UC Irvine 趙 Chao Family Comprehensive Cancer Center

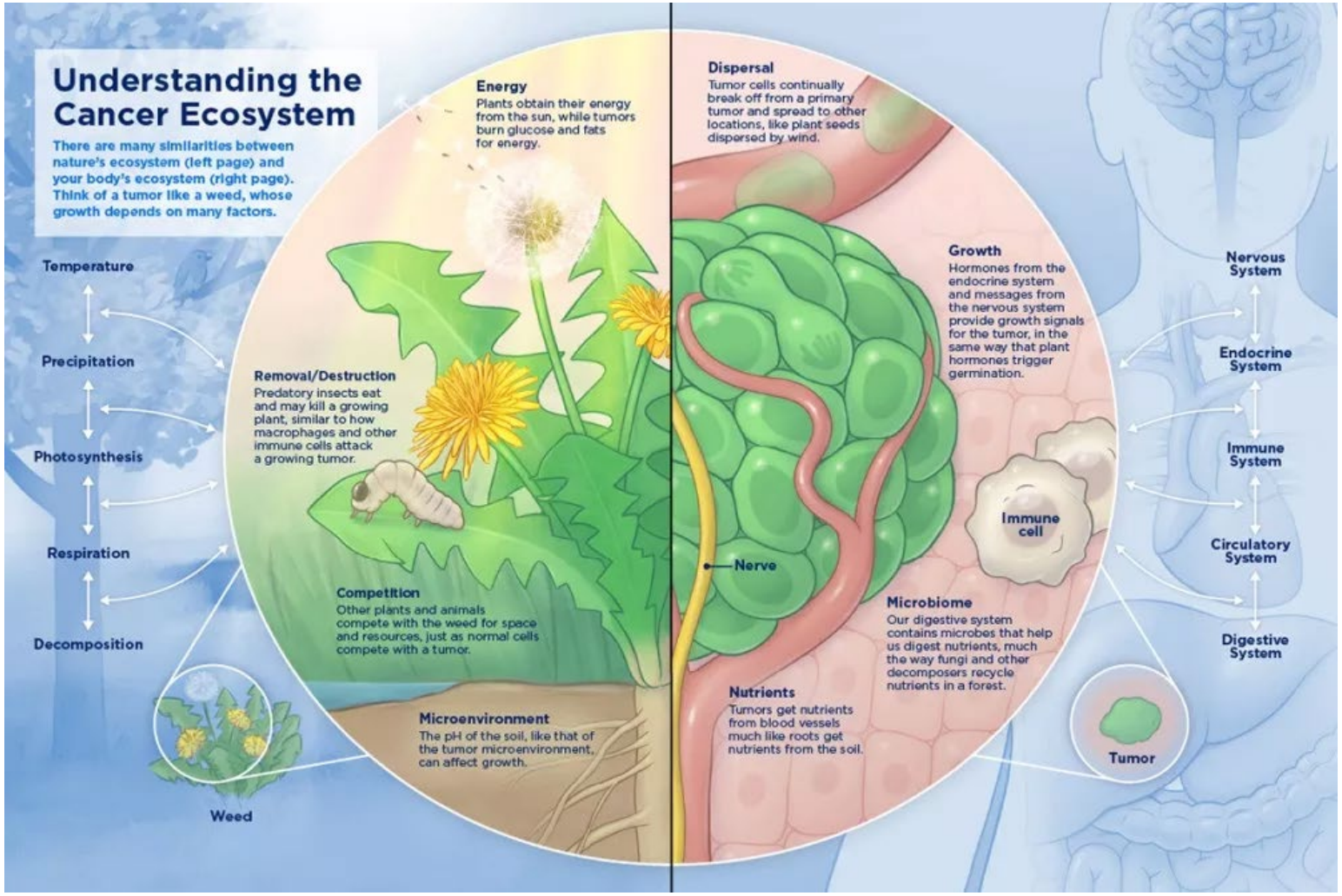
Integrative Oncology Research

Gary Deng, MD, PhD

2026 Scientific Retreat

November 5, 2026

Understanding the Cancer Ecosystem



What is Integrative Whole Person Care

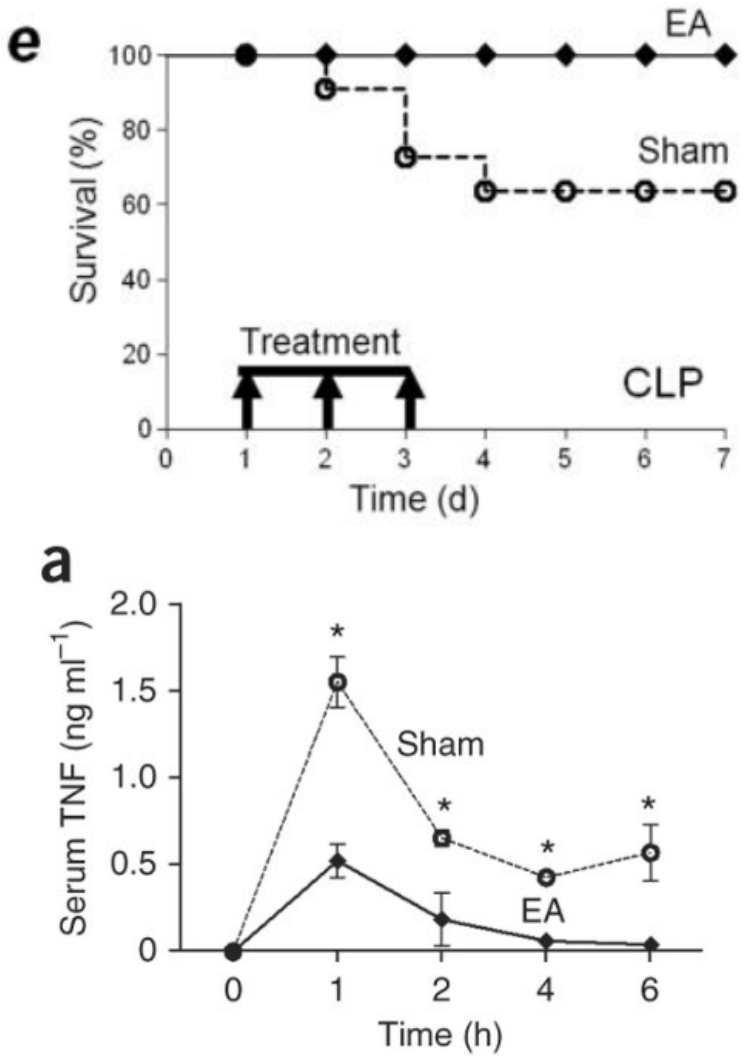
Cancer lives in an ecosystem. Cancer and cancer treatment are put in the content of the whole person and the person in the context of their life. We want to treat cancer at the whole-organism level, in addition to at the molecular, cellular, and tissue level. Many of the whole-person interventions have roots in ancient medical systems. Integrating the old and the new help us to achieve whole person health.

Three Research Themes

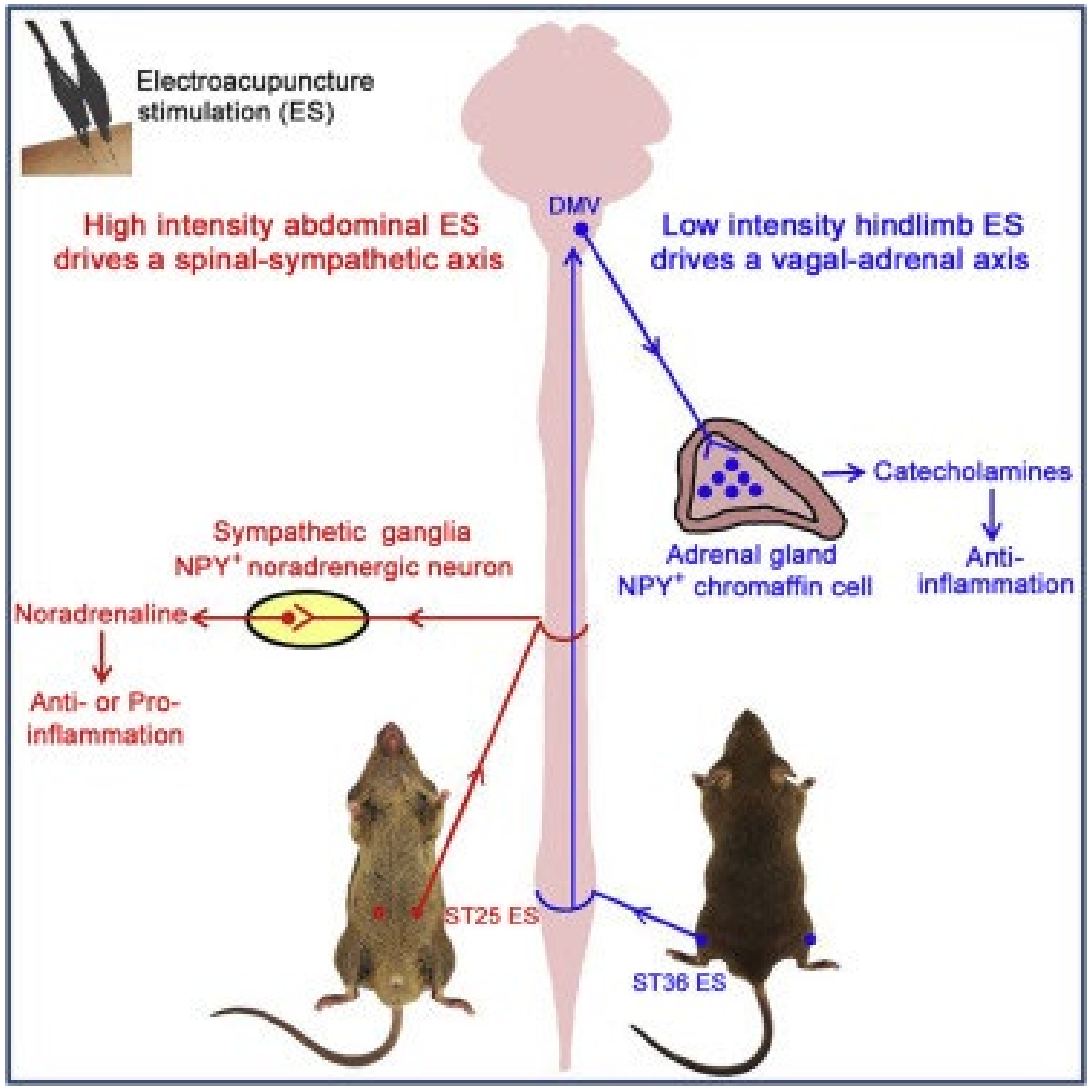
1. Mobilizing endogenous forces/processes to restore health
2. Changing the cancer ecosystems to improve therapeutic outcome
3. Evidence-informed guidance to clinical practice

Mobilizing endogenous forces/processes to restore health

Acupuncture improves survival in sepsis mouse model



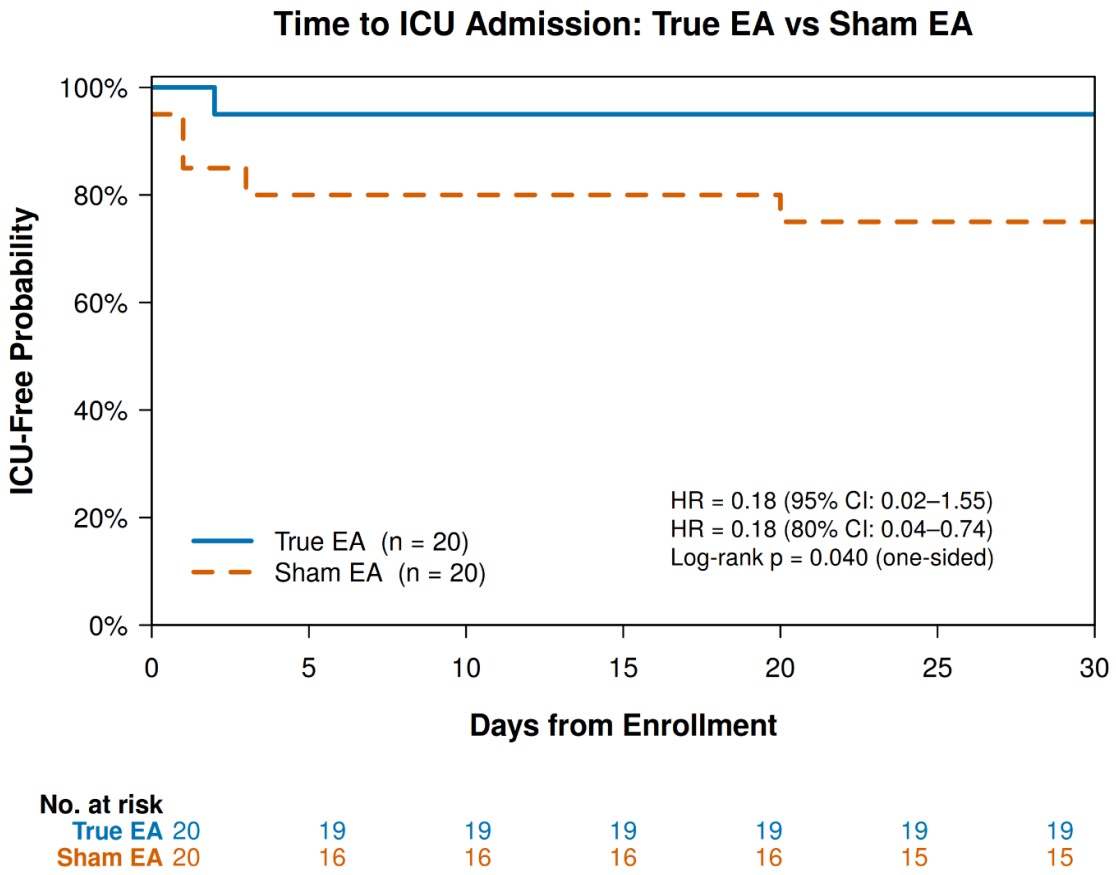
Nat Med. 2014, 20(3):291-5.)

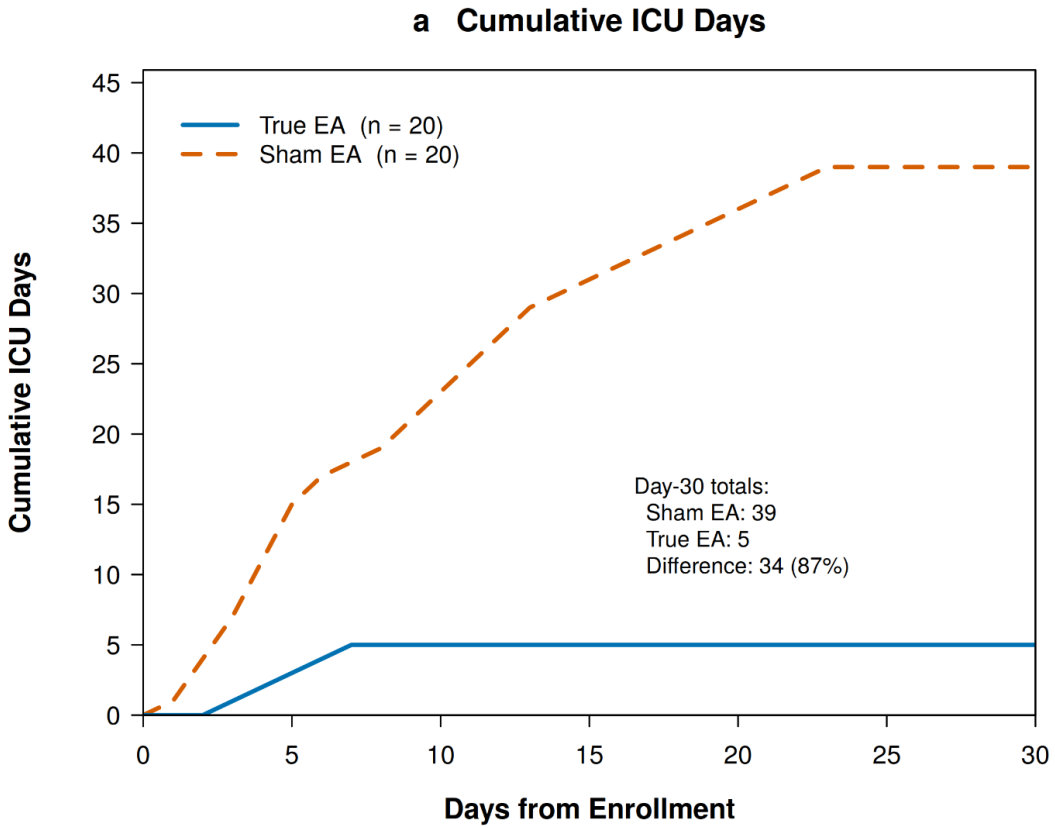


Neuron, 2020, 108:436-450

Mobilizing endogenous forces/processes to restore health

The ACTIONS trial: phase 2 RCT of acupuncture vs sham to rescue early sepsis patients and reduce ICU admission





Mobilizing endogenous forces/processes to restore health

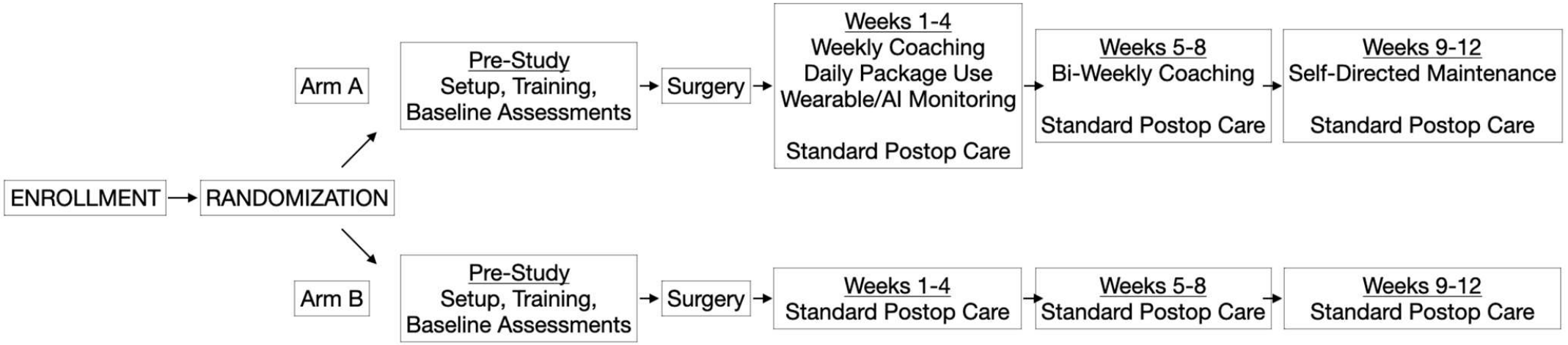
SPRINT: Surgical Patient Recovery with INtegrative Therapy

A pilot RCT of 30 patients undergoing complex abdominal surgery for malignancy to receive standard postoperative monitoring +/- a technology-based Just-in-Time at-home interventions to improve nutrition, physical activity, sleep optimization, symptom management, and stress reduction.

Feasibility, functional recovery, QoL, and use of healthcare resources will be evaluated.

PI: **Oliver Eng, MD**

Co-PI: **Gary Deng, MD, PhD**

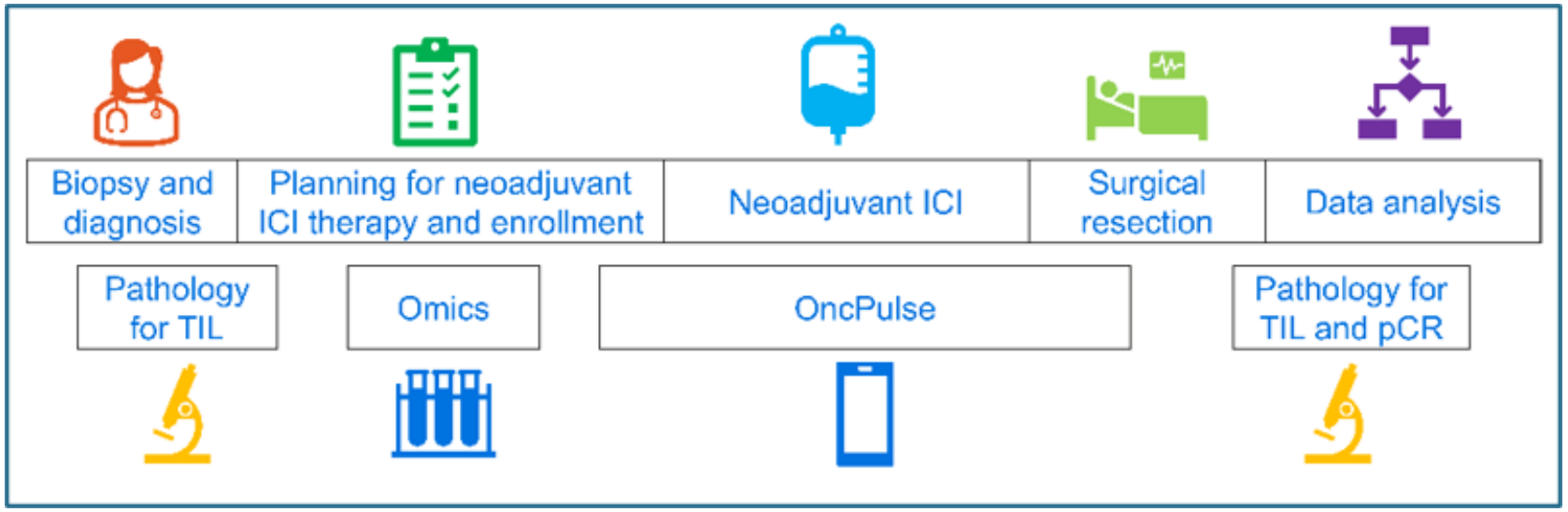


Changing the cancer ecosystems to improve therapeutic outcome

LIFT: Lifestyle Improvement to Facilitate Tumor-immunity

A prospective cohort observational study enrolling 30 patients with newly diagnosed melanoma or urothelial carcinoma for whom neoadjuvant ICI is planned, followed from pre-treatment biopsy through ICI then surgical resection at UCI Health. Patients' diet, physical activities, stress, sleep, and circadian rhythm are evaluated by questionnaires and wearable devices. Feasibility and association between lifestyle parameters and TIL and pCR rate will be evaluated.

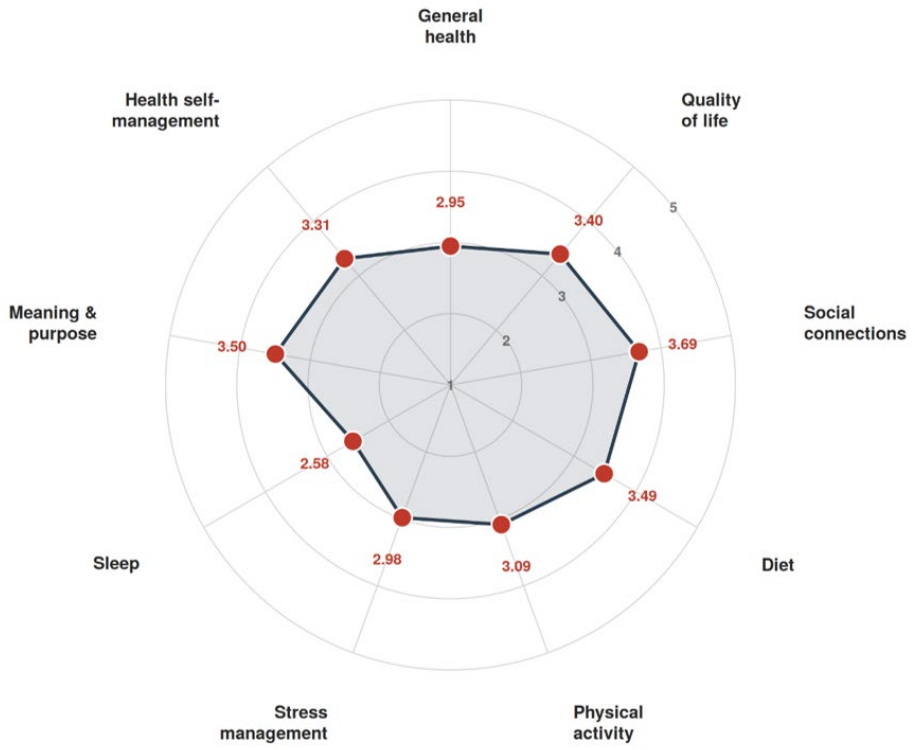
PI: Gary Deng, MD, PhD. Co-Is: Poorva Vaidya, MD, Warren Chow, MD, Maki Yamamoto, MD, Thuy Tran, MD, Nataliya Mar, MD, Michael Daneshvar, MD, Min Zhang, MD, PhD[2].

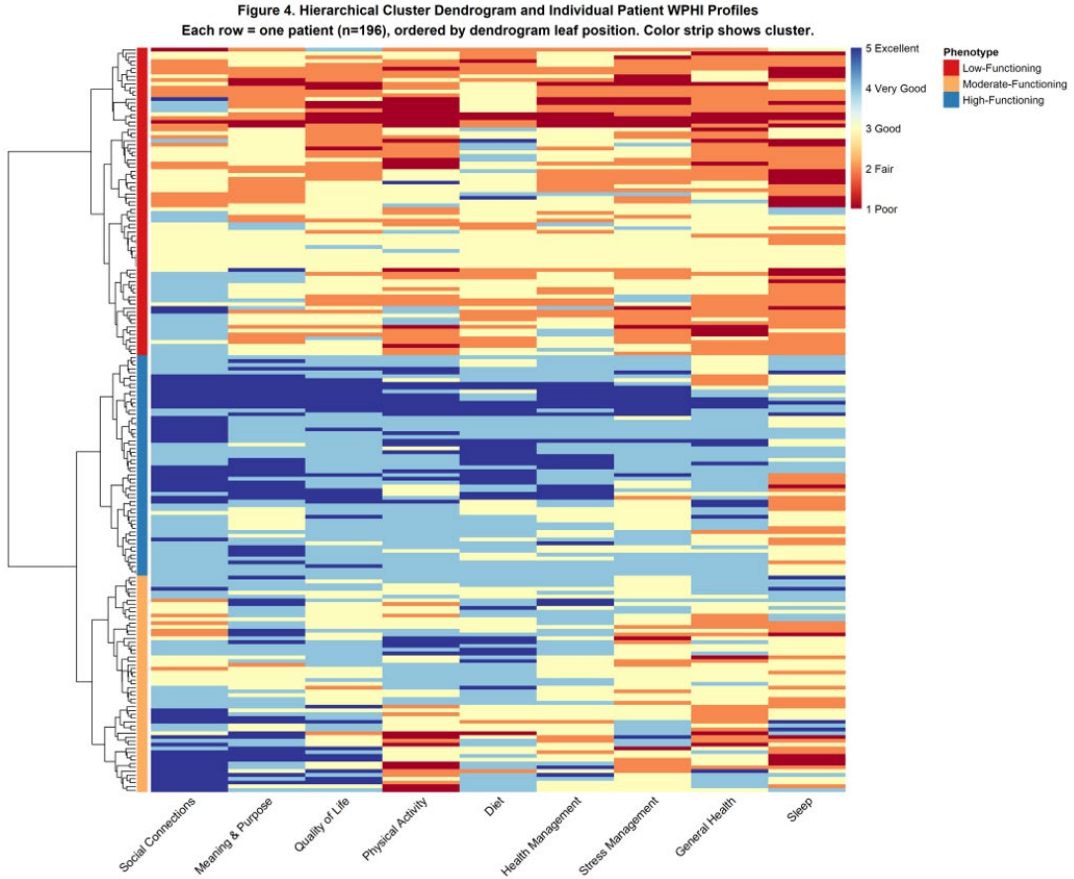


Changing the cancer ecosystems to improve therapeutic outcome

Whole Person Health Assessment of Cancer Patients

A clinical care initiative to systematically assess cancer patients using the Whole Person Health Index and track them through the cancer care continuum



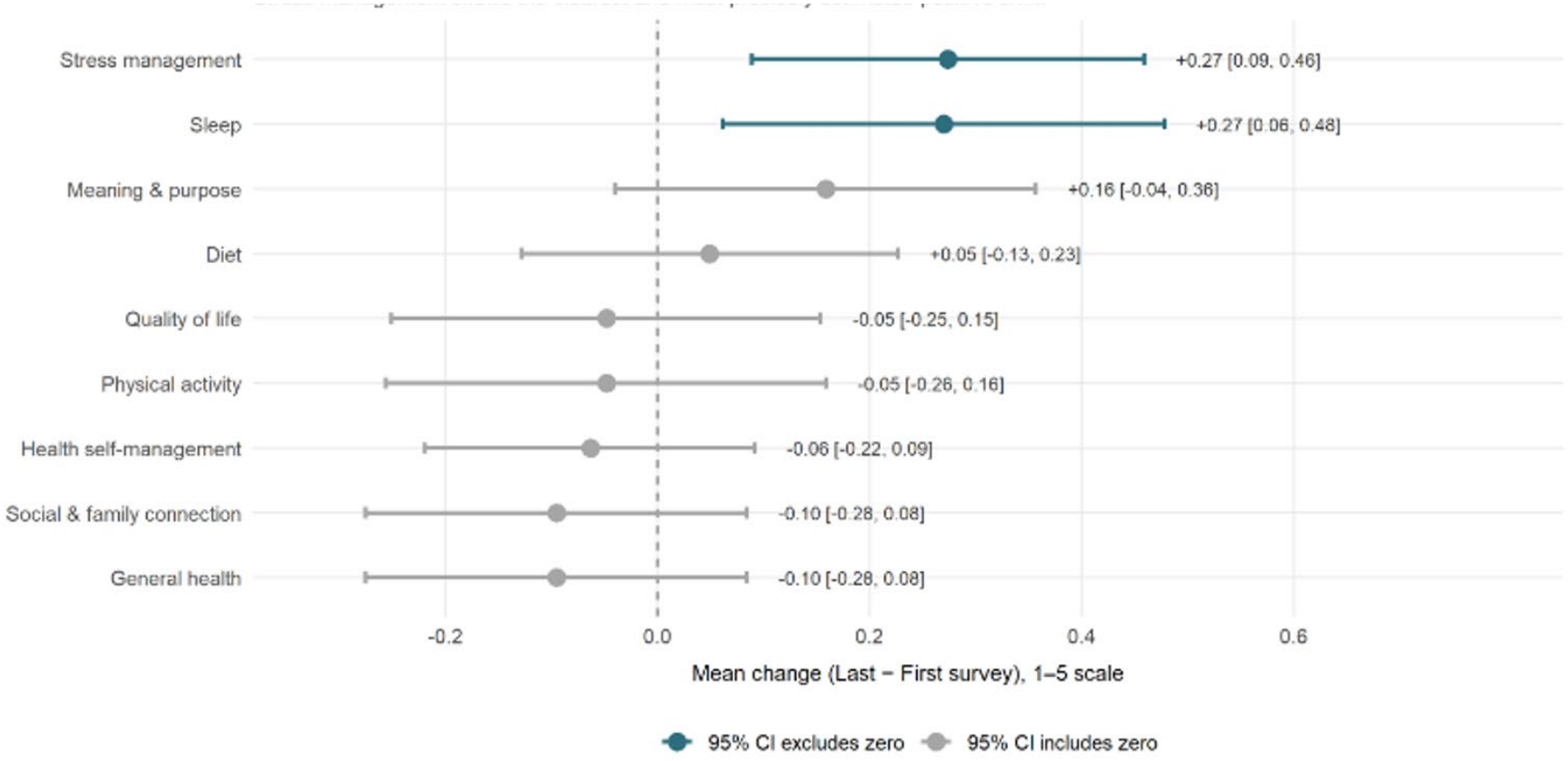


Changing the cancer ecosystems to improve therapeutic outcome

Whole Person Health Assessment of Cancer Patients

Significant improvements in stress management and sleep after integrative oncology consultations. Expanding to all UCI breast cancer patients and later all UCI cancer patients.

- UCLA, UCSF, UCSF, and UCD integrative oncology programs will join this initiative.

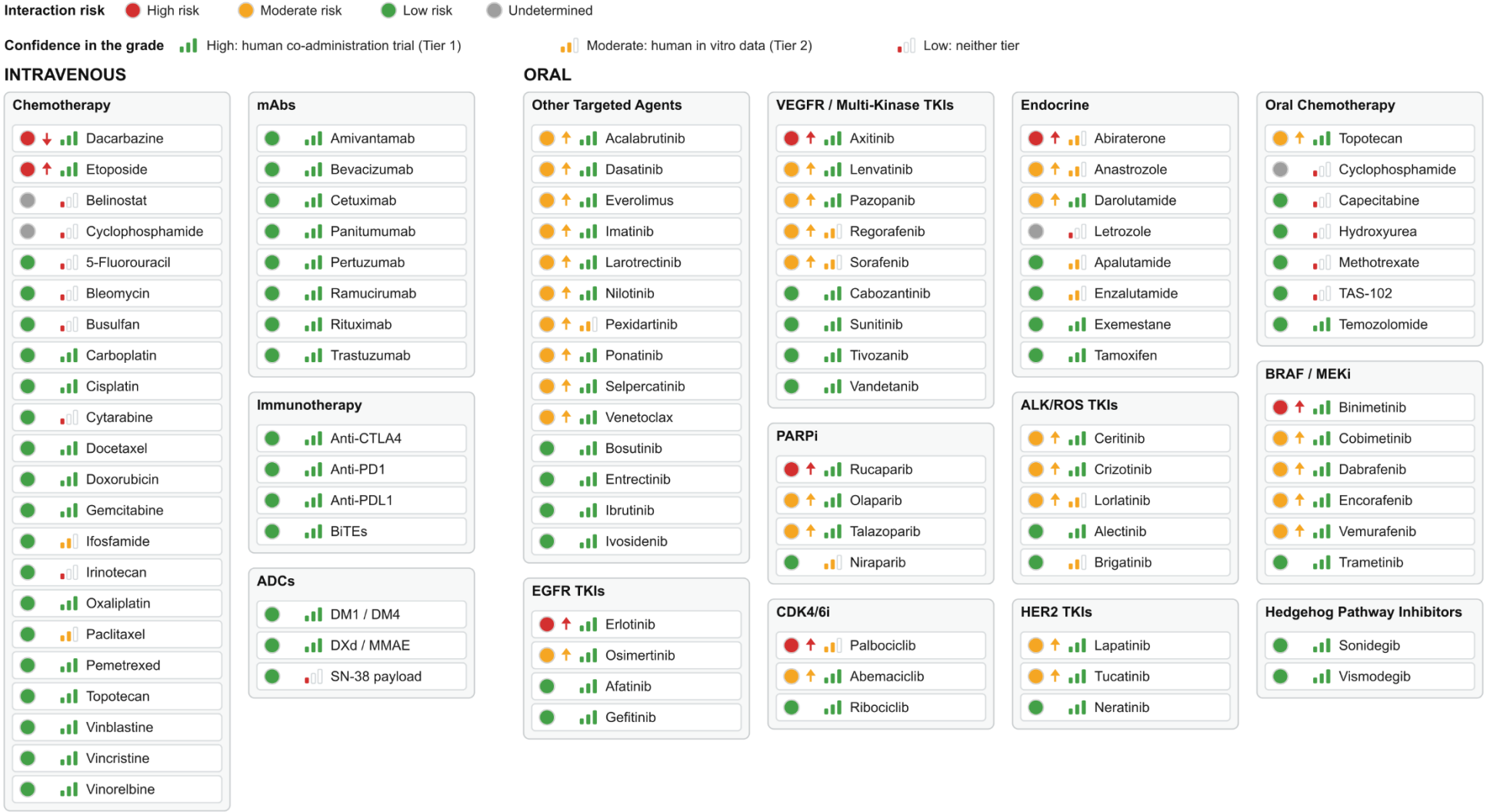


Evidence-informed guidance to clinical practice

CLARITY: Clinical Literature Assessment of Relevant herb–drug Interactions and Therapeutic safetY

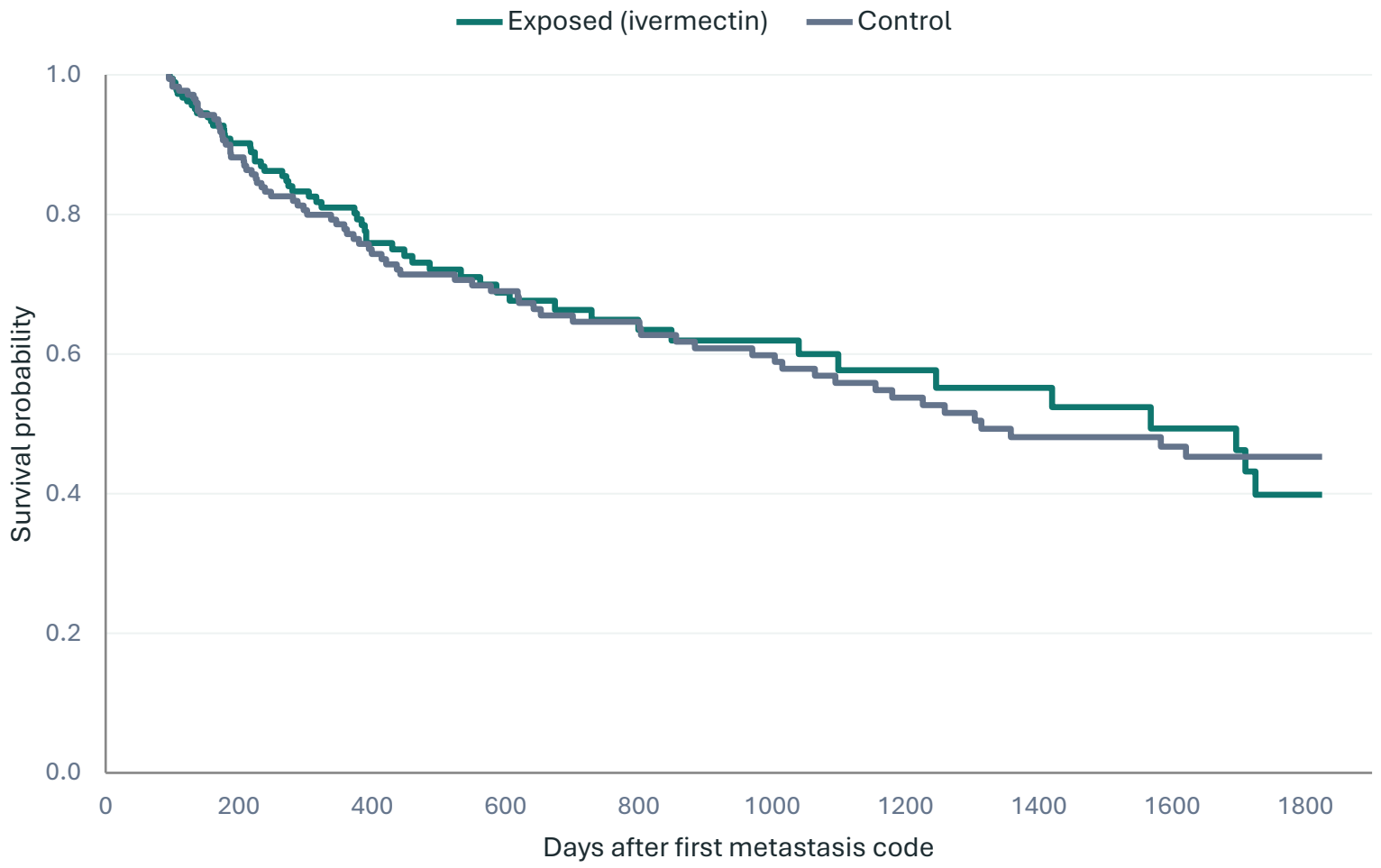
- A systematic evaluation of only human data on herb-drug interactions with clinical relevance to guide clinicians to give patients advice with clarity and confidence.
- A synthesis of Tier 1 (high confidence) and Tier 2 data (moderate confidence)
- Tier 1 data: direct herb-drug co-administration clinical trials
- Tier 2 data: human pharmacokinetic studies of orally ingested herb and human pharmacodynamic studies of herb on drug metabolism enzymes

Figure 1. Antineoplastic Therapy and Curcumin: Pharmacokinetic Interaction Risk Stratification



Evidence-informed guidance to clinical practice

Ivermectin: No Survival Benefit Seen in Metastatic Cancer in Real World Data (+/- ivermectin within 90 days of diagnosis, propensity score matched)



HR 0.976

95% CI 0.686–1.389

p = 0.89

Log-rank test

1,568 vs 1,314

Median survival, days

39.8% vs 45.3%

Survival at 5 years

Exposed n = 216, control n = 210 (alive at day 91).

Looking for Collaborators in Clinical Care, Research, and Education



UC Irvine 趙 Chao Family
Comprehensive Cancer Center

Thank You!