



# Research Hub (RH) and Bio-fertilizer Laboratory's Instruments

WORKING IN HARMONY, NURTURING THE FUTURE  
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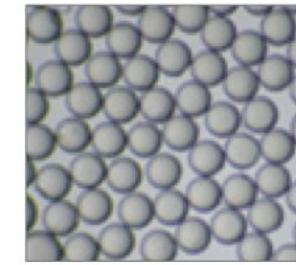


# Research Hub and Bio-fertilizer Laboratory

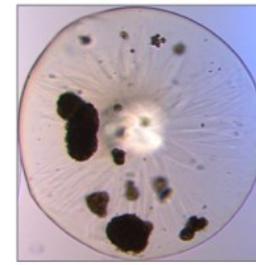
Agrotechnopark – Jubung, Jember



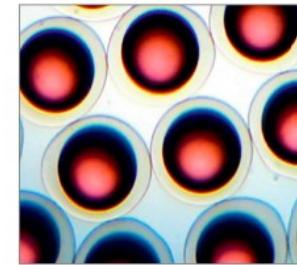
Kampus  
Merdeka  
INDONESIA JAYA



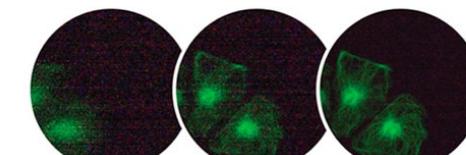
DIGITAL MICROSCOPE



DIGITAL MICROSCOPE



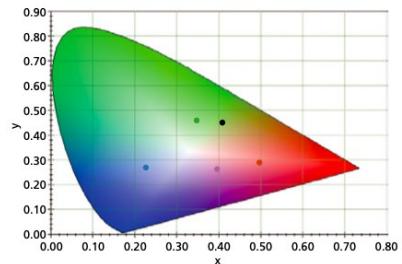
DIGITAL MICROSCOPE



15 fps maintained  
using high gain.

Multiframe live noise  
reduction automatically  
starts after the stage stops.

Sharp live images  
with suppressed  
background noises.



Chromaticity Diagram of XY Color System





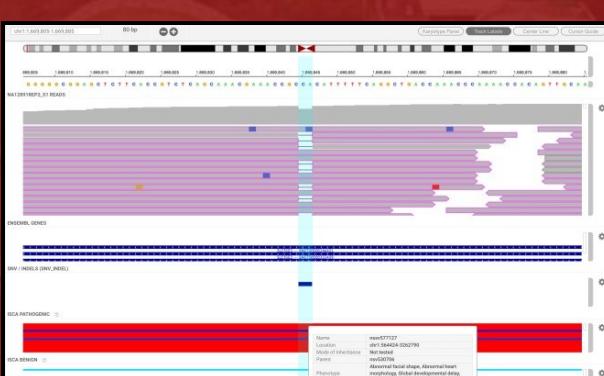
# Next Generation Sequencing (NGS)



Applications :



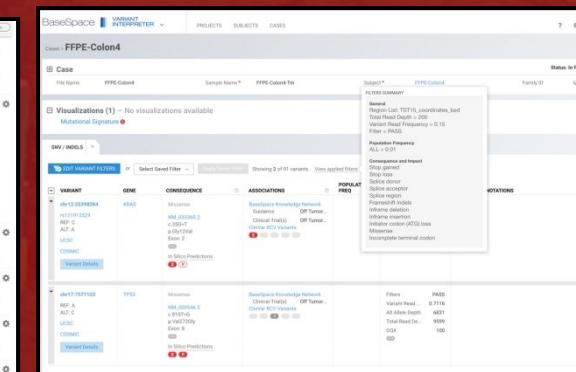
MiSeq - Illumina



Small genome sequencing

Targeted gene sequencing

16S metagenomic sequencing



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# Diode Array Absorbance, Fluorescence, Luminescence, Microplate Reader

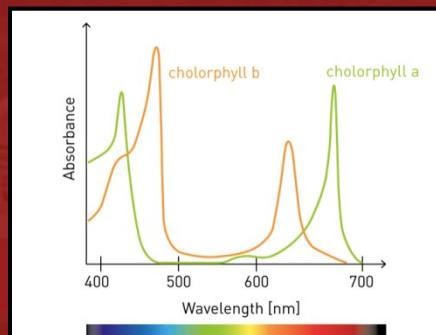
Applications :



Fluostar Omega – BMG Labtech

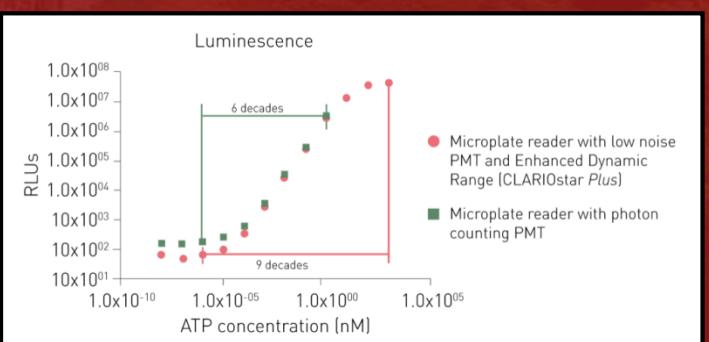
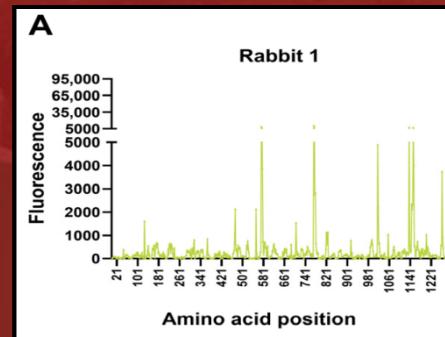
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Absorbance



Luminescence  
(BRET)

Fluorescence  
Intensity (FRET)



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# UV-Visible (UV-Vis)

## Applications :

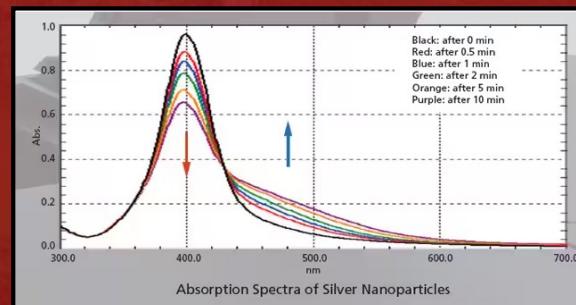
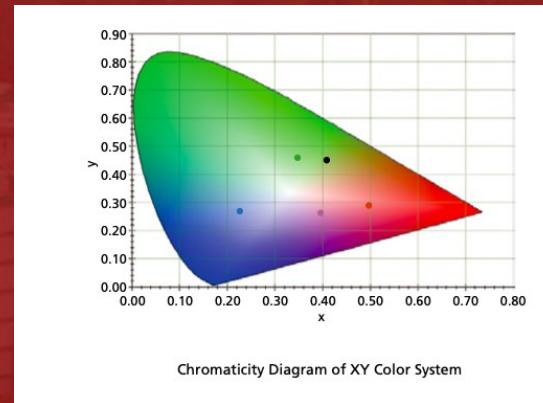
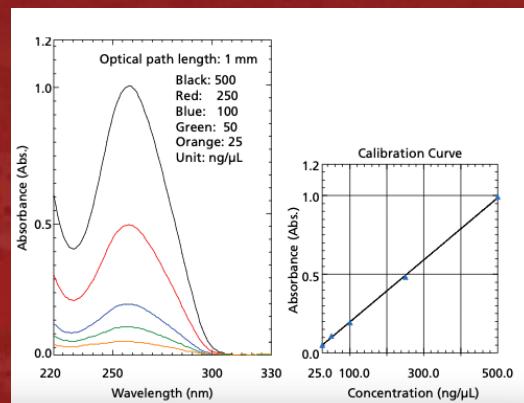
Food

Chemistry

Pharmaceutical and Life Sciences



UV/Vis 9001i - Shimadzu



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# Digital PCR (dPCR)

## Applications :

Gene expression

Mutation detection

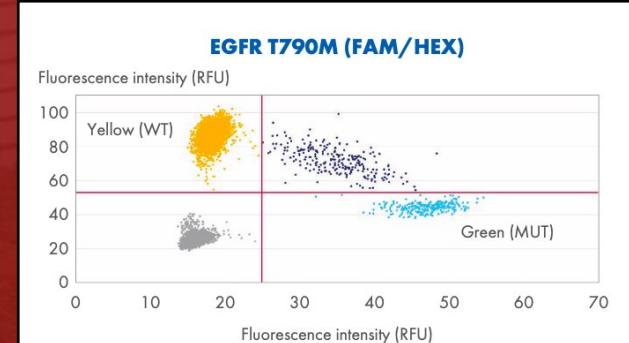
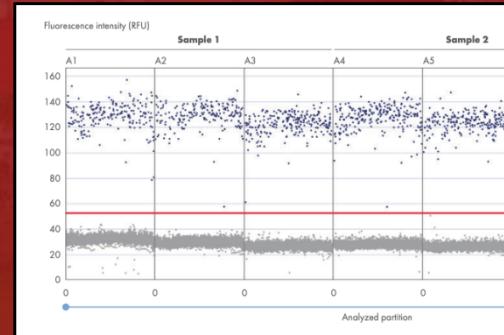
Virulence gene detection

miRNA detection

Protein detection

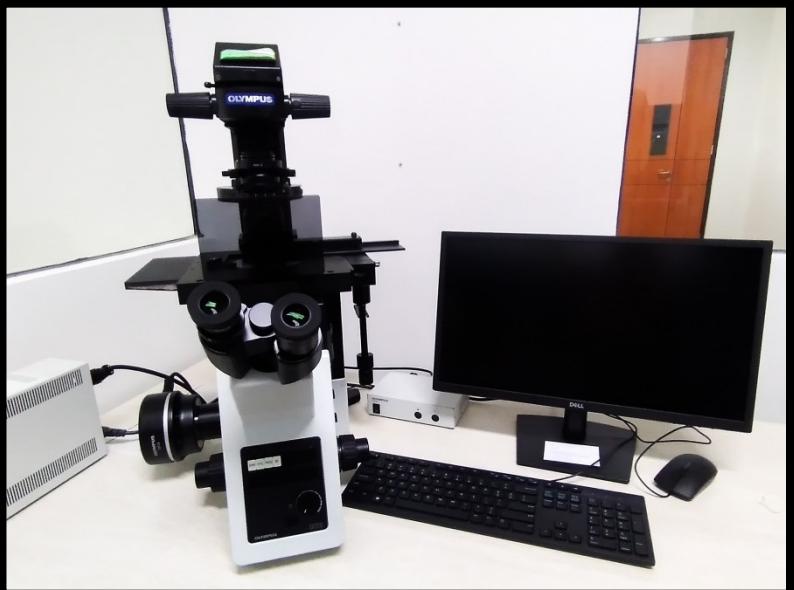


QIAcuity One - Qiagen





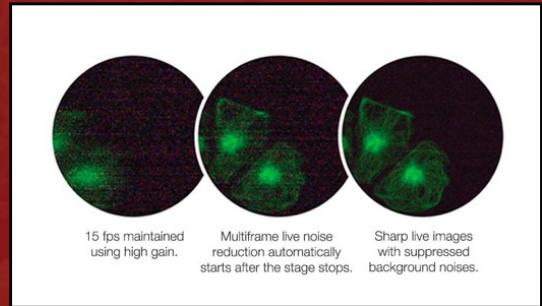
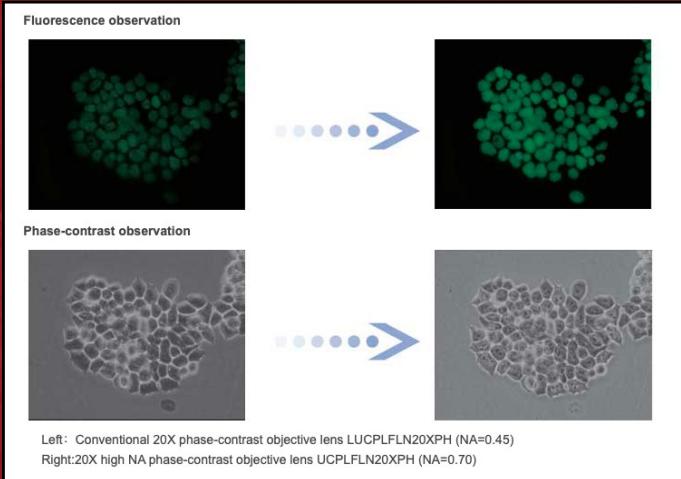
# Inverted Microscope with Fluorescence



IX73 - Olympus

## Applications :

Cell and Tissue culture for  
Plant and Animal





# Encapsulator



## Applications :

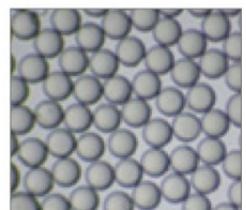
Pharmaceutical

Materials and Nanotechnologies



B395 - Buchi

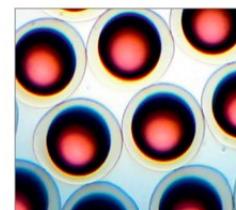
### Application examples



PLGA beads with Ibuprofen



Encapsulated islet cells



Alginate capsules with oil core and red colouring



# Stereo Microscope

Applications :

Plant tissue culture



Stemi 305 – Carl Zeiss

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# Biofermentor set

Mixing Tank Liquid



Steam Boiler



Water distillation



Biofermentor



Orbital Mixer



Autoclave



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