

## **Birbal Sahni Institute of Palaeosciences, Lucknow Lab records shortest average time to process Covid 19 samples among institutions in India**

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As the COVID 19 patient numbers are recorded, a testing hub in Lucknow for the disease has recorded the shortest average time to process samples among institutions in the country.

With 1000 to 1200 samples being tested per day, the story of the rise of Birbal Sahni Institute of Palaeosciences (BSIP), an autonomous institute of the Department of Science and Technology, to the top institution not only in the state but throughout the country in terms of average processing time of samples is one of sheer grit and dedication.

With a small team of 8 members, the lab is running 24x7 to test samples from various districts of Uttar Pradesh. The number of samples tested by BSIP has crossed 50,000, of which approximately 1600 samples were reported positive for SARS-CoV-2 with zero pendency. Keeping in light the present scenario and to aid the authorities to contain this pandemic, BSIP has provided testing reports (on daily basis) to the concerned districts in record time of 24 hours.

BSIP joined hands with the Government of Uttar Pradesh to combat COVID-19 in the state, becoming one of the five Central Government research institutes in Lucknow, which took initial steps to start laboratory testing of COVID-19. Availability of a BSL-2A laboratory, primarily for ancient DNA work in the Institute, became the advantage needed to immediately prepare for testing.

The BSIP approached the GOI and the UP Government in early April for the necessary approvals for COVID-19 testing. Subsequent to inspection and approval of the laboratory by the ICMR and the UP Government, BSIP became the first of the five Central Govt. Institute in Lucknow to start with RT-PCR based testing, from 2nd May 2020.

The institution started with testing 100-150 samples per day that has now scaled up to 1000-1200 samples per day in from the month of July 2020. With proper lab management and dedication of the lab staff, BSIP decreased its average time to process the samples. The BSIP is currently processing and reporting the samples in an average time of 18 hours. Furthermore, the pendency of the samples is almost zero within 18 hours after receiving the samples.

Apart from diagnostic service, the BSIP is also actively involved in research activities related to COVID-19 pandemic. Thus, a real-time tracking of COVID-19 spread in India, using SARS-CoV-2 genotype-based analysis, is being developed.

“RT-PCR is a perfect example of repurposing the existing human resources and infrastructure built for research to effectively address the needs in the time of crisis with speed, scale and resolve,” said Prof Ashutosh Sharma, Secretary, DST.

The 8 members of the teamwork with determination and commitment under the supervision of Dr. Vandana Prasad, Director, BSIP, and Dr. Anupam Sharma, Nodal-in-charge of the COVID-19 lab. Dr. Niraj Rai, in-charge of the ancient DNA laboratory, is also in-charge of COVID-19 facility. Nagarjuna P., as the COVID-19 lab manager, takes care of all the requirements for continuous testing in the laboratory. Dr. Indu Sharma, Dr. Varun Sharma, with Nagarjuna P. work in the BSIP

BSL-2A laboratory. Mr. Satya Prakash, who is a science teacher, working voluntarily, takes care of the timely reporting of the results to the respective authorized portals.