

MFISH

LUCIA Cytogenetics

LUCIA Cytogenetics is able to visualize the entire genome in multiple colors.

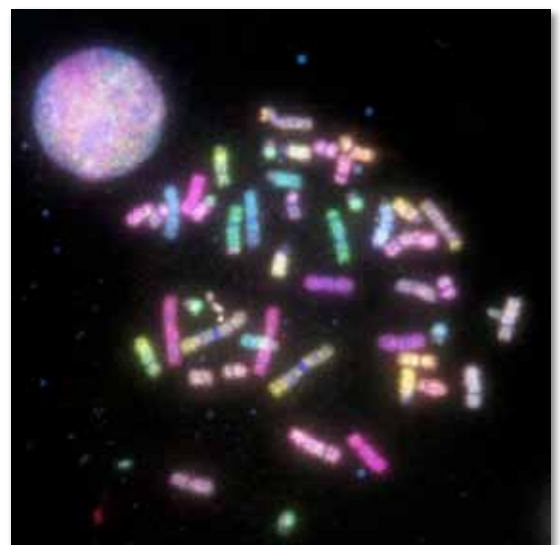
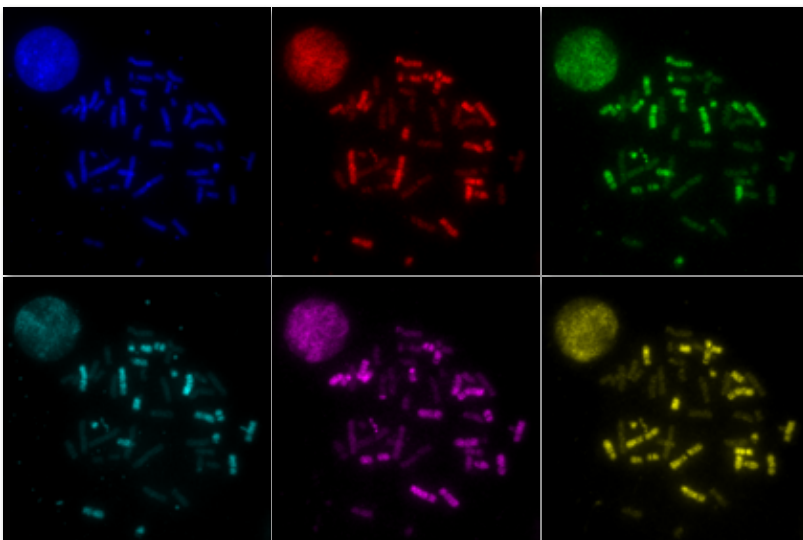
The multiplex fluorescence in situ hybridization (MFISH) method uses a series of optical filters to image each of the five fluorophores, applies the LUCIA Cytogenetics program to merge the images into a composite in which each chromosome is assigned a distinct color based on its fluorophore composition.

MFISH complements the standard cytogenetic methods. It is very helpful in deciphering complex chromosomal rearrangements and is used to identify non-random structural chromosome rearrangements not detectable by other methods.

MFISH allows rapid identification of simple and complex chromosomal alterations in metaphase spreads which may be associated with a disease initiation and progression. Therefore the applications of MFISH imaging are spreading fast - particularly in the field of cancer research.

Since M-FISH (24-color FISH) is based on chromosome painting it can only be applied to metaphases.

LUCIA Cytogenetics can work with fluorescent probe kits from different manufacturers.



Fast and easy image acquisition

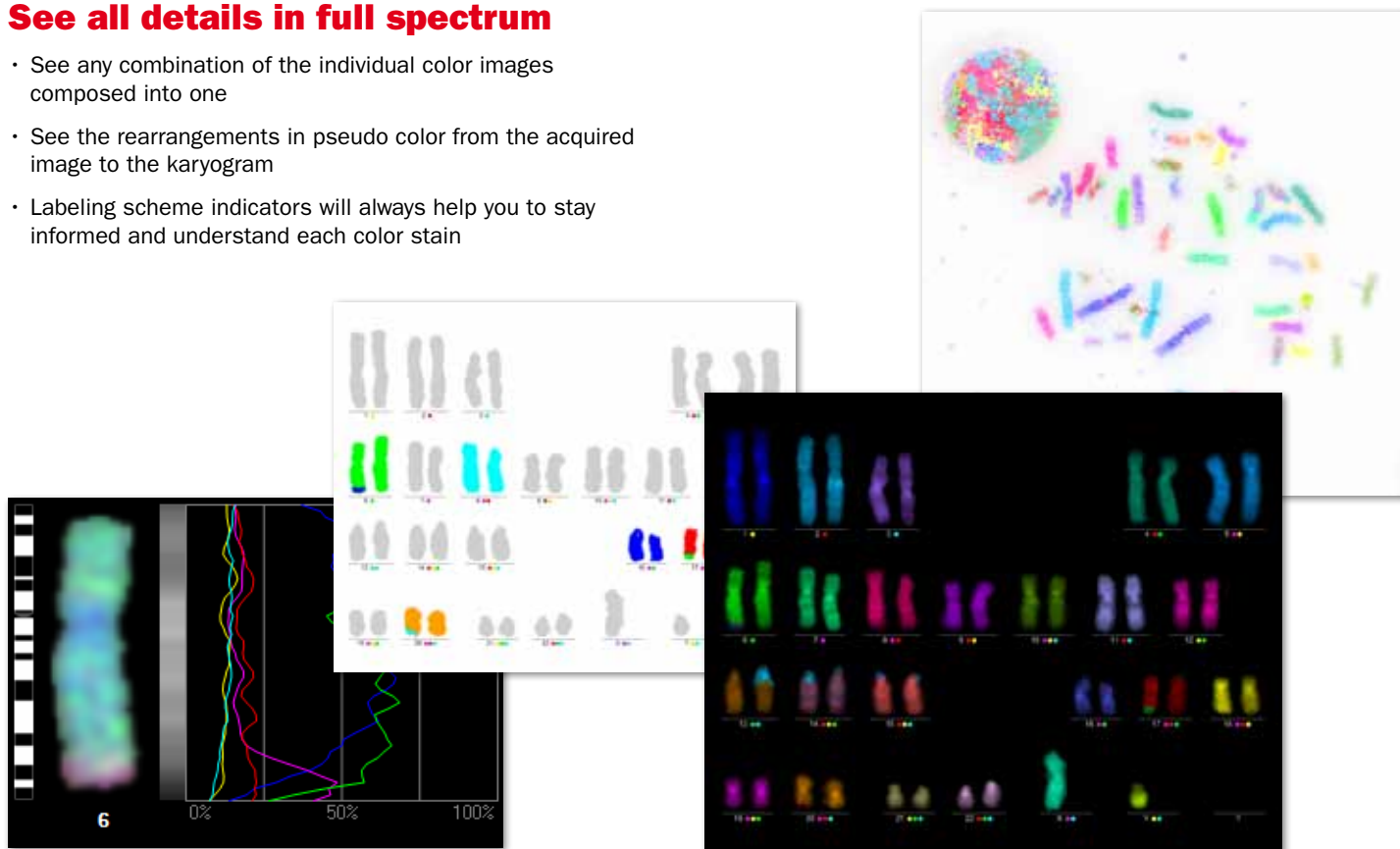
- Get high-quality images with scientific digital CCD cameras with 14bits analog-to-digital conversion
- The automatic camera exposure control ensures that maximum information is transferred to the computer, no detail gets lost.
- The complete control over a motorized microscope speeds up the image acquisition and reduces the risk of human-caused errors
- Predefined acquisition settings for various probe kits

Utilize all information using the analysis tools

- Automatic color classification including fast pseudo color display on the raw image
- Automatic and manual spot filtering
- Rearrangement analysis allows to quickly show only the material from the selected chromosomes and thus helps clearly reveal the rearrangement
- Profile graphs allow to study the intensity profiles for all colors

See all details in full spectrum

- See any combination of the individual color images composed into one
- See the rearrangements in pseudo color from the acquired image to the karyogram
- Labeling scheme indicators will always help you to stay informed and understand each color stain



Database and Report

- Fully compatible with LUCIA Cytogenetics Database
- Fully compatible with LUCIA Cytogenetics Report Tool including all MFISH display options

