

**2026 Distinguished Scientist Award
And
2026 Student Achievement Awards
for
Westchester Chemical Society**

**“Metabolic and Translational Reprogramming in
Advanced Cancer”**

**Speaker: Columba de la Parra, Ph.D.
2026 Distinguished Scientist
Westchester Chemical Society
Assistant Professor, Lehman College.
The Graduate Center, CUNY**

Date: Tuesday, April 28, 2026

**Place: Pace University
Steven Friedman Room
Wilcox Hall
861 Bedford Road
Pleasantville, NY**

Cost: \$40 / \$20 Students

RSVP: by Saturday, April 25, 2026

to Peter Corfield at pcorfield@fordham.edu





ACS Local Section
New York
Westchester Chemical Society

“Metabolic and Translational Reprogramming in Advanced Cancer”

EVENT DETAILS

Time:

5:15 Registration and Social Hour
6:00 Lecture
7:00 Distinguished Scientist and Student Awards
7:15 Dinner

ZOOM Option: This event will be available on Zoom.

Here is the link:

<https://fordham.zoom.us/j/5962595219?omn=86514577623>

Abstract:

Metabolic reprogramming and therapy resistance are central drivers of breast cancer progression and metastasis. In this talk, we will highlight two critical areas of research. First, in triple-negative breast cancer (TNBC), an aggressive subtype associated with significantly decreased patient survival, tumor cells adapt to stress by selectively translating mRNAs that support metabolism and survival, a process mediated by the non-canonical protein translation factor DAP5. Our studies show that DAP5 regulates glucose metabolism and glycolytic proteins, promoting TNBC progression and metastasis. Second, breast cancer treatment has advanced significantly, particularly for estrogen receptor-positive (ER+) tumors. Tamoxifen, an estrogen antagonist, is widely used; however, approximately 40% of patients develop resistance. This resistance is linked to upregulation of microRNA miR-155, a small non-coding RNA that regulates apoptosis and glucose metabolism. Genistein, a natural isoflavone from soybeans, downregulates miR-155, reduces migration, and modulates the Warburg effect, suggesting a potential strategy for overcoming tamoxifen resistance. Collectively, these studies highlight metabolic and translational pathways as key regulators of metastasis in breast cancer and potential targets for intervention.

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“Metabolic and Translational Reprogramming in Advanced Cancer”

Biography:

Dr. Columba de la Parra is an Assistant Professor of Chemistry at Lehman College of the City University of New York (CUNY), and a faculty member in the Chemistry, Biochemistry and Biology Ph.D. Programs at The Graduate Center of CUNY. She is an Engineer with a Master of Science from ITESM, Monterrey Campus (México), and completed her thesis research at Cornell University (Ithaca, NY). She obtained her Ph.D. in Biochemistry from the Medical Sciences Campus of the University of Puerto Rico, followed by a Postdoc at New York University (NYU) School of Medicine.

Dr. de la Parra is passionate about science, research and teaching. Her research focuses on advanced breast cancer and integrates chemical biology, metabolism and translational control. These include studies of protein synthesis regulation, RNA-protein interactions, and bioactive natural compounds with anticancer activity. She has authored multiple peer-reviewed publications and has had her research funded consistently by competitive grant awards, including a predoctoral fellowship from the Department of Defense (DoD) Breast Cancer Research Program, a postdoctoral fellowship from the American Cancer Society (ACS), and two consecutive grants from the National Institutes of Health (NIH) as a faculty member at CUNY, where she also received the Feliks Gross Award in recognition of outstanding research.

The central motivation of Dr. de la Parra’s scientific career is to contribute to the development of novel therapeutic strategies for advanced breast cancer while promoting health and disease prevention. Equally important to her is the academic training of the next generation of highly prepared and competent scientists, in which she is deeply involved.

With attendance at this event, attendees agree to ACS Volunteer and Participant Code of Conduct Policy (<https://www.acs.org/volunteer/explore/code-of-conduct.html>) and Youth Protection Policy (<https://www.acs.org/content/dam/acsorg/volunteer/documents/acs-youth-protection-policy.pdf>), as applicable