

**UE 3.3. Technological skills for conducting a research project in Biology and Health Science**

**3 ECTS**

**Teaching unit shared by the following tracks:**

- Cellular, Integrative and Translational Neurosciences
- Diabetes and cardiovascular diseases
- Fundamental and clinical oncology, towards precision medicine
- Immunity, Inflammation et Infection

**EC6 – Viral vectors and their applications**

Contact: [morvane.colin@univ-lille.fr](mailto:morvane.colin@univ-lille.fr)

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The goal of this module is (i) to present the most commonly used viral vectors (adenoviral, lentiviral vectors and vectors derived from adenoviruses: AAVs); and (ii) to understand the biology and define the characteristics of the viruses from which they originate in order to select a suitable vector.

Vectorology is a constantly evolving field which allows to develop gene vectors for therapeutics but also to investigate molecular and cellular mechanisms. Vectors are specific and therefore offer many opportunities depending on their properties. The emergence of new technologies such as genome editing (Cf EC5-Editing and modification of gene expression) requires a good understanding of gene transfer techniques.