AAV-Specific Viral Vector Classification

**Containment Level 1**
- Non-mammalian genes, genes with no human/animal homologues
- Bacterial/Phage/Viral genes functioning as a recombinase
- Fluorescent or opsin proteins only
- Genes catalyzing luminescent reactions (e.g. luciferase)
- Reporter genes (e.g. HSV Tk)
- AAV expressing siRNA or shRNA that do not affect cell viability or proliferation
- Targeting nucleotide fragment (CRISPR-Cas9 AAVs) with no human/animal homologues*
- Preference to do injections at CL2

**Containment Level 2**
- Homologues of human genes or human genes (including DREADDs and genes fused to reporter genes)
  - Targeting nucleotides (CRISPR/Cas9 AAVs) with homology to human genes*
  - Injections must be done at CL2.
  - Animals must be housed at CL2 until shedding time is over, 7-10 day minimum, after which CL1 housing and handling is permitted.
  - If animals are needed sooner than 7-10 days post-injection must proceed at CL2, optional testing for shedding per UWO Viral Vector Policy may be performed.

**Containment Level 2+ or 3**
- Transgenes that are known or suspected oncogenes
- Transgenes that promote tumorigenesis, enhance cell survival, or proliferation
- Transgenes that are known anti-apoptotic genes
- Targeting nucleotides (CRISPR/Cas9 AAVs) that are homologous to suspected or known oncogenes, or genes that control/impact cell survival, proliferation/apoptosis*
  - Designation of CL2+ or CL3 depends on risk assessment by investigator and Biohazard Subcommittee
  - Mandatory testing for shedding per Viral Vector Policy

*The classification of AAVs employing CRISPR/Cas9 will be done by the risk assessment of the targeted nucleotide fragment.*