

## **Structure-function study of lysyl oxidase-family of proteins in breast cancer metastasis**

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In 2010, it is estimated that about 207,090 new cases of invasive breast cancer alone will be diagnosed and 39,840 women are expected to die from this disease (Cancer Facts and Figures 2010, American Cancer Society). Recent studies have shown that human lysyl oxidase and lysyloxidase-like 2 are highly up-regulated in invasive/metastatic breast cancer tissues and cells, and the expression of these proteins in the metastatic breast cancer cells cause metastatic cells to invade other tissues and organs in vivo. However, their roles precise roles are currently undefined. Our research is focused on characterizing the structure/function correlation of these two proteins. We expect that this work will lay the groundwork for understanding the functions of the lysyl oxidase family of proteins that may one day provide new therapeutic agents in the fight against metastatic breast cancer.