Figure 1

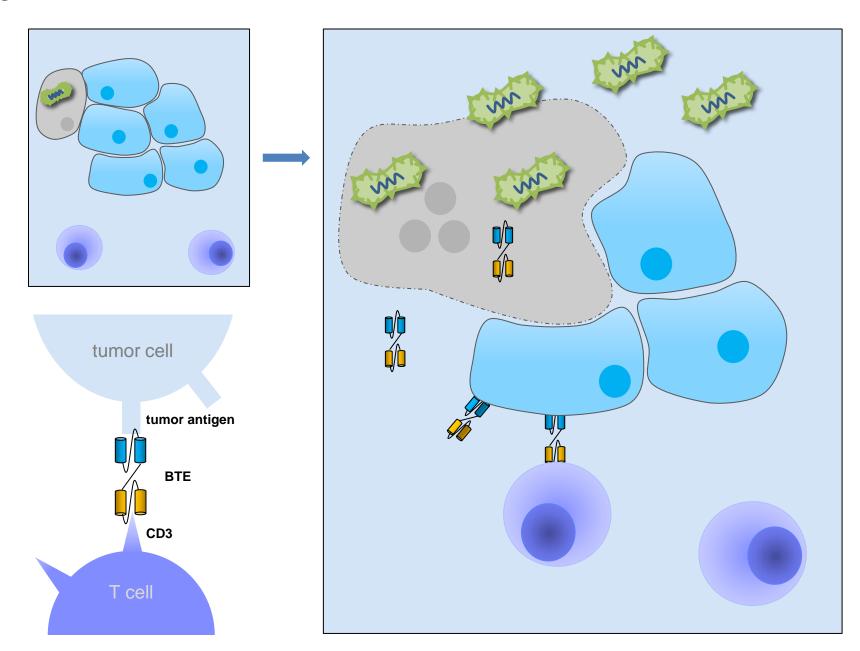


Figure 2

Transgene design and cloning Decide on genome

- Decide on genome position
- Introduce additional features (Kozak, tags, signal sequences; rule of six, codon optimization)

2. Rescue and propagation of recombinant virus

- · Transfect producer cells with cDNA
- Observe syncytia formation
- Harvest and propagate virus
- Evaluate viral titers

3. Analysis of virus properties

- · Assess replication kinetics
- Measure cytolytic activity
- · Compare to unmodified virus

4. Purification and validation of transgene product

- Isolate from infected cells
- Purify using specific tags
- Characterize biochemically
- Analyze functionality

5. Proof of concept in *in vivo* models

Results may require/inspire improvement or novel development of vectors

Figure 3

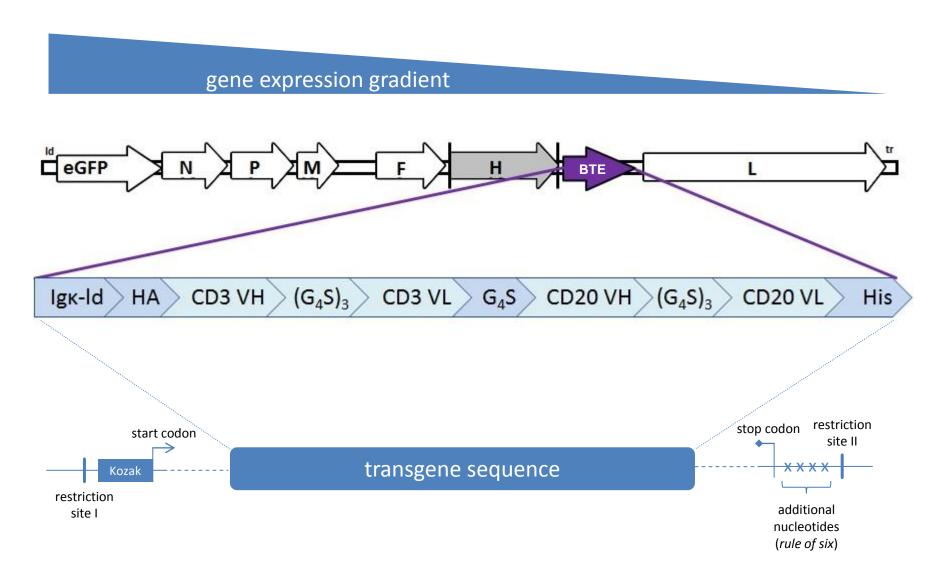


Figure 4

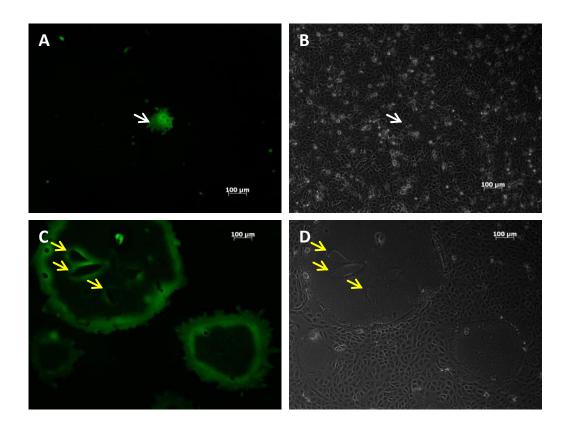
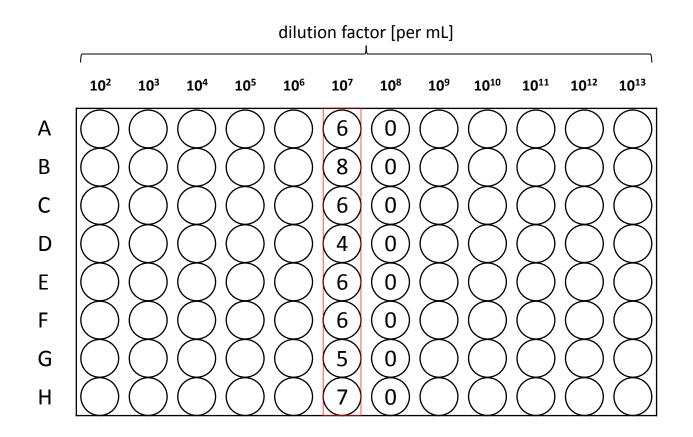


Figure 5



average number of syncytia =
$$\frac{6+8+6+4+6+6+5+7}{8} = 6$$

titer = average number of syncytia x dilution factor = 6 x 10⁷ ciu/mL

Figure 6

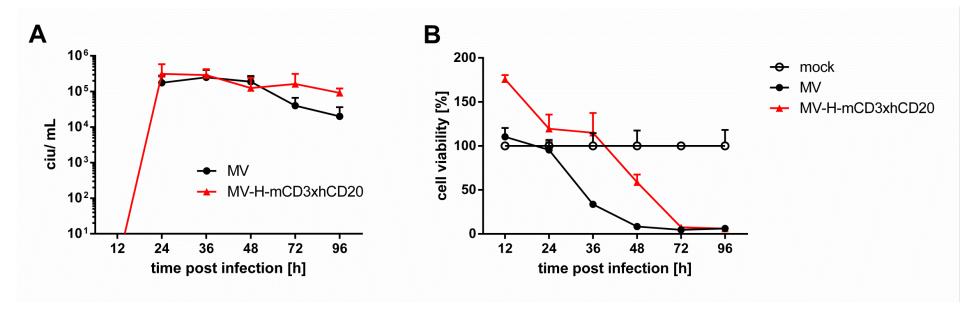
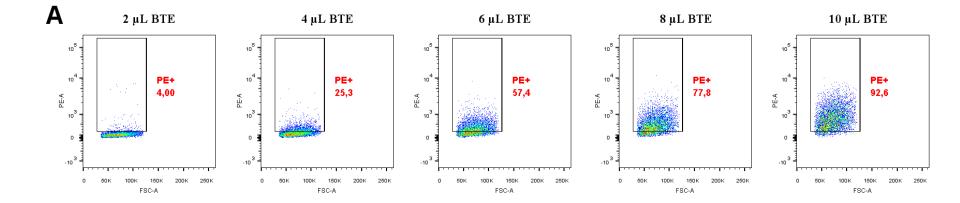


Figure 7



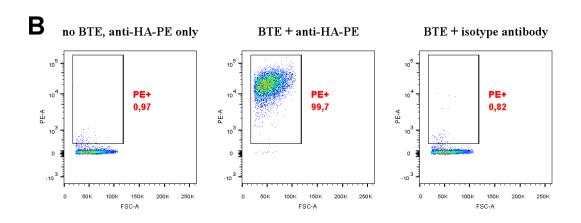


Figure 8

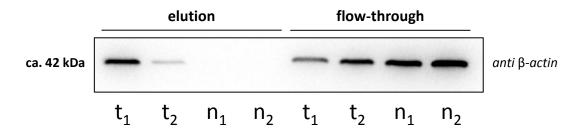


Figure 9

