Researchers Uncover Genetic Changes That Lead to Lung Cancer Metastasis

level of activity in a cellular process called the WNT pathway, as the investigators could tell by looking at the expression of the genes that this pathway controls. This high level of WNT pathway activity was the only predictor of which patients would experience metastatic disease.

The WNT pathway is known to play a role in the formation of colorectal cancers as well as in embryonic development. To confirm their findings, the investigators used cell lines created from two different human lung tumors and injected them into mice. Some of the cells quickly spread to the bones and brain, and when the researchers removed and studied those cells, they found that the WNT pathway was active in them. When the WNT pathway was blocked in those aggressive cells, metastases did not form.

“This work begins to shed light on how metastasis occurs in lung cancer, a serious problem that had not received the attention that it deserves until now,” Dr. Massagué said. “I hope that our ability to make progress will encourage others to join in the effort, with the aim of averting the deadly spread of these tumors.”