

# Experimental Therapeutics

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**Michael Wendt, PhD**  
*Program Leader*



**Kristina Thiel, PhD**  
*Assistant Program Leader*

# ET Leadership Change

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- Recruited from Purdue University in the fall of 2023. Ten years as faculty in the College of Pharmacy
- NCI funded research program focusing on novel and combination therapeutics for metastatic breast cancer
- Additional areas of focus investigate the impact of obesity and alcohol consumption on metastatic recurrence
- Previous Cancer Center experience;
  - *Director of the Cancer Biology PhD Training Program*
  - *Leader of the seminar series*
  - *Member of CRTEC committee*

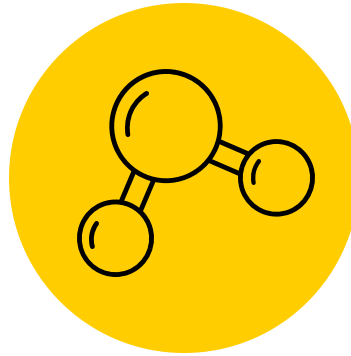


# ET Program Themes

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## Theme #1 = **Identify**

Advance approaches to precision medicine capable of predicting treatment response, reducing toxicity, and improving outcomes



## Theme #3 = **Translate**

Support commercialization of IP and develop catchment-relevant clinical trials



## Theme #2 = **Evaluate**

Devise and test innovative treatment and delivery strategies using advanced model systems



# Program Snapshot

**Membership:**  
30 Full members  
21 Associate members

Specific Funding Source	Project Direct Cost 11/01/2023	Project Direct Cost 02/01/2025
NCI Peer-Review Projects	\$1,336,691	\$2,302,150
Other NIH Peer-Review Projects	\$0	\$125,000
Other Peer-Review Projects	\$1,043,194	\$746,750
<b>Total Peer Reviewed</b>	<b>\$2,379,885</b>	<b>\$3,173,900</b>

# Program Snapshot

## ET Publications FY 2024

Total Publications	102
High Impact	14 (14%)
Intra-Programmatic	17 (17%)
Inter-Programmatic	33 (32%)
Multi-Institutional	68 (67%)

### RESEARCH ARTICLE SUMMARY

#### CLINICAL TRIALS

### JAK inhibition enhances checkpoint blockade immunotherapy in patients with Hodgkin lymphoma

Jaroslav Zak\*†, Isaraphorn Pratumchai†, Brett S. Marro†, Kristi L. Marquardt, Reza Beheshti Zavareh, Luke L. Lairson, Michael B. A. Oldstone, Judith A. Varner, Livia Hegerova, Qing Cao, Umar Farooq, Vaishalee P. Kenkre, Veronika Bachanova\*†, John R. Teijaro\*†

### Germline



*cis* variant determines epigenetic regulation of the anti-cancer drug metabolism gene dihydropyrimidine dehydrogenase (*DPYD*)

Article



<https://doi.org/10.1038/s42003-024-06602-x>

### Fibroblast growth receptor 1 is regulated by G-quadruplex in metastatic breast cancer

nature medicine

Article

<https://doi.org/10.1038/s41591-023-02760-3>

Lymph-node-targeted, mKRAS-specific amphiphile vaccine in pancreatic and colorectal cancer: the phase 1 AMPLIFY-201 trial

# Addressing previous feedback

## Strengths: (2023 EAB)

- ...new funding that focuses on clinical translation, exemplified by recent examples of support for phase I studies
- ...novel strategies to address immunotherapy resistance
- ...fostered development of innovative new therapeutic studies
- A SPORE has been submitted on oral cancers
- Current intent to increase multi-PI and program project grants was considered highly appropriate
- PACT (now IITSI) funds serve as a needed resource for testing window of opportunity and/or clinical feasibility studies

## Weaknesses: (2020 CCSG)

- ...program is moderate on innovation and lacking clearly defined long term **strategies to bring therapeutics to clinical application**
- ...research findings ...have not been **paradigm shifting** or resulted in changes to standard of care practice that improved cancer patient outcomes.
- The **preclinical evaluation and drug discovery parts are disjointed** without a long-term strategy
- Only **moderate programmatic activities**
- Only 10% of publications were in **high impact journals**

# Key recruitments



**Dr. Stephen Offer**

*Pathology*

*Full member*

Genetic determinants of drug metabolism machine learning approaches for biomarker discovery

**R01CA251065**



**Dr. Reza Nejadnik**

*PSET*

*Full member*

Protein self association, pharmaceutical characterization of ADCs

**R21AI178218**



**Dr. Jill Kolesar**

*Dean CoP*

*Full member*

Precision medicine, drug resistance, molecular tumor board

**ARPA-H**

## Associate Members

**Dr. Jennifer Strouse;**  
Rheumatology, Adverse events associated with immune therapy.

**Dr. Ryan Zander;**  
Micro & Immunology, Molecular mechanisms of T-cell exhaustion.  
*ACS-IRG awarded*



# ET value added



Dr. James Byrne

*Identify*

*Evaluate*

HCCC  
Seed  
Funding



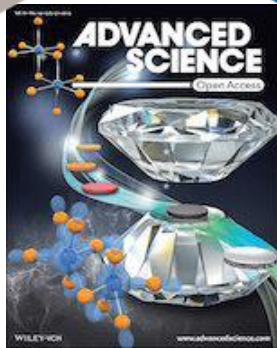
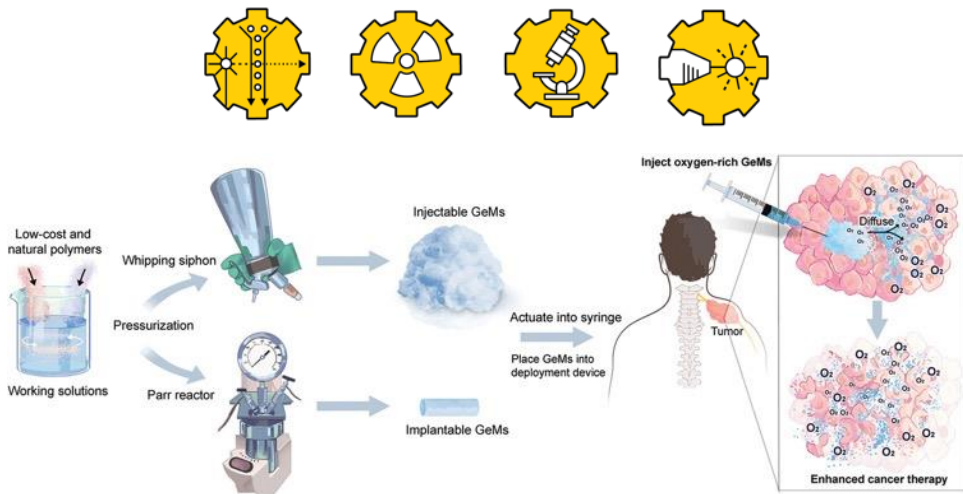
V-foundation  
Funding



High Impact  
Collaborative  
Publications



Major funding  
DP2 CA301081



Adv Sci. 2024 Mar;11(9):e2308346,  
Adv Sci. 2023 Apr;10(10):e2205995

NIH DIRECTOR'S  
**NEW INNOVATOR**  
AWARD





# ET value added

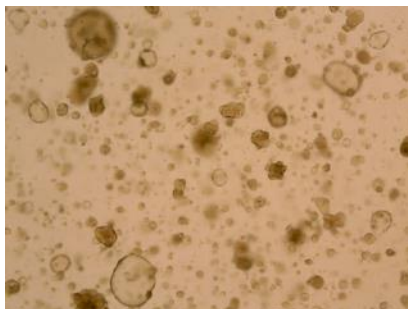
HCCC  
Seed  
Funding

*Evaluate*

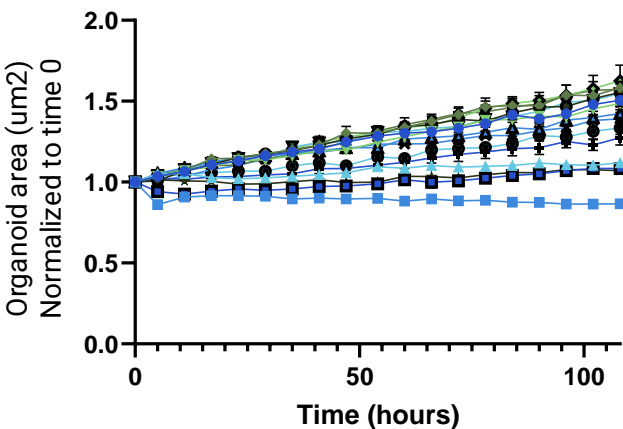


DOD Team  
Science  
Award

*Translate*



organoid models



Dr. Kristi Thiel



Dr. Dave Bender

**IOWA HEALTH CARE** Clinical Research and Trials About Studies Volunteer Cancer Trials

## NRG-GY028: A PHASE IB AND RANDOMIZED PHASE II TRIAL OF MEGESTROL ACETATE WITH OR WITHOUT IPATASERTIB IN RECURRENT OR METASTATIC ENDOMETRIOID ENDOMETRIAL CANCER

Holden Comprehensive Cancer Center

Cancer Gynecology Gynecologic Cancer Adult Subjects

### Overview

**PRIMARY OBJECTIVES:**

I. Determine the toxicity of ipatasertib in combination with megestrol acetate in women with metastatic grade 1-2 endometrioid endometrial cancer and establish the recommended phase II dose. (Phase I) II. Compare the progression free survival of the combination of ipatasertib with megestrol acetate to megestrol acetate alone among women with metastatic grade 1-2 endometrioid adenocarcinoma of the endometrium. (Phase II) III. Compare the toxicity of the combination of ipatasertib with megestrol acetate to megestrol acetate alone. (Phase II)

**Details**

IRB Number: 202304622

NCT Number: [NCT](#)

Study Status: Open

Currently Recruiting: Yes

Study Type: Interventional

Cancer Study: Yes

Compensation Available: No

**I'M INTERESTED IN PARTICIPATING** →

# Oncology startup pipeline



Michael Schultz, PhD

## Identify

## Evaluate

## Translate

Oberley Award **2019**



SBIR  
R44CA268314  
**2022**



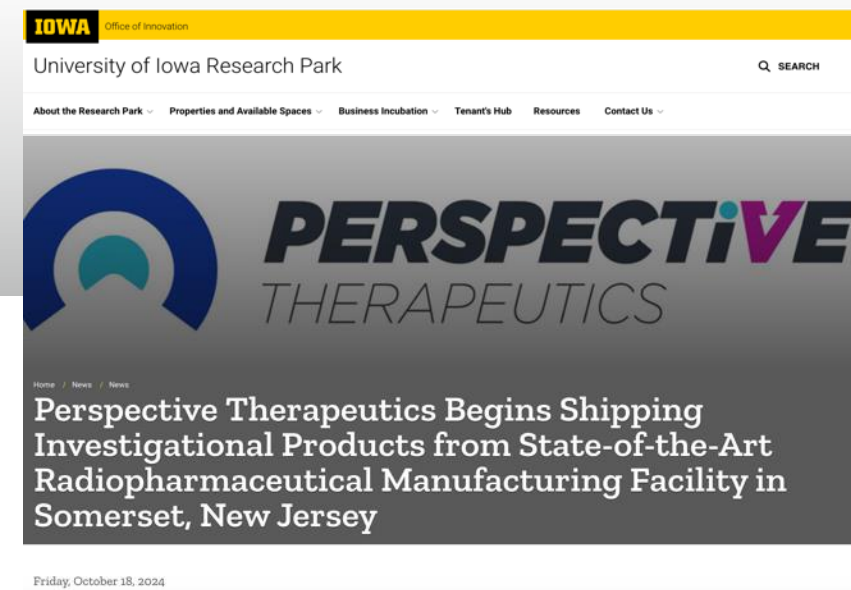
*"Theranostics for Pediatric Cancers: Translational Steps Toward Clinical Use"*



AMERICA'S  
SEED FUND  
SBIR • STTR

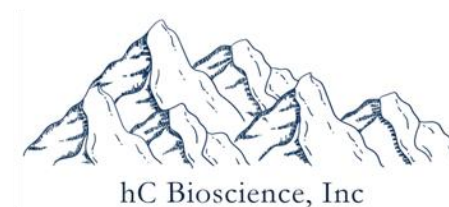
POWERED BY  
**SBA** U.S. Small Business Administration

*"Image-guided dosimetry-based alpha particle therapy for neuroblastoma"*



**October 2024**

# Startup pipeline



## Entrepreneurial committee



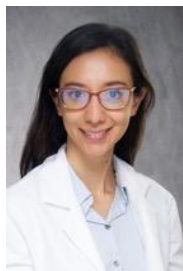
# Intra / Inter-programmatic activities

- Shared group summaries in a virtual space
- Monthly ET newsletter
- Near miss-grant program with CCOM  
*Dr. Mailloux, Dr. Thiel*
- Investigator-Initiated Trials' Support Initiative (IITSI)  
*Shared review process*
- Joint seed funding awarded with FRMI
- Joint retreats with CGP and FRMI





# Community Outreach and Engagement



## Program Liaison

**Naomi Fei, MD, MS**

Medical Oncologist  
Department of Internal  
Medicine

## Iowa Cancer Consortium Members FY 2025

# Joined	# Active	# Elected to Board
11	3	1

### Expert Review

- 1 researcher provided expert review for the Cancer in Iowa Report

### Researcher Videos on COE Website

- James Byrne, MD, PhD: Using culinary arts techniques to create better cancer therapies

### Engaging with COE for Input/Data/Connections

- 1 researcher sought input on grant application and data
- 1 researcher sought connections to community members to discuss diverse tissue samples and grant application. After application was funded, this researcher also sought input from the CAB.

### COE Collaborative Webinar Series

- 6 researchers participated

### Iowa Cancer Registry 99 Counties Project

- Project aims to enhance community engagement & education around cancer prevention and control
- 3 researchers participating

# Education and training

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- Invited external speakers to HCCC Research Seminar Series
- Mentoring: **9** CBIO grad, **7** summer undergrads, **4** ICARE Postbacs
- Emerging Leaders Council: **7** members 2024-2025
- **9** trainers on the Cancer Biology T32
- T32 in Drug Discovery in development

# Opportunities

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- Expand translational core facilities to facilitate pre-clinical therapy evaluation.
- Advance the state-wide molecular tumor board to engage genetics, immune, and signaling expertise of HCCC and improve patient outcomes.
- Continued support of our Investigator Initiated Trials Support Initiative (IITSI) program to bolster trials driven by HCCC research findings.
- Leverage recent leadership recruitments to invigorate grant and trial active faculty in key areas of therapeutic development.



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# Questions?

→ [uihc.org](https://uihc.org)



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CHANGING LIVES.®