

# LUNGeivity Facebook Live

## Integrative Oncology: Separating Facts from Fiction

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# What is Integrative Oncology?

## Conventional Oncology Treatments

Focus: Control and cure of disease

Interventions

- Chemotherapy
- Radiation
- Surgery
- Immunotherapy
- Targeted treatments
- Angiogenesis inhibitors

Evidence: RCT data; national guidelines

## Complementary Treatments

Focus: Quality of life (fatigue, anxiety, depression)

Interventions

- Lifestyle modifications: diet, exercise, acupuncture, massage, mind-body practices/stress control - meditation, Yoga, Qi Gong, Tai Chi, etc)
- Supplements

Evidence: Guidelines but few RCTs because many interventions are personalized and less amenable to standardization

## Promising Treatments (Morningside focus)

Focus: Control, cure and quality of life

Interventions:

- Drugs (often non-cancer ones that could be repurposed)
- Lifestyle modifications
- Supplements

Evidence: Mainly correlative real world data (retrospective studies); case reports, phase I/II studies - **jury is still out!**

# Should you consider promising treatments?

- A shared decision **between you and your physician** based upon
  - How good conventional outcomes are
  - Available trials
  - Risks/benefit of promising treatment (safety and efficacy)
  - Cost

We believe that the data we will present provides a strong foundation for considering these therapeutic options

# Goals today

Showcase examples of promising/complementary treatments for lung cancer **that can help you today** (focus will be on immunotherapy)

Urge you to **share your health data to accelerate research** on these interventions

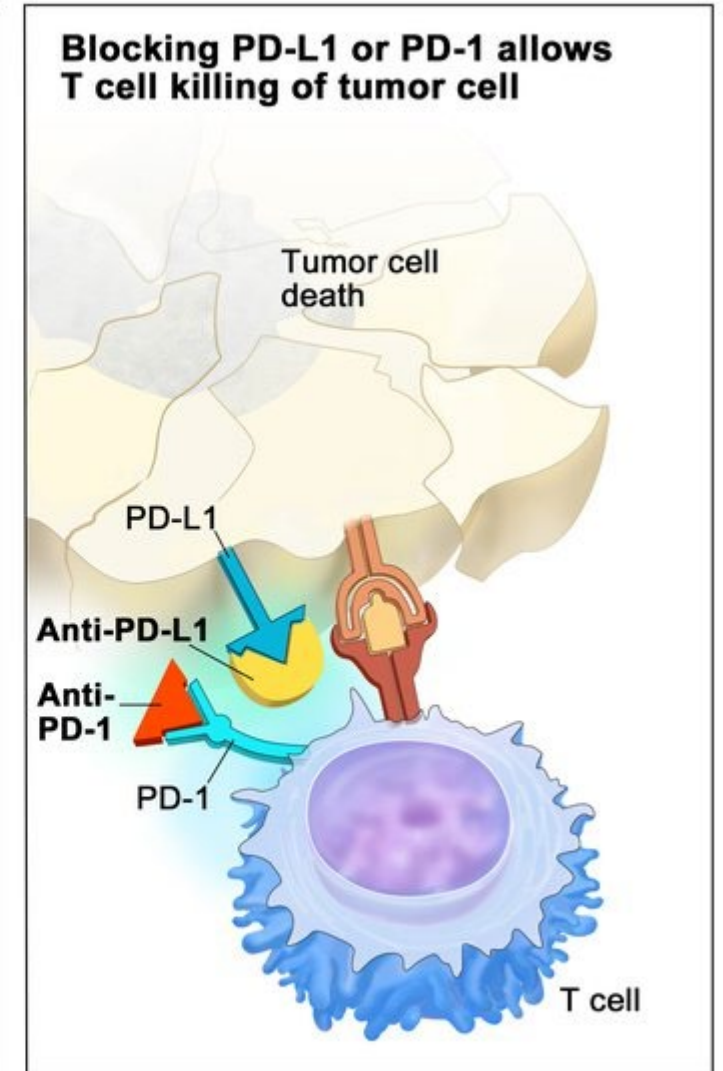
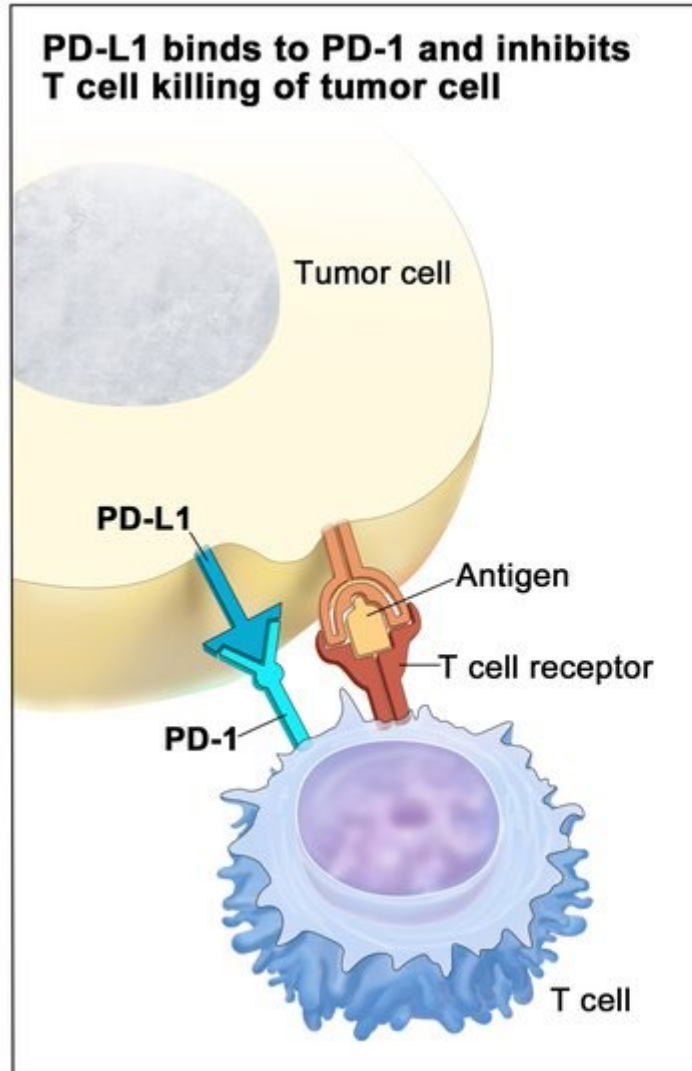
# Cancer immunotherapy: dawn of a new era

## Good news

Immunotherapy drugs e.g. PD-1/PD-L1 antibodies are effective in many solid tumor types. These are called immune checkpoint inhibitors (ICIs). Treatment is called immune checkpoint blockade (ICB).

## Not so good news

There is room for improvement.



Can we do better?

Can we do better **now**?

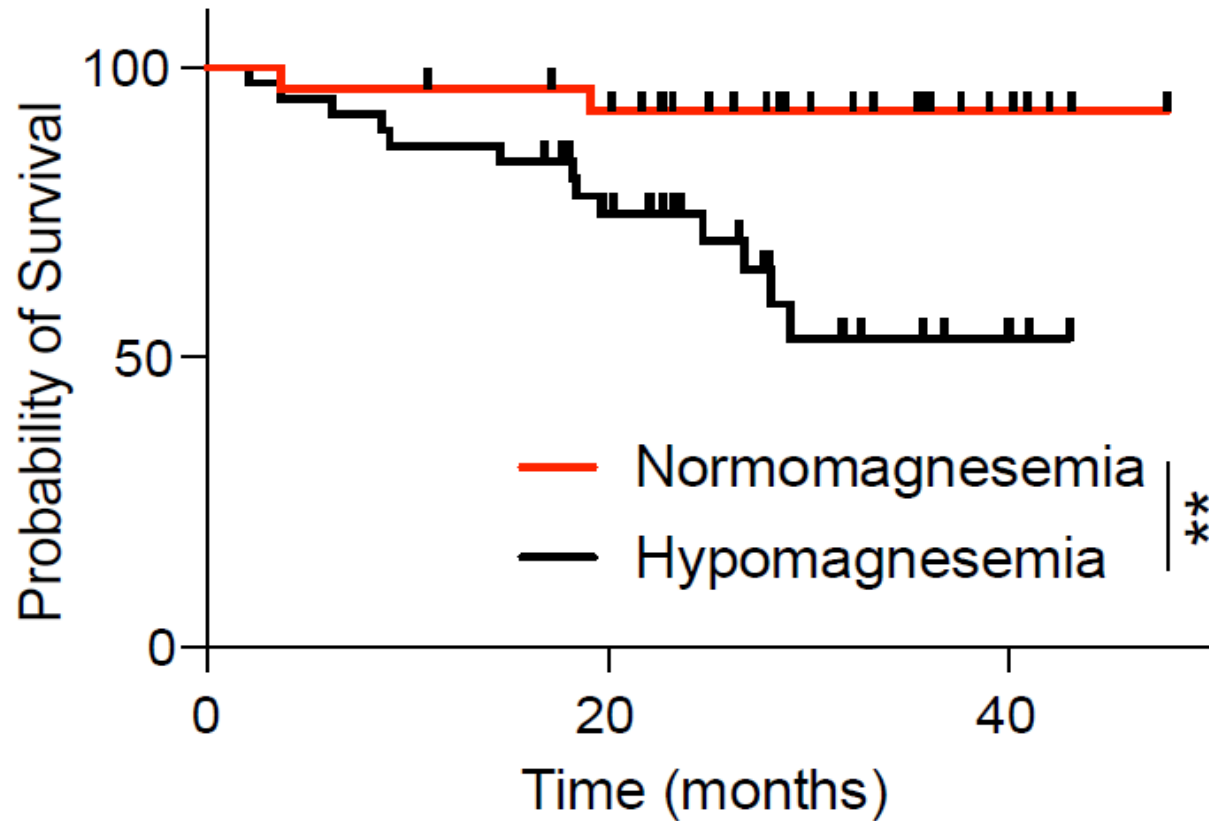
Can we do better **now** with **inexpensive treatments**?

**Possibly yes**, let's take a look!

## **Points to talk about with your provider, if you are on immunotherapy**

- Request morning infusions.
- Request checking blood magnesium and vitamin D levels and, if low, correcting them.
- Eating > 20 grams of fiber daily, if tolerated.
- Request checking histamine blood levels and if high, starting a histamine 1 blocker such as desloratadine.

# Maintaining normal magnesium levels in the blood enhances immunotherapy



PD-L1  
antibody  
treatment  
for NSCLC

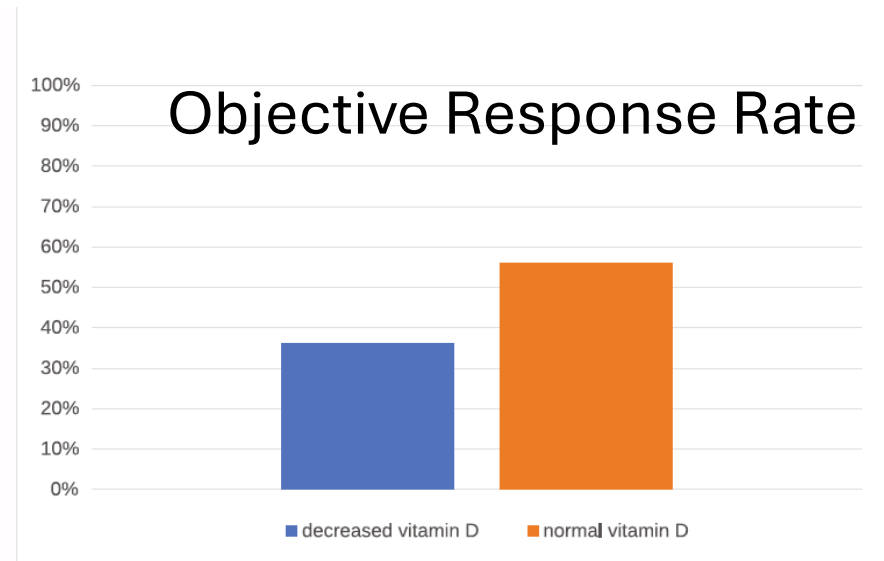


# Vitamin D supplementation increases PD-1 blockade efficacy

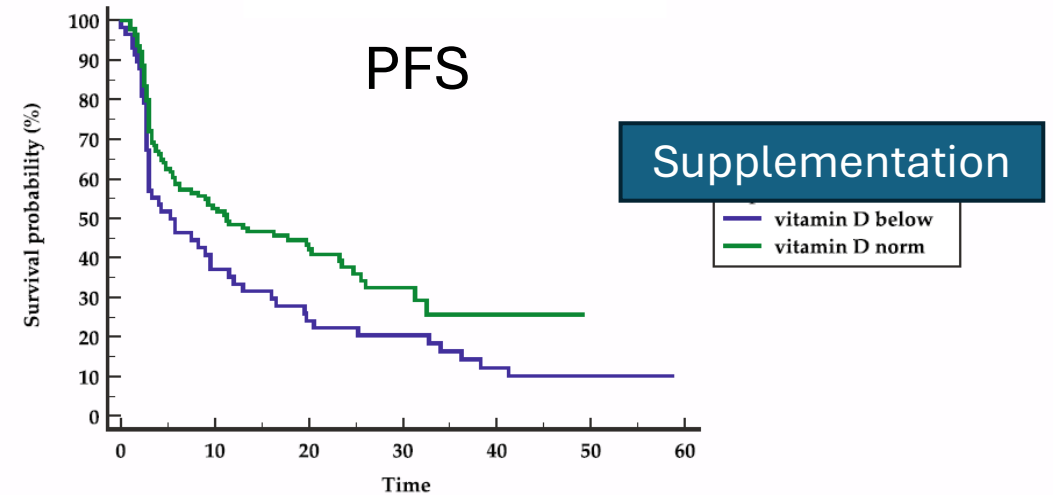
Vitamin D supplementation increases objective response rate and prolongs progression-free time in patients with advanced melanoma undergoing anti-PD-1 therapy

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 Jacek Mackiewicz MD, PhD<sup>1,7</sup>

*Cancer.* 2023;129:2047–2055.



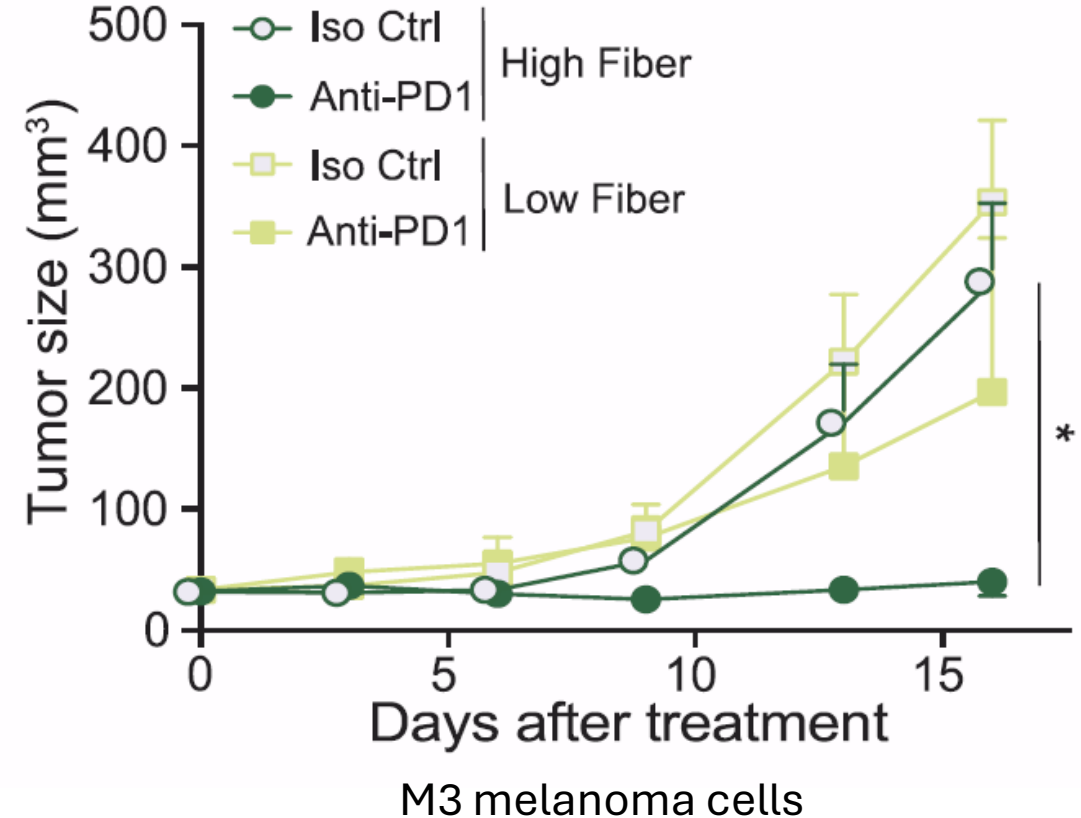
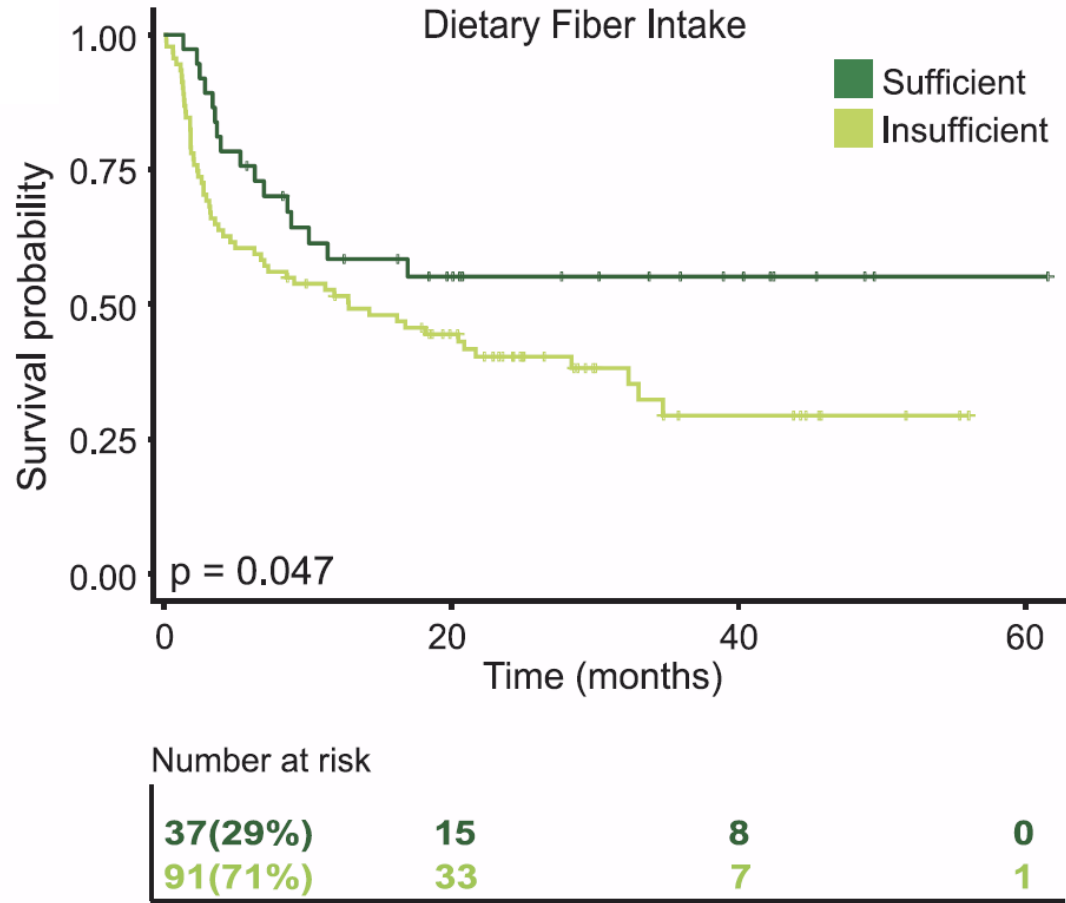
Response rates following anti-PD-1 treatment in patients with advanced melanoma showing normal and reduced vitamin



Number at risk

Time	0	10	20	30	40	50	60
Group: vitamin D below	57	20	13	11	6	4	0
Group: vitamin D norm	141	65	34	12	1	0	0

# Dietary fiber intake and PD-1 blockade efficacy



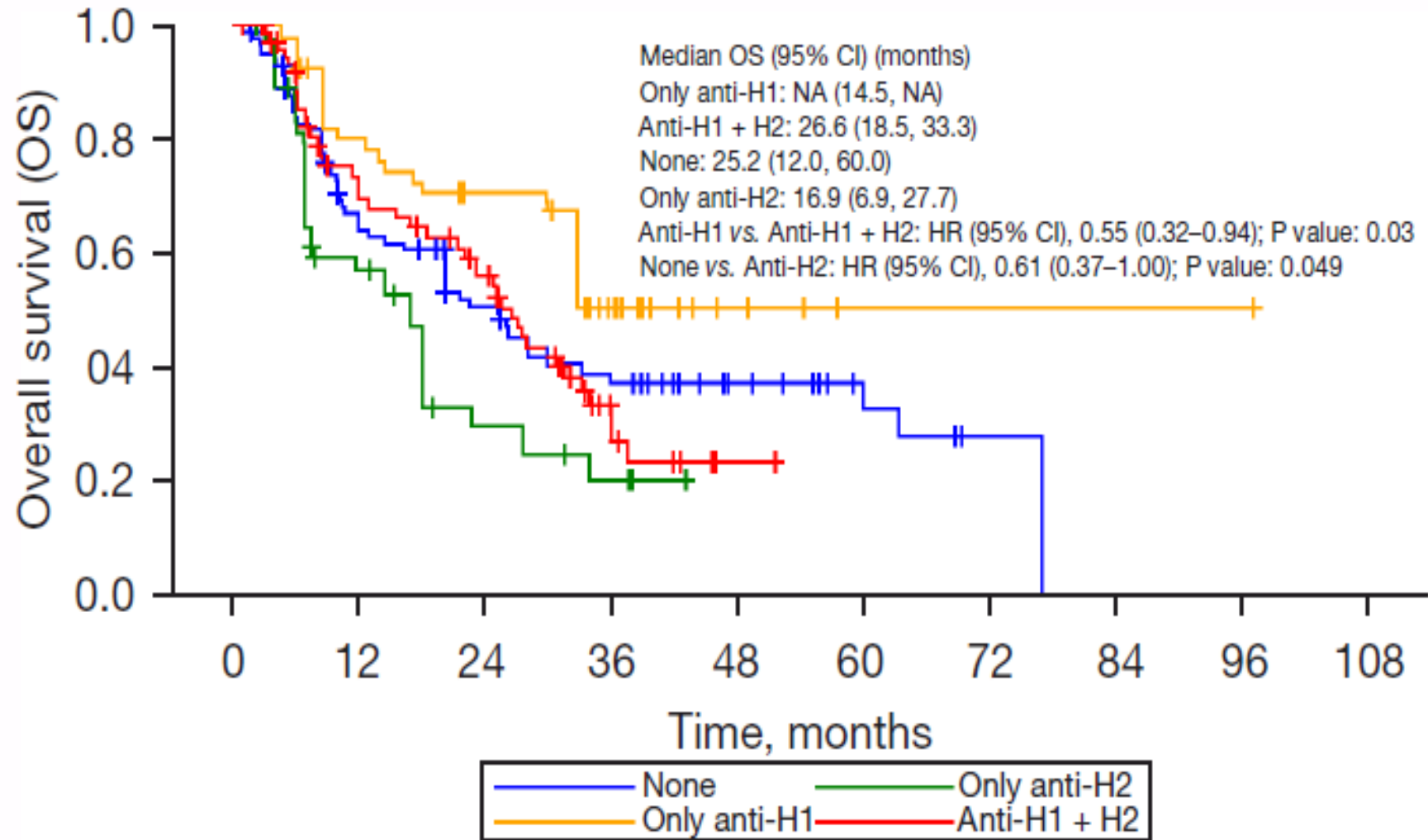
**Dietary fiber and probiotics influence the gut microbiome and melanoma immunotherapy response**

Spencer *et al.*, *Science* **374**, 1632–1640 (2021)

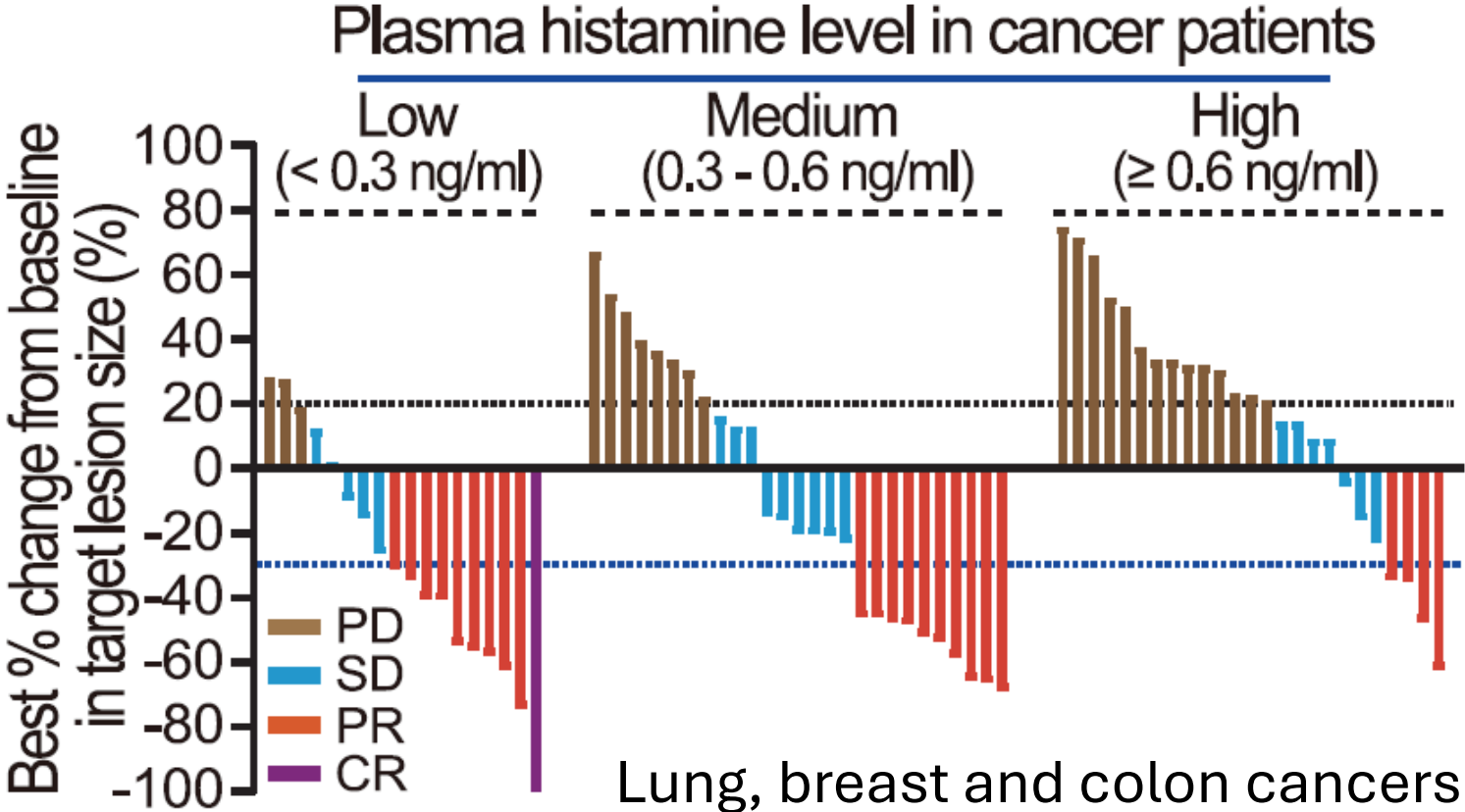
# Histamine 1 blocker usage correlates with better immuno- therapy efficacy

**Efficacy:** H1  
blockade good,  
H2 bad

**Severe toxicities:**  
5-fold reduction!



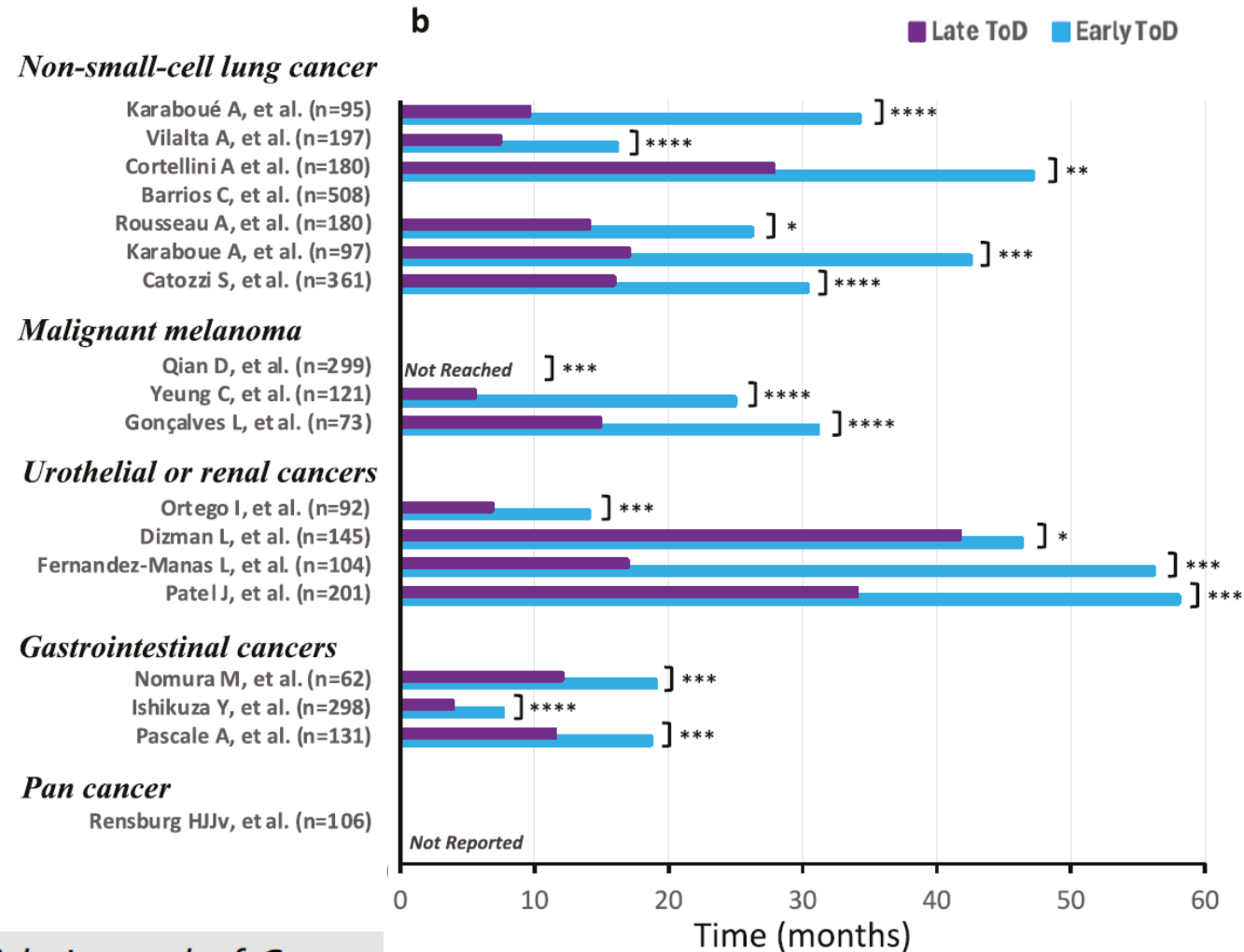
# High plasma histamine levels correlate with poorer clinical response to immunotherapy



Li et al., 2022, Cancer Cell 40, 36–52

# Morning infusions correlate with better outcomes

18 studies, 3250 patients, 7 cancer types (melanoma, lung, kidney, bladder, esophageal, stomach, liver)



Overall  
Survival

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# Other factors that may impact immunotherapy treatments

Correlation with **worse** outcomes

- proton pump inhibitors
- H2 blockers
- antibiotics
- off the shelf probiotics
- acetaminophen

*Frontiers in Immunology 2024; Coleman et al (Sukhatme)*

# A request...

- You can help yourself and others like you by donating your medical data to a national **patient cancer registry**.
- We believe this is a complementary approach to clinical trials for gathering evidence of safety and efficacy.
- We have set up a registry to collect and analyze outcomes data on such interventions. The link is under the “Clinical Impact” tab at **[morningsidecenter.emory.edu](http://morningsidecenter.emory.edu)**
- Takes 5 minutes



**Thanks**