NOVARTIS

# Xiaomo Jiang, PhD

*Exploratory Immuno-Oncology*

*Cambridge, Massachusetts, United States*

Cancer cells reside in a complex microenvironment and interact with many stromal and immune cell components. During tumorigenesis, highly reactive oxygen species (ROS) accumulate due to increased basal metabolic activity, mitochondrial dysfunction, uncontrolled cytokine signaling, and deregulation of genes that control redox signaling. The resulting oxidative stress promotes tumor initiation and progression, and increasing evidence suggests a role for oxidative stress in signaling to the immune system. However, little is known about how the generation and modulation of ROS within the tumor can impact the interplay between the tumor cell and the microenvironment.

Our laboratory would like to explore how such tumor intrinsic factors impact immune cell infiltration and influence response to immunotherapy. To this end, we perform functional genomics to interrogate the role of clinically-relevant oncogenes and tumor suppressors on the tumor metabolic environment and subsequent impact on immune function. Understanding such causal factors should enable new therapeutic approaches that may facilitate beneficial immune infiltrates into tumors and expand the fraction of patients capable of responding to novel immunotherapies.

## Selected Publications


Dishevelled promotes Wnt receptor degradation through recruitment of ZNRF3/RNF43 E3 ubiquitin ligases.
Jiang X, Charlat O, Zamponi R, Yang Y, Cong F.
*Mol Cell. 2015 May 7;58(3):522-33.*

Inactivating mutations of RNF43 confer Wnt dependency in pancreatic ductal adenocarcinoma.
Jiang X, Hao HX, Growney JD, Woolfenden S, Bottiglio C, Ng N, Lu B, Hsieh MH, Bagdasarian L, Meyer R, Smith TR, Avello M, Charlat O, Xie Y, Porter JA, Pan S, Liu J, McLaughlin ME, Cong F.

*Proc Natl Acad Sci U S A. 2013 Jul 30;110(31):12649-54.*

Ubiquitin-induced oligomerization of the RNA sensors RIG-I and MDA5 activates antiviral innate immune response.
Jiang X, Kinch LN, Brautigam CA, Chen X, Du F, Grishin NV, Chen ZJ.
*Immunity. 2012 Jun 29;36(6):959-73.*

Click here for additional publications.

---

**Source URL:** *https://prod1.novartis.com/careers/career-programs/postdoc-program/postdoc-research-themes/cancer-biology-postdoc-mentors/xiaomo-jiang-phd*

**List of links present in page**

1. https://prod1.novartis.com/careers/career-programs/postdoc-program/postdoc-research-themes/cancer-biology-postdoc-mentors/xiaomo-jiang-phd
2. https://pubmed.ncbi.nlm.nih.gov/25891077/
3. https://pubmed.ncbi.nlm.nih.gov/23847203/
4. https://pubmed.ncbi.nlm.nih.gov/22705106/
5. https://pubmed.ncbi.nlm.nih.gov/?term=jiang%2C%20xiaomo