

Ready to start planning your care? Call us at [800-525-2225](tel:800-525-2225) to make an appointment.

×



Memorial Sloan Kettering
Cancer Center

[About Us](#)
[Sloan Kettering Institute](#)

STRUCTURAL BIOLOGY PROGRAM

[Research](#)

The Christopher Lima Lab

[Education & Training](#)

Structural Biology Program
[News & Events](#)

Research

[Open Positions](#)



Christopher D. Lima, PhD

Member and Chair, Structural Biology Program, SKI; Investigator, Howard Hughes Medical Institute; Alfred P. Sloan Chair

We are a research laboratory that studies fundamental structural, biochemical, and functional attributes for macromolecules involved in post-translational protein modification by ubiquitin and ubiquitin-like proteins such as SUMO, and pathways that contribute to co- and post-transcriptional RNA maturation, processing and decay. We pursue biochemical approaches to reconstitute key intermediates or complexes in these pathways and combine them with single particle cryo-EM and x-ray crystallography in conjunction with

genetics and biochemistry to elucidate structure/activity relationships.

[View Lab Overview](#) →

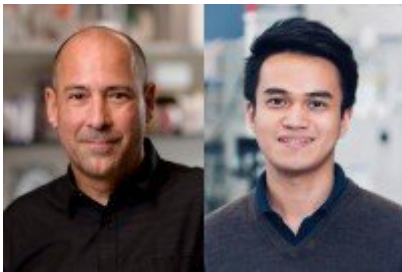
Research Projects

[Post-Translational Protein Modification by Ubiquitin-like Proteins](#)

[RNA Decay](#)

[Other Interests](#)

Featured News



[With Cryo-EM, SKI Scientists Determine Structure of Key Factor in RNA Quality Control](#)

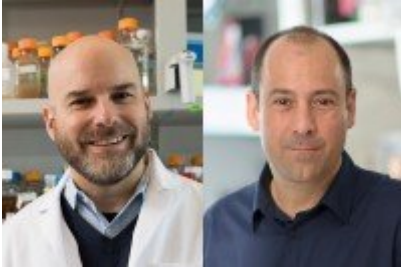
Called NEXT, the factor plays an important role in handing over RNA to the exosome for destruction.

IN THE CLINIC



[MSK Antibody Test Will Aid Understanding of Immune Response to COVID-19 Virus](#)

An antibody test developed at MSK could shed light on the immune response to the COVID-19 virus.



[Two Sloan Kettering Institute Scientists Elected to Esteemed National Academy of Sciences](#)

Membership is a widely accepted mark of excellence in science and considered one of the highest honors a scientist can receive.

[View All Featured News](#)

Publications Highlights

[Bio/Publications at ORCID: 0000-0002-9163-6092](#)

[Puno, M.R., Lima, C.D. Structural basis for RNA surveillance by the human nuclear exosome targeting \(NEXT\) complex. *Cell* 185, 2132-2147 \(2022\) doi: 10.1016/j.cell.2022.04.016](#)

[Das, M., Zattas, D., Zinder, J.C., Wasmuth, E.V., Henri, J., Lima, C.D. Substrate discrimination and quality control require each catalytic activity of TRAMP and the nuclear RNA exosome. *Proc Natl Acad Sci U S A.* 118:e2024846118. \(2021\) \[PMID: 33782132\]](#)

[Hann, Z.S., Ji, C., Olsen, S.K., Lu, X., Lux, M.C., Tan, D.S., Lima, C.D. Structural basis for adenylation and thioester bond formation in the ubiquitin E1. *Proc Natl Acad Sci U S A.* 116, 15475-15484. \(2019\) \[PMID: 31235585\]](#)

[Weick, E.M., Puno, M.R., Januszyk, K., Zinder, J.C., DiMattia, M.A., Lima, C.D. Helicase-Dependent RNA Decay Illuminated by a Cryo-EM Structure of a Human Nuclear RNA Exosome-MTR4 Complex. *Cell* 173, 1663-1677 \(2018\) \[PMID: 29906447\]](#)

[View All Publications](#)

People

Christopher D. Lima, PhD

Member and Chair, Structural Biology Program, SKI; Investigator, Howard Hughes Medical Institute; Alfred P. Sloan Chair

The Lima laboratory studies mechanisms underlying RNA processing as well as post-translational protein modification by ubiquitin-like proteins.

PhD, Northwestern University

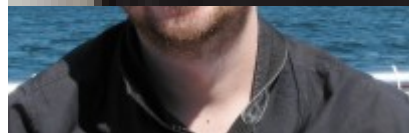
✉ limac@mskcc.org

Email Address

☎ [212-639-8205](tel:212-639-8205)

Office Phone

Members



Vladimir Baytshtok

Research Fellow



Mom Das

Senior Research Scientist



Michael
Fishman
Graduate Student



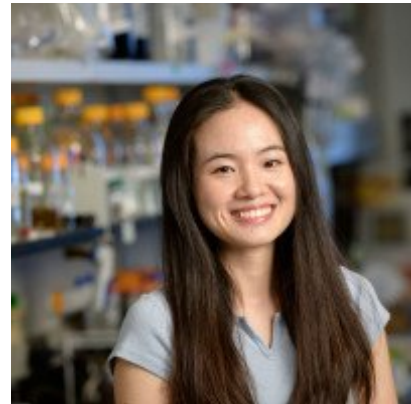
Anatasia Gangadin
Assistant to the Chair



Tomasz Kochanczyk
Research Fellow



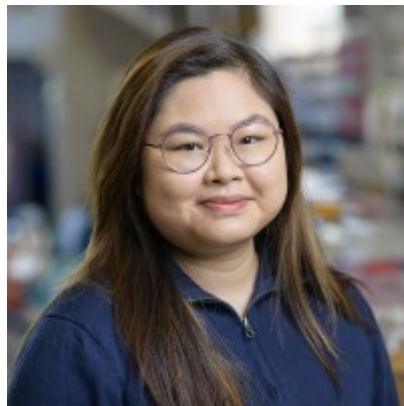
Abigail Lemmon
Graduate Student



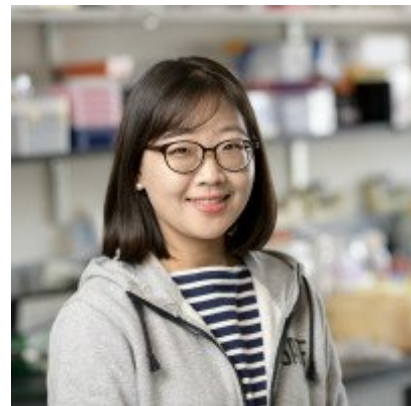
Jiacheng 'Coco'
Liu
Graduate Student



Ella M. M.
Nguyen
Graduate Student



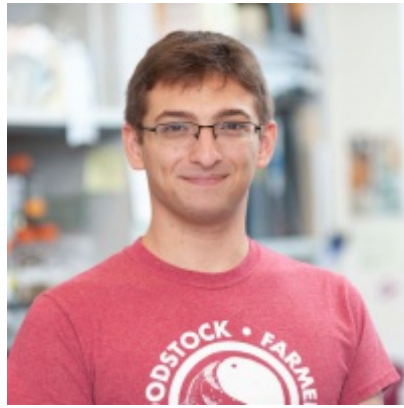
Ha An
Nguyen
Research Fellow



Mi Seul
Park
Research Fellow



Joshua Peter
Research Fellow



Lucas
Repeta
Graduate Student



Christopher D. Lima
Member; Chair, Structural
Biology Program, SKI



Nancy
Arango
Senior Research
Technician

Lab Alumni
+

Lab Affiliations
+

Achievements

Member, National Academy of Sciences (2020)

Fellow of the American Academy of Arts and Sciences (2017)

Investigator, Howard Hughes Medical Institute (2013)

Louise and Allston Boyer Young Investigator in Basic Research, Memorial Sloan Kettering Cancer Center (2006)

Scholar, Rita Allen Foundation (2003-2006)

Read more

+

Open Positions

To learn more about available postdoctoral opportunities, please visit our [Career Center](#)

To learn more about compensation and benefits for postdoctoral researchers at MSK, please visit [Resources for Postdocs](#)

Career Opportunities

Applicants who are interested in working on mechanisms involved in post-translational protein modification or RNA capping and decay processes are always encouraged to apply for Postdoctoral Fellow positions in the lab.

[Apply now](#) →

Get in Touch

✉ limac@mskcc.org

Lab Head Email

☎ [212-639-8205](tel:212-639-8205)

Office Phone

☎ [212-717-3047](tel:212-717-3047)

Office Fax

☎ [212-639-8170](tel:212-639-8170) / [8057](tel:212-8057) / [8763](tel:212-8763)

Lab Phone

☎ [212-717-3047](tel:212-717-3047)

Disclosures

Doctors and faculty members often work with pharmaceutical, device, biotechnology, and life sciences companies, and other organizations outside of MSK, to find safe and effective cancer treatments, to improve patient care, and to educate the health care community.

MSK requires doctors and faculty members to report (“disclose”) the relationships and financial interests they have with external entities. As a commitment to transparency with our community, we make that information available to the public.

Christopher D. Lima discloses the following relationships and financial interests:

Biogen Idec

Equity

Cornell Research Foundation

Intellectual Property Rights

General Electric

Equity

Vertex Pharmaceuticals

Equity

The information published here is for a specific annual disclosure period. There may be differences between information on this and other public sites as a result of different reporting periods and/or the various ways relationships and financial interests are categorized by organizations that publish such data.

This page and data include information for a specific MSK annual disclosure period (January 1, 2022 through disclosure submission in spring 2023). This data reflects interests that may or may not still exist. This data is updated annually.

Learn more about MSK’s COI policies [here](#). For questions regarding MSK’s COI-related policies and procedures, email MSK’s Compliance Office at ecoi@mskcc.org.

[View all disclosures](#) →

[Communication preferences](#)

[Cookie preferences](#)

[Legal disclaimer](#)

[Accessibility Statement](#)

[Privacy policy](#)

[Public notices](#)

© 2024 Memorial Sloan Kettering Cancer Center