TABLE 2:

Advantages of peptide-based delivery vehicles:

Conversely to phages, adenoviruses or other microorganisms dedicated to transport drugs, there is a total absence of infectious material.
Ability to reduce the sequence to the binding domain only, thus excluding risks of undesired effects due to side sequences.
Peptides can be modified accordingly with carbohydrates, lipids or phosphate groups to improve stability and/or binding affinity, modified with unnatural amino acids or cyclized to increase metabolic stability against proteases, or with various chemical reactive group to design a ready-to-click targeting molecule able to attach different type of chemical groups from drugs or from structures aimed to transport drug (liposomes, nanoparticles, microdevices…).
Well-established analytical techniques such as analytical chromatographies and mass spectrometry techniques are available to quickly and fully characterize the peptide batches.
Their production can be carried out easily on a large scale (see example of the anti-HIV T20 peptide).
Peptides can be stored freeze-dried, thus limiting the problems of long term storage, transport and distribution.