

## Chemotherapy effect in the developmental transcription factor distribution on neoplastic cells

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The neoplastic cells have been treated with chemotherapy to induce malignant cell died. One of the drugs used in cancer treatment (breast) is 5-Fluorouracil which interferes with thymidylate synthase activity. On the other hand the transcription factor Twist is a highly conserved transcription factor involved in the cell movement regulation during early development. Twist belongs to the family of basic helix-loop-helix (bHLH) proteins that can homodimerize or heterodimerize with other proteins of the same family like E proteins, MASH1, MASH2, SCL, etc. Twist has two homologues in vertebrates that are expressed in a broad range of embryonic and adult tissues. Twist has been associated to tumor progression and metastasis of many cancers including breast. We studied the relation between cancer chemotherapy and cell viability on breast cancer line MDA-MB-231 as well as the transcription factor Twist distribution on untreated cells compared with those treated with the citotoxic 5-Fluorouracil. Our results indicate that cell viability decreased significantly with 5-Fluorouracil and the Twist transcription factor distribution significantly increased its distribution in cytoplasm of treated groups with 5-Fluorouracil compared with the control. These results could be interesting to suggest that Twist could be a tag protein to avoid metastasis.

### Biography

Guadalupe García Alcocer completed her PhD from National University of Mexico. She is professor at the University Autonomous of Queretaro, Mexico. She has published more than 15 papers, presented 25 works in International meetings and 30 in National meetings. She is serving as referee in reputed journals like Brain research and Neuroscience Letters. She formed more than 35 students and is member of the National Research System since 2005.

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