

FUJIYUKI LAB.

Cancer therapy with oncolytic virus



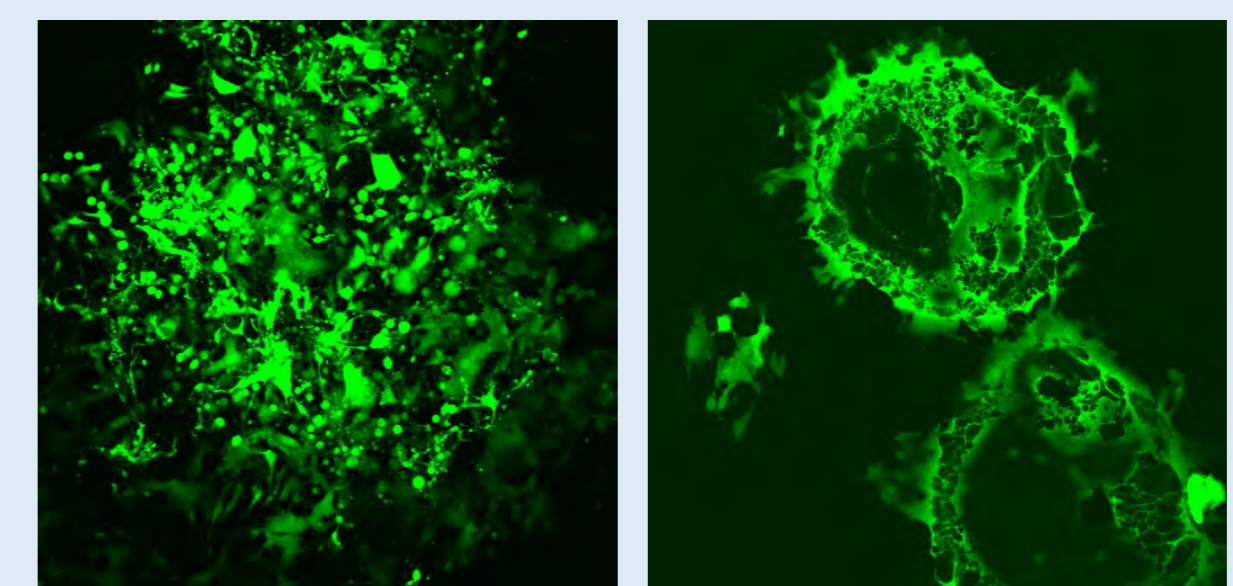
Department of Human and Social Systems

Virus Engineering

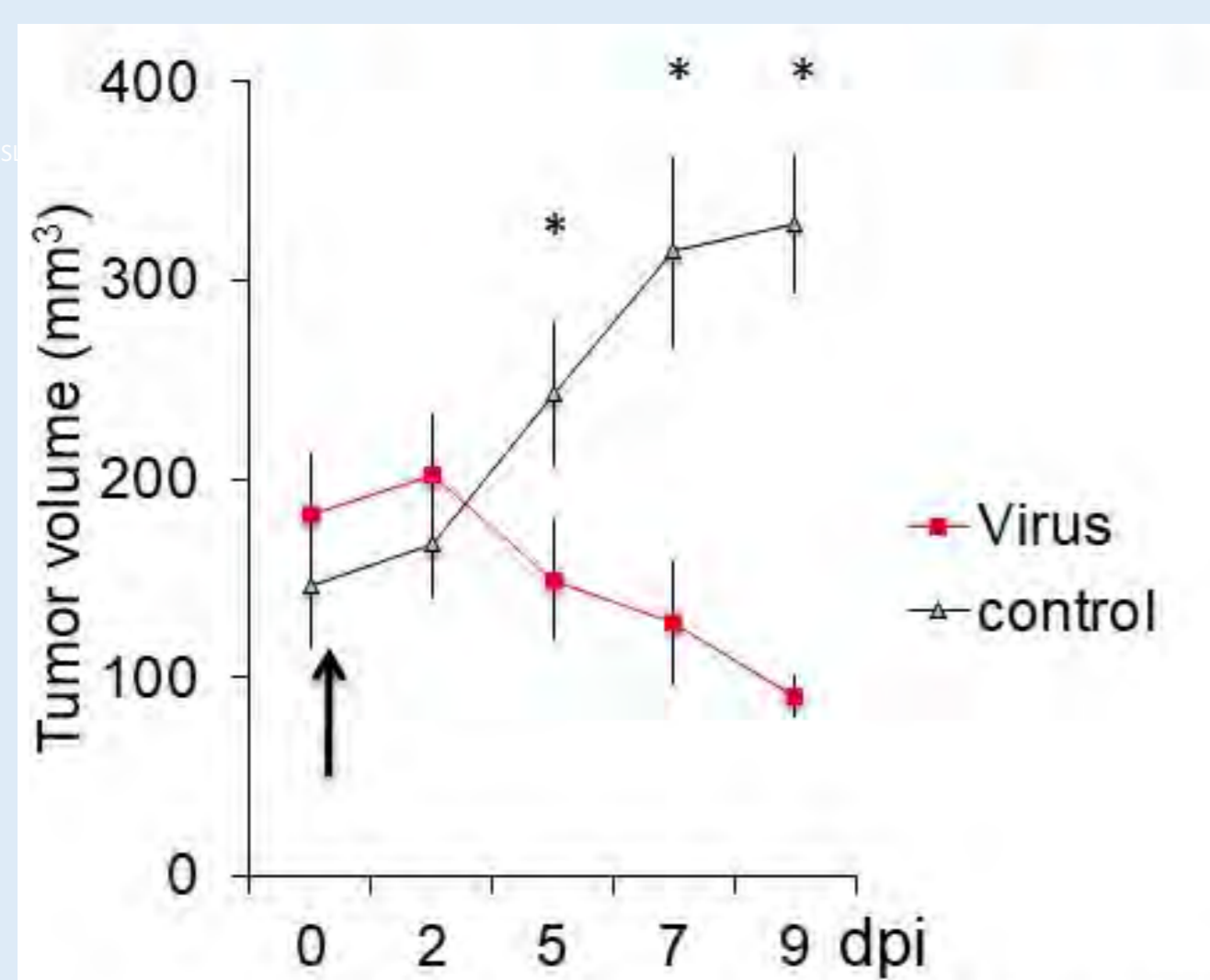
Oncolytic activity of recombinant measles virus

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.

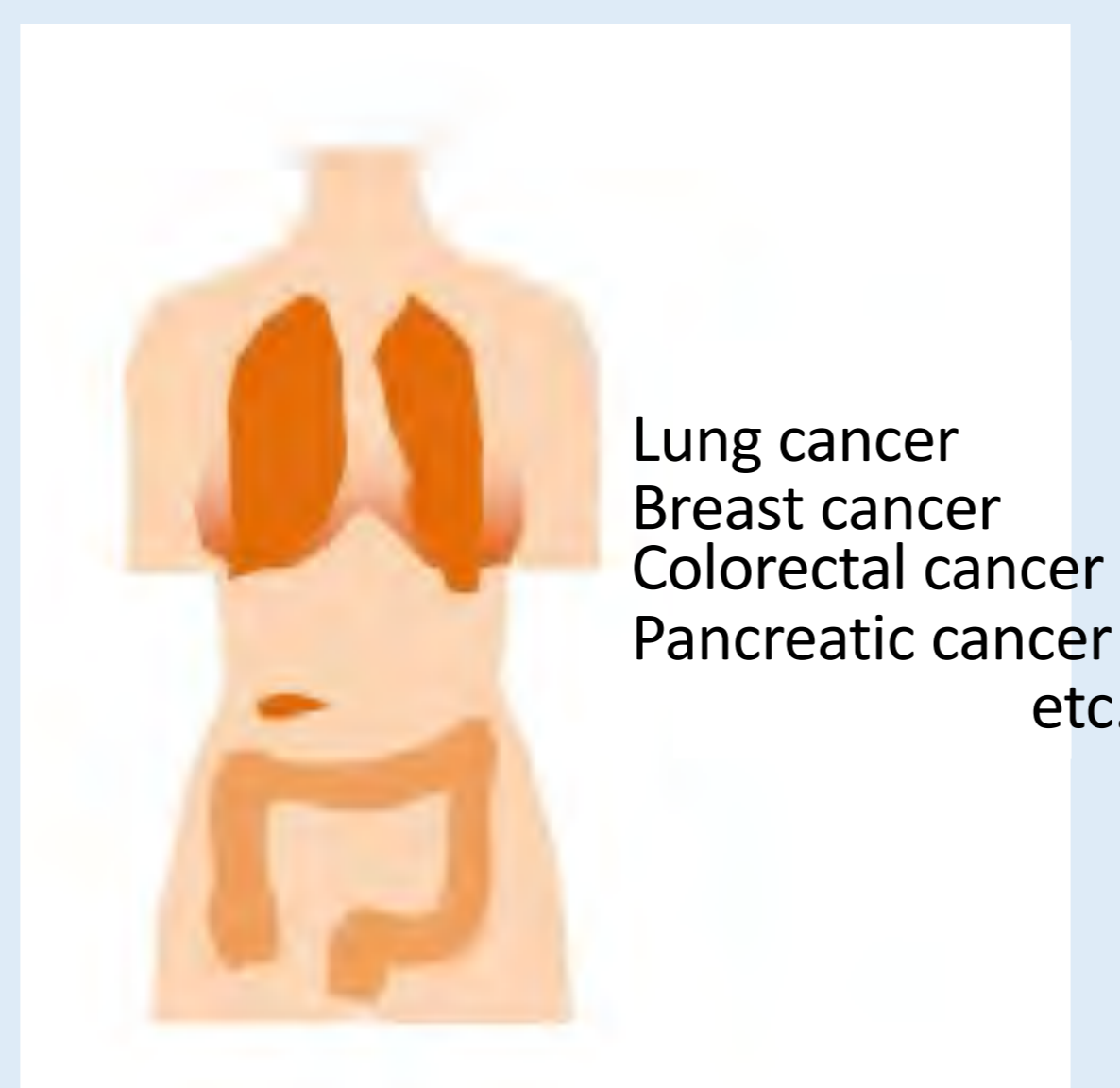
Cytopathic effect of rMV-SLAMblind against refractory breast cancer cells



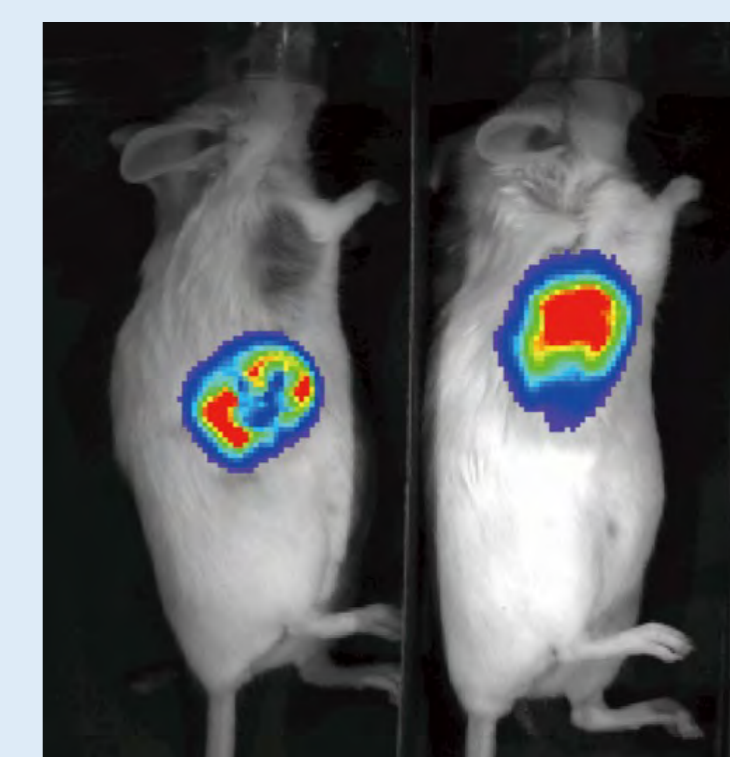
Antitumor effect of rMV-SLAMblind against a lung cancer cell line subcutaneously transplanted into immunodeficient mice



Broad antitumor activity of rMV-SLAMblind against various refractory cancers



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

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