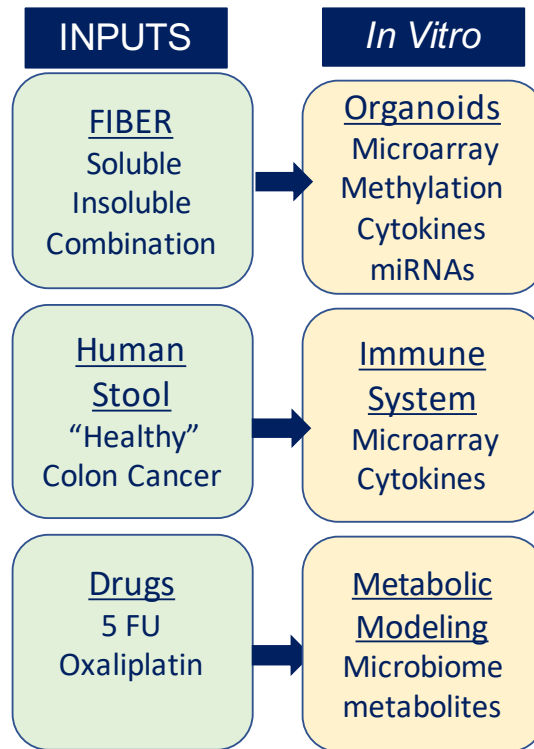


PHASE I

Fiber-Microbiome Modeling

- Microbial community response to dietary prebiotic fibers
- Resistance to ETBF or *C. difficile* infection
- Model nutrient-metabolite interactions

Q: Which dietary fibers prevent pathogen invasion?

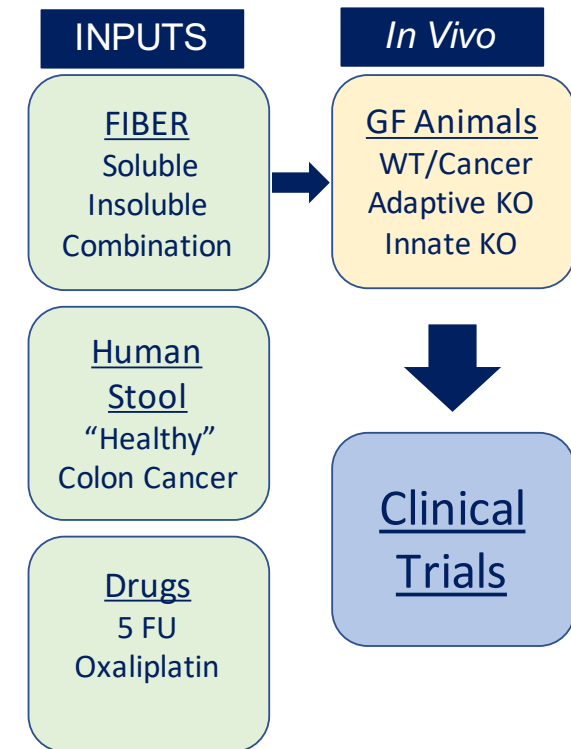


PHASE II

Fiber Conditioned Microbiome Response

- "Healthy" vs colon cancer stool community response to fibers
- Fiber conditioned microbiome response to immune system

Q: Which dietary fibers promote a favorable immune response in healthy/cancer stool communities?



PHASE III

Candidate Fiber Testing

- Germ free mice humanized with fiber-conditioned microbiome
- Fiber conditioned community effect on host tumor response
- Fiber conditioned microbiome response to cancer therapy

Q: Does the fiber conditioned microbiome improve response to cancer therapy?