



**ST. ALOYSIUS' COLLEGE**

**(AUTONOMOUS), JABALPUR (M.P.)**

Reaccredited 'A+' Grade by NAAC (CGPA 3.68/4.00)

College with Potential for Excellence (CPE) by UGC

DST-FIST Supported & Star College Scheme by DBT

## **DEPARTMENT OF BIOTECHNOLOGY**

**Session 2021-22**

### **Expert talk on “Molecular Diagnostic Techniques”**

**Event:** DBT-Star sponsored guest lecture

**Date and Duration:** 1st October 2021 (one day)

**Title:** Molecular Diagnostic Techniques

**Resource person:** Dr. Kuldeep Sharma, Scientist C, Microbiology, AIIMS, Raipur, Chhattisgarh.

**Target group:** UG and PG students of Biotechnology

**Objective:** To impart knowledge about advanced molecular techniques.

**Outcome:** Students learned about various molecular techniques like blotting, PCR, sequencing used in medical diagnostics.

### **REPORT**

The Department of biotechnology organized an online expert talk on “Molecular Diagnostic Technique” on 1<sup>st</sup> oct 2021.

The distinguished speaker of the programme was Dr. Kuldeep Sharma, Scientist C, AIIMS, Raipur. He explained that molecular diagnostic techniques involve DNA or RNA hybridization and analyzing the sequences that can pinpoint the potential emergence of a specific disease. He also explained that molecular techniques have been widely used in surveillance, mutation and other genetic studies of pathogens. This technique also offers an effective solution for infectious disease diagnostics as they are fast, flexible and accurate.

About 35 students were present in the talk. The lecture was chaired by Principal Fr. Dr. G. Vazhan Arasu, St. Aloysius College, Jabalpur. The programme concluded with a vote of thanks by Dr. L. K Pandey, HOD, Department of Biotechnology. The programme was successfully



**St. Aloysius College, 1, Ahilya Bai Marg, Pentinaka Chowk, Sadar, Cantt, Jabalpur, Madhya Pradesh, INDIA 482001**

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conducted by kind cooperation of faculty members Mr. Enosh Philips, Mr. Nitin Swamy, Dr. Lovely Mahawar and Dr. Rumana Faraz.

HEAD  
Department of Biotechnology  
St. Aloysius (Autonomous) College  
Jabalpur (M. P.)

## BROCHURE




### St. Aloysius College(Autonomous), Jabalpur

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Jabalpur, Madhya Pradesh, India

#### DEPARTMENT OF BIOTECHNOLOGY

Organizes  
Guest Lecture




### Dr KULDEEP SHARMA


Scientist 'C'  
All India Institute of Medical Sciences  
Raipur Chhattisgarh Microbiology

### Topic

## Molecular Diagnostic Techniques



**1<sup>st</sup> October,  
2021**



**1:30pm-2.30pm**



St. Aloysius College, 1, Ahilya Bai Marg, Pentinaka Chowk, Sadar, Cantt, Jabalpur, Madhya Pradesh, INDIA 482001



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## Photographs of the event

Whole-genome sequencing (No capture), Whole-exome sequencing (Capture), Targeted-panel sequencing (Capture)

Bridge PCR, Cluster generation, DNA sequencing

Data analysis and clinical reporting

**Next Generation Sequencing**

1:38 PM | mqs-jxt-d-atv

Activate Windows. Go to Settings to activate Windows.

1. Denaturation, 2. Probe annealing, 3. Primer annealing, 4. Extension and cleavage of probe

Taq polymerase, Reporter dye, Quencher dye, Probe

Fluorescence vs. PCR cycle number graph showing exponential phase and threshold (CT)

**Real Time Polymerase Chain Reaction**

1:27 PM | mqs-jxt-d-atv

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msc101biotech isembiotech is presenting

**Southern Blotting Technique**

1:21 PM | mqs-jxtd-atv

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Type here to search

32°C Light rain 1:21 PM 10/1/2021

HEAD  
Department of Biotechnology  
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Jabalpur (M.P.)



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