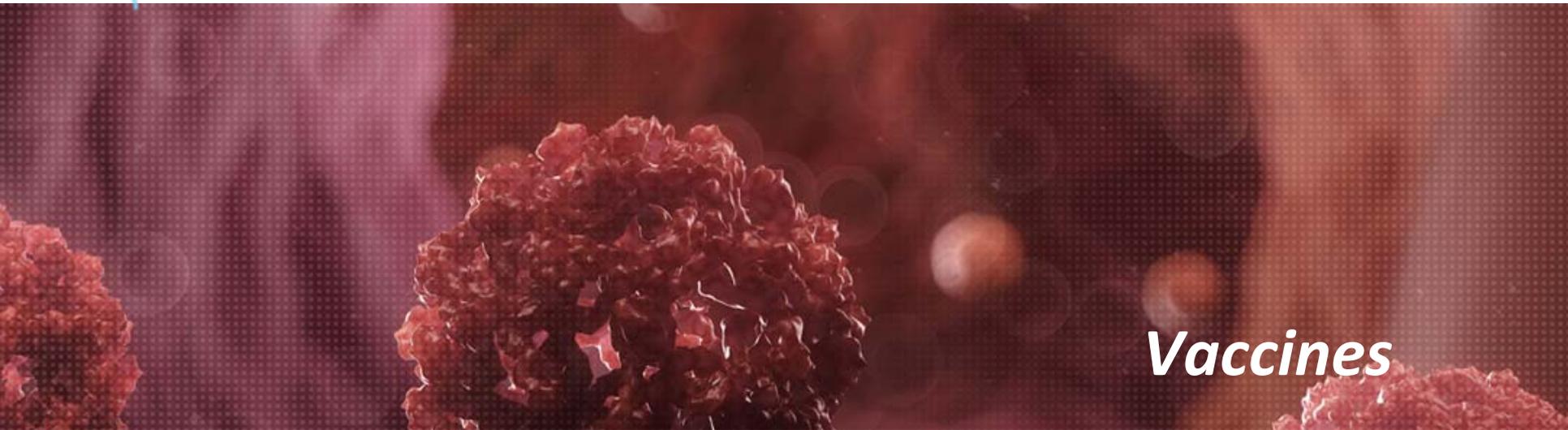


VICTORIE



Vaccines



COORDINATED BY
THE VIROSCIENCE LAB OF ErasmusMC



VECTORIE addresses the need for novel vaccination strategies, because an efficient approach to control outbreaks caused by WNV and CHIKV is vaccination of populations at risk. To this end VECTORIE includes rational development of novel mono- and bivalent (one vaccine that can protect against both WNV and CHIKV) vaccine candidates against WNV and CHIKV together with supporting studies on cross-protection of different WNV lineages and the development of standardised neutralisation and other immune response assays.

Tasks for vaccines

Determine the level of cross-immunity and cross-protection induced by a vaccine based on WNV-99 against the European strains of WNV

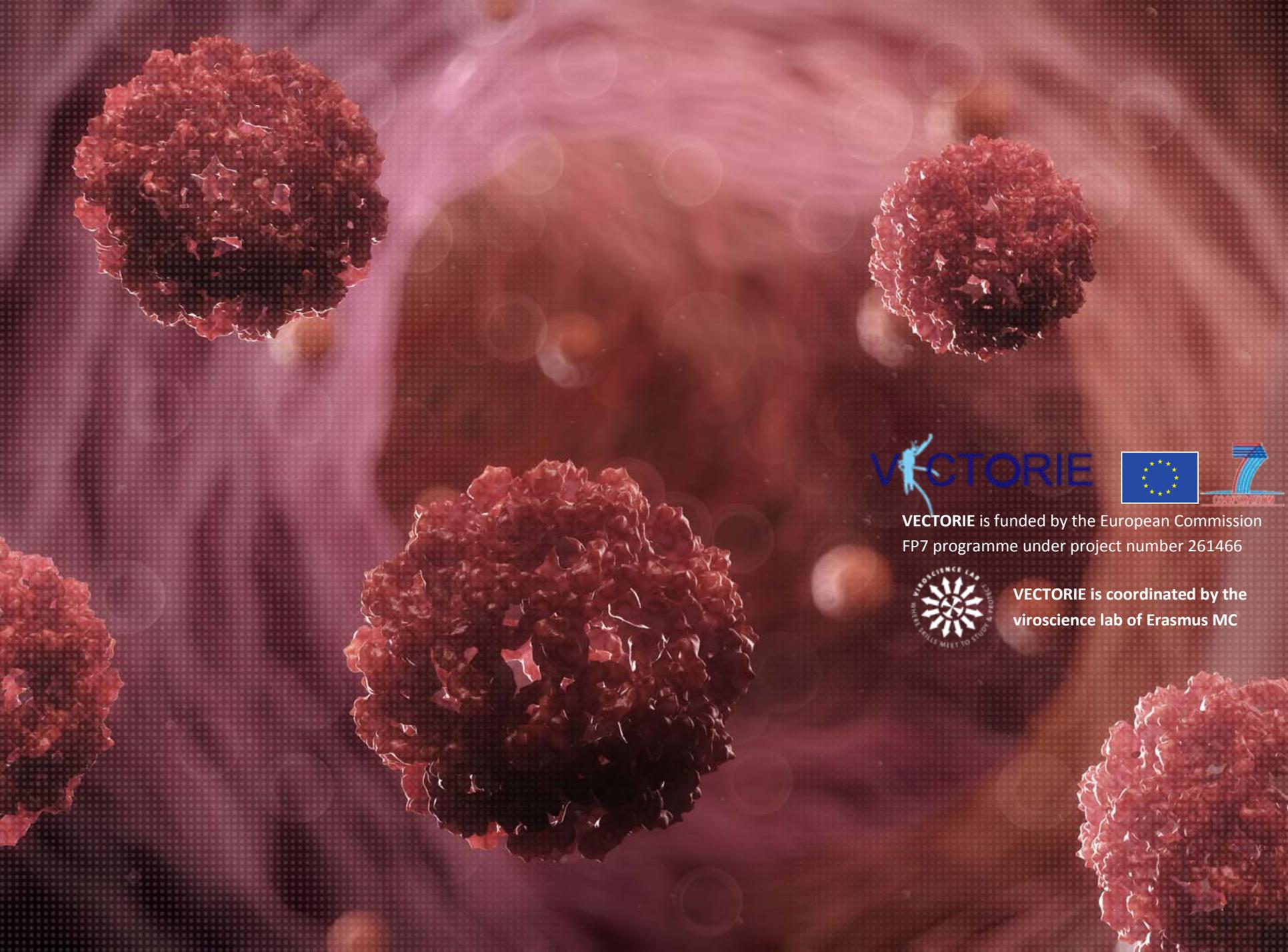
Understanding the levels of cross-protection between the different lineages will guide the choice of the antigen to be used in vaccines. The North American strain of WNV (WNV-NY99) has been extensively used by several groups (including partners within this consortium) as model antigen for candidate vaccines. Candidate vaccines based on WNV-NY99 will be applied worldwide. However, the suitability of a WNV-NY99 based vaccine for use in Europe needs to be assessed in cross-protection studies.

Standardization of read-out systems to measure for immunogenicity of WNV and CHIKV vaccines

There is a need for accurate comparison of results from vaccine trials by standardizing aspects of assays that measure cellular immune responses (ELIspot) and neutralizing antibodies. Allowing comparison of different vaccines is a critical step for the vaccine field to move forward. In VECTORIE, we will develop and/or standardize read-out systems to measure for immunogenicity of WNV and CHIKV vaccines.

Development and evaluation of several candidate vaccines against WNV and CHIKV

The availability of preventive vaccines against both WNV and CHIKV would put the EU in the unique position of having at hand efficient means to control an epidemic caused by either of these viruses as it emerges. VECTORIE brings together a platform of technologies provided by partners within the consortium. A vaccine that will confer protection against both viruses would be beneficial in certain geographical areas. The VECTORIE approach to vaccine development is unique in that it consists of either mono- or bi-valent (one vaccine that can protect against both WNV and CHIKV) vaccine candidates provided by the consortium partners. We will use well-defined antigens and methods to assess humoral and cellular immune responses to these vaccines as well as their safety. The antigens and methods have been carefully selected for their likelihood to provide the best possible information regarding our objectives and their relevance in Europe and worldwide.



VECTORIE



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