Vector Core

Overview

The objective of the UCLA Vector Core is to promote and facilitate basic and translational research by providing investigators with access to vector technologies that enable efficient gene transfer to mammalian cells in culture and in vivo. To this end, the Vector Core is currently:

- Serving as an educational and advisory resource for UCLA researchers who may have had limited experience with virus-derived gene transfer vector technologies, but who wish to utilize such technologies for efficient functional expression of genetic sequences of interest in mammalian cell culture and in animal models in vivo.
- Providing, at minimal cost, various pre-made retroviral, lentiviral, and adenoviral vector stocks expressing standard marker genes to utilize in preliminary experiments, as well as a library of available vectors expressing a variety of mammalian genes and corresponding inhibitory sequences.
- Designing and producing custom viral vectors that contain a specific transgene of interest (including wild type and mutant cDNAs with or without epitope tags, dominant-negative expression constructs, antisense mRNAs, siRNAs, etc.) for individual researchers. A bank of lentiviral vectors including transfer vectors, vectors expressing marking genes and customized vectors is available. The Vector Core assists investigators from academia, and private companies.

Services Available

- Lentiviral, retroviral and adenoviral vector construction
- Providing backbone vectors for cDNA expression
- Small-scale virus production for gene transfer into cell lines
- High-titer virus production for gene transfer into primary cells and in vivo
- Consultation for vector modalities, troubleshooting, and support documentation for grants

Location

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