# Shedding Studies: Are We Ready for Harmonization?

Stephanie Simek, Ph.D.
Deputy Director
Office Cellular, Tissue & Gene Therapies
CBER/FDA

EMEA/ICH Workshop on Viral/Vector Shedding
October 30, 2007

# Questions That Need to be Addressed Before Harmonization Can Occur?

- Should shedding be evaluated for all vectors or based on potential risk?
- What animal models are appropriate?
- What patient monitoring should be performed?
- When and how long should monitoring be done?

# Are All Vectors Created Equal?

- Vector Properties/Risk Assessment
  - Should shedding studies be based on vector properties/public health risk or done for all vectors?
    - Replication competent vs. incompetent
    - Viral vs. non viral
  - How important is Route of Administration or Dose?
  - How much prior experience is enough?

# Pre-Clinical Studies - Are There Relevant Animal Models?

- Factors used to assess relevance
  - Does the vector replicate?
  - How fast is the vector cleared?
  - Is there an immune response?
  - Does the animal model mimic the clinical indication?
    - Oncolytic virus- tumor bearing model

# Shedding Studies: Clinical Monitoring

- What patient monitoring should be performed?
  - Should there be different monitoring based on vector class?
  - Is ROA important when determining samples analyzed?
    - IV,IT, SC.
  - Should horizontal transmission studies always be performed?
  - What patient samples should be analyzed?
    - Urine, sputum, feces, semen for all vectors?

# Shedding Studies: Clinical Monitoring

- What assays should be performed?
  - Is PCR enough, should infectivity be done?
  - Quantitative or qualitative assays
- When and how long should monitoring be done?
  - Time points
  - Should assays be performed until no vector is detected or based on x log decrease?