University of Iowa Health Care

Presentation to

The Board of Regents, State of Iowa

February 27-28, 2019

Agenda

Today's Presentation

Opening Remarks

Operating and Financial Performance

Faculty Presentation

Opening Remarks

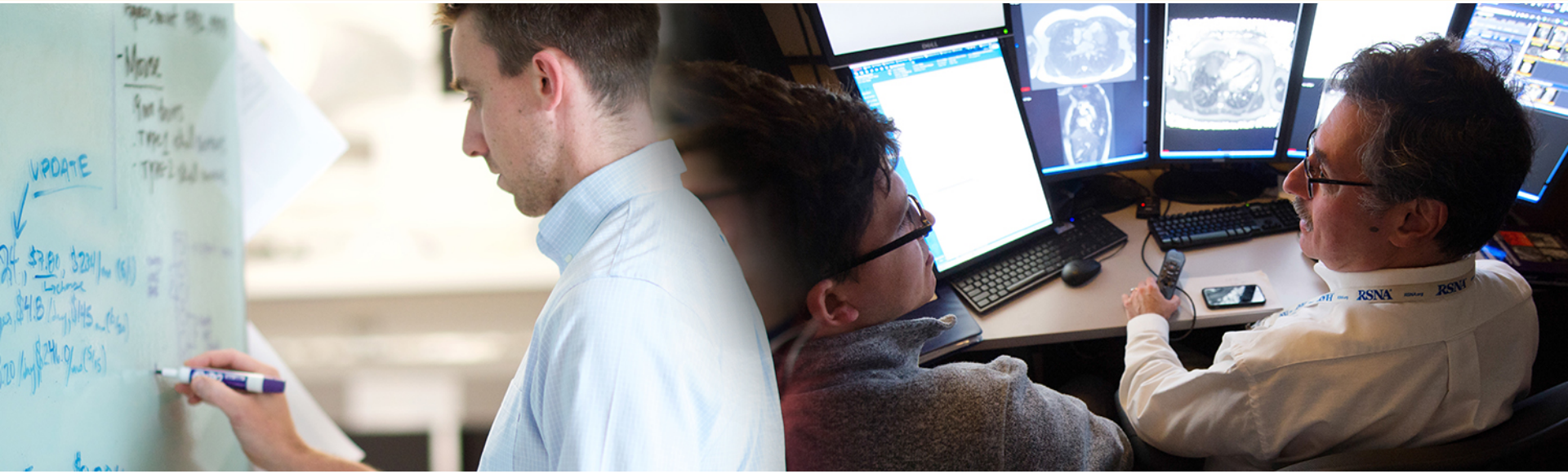
Brooks Jackson, MD, MBA

Vice President for Medical Affairs

& Dean, Carver College of Medicine

Suresh Gunasekaran, MBA

Associate Vice President, UI Health Care and CEO, UI Hospitals & Clinics



Operating and Financial Performance

Bradley Haws, MBA

Associate Vice President for Finance & Chief Financial Officer, UI Health Care

Mark Henrichs, CPA, MHA

Assistant Vice President for Finance & Chief Financial Officer, UI Hospitals & Clinics

Volume and Financial Highlights – FY19

Through December 2018

Operating Margin
- December year-to-date actual 5.9%, budget of 2.1%

Volume Change
- Year-over-year: Inpatient -0.8%, Surgeries 5.4%, Clinic Visits 4.9%

Acuity
- Case Mix Index continues to be high – above 2.0 for all payers 2.05 and Medicare 2.20

Census
- Many days above 90% occupancy
- Closer relationship with post-acute providers being developed

Length of Stay Index
- Adult at .94 – below the expected index of 1.0
- Pediatrics at 1.02 – at the expected index

Readmission Rates
- Adult at 10.62% - below target of 11.96%
- Pediatrics at 10.50% - above target of 8.29%
  - Patients with multiple comorbidities and chronic illness

Revenues
- 4.3% above budget year-to-date

Payer Mix
- Medicare growth
- FY18: 37.3%, FY19: 37.4%

Accounts Receivable
- Positive trend for government and out-of-state payers
- Progress resolving older cases

Salary Expenses
- 3.1% below budget year-to-date

Non Salary Expenses
- 3.4% above budget year-to-date
- Implant and pharmacy costs

Volume - Highlights and Trends

Operating and Financial Performance

Inpatient Discharges

- Volume change year over year – down 148 or 0.8% compared to last fiscal year
- Patient Days year over year are up 5,056 or 4.4% compared to last year
- Adult Medical CMI increase driven by Medical Cardiology, Neurology, Nephrology cases
  - Adult Medical LOS increase being driven by Medical Cardiology
- Pediatric Medical & Surgical LOS had 38 Vizient outliers with days ranging from 77-269

Surgical Cases

- Year to date, case volumes are up by 893 cases or 5.4% compared to the same time period last fiscal year
- All services experiencing growth or sustaining volumes

Volume - Highlights and Trends

Operating and Financial Performance

Emergency Department Visits

- Compared to last fiscal year, visits continue to be down–1,911 visits; 6.4%
  - This decline is driven by:
    - Opening of Urgent Care in July 2018
    - Increase in higher acuity patients
    - lower acuity patients seeking care at other sites
- New outpatient Crisis Stabilization Unit opened in October for patients requiring emergency psychiatric care
- Acuity of patients continues to increase – 37.9% are admitted compared to 34.7% last year
- Admissions through the Emergency Department make up 60.5% of all inpatient admissions

Volume - Highlights and Trends

Operating and Financial Performance

Length of Stay Index

- Continues to remain relatively steady (12 month rolling average) for both adult and pediatric patients
  - Adult index rose from 0.93 last year to 0.94 this year.
  - Pediatrics index rose from 1.0 last year to 1.02 this year
- Focused efforts on:
  - Documentation to ensure we accurately reflect the acuity of our patients
  - Discharge Preparation - working with outside facilities as well as patients and family members to transition them to the most appropriate setting post-discharge

Readmissions (All-cause 30 day)

- Adult patients readmission rates continue to perform well compared to AMC colleagues
- Pediatric readmission rates are better than benchmark.

Volume - Highlights and Trends

Operating and Financial Performance

Outpatient Visits

- Growth continues to be experienced year over year – up a total of 23,841 visits; 4.9% increase
- Increased volumes at all locations; main campus, Iowa River Landing (IRL) and off-site
- All services experiencing growth year over year except General Internal Medicine, and Ophthalmology
  - The reported decline in General Internal Medicine is due to the loss of a .9FTE at IRL. Two new providers started during December 2018 and it is expected another provider will start in March 2019.
  - The reported decline in Ophthalmology is due to unplanned physician departures and continued work on recruitment. There was also a provider out for unplanned medical reasons and another on maternity leave.

Financials - Highlights and Trends

Operating and Financial Performance

Revenue

- Given the strong volume, year to date net revenue is 4.3% above budget.

Expenses

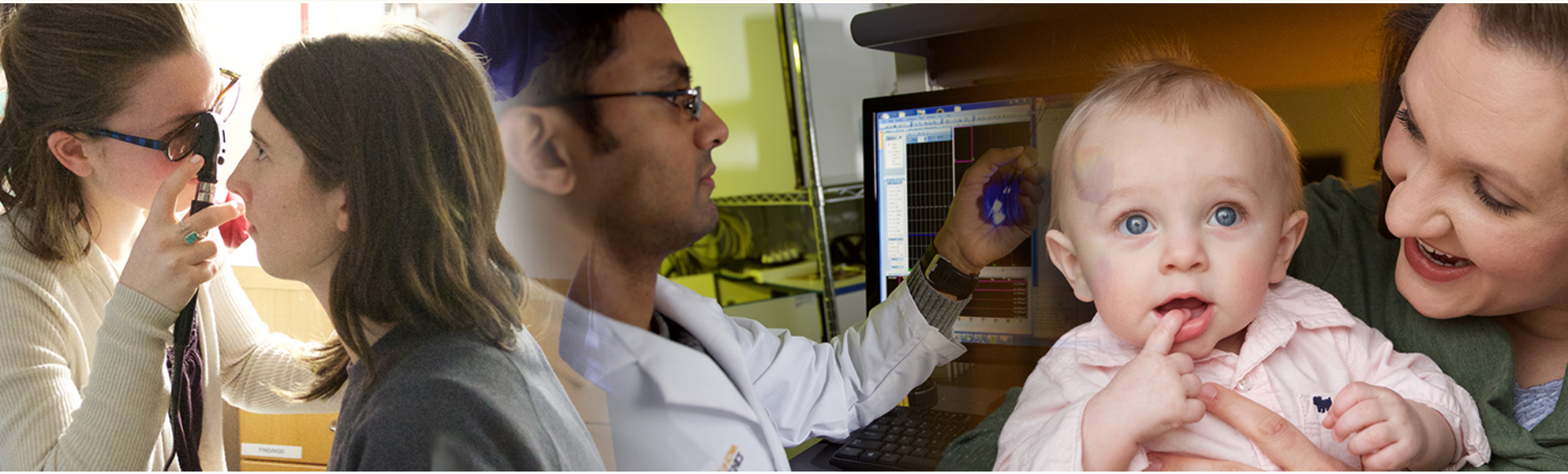
- Salary expenses are 3.1% below budget
- Non-Salary expenses are 3.4% above budget, mainly due to supply and pharmacy expense. The expense increases are directly tied to increasing surgical volume and acuity, and specific pharmacy initiatives

University of Iowa Hospitals & Clinics
FY19 YTD Through December 2018

High Level Sources and Uses of Cash (in Millions)

Income from Operations	$53.1
Investment Gain or Loss	(4.1)
Capital Expenditures in Excess of Depreciation Expense (*)	8.6
Debt Principal and Interest Payments	(18.4)
Savings required by Rating Agencies to Maintain Bond Rating	(51.0)
Primary Sources and Uses – Net YTD Impact (**)	**$(11.8)**

(*) Capital investments are weighted to the second half of FY19. Total capital investments are projected to be over $30M in excess of depreciation by year end.
(**) $40M in debt will be issued in February 2019.



Faculty Presentation

Improving CAR-T Traffic: On the road to better cancer immunotherapy

George Weiner, MD

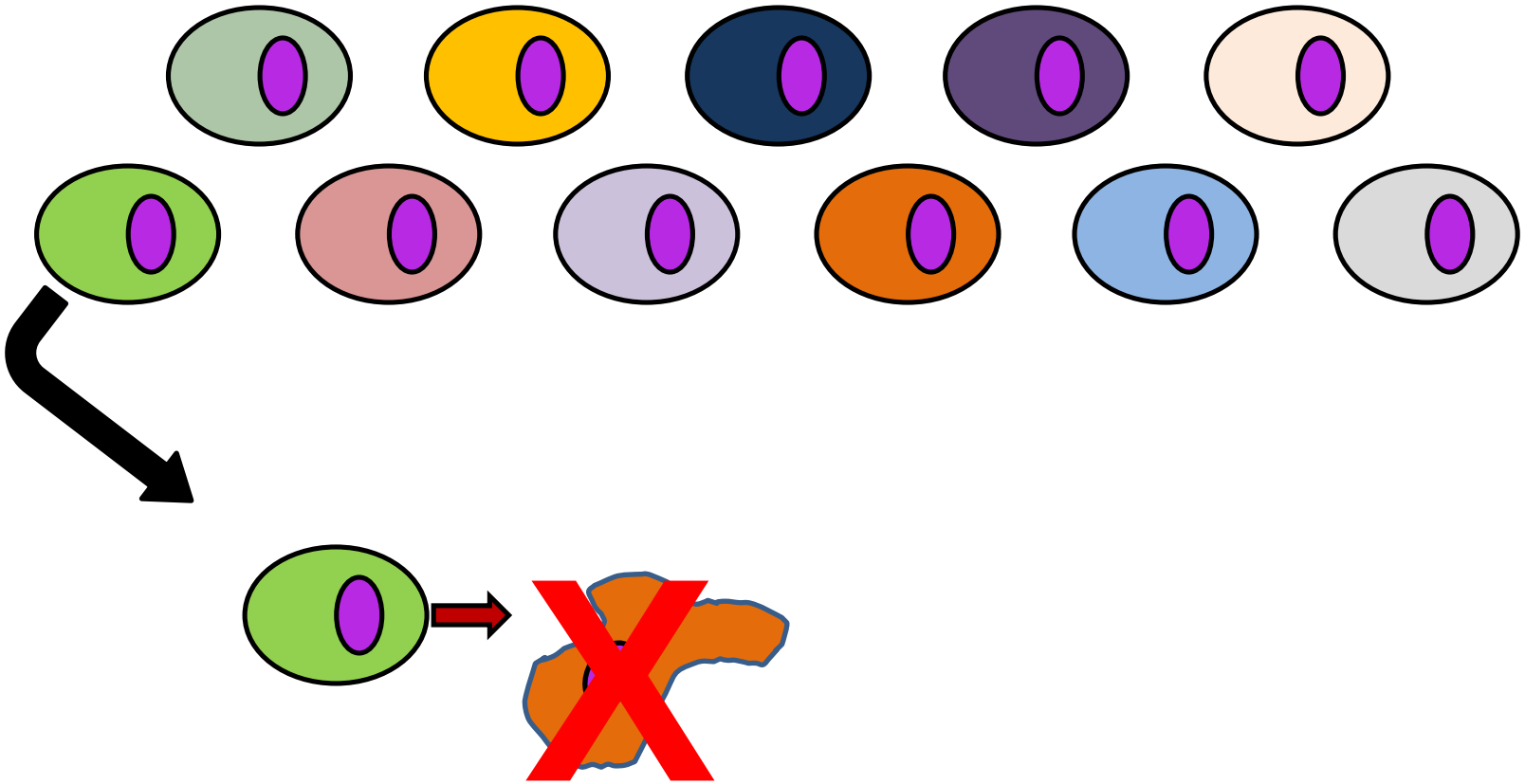
Director, UI Holden Comprehensive Cancer Center
C.E. Block Chair of Cancer Research
Professor of Internal Medicine

Laura Rogers, PhD

Assistant Research Scientist, UI Holden Comprehensive Cancer Center

T cells – A central component of the immune response

CAR-T Traffic



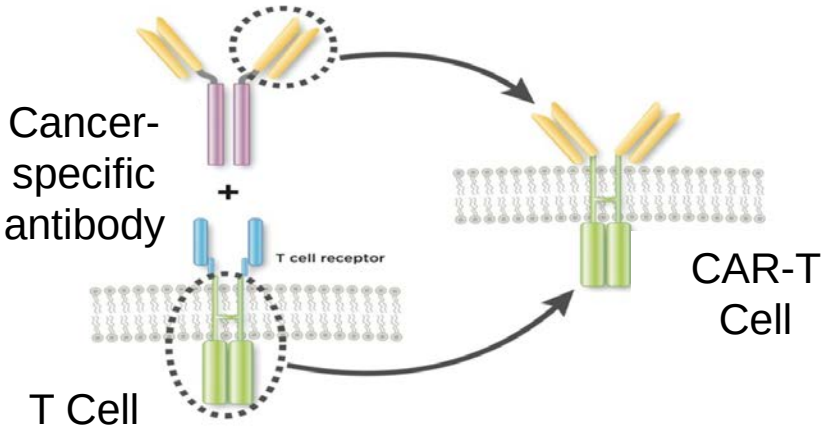
How can we get T cells to attack cancer?

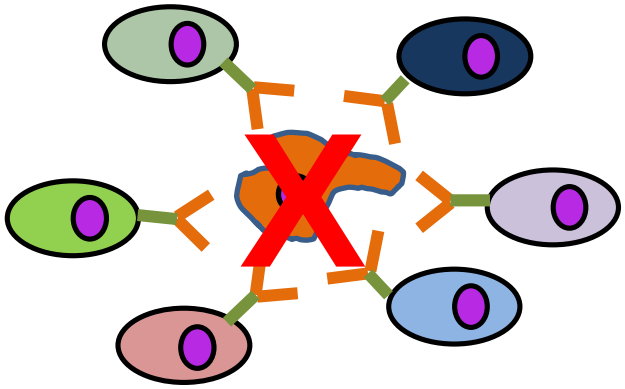
Chimeric Antigen Receptor T (CAR-T) cells

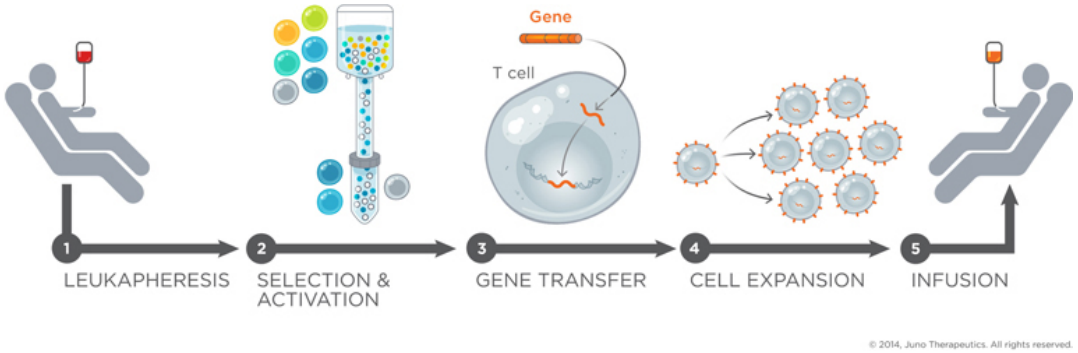
Each of millions of T cells has its own target

T cells don't normally attack cancer cells

How can we reprogram T cells to attack cancer together?







CAR-T at the University of Iowa

CAR-T Traffic

- Participated in clinical research that led to approval of CAR-T by FDA for select cancers
- Clinical research ongoing to explore new CAR-T
  - More effective
  - Fewer side effects
  - Additional targets / cancer types
- Laboratory research designed to make CAR-T more effective
- Four patients treated to date

CAR-T research opportunities

CAR-T Traffic

- Minimizing and managing CAR-T side effects
  - “Living drug”
  - Time-limited but severe side effects when CAR-T get activated and multiply after encountering cancer cells
  - Need to support patient as their immune system battles the cancer
  - Immune system calms down once the cancer cells are eliminated
- Making better CAR-T that are specific for a broader range of cancer types
- Getting CAR-T to traffic into cancer
  - CAR-T don’t work if they don’t get into cancer

Laura Rogers, PhD

CAR-T Traffic

- Home grown talent
  - Iowa native who did all her training at the University of Iowa

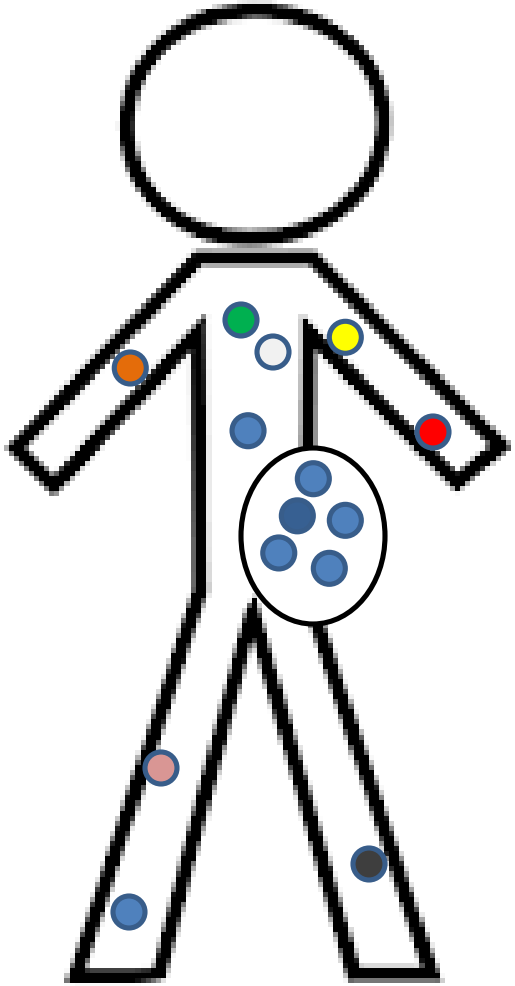
- Undergraduate degree in Microbiology
- PhD in Anatomy and Cell Biology with a focus on Cancer Genetics
- Post-doctoral fellow in Cancer Immunology
- Obtaining additional Masters degree in Bioinformatics

- Combining all of these talents to tackle the complex problem of making CAR-T cells better

Getting CAR-T to traffic into cancer

CAR-T Traffic

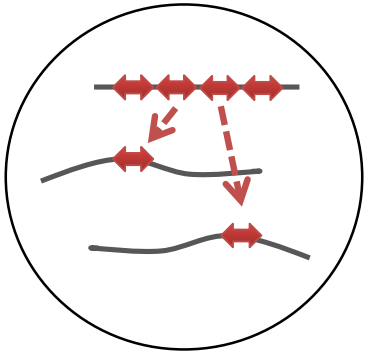
- Find genes in T cells that get them to traffic more effectively into cancers
- Requires expertise in cancer biology, genetics, informatics and immunology



Identifying genes to help CAR-T traffic into cancer

CAR-T Traffic

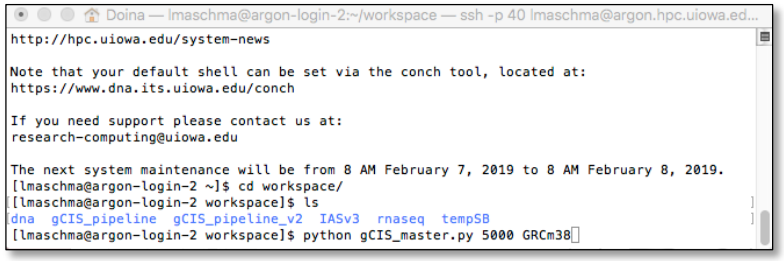
Sleeping Beauty "jumping gene"



Identify sites of *Sleeping Beauty* insertion

High throughput DNA sequencing

Bioinformatics



Gene candidates

Gene A	Chromosome 6
Gene B	Chromosome 12
Gene C	Chromosome 16

(plus ~400 more)

Multiple candidate genes identified

CAR-T Traffic

- None previously suspected of playing a role in T cell trafficking to tumors
- Currently being validated
- Supported by philanthropy, institutional funds and a major grant from the National Cancer Institute
- Protected intellectual property of both screen process and identified genes

- Will modifying the identified genes improve the success of CAR-T?

Stay tuned!

On the road to better cancer immunotherapy

CAR-T Traffic

- Cancer immunotherapy has clear role to play in treatment of an increasing number of cancer patients
- CAR-T represents a powerful new approach to cancer immunotherapy
- We currently provide CAR-T for the small percentage of cancer patients for which they are useful
- Ongoing research, including at the University of Iowa Holden Comprehensive Cancer Center, holds promise to greatly expand the number of patients who can benefit from CAR-T