



MFISH

LUCIA Cytogenetics

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

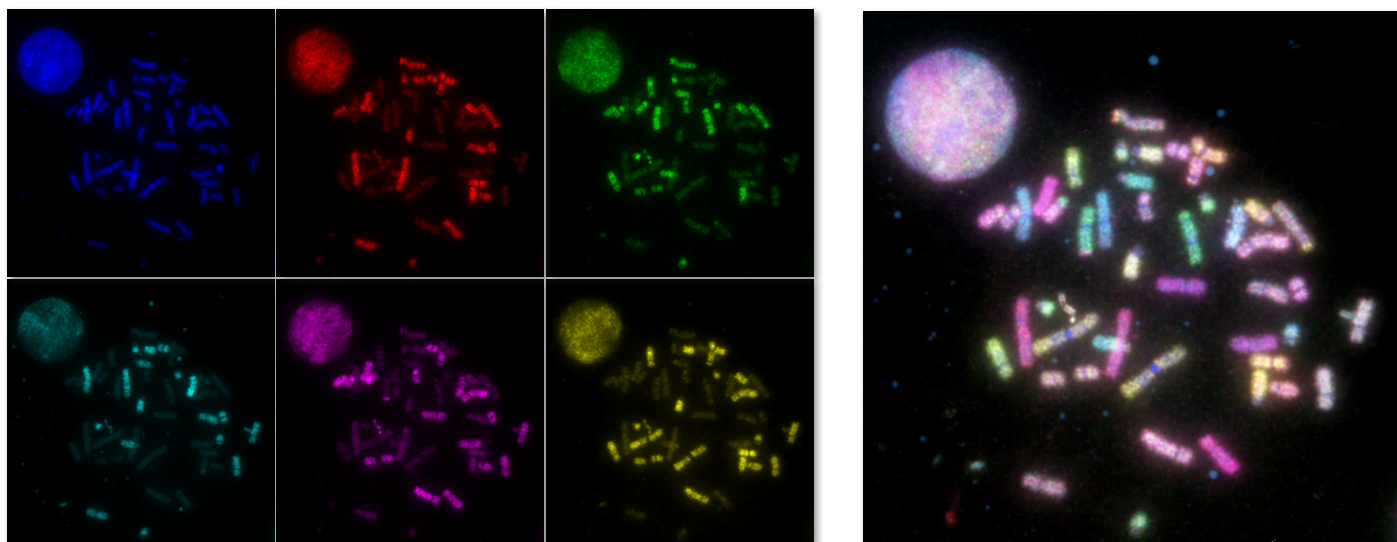
The multiplex fluorescence in situ hybridization (MFISH) method uses a series of optical filters to image each of the five fluorophores, applies the LUCIA Cytogenetics program to merge the images into a composite in which each chromosome is assigned a distinct color based on its fluorophore composition.

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.

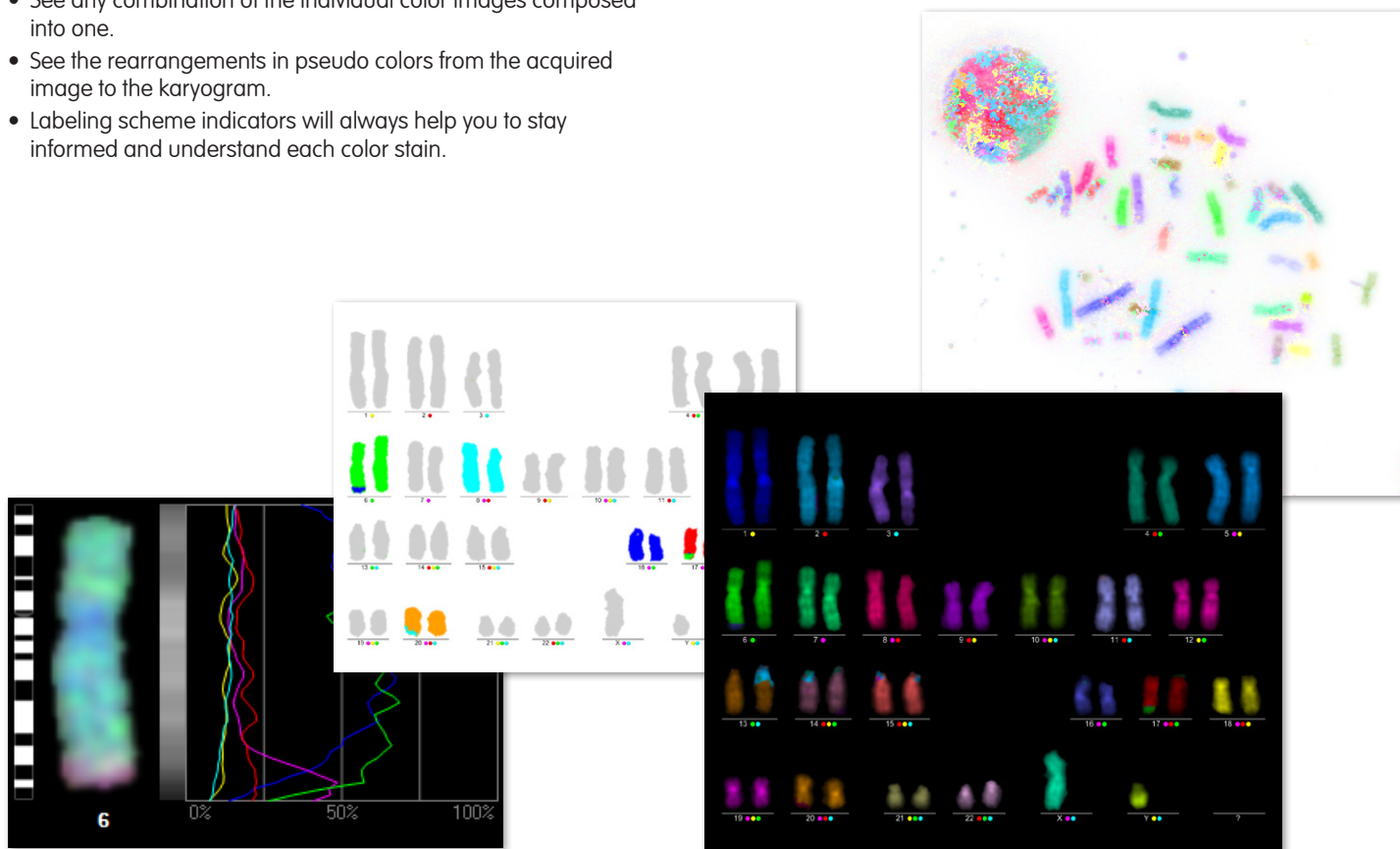


Fast and easy image acquisition

- 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 and no details get 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.

See all details in full spectrum

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



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.

Database and Report

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

