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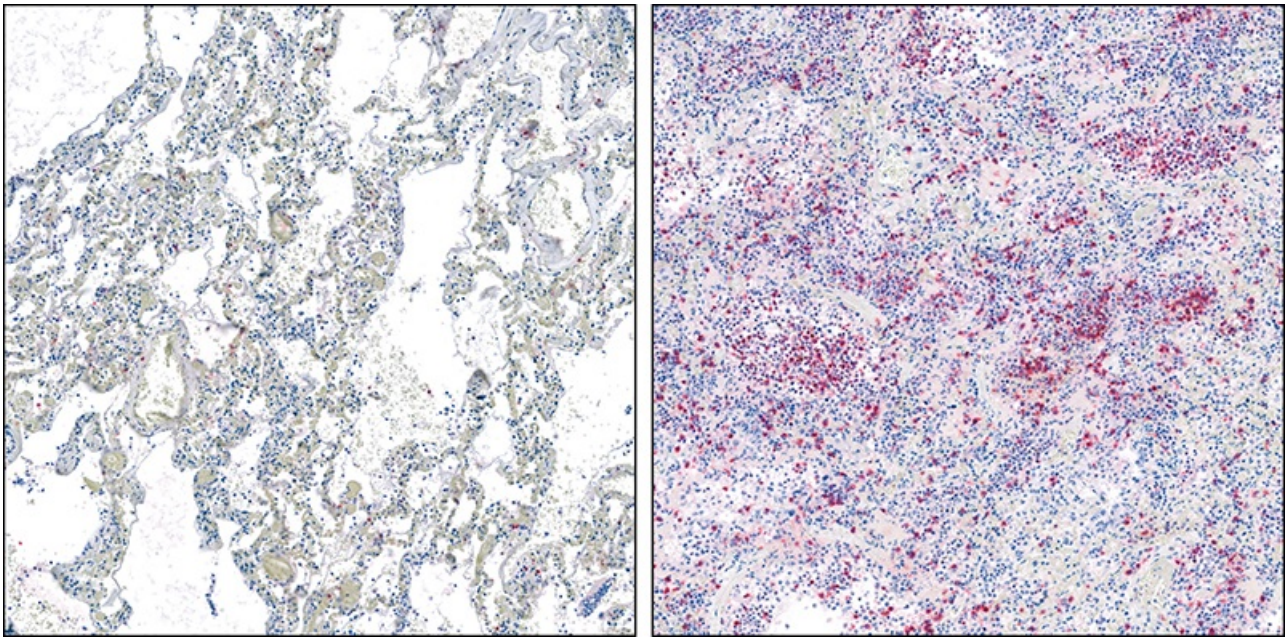
Study suggests there may be two stages of fatal lung disease in COVID-19

Nov 11, 2020

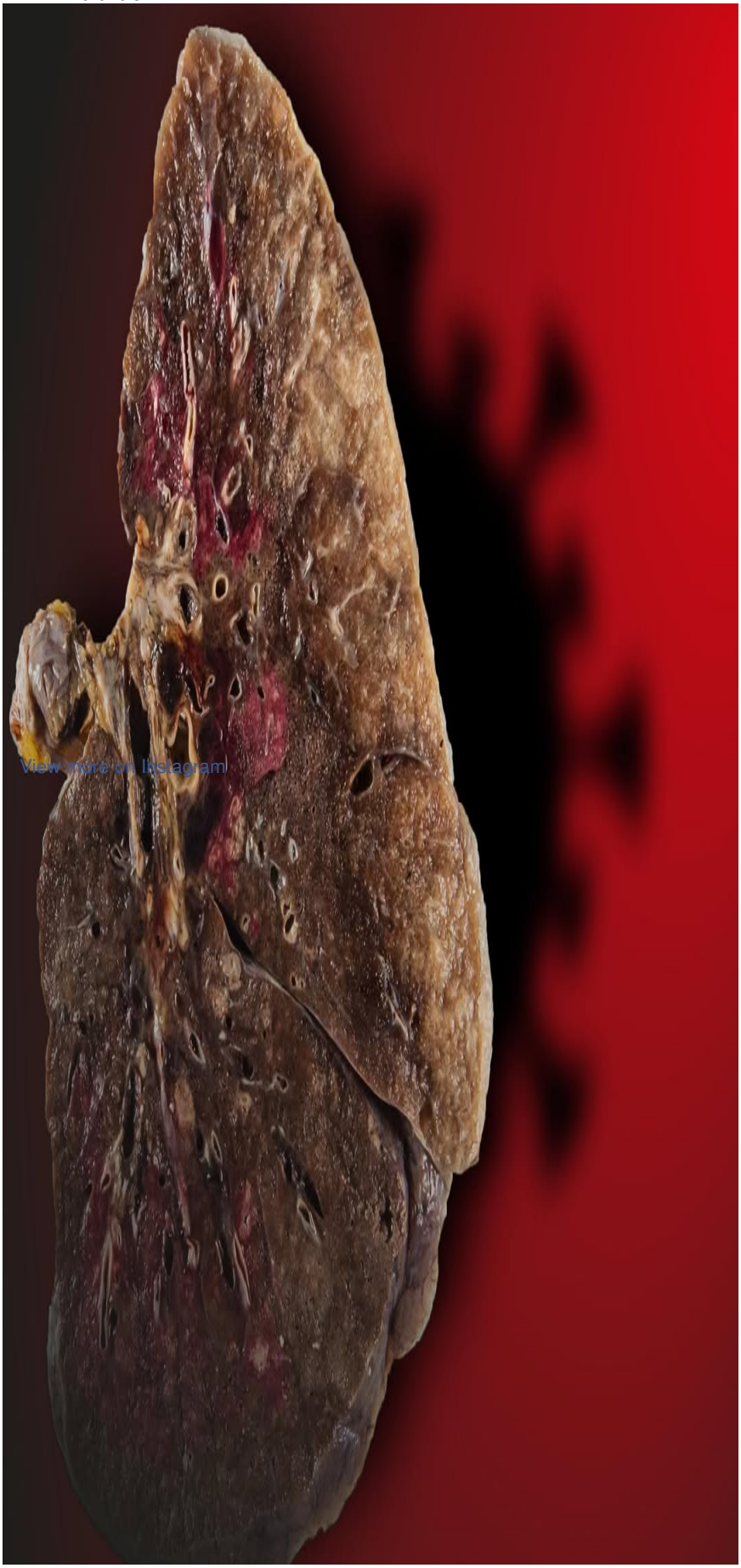


Stained slides of lung tissue samples (like those above) revealed distinct immune response patterns in fatal cases of COVID-19, adding to evidence that the disease may progress in two identifiable stages in the lungs. Image courtesy of the Junt lab.

Translational immunologists from the Novartis Institutes for BioMedical Research (NIBR), along with researchers from Swiss hospitals and data scientists, have identified two distinct patterns of fatal lung disease progression in COVID-19. The study, which analyzed post-mortem lung tissue to better understand the immune response against SARS-CoV-2 at the cellular and molecular level, suggests that there may be two stages of the disease in the lungs.

Kirsten Mertz, a Senior Pathologist at Cantonal Hospital Baselland, led the study along with Tobias Junt, who is a co-leader of Translational Immunology at NIBR. Their study was published in Nature Communications.

Mertz, who initiated the study after conducting one of the first COVID-19 autopsies in Europe, wrote about the work in a “Behind the Paper” feature in Nature Microbiology. She and Junt led a diverse team of scientists that included other clinical collaborators from across Switzerland and expert bioinformaticians from Italy. The team’s findings have potential implications for disease course and treatment.



Additional Resources:

- Two distinct immunopathological profiles in autopsy lungs of COVID-19
- Molecular profile of a killer – how COVID-19 autopsies help to understand the deadly new coronavirus disease

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