Using Light To Identify Drug Resistant Cancers.

The HER2 protein is serves as an receiver/transmitter on the surface of cells. Signals from HER2 cause cells to divide. Some cancers (including breast cancer) can have too much HER2 on their surface. Treatments, like Herceptin®, block some of these cancer cells but not all HER2 over-expressing cancers respond to the treatments.

To help determine which cancers are likely to respond to treatmens like Herceptin® researchers have turned to using light. When the right light is directed at the cancer cells, those that are being affected by the treatment emit a different color than those that are resistant to the treatment. If this method is able to work inside patients, those that would not respond to a particular treatment can be quickly identified and treated differently.

Source
http://www.opticsinfobase.org/abstract.cfm?URI=boe-3-1-75
Learn More
Learn About Cancer Drug Resistance