

FUJIYUKI LAB.

Cancer Therapy with Virus

Department of Human and Social Systems



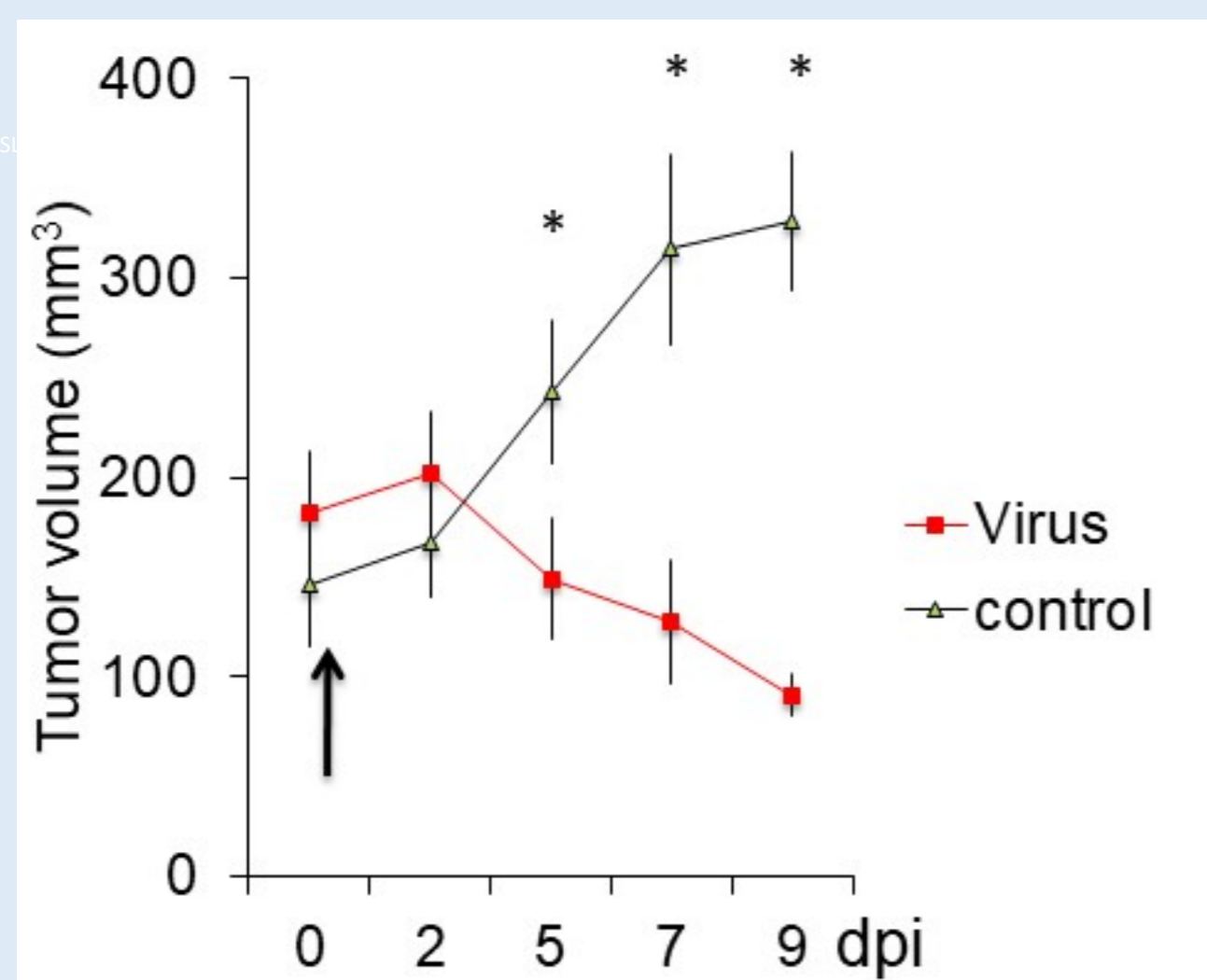
Virus Engineering

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

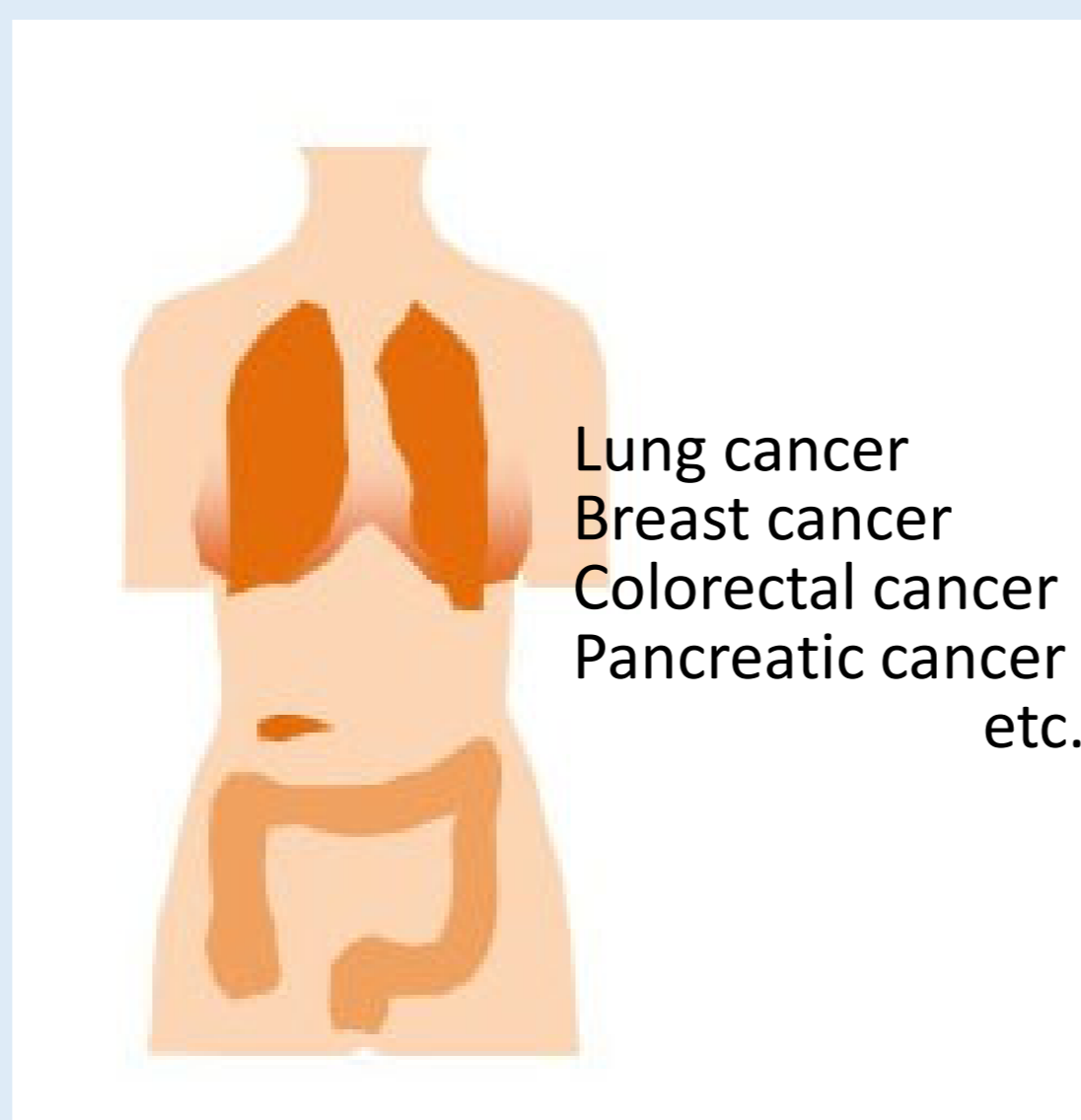
Oncolytic activity of recombinant measles virus

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.

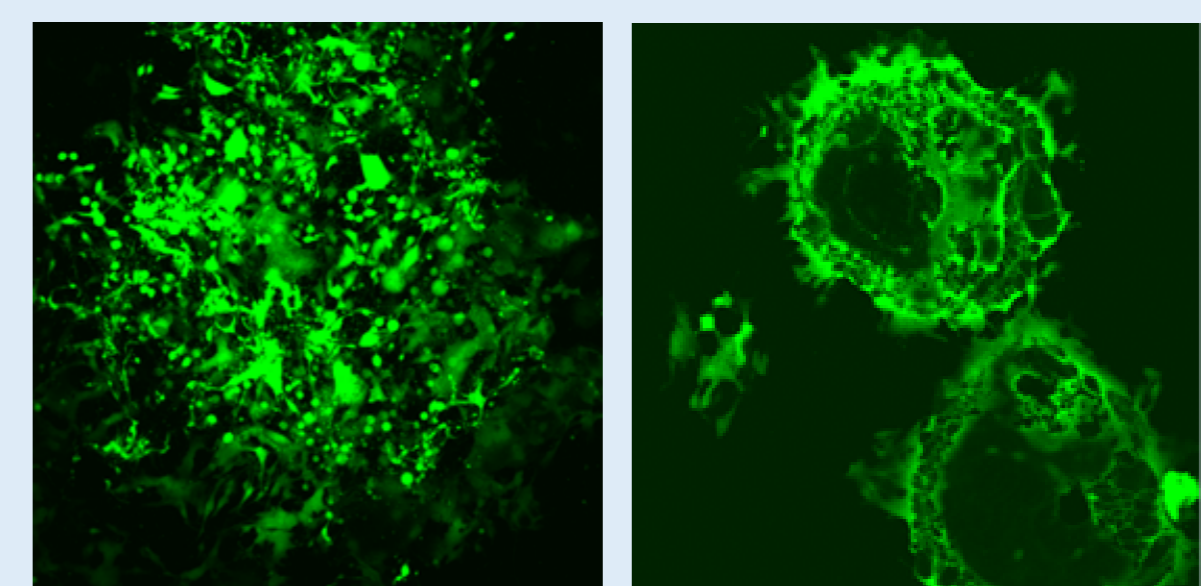
Antitumor effect of rMV-SLAMblind against a lung cancer cell line subcutaneously transplanted into immunodeficient mice



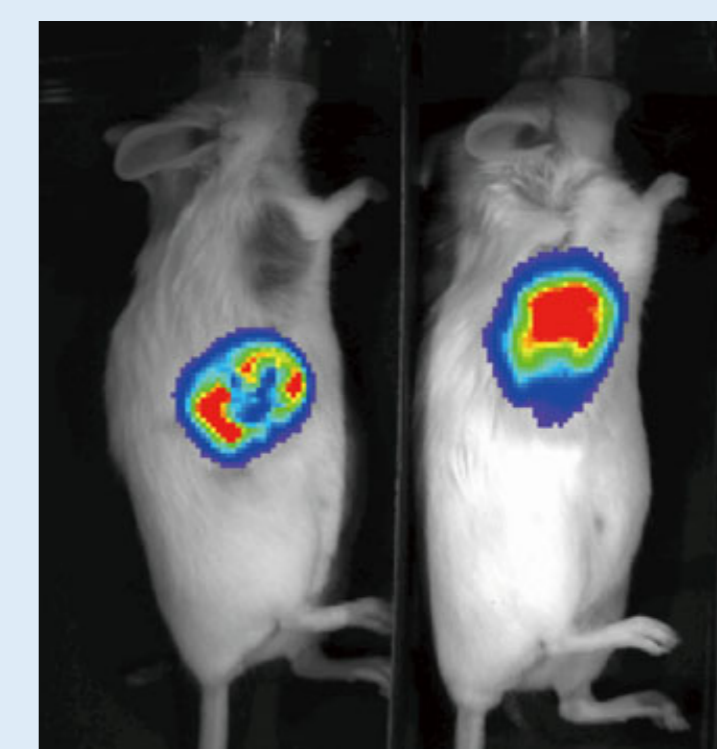
Broad antitumor activity of rMV-SLAMblind among various refractory cancers



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) is on-going.

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