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 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 profiling of drug-resistant breast cancers
- Identifying rational combinations to overcome resistance to targeted therapies

We incorporate molecular profiling (next-gen DNA/RNA sequencing) of patient tumors, CRISPR, forward genetics, and gain-of-function ORF 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 guide clinical trials.

Relevant recent publications that apply to these topics include:

- **ER+ Breast Cancers Resistant to Prolonged Neoadjuvant Letrozole Exhibit an E2F4 Transcriptional Program Sensitive to CDK4/6 Inhibitors.** Clin Cancer Res. 2018 Jun 1;24(11):2517-2529.

Applicants with a recent 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 are encouraged to apply. A track record of productivity and publications in well-established journals is essential.

Information on our postdoctoral training program and benefits can be found in our Postdoc Handbook or at [http://www.utsouthwestern.edu/postdocs](http://www.utsouthwestern.edu/postdocs).

Interested individuals should send a CV, statement of interests, and a list of three references to:

Carlos L. Arteaga, MD  
UT Southwestern Medical Center  
5323 Harry Hines Blvd.  
Dallas, TX 75390-8807  
[Carlos.Arteaga@utsouthwestern.edu](mailto:Carlos.Arteaga@utsouthwestern.edu)

[https://profiles.utsouthwestern.edu/profile/146478/carlos-arteaga.html](https://profiles.utsouthwestern.edu/profile/146478/carlos-arteaga.html)

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