

Michel Nofal

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Boston, MA

EDUCATION

Princeton University

Princeton, New Jersey

Ph.D., Quantitative and Computational Biology

November 2018

University of California at Berkeley

Berkeley, California

B.S., Bioengineering

May 2011

Honors in Bioengineering

Regents' and Chancellor's Scholar

RESEARCH

Harvard Medical School

Boston, Massachusetts

My research in the laboratory of Dr. Peng Yin at the Wyss Institute for Biologically Inspired Engineering is focused on developing multiplexed imaging approaches to explore the endolysosomal system and other aspects of cell and organismal biology.

September 2020 - present

Princeton University

Princeton, New Jersey

My research in the laboratory of Dr. Josh Rabinowitz in the Lewis-Sigler Institute for Integrative Genomics is focused on understanding the mechanisms used by Ras-mutant cancer cells to acquire nutrients. In particular, I am interested in understanding what drives protein scavenging in tumors.

September 2011 - August 2020

PUBLICATIONS Michel Nofal, Tim Wang, Lifeng Yang, Sophia Hsin-Jung Li, Seunghun Han, Lance Parsons, Alexander N Frese, Zemer Gitai, Tracy G Anthony, Martin Wuhr, David M Sabatini, Joshua D Rabinowitz.
GCN2 Adapts the Proteome to Scavenging-Dependent Growth.
Cell Systems, in revision.

Sophia Hsin-Jung Li*, Michel Nofal*, Lance Parsons, Zemer Gitai, Joshua D Rabinowitz.
Monitoring mammalian mitochondrial translation with MitoRiboSeq, a mitoribosome profiling method.
Nature Protocols, in revision.

Michel Nofal, Joshua D Rabinowitz.
Ribosomes on the night shift: The universal protein-making machine becomes a nutrient source between meals.
Science, 2018.

Vito W Rebecca, Michael C Nicastrì, Noel McLaughlin, Colin Fennelly, Quentin McAfee, Amruta Ronghe, Michel Nofal, Chun-Yan Lim, Eric Witze, Cynthia I Chude, Gao Zhang, Gretchen M Alicea, Shengfu Piao, Sengottuvelan Murugan, Rani Ojha, Samuel M Levi, Zhi Wei, Julie S Barber-Rotenberg, Maureen E Murphy, Gordon B Mills, Yiling Lu, Joshua Rabinowitz, Ronen Marmorstein, Qin Liu, Shujing Liu, Xiaowei Xu, Meenhard Herlyn, Roberto Zoncu, Donita C Brady, David W Speicher, Jeffrey D Winkler, Ravi K Amaravadi.
A unified approach to targeting the lysosome's degradative and growth signaling roles.
Cancer Discovery, 2017.

Michel Nofal, Kevin Zhang, Seunghun Han, Joshua D Rabinowitz.
mTOR Inhibition Restores Amino Acid Balance in Cells Dependent on Catabolism of Extracellular Protein.
Molecular Cell, 2017.

Jurre J Kamphorst*, Michel Nofal*, Cosimo Commisso*, Sean R Hackett, Wenyun Lu, Elda Grabocka, Matthew G Vander Heiden, George Miller, Jeffrey A Drebin, Dafna Bar-Sagi, Craig B Thompson, Joshua D Rabinowitz.
Human Pancreatic Cancer Tumors Are Nutrient Poor and Tumor Cells Actively Scavenge Extracellular Protein.
Cancer Research, 2015.

*Equal contributors

Cosimo Commisso, Shawn M Davidson, Rengin G Soydaner-Azeloglu, Seth J Parker, Jurre J Kamphorst, Sean Hackett, Elda Grabocka, Michel Nofal, Jeffrey A Drebin, Craig B Thompson, Joshua D Rabinowitz, Christian M Metallo, Matthew G Vander Heiden, and Dafna Bar-Sagi.
Macropinocytosis of protein is an amino acid supply route in Ras-transformed cells.
Nature, 2013.

Ki-Young Kwon, Eddie Wang, Michel Nofal, Seung-Wuk Lee.
Microscopic study of hydroxyapatite dissolution as affected by fluoride ions.
Langmuir, 2011.

- AWARDS** NIH Ruth L. Kirschstein Predoctoral Individual National Research Service Award (2014-2017)
- TALKS** AACR Metabolism and Cancer Meeting (2015)
Insights from a Genome-wide CRISPR Screen into Serum Protein Catabolism
Tristate Cancer Metabolism Meeting (2013)
Intact Protein as a Cancer Fuel Source
- POSTERS** EMBO/EMBL Symposium: Metabolism in Time and Space (2017)
Heidelberg, Germany.
*Why mTOR Inhibition Enhances Cell Growth Fueled by Extracellular Protein Catabolism.**
*Won Poster Prize
Keystone Symposium on Tumor Metabolism (2013)
Keystone, Colorado.
Intact Protein as a Cancer Fuel Source
- TEACHING EXPERIENCE** Teaching Assistant for MOL345: Fundamental concepts of biomolecular structure and function will be discussed, with an emphasis on principles of thermodynamics, binding and catalysis. A major portion of the course will focus on metabolism and its logic and regulation (with Fred Hughson). Fall 2015, Princeton University.
Teaching Assistant for ISC236: An integrated, mathematically and computationally sophisticated introduction to biochemistry, molecular biology, genetics, genomics and evolution (with Josh Rabinowitz and Mala Murthy). Fall 2013, Princeton University.
- REFERENCES** Joshua D Rabinowitz, Professor, Princeton University (PhD Mentor)
joshr@princeton.edu
Yibin Kang, Professor, Princeton (PhD Committee Member)
ykang@princeton.edu
Eileen White, Professor, Cancer Institute of New Jersey (PhD Committee Member)
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Martin Wuhr, Assistant Professor, Princeton University (PhD Committee Member)
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