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 **AWARD**

Wang's studies are fueled by interest in cells

He has won the 2022 ASBMB Young Investigator Award



By **Shravanti Suresh** (</asbmb-today/authors/shravanti-suresh>)

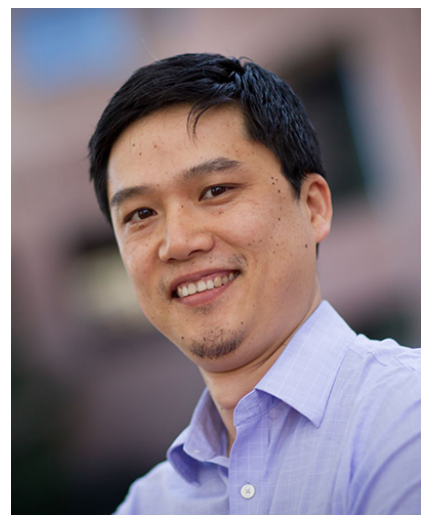
Dec. 16, 2021

Greg Wang (<https://www.gregwanglab.com/>) is fascinated by the molecular biology of cells and the many levels of modifications they encompass to regulate gene expression.

"Follow your heart and do what interests you the most," he said.

Wang followed his heart from China, where he earned undergraduate and master's degrees, to the University of California, San Diego, where he pursued basic research to understand how the cell works. During his Ph.D. in biomedical sciences, he showed that nuclear receptor binding SET domain 1, a family histone methylase transferase protein, is directly linked to transcriptional regulation of the Hox-A locus and histone modification dysregulation leading to cancer formation.

Now an associate professor at the University of North Carolina at Chapel Hill, Wang studies a number of chromatin-modulating enzyme machineries and histone reader proteins that have been shown to be critical for chromatin/gene



Greg Wang

Molecular Biology



"Whenever you ask a question, the answer is often found in the lab," Wang advised. "Whenever you ask a question is, the answer is often found in the lab," Wang advised. "Whenever you ask a question is, the answer is often found in the lab," Wang advised. [\(/asbmb-today\)](/asbmb-today) Wang advises early-career scientists and postdocs fuel his fascination for chromatin biology, he said, and those lab members are leading his foray into molecular medicine.

The ASBMB award adds to a growing list of accolades including the Yang Family Biomedical Scholar award and the Phillip and Ruth Hettleman Prize, both from UNC in 2019; the Leukemia & Lymphoma Society Scholar award in 2018; and the American Cancer Society Research Scholar award in 2016.

Three projects with a chromatin focus

At the ASBMB annual meeting, Greg Wang will talk about his quest to answer questions in the field of chromatin biology and chromatin's effect on gene (de)regulation and cancer formation.

Post-translational modification of histones leads to changes in the chromatin, which lead to fine-tuning of DNA-templated pathways. The misregulation of histone modifications can lead to oncogenesis due to misperception in cell identity and deregulation of gene-expression profiles. Wang was among the first to show that the deregulation of certain histone reader proteins is causal for initiating cancer.

The Wang lab also uses small-molecule inhibitors to target enzymes that modify histones. Along with collaborators, they have developed a set of epigenetic inhibitors via proteolysis targeting chimera, known as PROTAC, which can inhibit and degrade target oncoproteins in tumor cells.

Wang is also interested in how cancer cells use phase separation by acquiring mutations. This allows the cancer cells to enhance a genomic targeting of oncogenic transcription factors and to form a distorted chromatin 3D structure during tumorous transformation.

At the annual meeting, Wang will talk about his research integrating these major projects: cellular crosstalk involving chromatin regulation, phase separation that results in 3D chromatin organization and the development of small molecules to target oncoproteins in tumor cells.



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[Susan Taylor, Herbert Tabor Research Award](#) (<https://www.asbmb.org/asbmb-today/people/122321/taylor-s-career-began-as-a-med-school-detour>)

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Nineteen members of this year's class are ASBMB members

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She's living proof that policy fellowships are worthy of consideration.

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 ANNUAL MEETING

Three JLR junior AEs to speak at annual meeting (/asbmb-today/people/021822/jlr-junior-aes-to-speak-at-annual-meeting)

Feb. 18, 2022

Gordon, Haeusler and Simcox will present their research in a session titled "Lipid Diversity and Disease: Spotlight on the Journal of Lipid Research Junior Associate Editors."



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