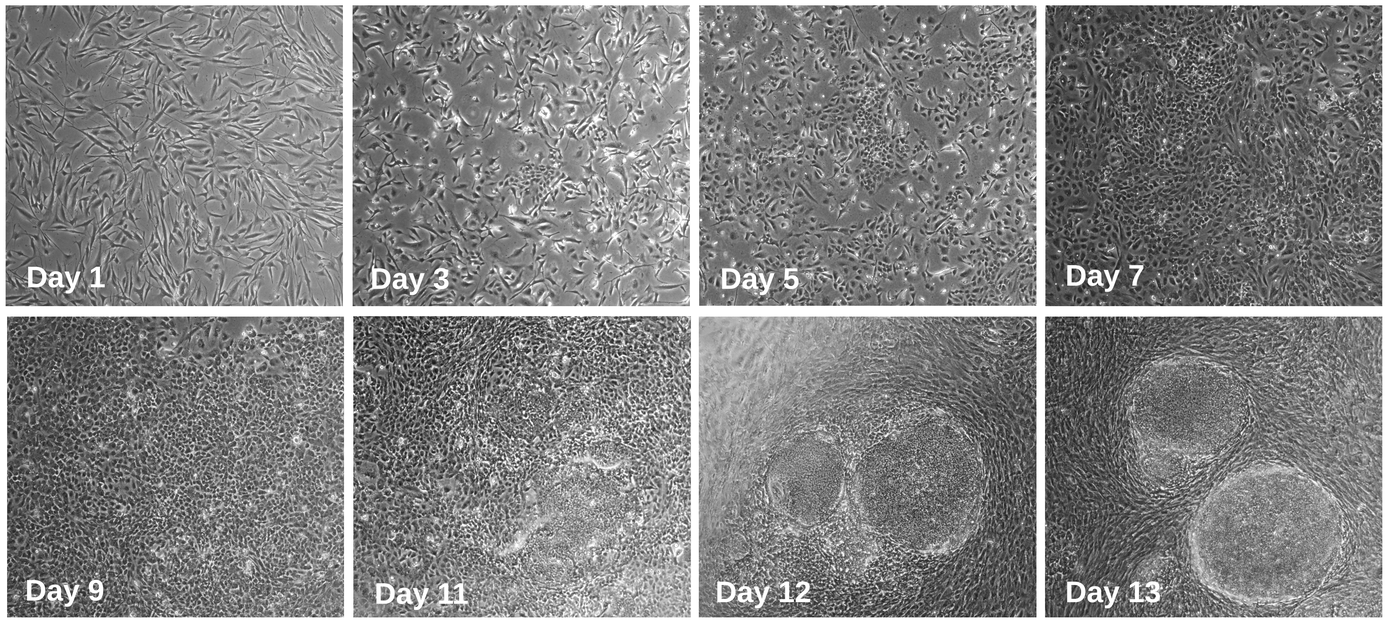
- No risk of insertional mutagenesis
- Non-viral application
- Fast reprogramming kinetics
- High reprogramming efficiency (>1%)
- No screening required to eliminate viral remnants

mRNA REPROGRAMMING TIMELINE



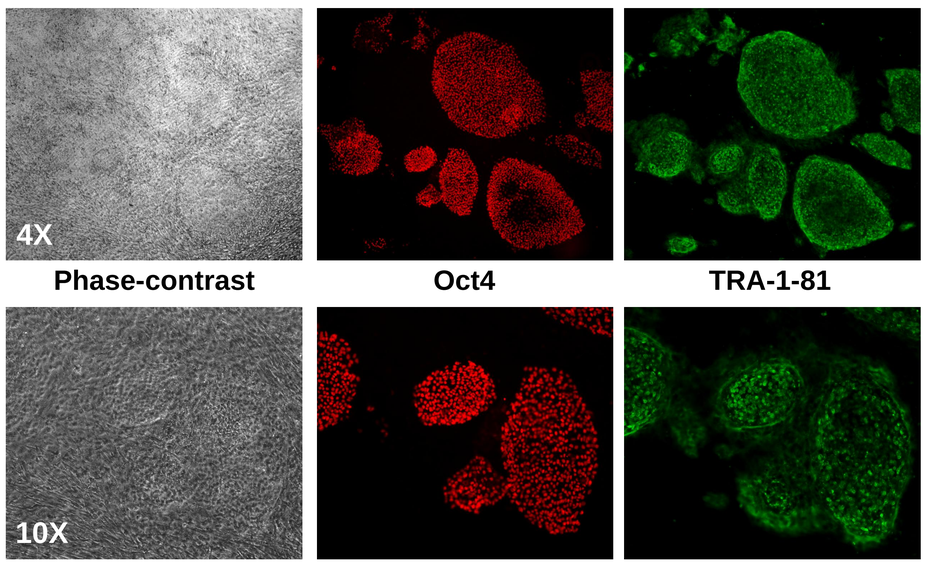
Although Stemgent recommends transfection for 18 days with your first experiment, colonies can begin to appear in as early as 12 days.

FAST REPROGRAMMING KINETICS



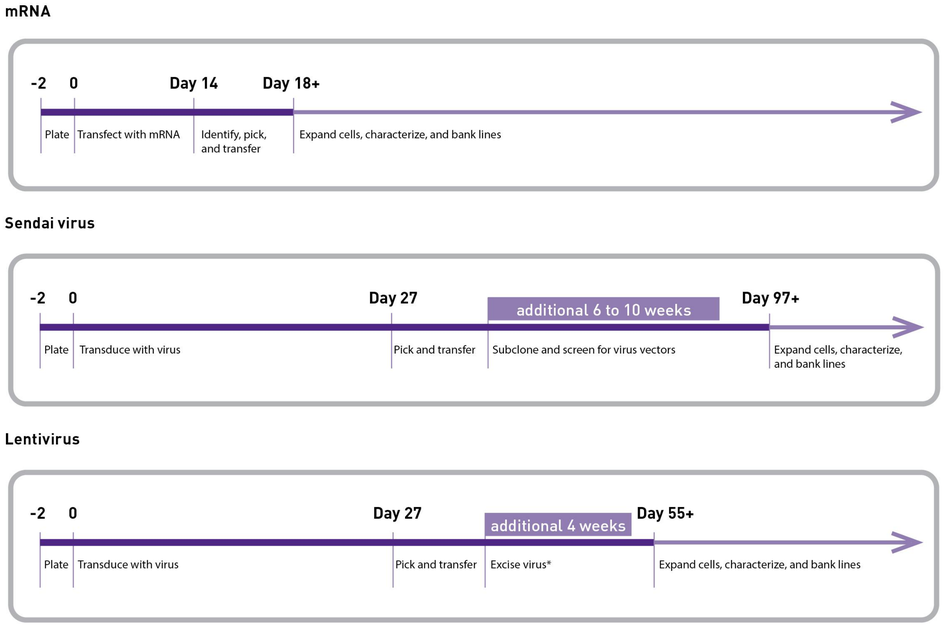
Phase contrast images highlighting key morphology changes observed when reprogramming adult dermal fibroblasts from a patient with Parkinson's disease using the Stemgent® mRNA Reprogramming System. Images taken at 4X magnification.

IDENTIFY iPS CELL COLONIES



Reprogrammed colonies may be difficult to see in phase-contrast views. Identification using pluripotency marker expression, including live-staining for cell surface markers, can make identification of new iPS cell colonies in the culture easy.

NO SCREENING REQUIRED



SAFE, EFFICIENT, NON-INTEGRAGING TECHNOLOGY