

Self-amplifying (sa) RNA For Long Term Restoration And Enhancement Of CFTR Function

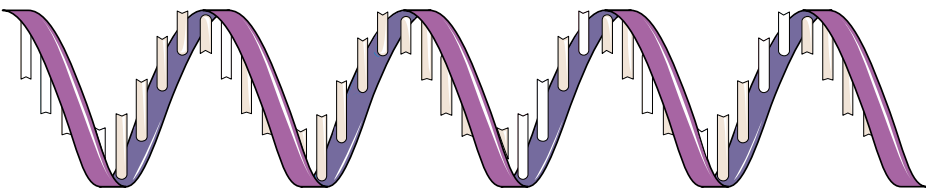
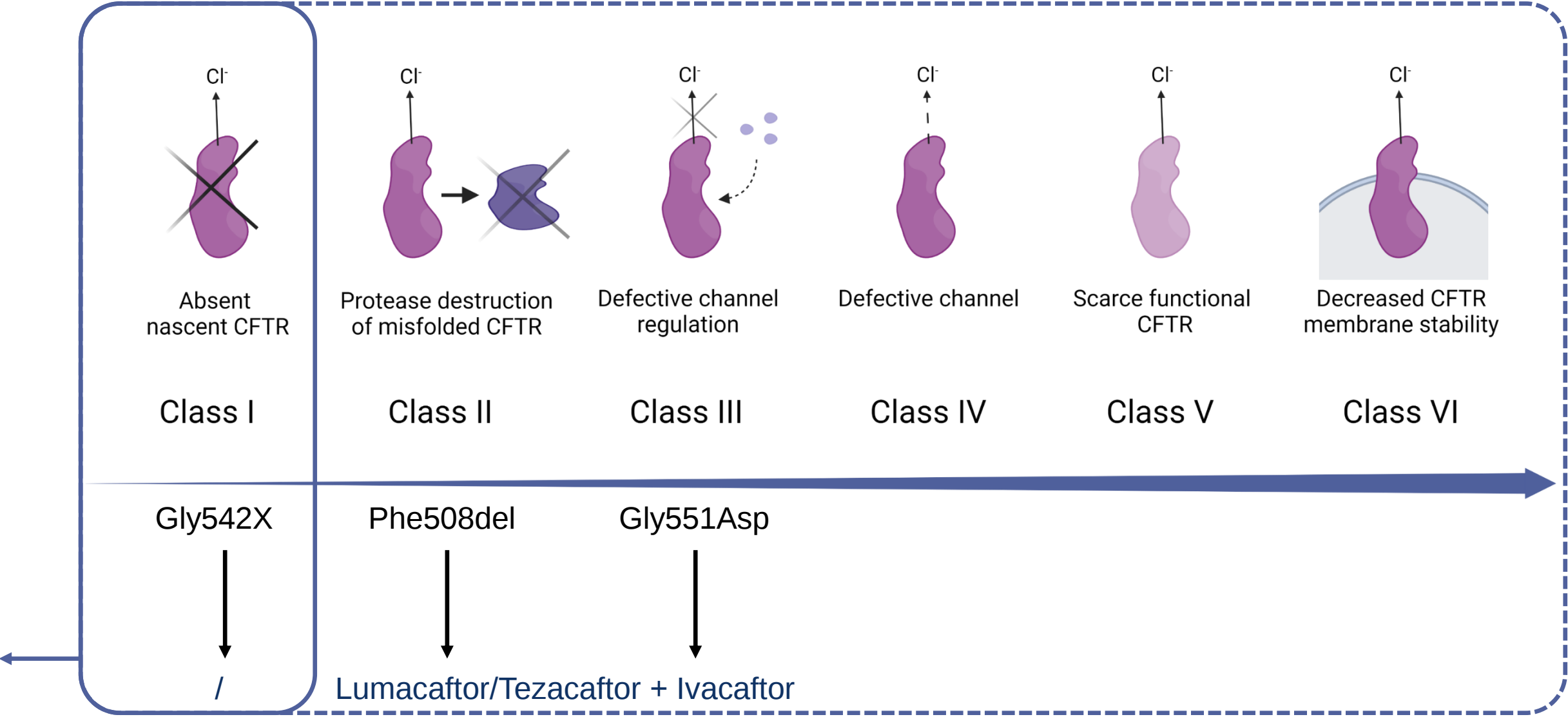
Nathalie François

FRANCOIS Nathalie¹, SAHU Itishri², Mc CAFFERTY Sean², PEDEMONTE Nicoletta³, HAQUE A.K.M. Ashiqu^{2,4}, SANDERS Niek^{1,4}

1. Laboratory of Gene Therapy, Department of Veterinary and Biosciences, Faculty of Veterinary Medicine, Ghent University

2. Ziphys Vaccines NV 3. U.O.C. Genetica Medica, Istituto Giannina Gaslini, Genova, Italy 4. These authors contributed equally to this work.

Cystic Fibrosis



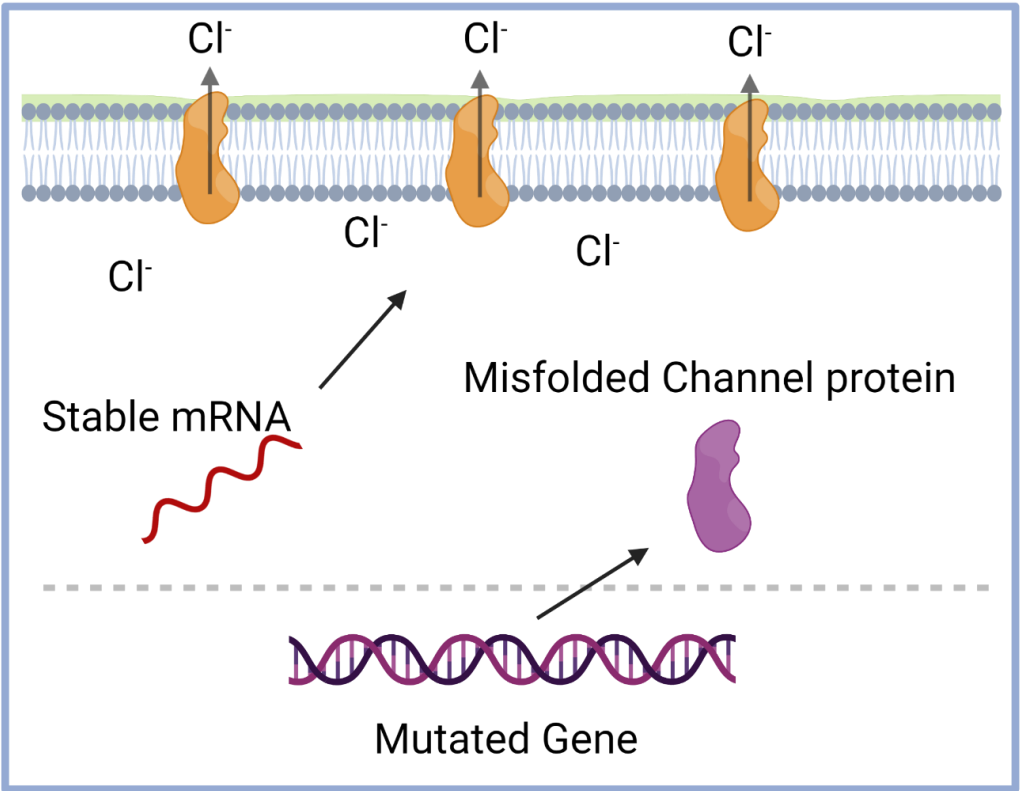
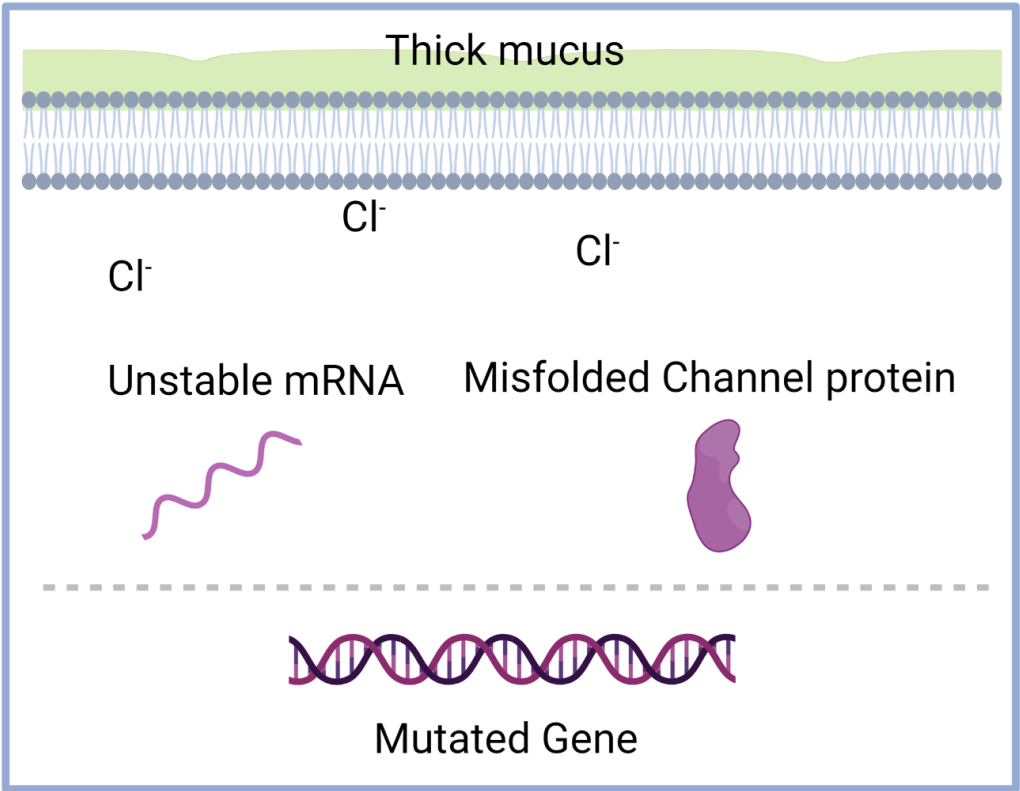
Self-amplifying RNA

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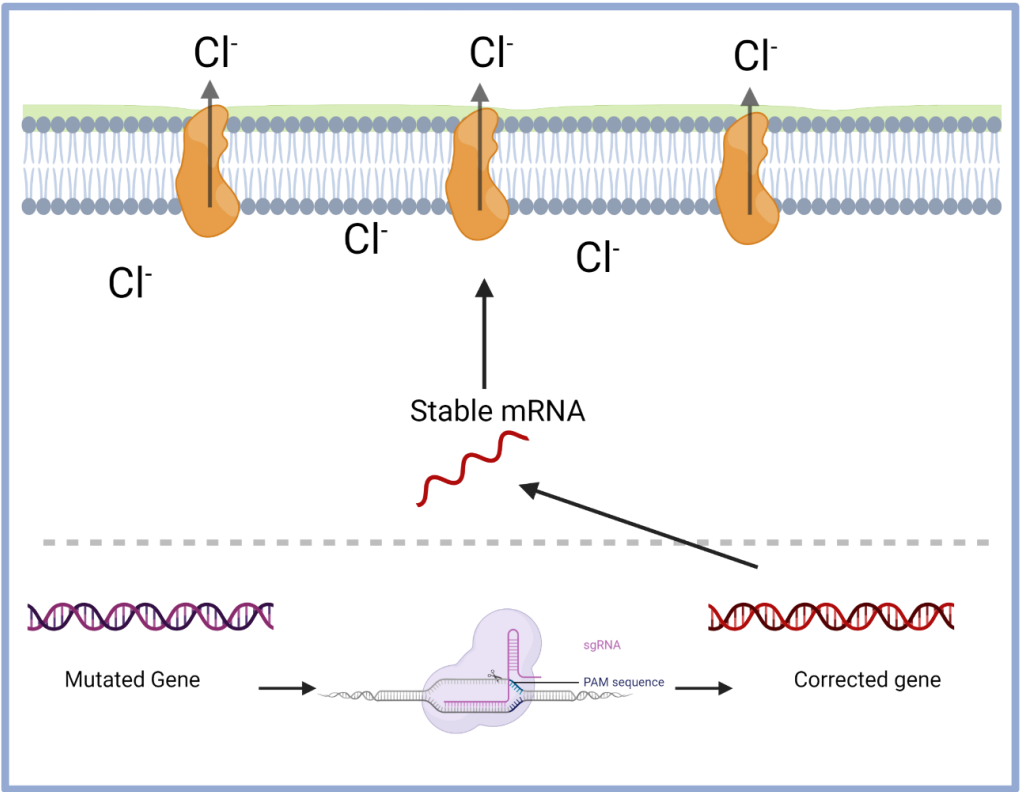


Cystic Fibrosis

Gene therapy

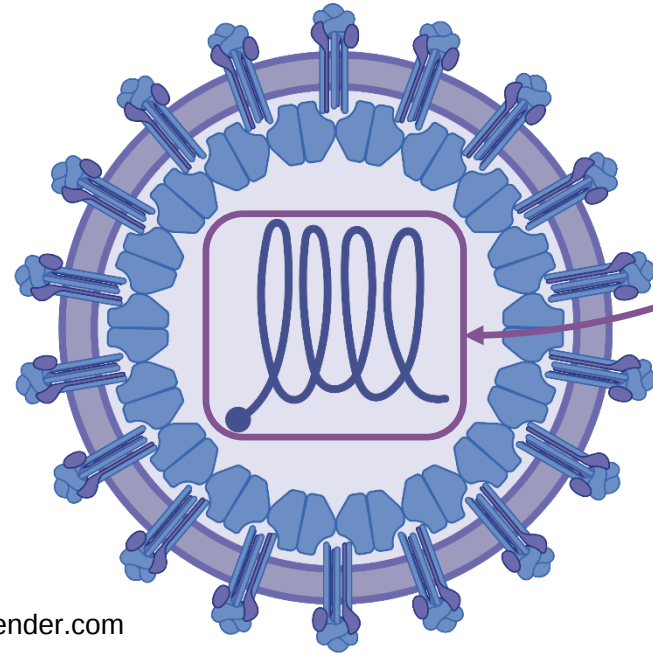


Gene supplementation



Gene correction

Self-amplifying RNA (saRNA)



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Alphavirus: e.g. Sindbis Virus, Semliki Forest Virus, Venezuelan Equine Encephalitis Virus

1. Production of non-structural protein complex (P1234) → P123+nsP4
2. Transcription of (+)-strand to (-)-strand → nsP1+P23+nsP4
3. Short-lived nsP1+P23+nsP4 → nsP1+nsP2+nsP3+nsP4
4. (+)-strand processing from (-)-strand: subgenomic GOI > nsP GOI

