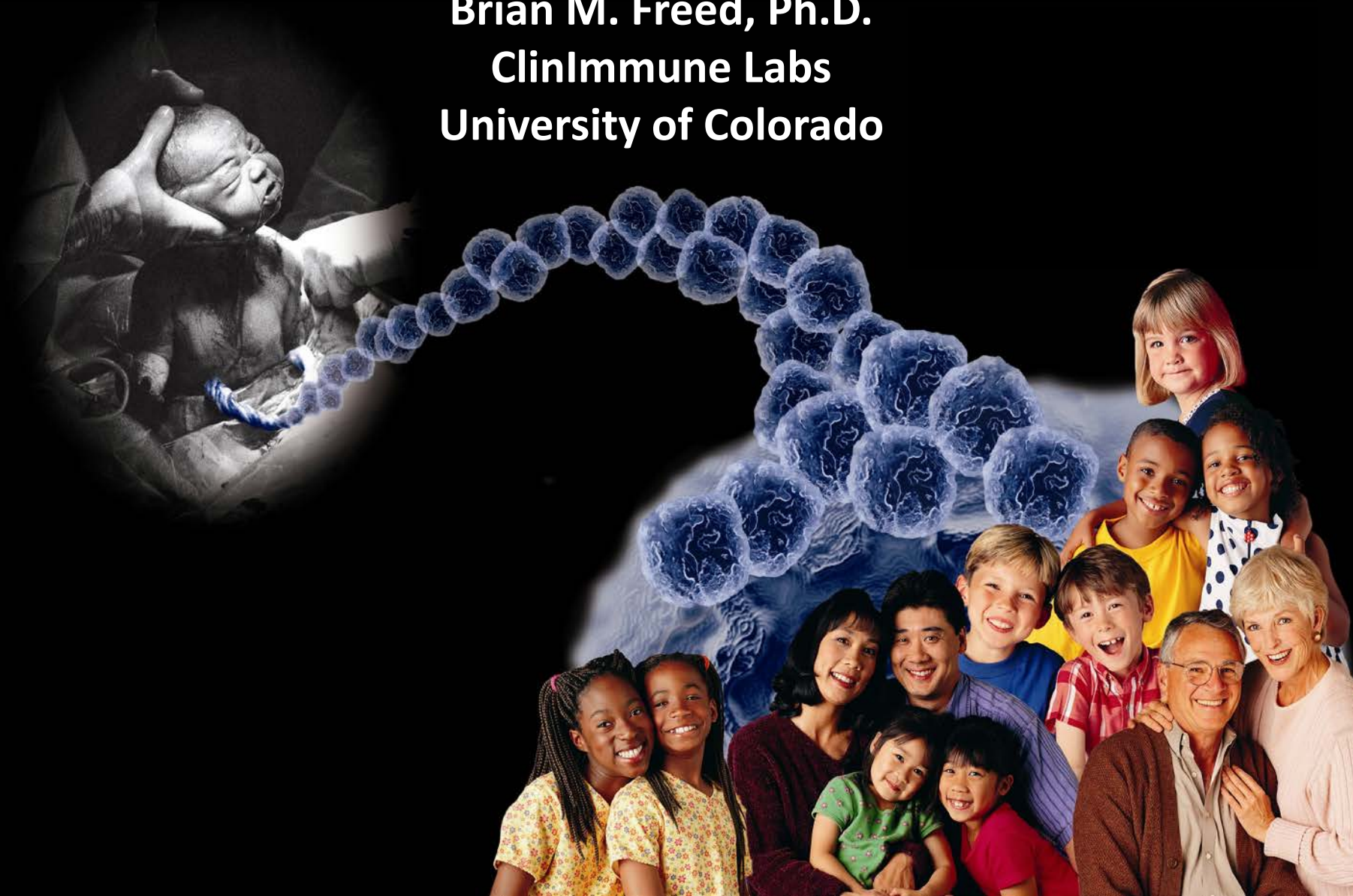
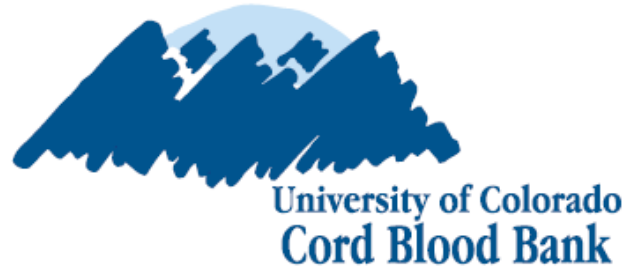


FDA Licensed Cord Blood Banking

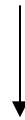
Brian M. Freed, Ph.D.
ClinImmune Labs
University of Colorado



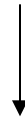


32,000 units collected
10,000 units banked
FDA Licensed in 2012

700 Cord Blood Transplants



140 Transplant Programs



25 Countries

Cord Blood is an FDA-Licensed Biological Drug

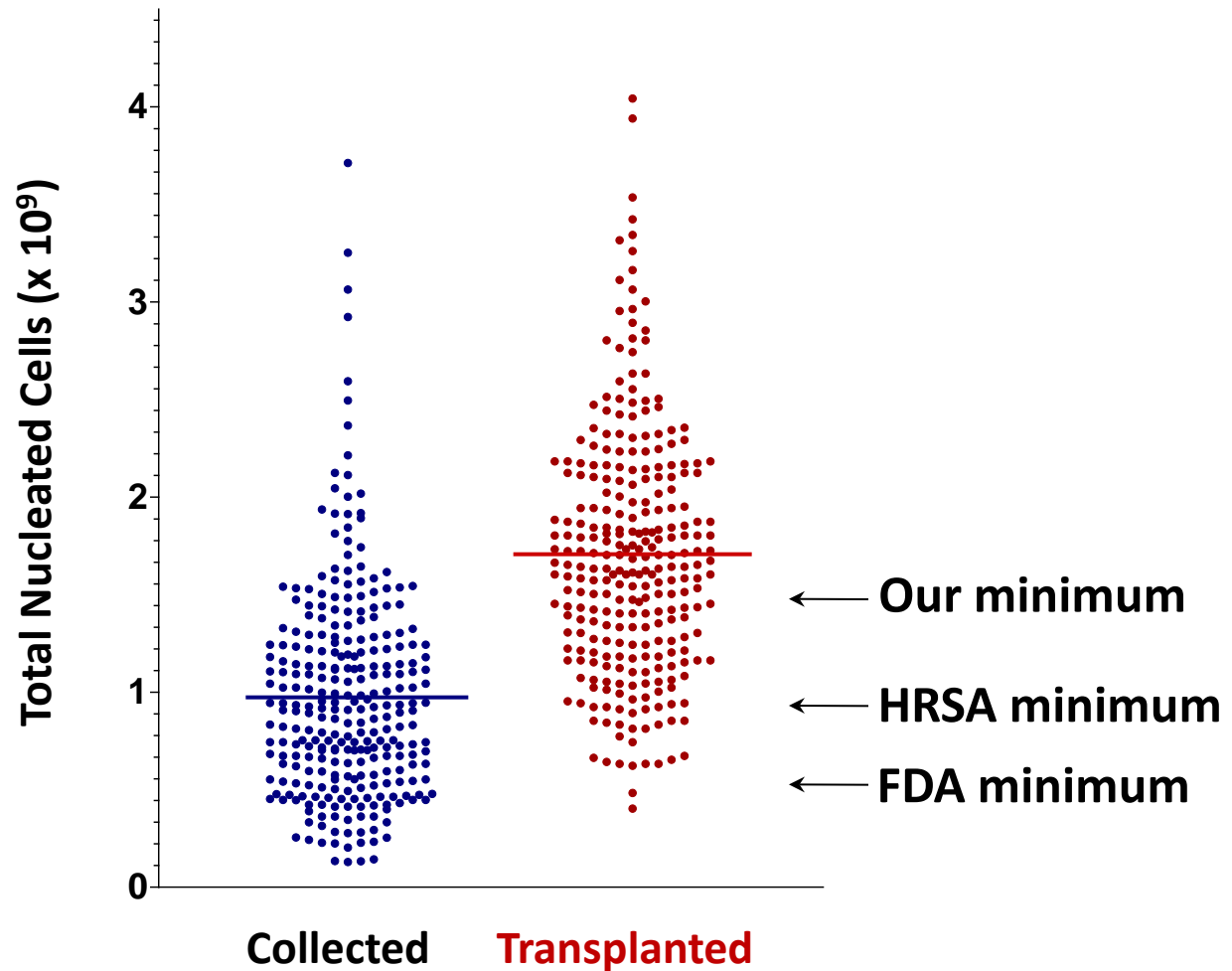


Processed individually in cGMP lab
Environmental Monitoring
'Batch' Record for Each Unit
\$827 per unit

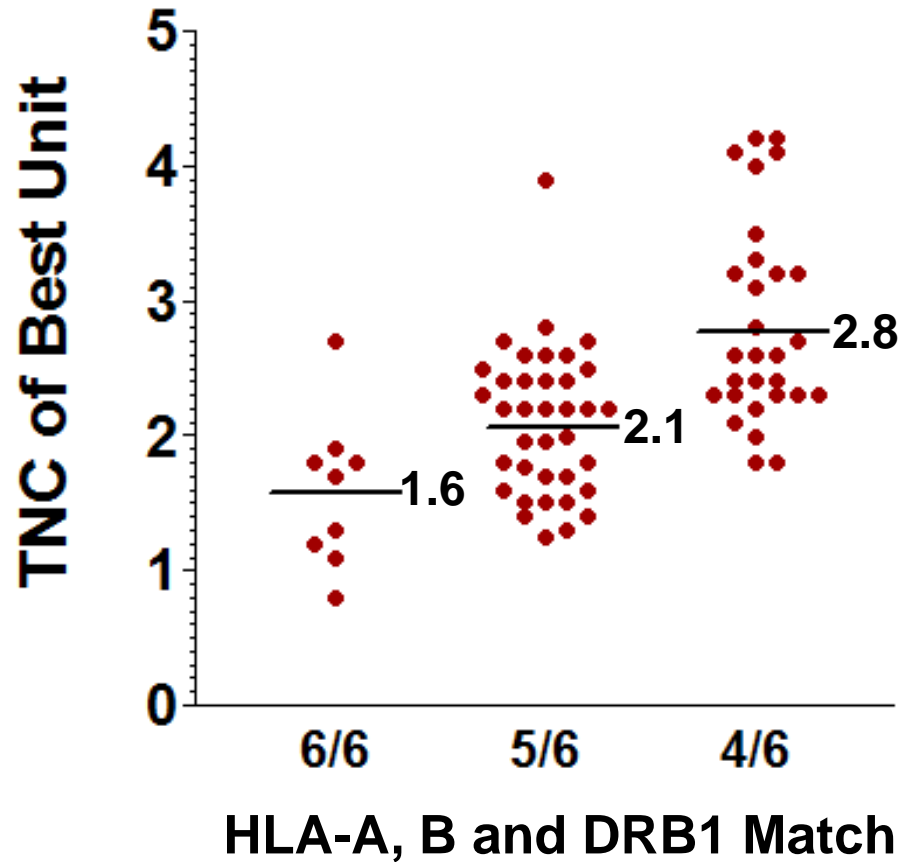
Facts about FDA-Licensed Cord Blood

- Cord blood banking requires a significant investment in cGMP facilities and protocols.
- Cord blood banking is labor-intensive. Each unit is considered a 'batch.'
- Cord blood banking requires significant informatics support.
- Cord blood banking requires *highly-trained* regulatory oversight.
- Licensure produces a significantly better product.
- Cost of licensure was \$900K plus \$200K/year to maintain.
- **90% of the banked cord blood is *never* used.**

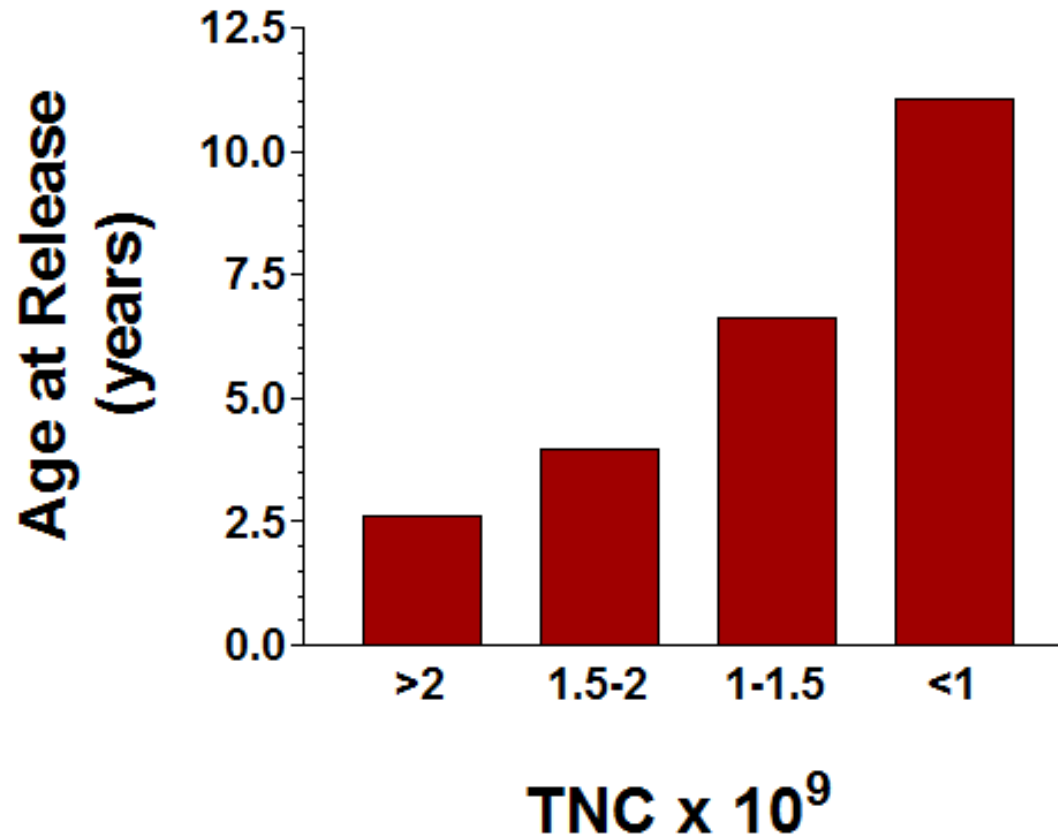
Cord Blood *Collected* vs. Cord Blood *Transplanted* 2005-2013



What Does the Typical Transplant Physician Find Today?



Small Cord Blood Units Remain in Inventory Much Longer



Effect of Raising the Cell Cutoff on Banking Rates

(n = 13,500)

