7<sup>th</sup> International Congress on Dermatology and Trichology 12<sup>th</sup> World Congress on Women Health, Gynecology and Breast Cancer Research 8<sup>th</sup> International Conference on Psychiatry and Psychological Disorders February 24, 2022 | Webinar

## Breast cancer and the perioperative window

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ost current research in cancer is attempting to find WI ways of preventing patients from dying after metastatic relapse. Driven by data and analysis, this project is an approach to solve the problem upstream, i.e., to prevent relapse. This project started with the unexpected observation of bimodal relapse patterns in breast and a number of other cancers. This was not explainable with the current cancer paradigm that has guided cancer therapy and early detection for many years. After much analysis using computer simulation and input from a number of medical specialists, we eventually came to the conclusion that the surgery to remove the primary tumor produced systemic inflammation for a week after surgery. This systemic inflammation apparently caused exits of cancer cells and avascular micrometastases from dormant states and resulted in relapses in the first 3 years post-surgery. Two animal studies agreed with these findings It was determined in two retrospective studies that the common inexpensive perioperative NSAID ketorolac could curtail the early relapse events after breast cancer surgery.

Ketorolac is routinely used immediately after breast cancer <u>surgery</u> at Beth Israel Deaconess Medical Centre (Harvard). Based on what we now know, surgeons and anesthesiologists should take extra efforts to reduce systemic inflammation during the perioperative window using ketorolac. This also applies to cosmetic surgeries for persons who are cancer survivors. Refer to the second 2020 paper listed below.

## **Speaker Biography**

Michael Retsky received a PhD in experimental physics from University of Chicago in 1974. His thesis project was to build a scanning transmission electron microscope that could resolve single atoms of silver, mercury and uranium and measure their elastic cross-sections (in Albert Crewe's laboratory). He had developed skills in computer simulation at U of C and especially at H-P. He later became Prof of <u>Biology</u> at University of Colorado, Visiting Prof at University of Texas (in Wm. McGuire's laboratory) and on Judah Folkman's staff at Harvard Medical School. He is now Honorary Associate Professor at University College London.

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