Translational Breast Cancer Research

A postdoctoral training position is available in the laboratory of Carlos L. Arteaga, M.D., in the Simmons Comprehensive Cancer Center at UT Southwestern Medical Center. The laboratory has a longstanding interest in understanding the molecular pathways that drive breast cancer progression and influence response to therapies. Our laboratory has a strong mechanism-based translational focus, aimed at developing therapeutic strategies and identifying biomarkers of drug sensitivity and resistance.

Current projects include:

- Discovery of mechanisms of resistance to breast cancer therapies (i.e., estrogen receptor antagonists, CDK4/6 inhibitors, HER2 inhibitors, PI3K/AKT inhibitors)
- Genomic and transcriptomic profiling of drug-resistant breast cancers
- Identifying rational combinations to overcome resistance to targeted therapies

We incorporate molecular profiling (DNA/RNA sequencing, single cell-seq) of patient tumors and cell lines, CRISPR, whole genome screens, and mechanistic studies using breast cancer cell lines, cell-line-derived xenografts, and patient-derived organoids and xenografts, with the goal of using insights from the laboratory to inform clinical trials.

Relevant recent publications that apply to these topics include:

- Co-occurring gain-of-function mutations in HER2 and HER3 modulate HER2/HER3 activation, oncogenesis, and HER2 inhibitor sensitivity. Cancer Cell 2021 Aug 9;39(8):1099-1114

Applicants with a Ph.D., M.D., or M.D./Ph.D. and a strong background in molecular & cell biology and genomics with an interest in translational research in cancer are encouraged to apply. A track record of productivity and publications in well-established journals would be a strength.

Information on our postdoctoral training program, benefits, and a virtual tour can be found at [http://www.utsouthwestern.edu/postdocs](http://www.utsouthwestern.edu/postdocs).

Interested individuals should send a CV, statement of interests, and a list of at least two references (email preferred) to:

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