

Feb.
2004

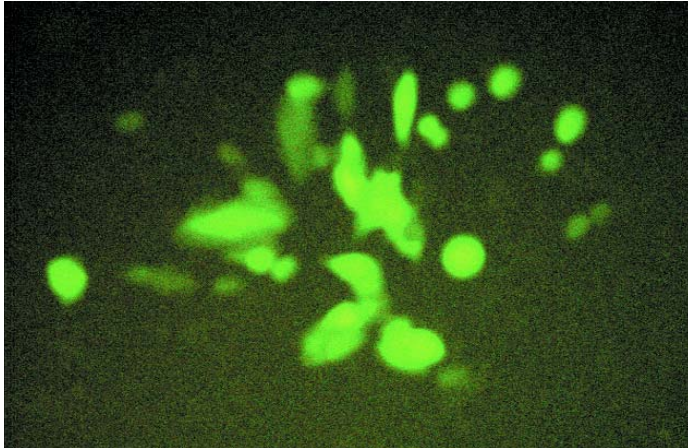
Leica Laser Microdissection
Application Note

A vertical strip on the left side of the page shows a fluorescence microscopy image of cells. The top portion shows individual cells with bright green nuclei. The middle portion shows the same field of view with red outlines drawn around each cell, indicating the process of laser microdissection. The bottom portion shows a different view, possibly a cross-section or a different focal plane, with green outlines around the cells.

reSOLUTION

Live Cell Cutting

Isolation of Cells Infected with HCM Viruses

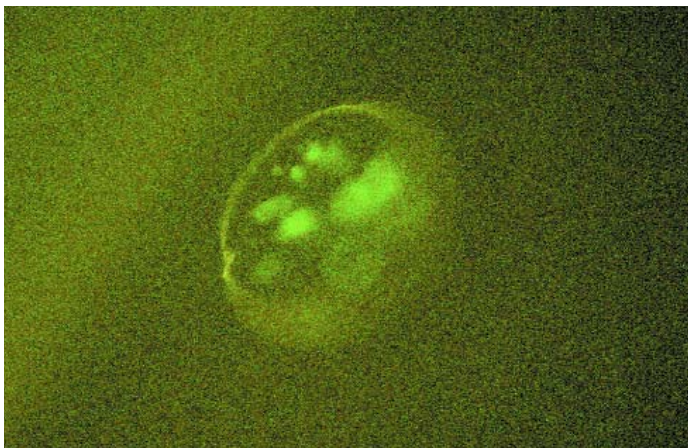
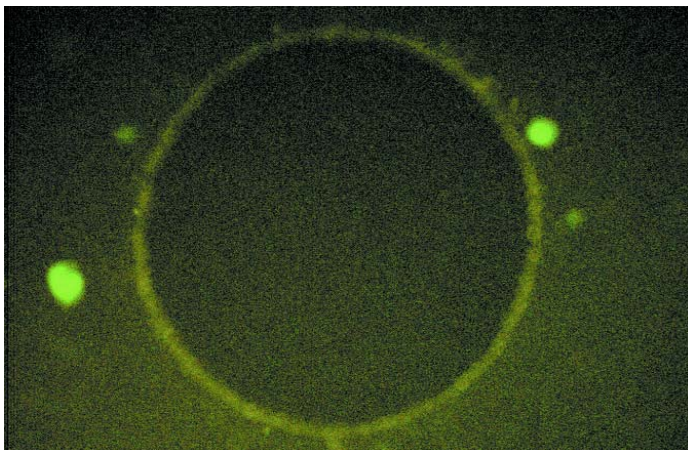


Specimen

Human foreskin fibroblasts, infected with GFP-labeled HCMV (Human Cytomegalovirus)

Cell Culture

Cell culture was infected with the supernatant of the mixture of wild-type non GFP-labelled HCMV and mutant HCMV labelled with GFP and incubated in the membrane Petri dish. On the second day, fibroblasts infected with mutant HCMV (GFP-labelled) were dissected using Leica LMD laser microdissection system with LCC software module. 20x objective and I3 filter cube were used.



Microdissection of HFF;
infected with the HCMV mutant

Isolation/Amplification:

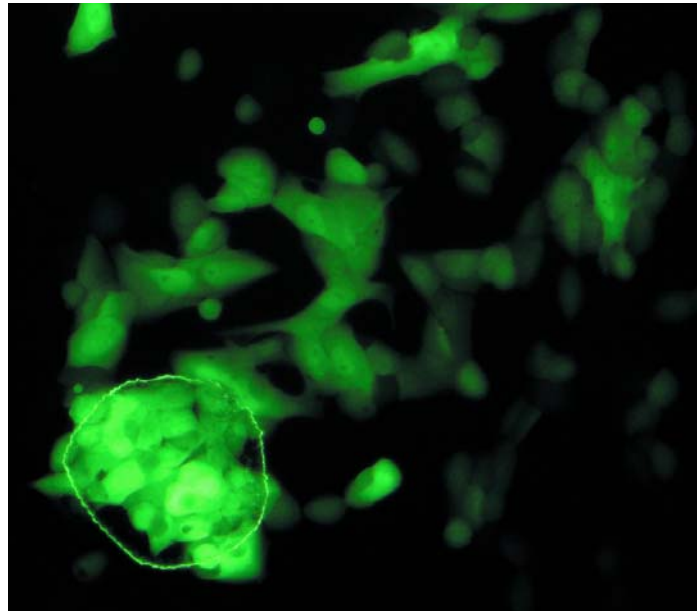
Reculturing of isolated cells with fresh fibroblasts.

Analysis:

Fluorescence microscopy; reculturing after selection by LMD was successful.

Target:

Selection of a newly generated green fluorescent HCMV mutant.



Microdissected cells were re-cultured with fresh fibroblasts. The image shows newly generated GFP-labelled HCMV mutant.

Acknowledgements: We would like to thank Margarete Digel and Dr. Christian Sinzger from Institute of Medical Virology, UKT University of Tübingen, Germany for providing images and results.