



(/asbmb-today)

 AWARD

Wang's studies are fueled by interest in cells

He has won the 2022 ASBMB Young Investigator Award



By [Shravanti Suresh \(/asbmb-today/authors/shravanti-suresh\)](/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 is, the early-career scientist's fascination for chromatin biology, he said, and those lab members are leading his foray into molecular medicine. Greg Wang advises postdocs fuel his research. (</asbmb-today>)

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.



2022 AS

Lea Michel,
(<https://www.asbmb.org/asbmb-today/people/121621/michel-ives-to-be-a-better-ment>)

([/asbmb-today](https://www.asbmb.org/asbmb-today/people/121621/michel-ives-to-be-a-better-ment))

[ives-to-be-a-](https://www.asbmb.org/asbmb-today/people/121621/michel-ives-to-be-a-better-ment)

Marlene Belfort, ASBMB Mid-Career Leadership Award
(<https://www.asbmb.org/asbmb-today/people/120221/belfort-strikes-the-right-balance>)

Michael Airola, Walter A. Shaw Young Investigator Award in Lipid Research
(<https://www.asbmb.org/asbmb-today/people/120321/airola-learns-from-failure>)

Alex Toker, Avanti Award in Lipids (<https://www.asbmb.org/asbmb-today/people/120721/toker-recognized-for-seminal-contributions-to-lip>)

Tatyana Sharpee, Delano Award for Computational Biosciences
(<https://www.asbmb.org/asbmb-today/people/120821/sharpee-sees-many-ways-of-looking-at-a-tree>)

Tracy Johnson, Ruth Kirschstein Diversity in Science Award
(<https://www.asbmb.org/asbmb-today/people/120921/johnson-wants-every-student-to-feel-they-belong>)

Martin Bollinger, William C. Rose Award (<https://www.asbmb.org/asbmb-today/people/121021/bollinger-built-a-bioinorganic-powerhouse-at-penn>)

Joe Provost, ASBMB Award for Exemplary Contributions to Education
(<https://www.asbmb.org/asbmb-today/people/121421/provost-makes-chemistry-accessible-for-undergrads>)

Walther and Robert Farese Jr., ASBMB-Merck Award
(<https://www.asbmb.org/asbmb-today/people/121521/farese-and-walther-find-depth-in-a-droplet>)

Janet Smith, Mildred Cohn Award (<https://www.asbmb.org/asbmb-today/people/121721/smith-unravels-secrets-of-nature-s-catalysts>)



Elaine Fuchs

(<https://www.asbmb.org/where-no-s>

(</asbmb-today>)

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

John Boothroyd, Alice and C.C. Wang Award in Molecular Parasitology (<https://www.asbmb.org/asbmb-today/people/122421/boothroyd-honored-for-toxoplasma-gondii-research>)

Enjoy reading ASBMB Today?

Become a member to receive the print edition monthly and the digital edition weekly.

[LEARN MORE\(/MEMBERSHIP\)](/MEMBERSHIP)



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

[Twitter](https://twitter.com/@shra_krishna) (https://twitter.com/@shra_krishna) [Email](mailto:shravantisuresh@gmail.com)

(<mailto:shravantisuresh@gmail.com>)

Shravanti Suresh is a Ph.D. candidate in Dipali Sashital's lab at Iowa State University and a volunteer ASBMB Today contributor.

Contribute your story →
(<https://asbmbtoday.submittable.com/submit>)

Related



It's what's on
engelhard-v

(/asbmb-today)

HEATHER MASS

Taylor's career began as a med school detour (/asbmb-
today/people/122321/taylor-s-career-began-as-a-med-school-detour)

NIVEDITA UDAY HEGDEKAR

Fuchs goes boldly where no stem cell biologist has gone before (/asbmb-
today/people/122221/fuchs-goes-boldly-where-no-stem-cell-biologist)

ALYSON SMITH

Telomerase studies led Collins to discoveries in genetic elements (/asbmb-
today/people/122121/telomerase-studies-led-collins-to-discoveries)

NICOLE LYNN

Farese and Walther find depth in a droplet (/asbmb-
today/people/121521/farese-and-walther-find-depth-in-a-droplet)

RENAE CROSSING

Provost makes chemistry accessible for undergrads (/asbmb-
today/people/121421/provost-makes-chemistry-accessible-for-undergrads)

MARTINA G. EFEYINI

Get the latest from ASBMB Today

Enter your email address, and we'll send you a weekly email with recent articles, interviews and more.

SUBMIT



Latest in | [\(/asbmb-today\)](/asbmb-today)

People highlights or most popular articles

Show more People → [\(/site-search?](/site-search?SourceCategories=asbmb_today&ArticleCategories=820aaa11-d73e-4e79-9902-d28218f26ac7&SortBy=Date)

[SourceCategories=asbmb_today&ArticleCategories=820aaa11-d73e-4e79-9902-d28218f26ac7&SortBy=Date\)](/site-search?SourceCategories=asbmb_today&ArticleCategories=820aaa11-d73e-4e79-9902-d28218f26ac7&SortBy=Date)

DIVERSITY

Ernie Simms — a groundbreaking researcher and mentor in St. Louis [\(/asbmb-today/people/022222/ernie-simms-groundbreaking-researcher-mentor\)](/asbmb-today/people/022222/ernie-simms-groundbreaking-researcher-mentor)

Feb. 22, 2022

The first Black man to hold a tenured academic appointment at Washington University School of Medicine didn't have a college degree.

[Read More ▶ \(/asbmb-today/people/022222/ernie-simms-groundbreaking-researcher-mentor\)](/asbmb-today/people/022222/ernie-simms-groundbreaking-researcher-mentor)

MEMBER NEWS

AAAS announces 2021 fellows [\(/asbmb-today/people/022122/aaas-announces-2021-fellows\)](/asbmb-today/people/022122/aaas-announces-2021-fellows)

Feb. 21, 2022

Nineteen members of this year's class are ASBMB members

[Read More ▶ \(/asbmb-today/people/022122/aaas-announces-2021-fellows\)](/asbmb-today/people/022122/aaas-announces-2021-fellows)



Feb. 21, 2022

He was an h
study of bloc

(/asbmb-today)

...in the

[Read More > \(/asbmb-today/people/022122/in-memoriam-sadaaki-iwanaga\)](#)

 INTERVIEW

Meet Dominique Carter (/asbmb-today/policy/022022/meet-dominique-carter)

Feb. 20, 2022

She encourages girls to be bold with their endeavors.

[Read More > \(/asbmb-today/policy/022022/meet-dominique-carter\)](#)

 INTERVIEW

Meet Meghan Mott (/asbmb-today/policy/021922/meet-meghan-mott)

Feb. 19, 2022

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

[Read More > \(/asbmb-today/policy/021922/meet-meghan-mott\)](#)

 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."



(/asbmb-today)

6120 Executive Blvd, Suite 400, Rockville, MD 20852. Phone (240) 283-6600

© Copyright 2022 American Society for Biochemistry and Molecular Biology