

Drugs ~Infectious diseases~

Development of therapeutic strategy for mosquito-borne diseases by targeting mosquito saliva

Principal Investigator

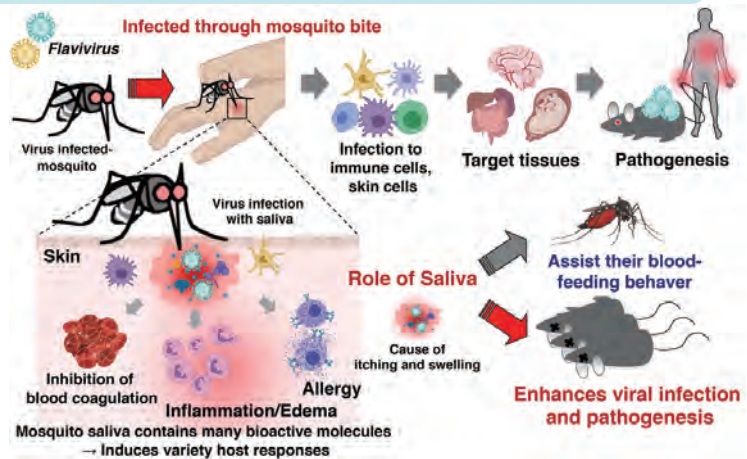
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Project Outline

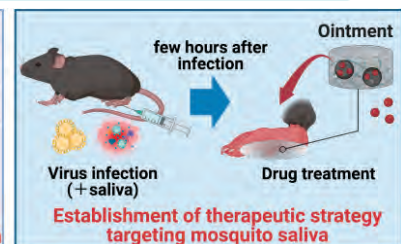
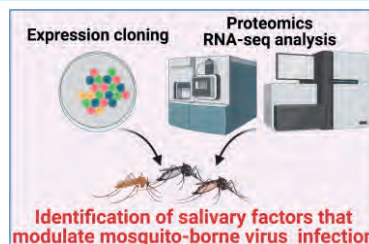
Mosquito saliva is potential therapeutic target for mosquito-borne diseases

- Mosquito-borne viruses such as Dengue virus or Zika virus are injected human with mosquito saliva during blood feeding.
- It has been shown that infection through mosquito bites or injection with **mosquito saliva** enhanced disease severity in several mosquito-borne viruses.
- We found **that targeting for mosquito saliva inhibit viral propagation and pathogenicity in vivo.**



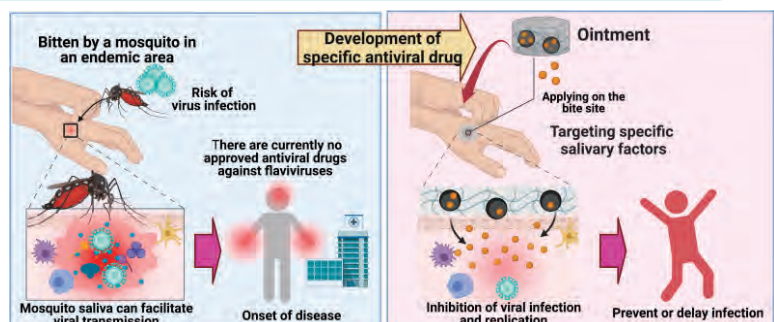
Target of project / Significance

- Drug-resistant virus is less likely to emerge.
- Novel study to develop the antiviral drug through **identification of new salivary factor** that modulate virus infection and pathogenicity.



Aim of this study / In terms of Social impact

- There are no currently available antiviral drug against flaviviruses.
- Our aim is development of specific antiviral drug for targeting mosquito saliva.
- It can be **applied to the study of other mosquito-borne diseases.**



Target diseases: Mosquito-borne flavivirus diseases (Dengue fever, Zika fever)

Patents: Not applied

Characteristics: New therapeutic approach to target mosquito saliva