

# T. Fujiyuki LAB.

## [Cancer Therapy with Virus]

Department of Mechanical and Biofunctional Systems

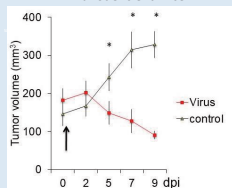
Virus Engineering

<https://www.kailab.iis.u-tokyo.ac.jp>

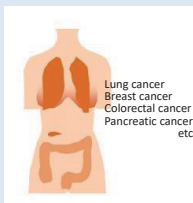
### *Oncolytic activity of recombinant measles virus*

We have generated a recombinant virus (rMV-SLAMblind) by genetically modifying its ability to bind to a principal receptor (SLAM) of measles virus, which led attenuation of the virus. The rMV-SLAMblind selectively infects cancer cells without causing measles and exhibits oncolytic activity.

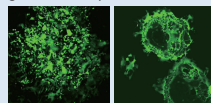
Antitumor effect of rMV-SLAMblind against a lung cancer cell line subcutaneously transplanted into immunodeficient mice



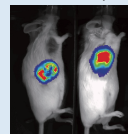
Broad antitumor activity of rMV-SLAMblind among various refractory cancers



Cytopathic effect of rMV-SLAMblind against refractory breast cancer cells



Systemic administration was effective in a mouse model of refractory breast cancer.



Focusing on the benefits of viruses, we are developing a new cancer therapy tool.

### *Practical application of measles virus for cancer therapy*

Clinical trial (Phase 1) : Scheduled to be implemented

### *Elucidation of the mechanism of action of recombinant measles virus*

Cell death mechanism in cancer cells  
Interaction with the immune system  
Mechanism of resistance in cancer cell lines



Aiming to enhance the effect of the virus