

# NSF ERC ILO/SPI

BioBook



*January 2025 Edition*

## Subject Matter Expert List

<b>Module</b>	<b>Module Type</b>	<b>Subject Matter Experts</b>
<b>First Orientation Call</b>	Required	Mentor and Mentee Call
<b>ILO Role within ERC</b>	Required	Peter Keeling Scott Ransom Chris Finberg
<b>IAB Management</b>	Required	Peter Keeling Chris Finberg John Hartnett Scott Ransom
<b>IP &amp; Tech Transfer</b>	Required	Stephen Fleming John Hartnett Cynthia Sundell Steven Weiner
<b>Site Visit &amp; Annual Report</b>	Required	Scott Ransom Deborah Jackson Carolyn Yeago
<b>Entrepreneurship</b>	Elective	Stephen Fleming Schaffer Grim John Hartnett Peter Keeling Cynthia Sundell Chris Finberg
<b>Marketing &amp; Communications</b>	Elective	Wayne Gillam (UW Mktg) John Hartnett Scott Ransom Nikki Riojas
<b>Sustainability</b>	Elective	Peter Keeling Scott Ransom

Selection of electives is based on ILO's background, interest or need.

# Energy, Sustainability, and Infrastructure



# ReNUWIt

Re-inventing the Nation's  
**URBAN WATER  
INFRASTRUCTURE**

## ERC PROFILE

Lead Institution:  
Stanford University, Stanford, CA

Core Partner Institutions:  
University of California Berkeley,  
Berkeley, CA

Colorado School of Mines, Golden,  
CO

New Mexico State University, Las  
Cruces, NM

Center Domain:  
Energy, Sustainability, and  
Infrastructure

ERC Cohort:  
Year 9; GEN3

## CONTACT

PHONE:  
650-725-2172

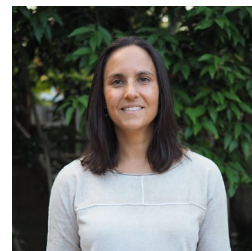
EMAIL:  
[Kara.Baker@stanford.edu](mailto:Kara.Baker@stanford.edu)

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ERC WEBSITE:  
<http://renuwit.org/>

# KARA BAKER

## R e N U W I t



## WORK EXPERIENCE

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### Years at the ERC

Began working as the Research & Industrial Liaison Officer (RILO) with ReNUWIt in Fall 2018.

### Previous Relevant Experience

Worked for two years as the Food-Water Security Program Manager in the Stanford School of Earth, Energy and Environmental Sciences. In that role, I coordinated grant proposals that often included industry partners as well as field work alongside industry partners.

### Expertise

- ILO Role within ERC
- IAB Management
- Site Visit & Annual Report

### Responsibilities at Your ERC

- Newsletter
- Website
- Annual Report
- Research program administration
- Perfect Pitch coach
- Student/postdoc research video competition

### Topic of Specialty

water resources, wastewater, water reuse, urban infrastructure, stormwater management, resilience, resource recovery, green infrastructure, Sustainable Groundwater Management Act (SGMA), NEPA/CEQA

## EDUCATION

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B.A. Environmental Sciences and Political Science, Northwestern University

M.S. Environmental Engineering, Stanford University



# ERNEST DAVIS

## NEWT



### ERC PROFILE

**Lead Institution:**

Rice University – Houston, Texas

**Core Partner Institutions:**

Arizona State Univ. – Tempe, AZ Univ.  
of Texas at El Paso – El Paso, TX Yale  
Univ. – New Haven, CT

**Center Domain:**

Nanotechnology-enabled treatment  
of drinking and industrial waste waters

**ERC Cohort:**

Year 7, Gen-3

### CONTACT

**PHONE:**

713-348-6214

**EMAIL:**

emdavis@rice.edu

**LinkedIn:**

<https://www.linkedin.com/in/ernest-davis-houston/>

**ERC WEBSITE:**

<http://www.newtcenter.org/>

### WORK EXPERIENCE

**Years at the ERC**

Seven years, since center's inception

**Previous Relevant Experience**

University Technology Transfer – Cornell U., Rice U. University  
Spinout COO – Widetronix, Inc.  
Program Management – IBM New  
Product Introduction - IBM

**Expertise**

- ILO Role within ERC; IAB Management; IP and Tech Transfer; Site Visit & Annual Report; Entrepreneurship; Marketing and Communications

**Responsibilities in ERC**

- Industry/Practitioner Membership Program; Technology Commercialization; Entrepreneurship; Membership Program Marketing

**Topics of Specialty**

Drinking water treatment, industrial wastewater treatment and reuse, low energy desalination, multifunctional nanomaterials for removing priority pollutants, scaling and fouling control, nanomaterial selection and design for safety & sustainability

### EDUCATION

M.S., Management – North Carolina State University  
B.S., Mechanical Engineering – North Carolina State University



## KEN DULANEY

FREEDM Systems Center



### ERC PROFILE

Lead Institution:  
NC State University, Raleigh, NC

Core Partner Institutions:  
Florida State, Tallahassee, FL  
Florida A&M, Tallahassee, FL  
Missouri S&T, Rolla, MO  
Arizona State University, Tempe, AZ

Center Domain:  
Energy/Infrastructure

ERC Cohort: GEN3

### CONTACT

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919-645-8085 (m)

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ERC WEBSITE:  
[www.freedm.ncsu.edu](http://www.freedm.ncsu.edu)

### WORK EXPERIENCE

**Years at the ERC:** 5

#### Previous Relevant Experience

I worked in energy efficiency prior to FREEDM and knew many of the companies and electric utilities engaged with the Center. And when my previous employer was a member, I was our representative to FREEDM. I had no experience with intellectual property or entrepreneurship and limited understanding of power electronics and power systems.

#### Expertise

- IAB Management
- IP and Tech Transfer
- Site Visit & Annual Report
- Entrepreneurship
- Marketing and Communications

#### Responsibilities at Your ERC

- communications
- newsletter
- website
- technology commercialization
- entrepreneurship
- testing services
- annual research symposium
- conference booth

#### Topic of Specialty

Power electronics and power systems, wide bandgap semiconductors, microgrid controls

### EDUCATION

BS, Physics, Furman University  
BME, Mechanical Engineering, Georgia Tech  
MS, Mechanical Engineering, University of Texas at Austin



## ERC PROFILE

### Lead Institution:

Purdue University, West Lafayette, IN

### Core Partner Northwestern

University, Evanston, IL

University New Mexico, Albuquerque, NM

University Notre Dame, South Bend, IN

University of Texas at Austin, Austin, TX

### Center Domain:

**ERC Cohort:** CISTAR Year 3; GEN3  
CBiRC Year 12; GEN3

## CONTACT

### PHONE:

515-441-9086

### EMAIL:

[pkeeling@purdue.edu](mailto:pkeeling@purdue.edu)

### LinkedIn:

[www.linkedin.com/in/peterkeeling/](http://www.linkedin.com/in/peterkeeling/)

### ERC WEBSITE:

<https://cistar.us/>

# PETER KEELING

## CISTAR & CBiRC



## WORK EXPERIENCE

### Years at the ERC

- 2 years CISTAR - focused on developing innovative process designs to responsibly realize the sustainable potential of light hydrocarbons as an energy-rich resource.
- 10 years CBiRC - focused on developing innovative process designs to responsibly realize the potential of biomass as a renewable carbon-rich resource.

### Previous Relevant Experience

Prior to being with the ERC program I spent 25 years working in industry and startup companies. I was often in a management role developing strong collaborations with universities.

### Expertise

- ILO Role within ERC; IAB Management; IP and Tech Transfer; Site Visit & Annual Report; Entrepreneurship; Marketing and Communications; Sustainability

### Responsibilities at Your ERC

- Primary role: work closely with ERC Director; member of the ERC Leadership Team; recruiting and retaining Industry Members; Annual Report; technology commercialization;
- Secondary role: directing ERC efforts on social media; communications; newsletter; website; entrepreneurship;

### Topics of Specialty

Specialized in the life sciences, biotechnology, chemistry and their applications in global sustainability. Has more than thirty years of management experience in industry and academia with a broad understanding of biological and chemical engineering.

Has a career goal of identifying and developing innovative new technologies that add value to the world through responsible and sustainable management of new technologies emerging in the life sciences, bioproducts and energy sectors.

## EDUCATION

BSc. Applied Biology, University of Hertfordshire, UK

PhD. Biochemistry and Toxicology, CNAA and University of Surrey, UK



## Quantum Energy and Sustainable Solar Technologies

An NSF-DOE Engineering Research Center

# JOHN MITCHELL

QESST ERC



### ERC PROFILE

Lead Institution:  
Arizona State University

Core Partner Institutions:  
MIT  
Caltech  
Georgia Tech  
University of Delaware  
University of Houston  
University of Arizona  
University of New Mexico

Center Domain:  
Photovoltaics

ERC Cohort:  
Year 9; GEN3

### CONTACT

PHONE:  
480 242 5329

EMAIL:  
John.J.Mitchell@asu.edu

LinkedIn:  
LinkedIn.com/in/johnjmitchellaz

ERC WEBSITE:  
Qesst.org

### WORK EXPERIENCE

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#### Years at the ERC

Started at QESST during the proposal phase and we are in year nine.

#### Expertise

- o ILO Role within ERC
- o IAB Management
- o IP and Tech Transfer
- o Site Visit & Annual Report
- o Entrepreneurship
- o Marketing and Communications
- o Sustainability
- o Perfect Pitch coach (Two-time winner)

#### Responsibilities at Your ERC

- o social media; communications; newsletter; website; Annual Report; technology commercialization; entrepreneurship; student mentoring through the IAB, managing ERC alumni relations

#### Topic of Specialty

Solar Energy and Policy

### EDUCATION

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B.S. Computer Science, Northeastern Illinois  
MBA Kellogg, Northwestern University





The Internet of Things for Precision Agriculture  
an NSF Engineering Research Center

## ERC PROFILE

Lead Institution:  
University of Pennsylvania,  
Philadelphia PA

Core Partner Institutions:  
University of Florida  
Purdue University  
University of California - Merced

Center Domain: Energy, Sustainability,  
and Infrastructure

ERC Cohort: Year 1; GEN4

## CONTACT

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215-573-3960

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[ssweiner@upenn.edu](mailto:ssweiner@upenn.edu)

LinkedIn:  
[www.linkedin.com/in/stevenweiner/](http://www.linkedin.com/in/stevenweiner/)

ERC WEBSITE:  
<https://iot4ag.us/>

# STEVEN WEINER

## IoT4Ag



## WORK EXPERIENCE

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**Years at the ERC**  
Since Sep. 2020

**Previous Relevant Experience**  
Over 30 years of experience as an IP specialist and expert advisor, including 13 years (1998-2002 and 2011-2020) as a successful tech transfer executive and IP strategist at SRI International.

**Expertise**  
- IP and Tech Transfer

**Responsibilities at Your ERC**  
- technology commercialization; industry partner recruitment; entrepreneurship

**Topics of Specialty**  
Artificial intelligence, data analytics, IoT, autonomy

## EDUCATION

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J.D., Harvard Law School

S.M. Electrical Engineering & Computer Science, MIT

B.S.E. Systems Science & Engineering, University of Pennsylvania



NSF Engineering Research Center

Advancing Sustainability through Powered  
Infrastructure for Roadway Electrification

## ERC PROFILE

Lead Institution:  
Utah State University

Core Partner Institutions:  
Purdue University

University of Colorado, Boulder

University of Texas, El Paso

Center Domain: Power Electronics,  
Electrification of Transportation

ERC Cohort: Year 2; GEN4

## CONTACT

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732-485-3280

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Don.linford@usu.edu

LinkedIn:  
[Don Linford | LinkedIn](#)

ERC WEBSITE:  
<https://aspire.usu.edu>

# DON G LINFORD

## ASPIRE ERC



## WORK EXPERIENCE

### Years at the ERC

< 1 year

### Previous Relevant Experience

I am new to the ILO role. My previous experience is from industry in international finance with "front-to-back" roles in transaction and investment banking.

### Expertise

- List the SME categories relevant to you (select from list below):
  - o ILO Role within ERC; IAB Management; IP and Tech Transfer; Diversity & Inclusion.

### Responsibilities at Your ERC

- List the responsibilities appropriate for you (select from list below):
  - o Technology Commercialization; Membership Development; Industry Sponsored Research; Communications.

### Topic of Specialty

Electrified Transportation, Infrastructure.

## EDUCATION

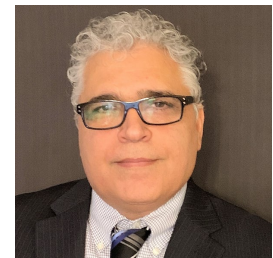
B.A. Political Science, University of Utah

M.B.A Finance, Northeastern University



# JAFAR RAZMI

## C B B G



### ERC PROFILE

Lead Institution:  
Arizona State University, Tempe, AZ

Core Partner Institutions:  
Georgia Institute of Technology  
Atlanta, GA  
New Mexico State University, Las  
Cruces, NM  
University of California, Davis,  
California

Center Domain: Center for Bio-  
mediated and Bio-inspired  
Geotechnics

ERC Cohort: (e.g., Year 7; GEN3)

### CONTACT

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480-965-2543  
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[Jafar.razmi@asu.edu](mailto:Jafar.razmi@asu.edu)

LinkedIn:  
<https://www.linkedin.com/in/jafar-razmi-6263b4147>

ERC WEBSITE:  
<https://cbbg.engineering.asu.edu/>

### WORK EXPERIENCE

**Years at ERC**  
Since May, 2022

#### Previous Relevant Experience

Research Professor, SSEBE, Ira A. Fulton Schools of Eng. Arizona State University, 07/2019-present.  
Associate Professor/ Research, Department of Industrial Manufacturing & Systems Eng. The University of Texas at Arlington, Aug.2017- Aug.2019.  
Sr. Research Scientist and Founding Division Head "Infrastructure and Civil Eng." (ICE), The University of Texas at Arlington Research Institute (UTARI), The University of Texas at Arlington, Aug. 2017-Aug. 2019.  
Industrial Liaison Officer, Additive Manufacturing Center of Excellence, University of Connecticut, 2013-2016.

#### Expertise

Seasoned researcher in the area of Geotechnical, structural Mechanics and Additive Manufacturing  
Experience teaching engineering courses at graduate and undergraduate levels.  
IP and Tech Transfer, Industry relationship and technology transfer.

#### Responsibilities at Your ERC

List the responsibilities appropriate for you (select from list below):  
recruit new industry, developing/implementing a Technology Transfer Strategic plan for the Center, Annual Report; technology commercialization; entrepreneurship; other/write in

#### Topic of Specialty

Geotechnical and structural mechanics, infrastructure, Environmental management systems, green infrastructure.

### EDUCATION

B.S. Mechanical Engineering, Isfahan University, Isfahan  
M.S. Geotechnical Engineering, University of Maryland, College Park,  
Ph.D., Geotechnical Engineering, university of Maryland, College Park,

# CELE STONE

## C A S F E R



### ERC PROFILE

Lead Institution:  
Texas Tech University,  
Lubbock, TX

Core Partner Institutions:  
MIT  
Georgia Tech  
Florida A&M  
Case Western Reserve

Center Domain:  
Energy, Sustainability, & Infrastructure

ERC Cohort: Year 1, GEN4

### CONTACT

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806-241-3644

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Cele.stone@ttu.edu

LinkedIn:  
LinkedIn.com/in/cele-stone

ERC WEBSITE:  
Casper.us

### WORK EXPERIENCE

#### Years at the ERC

Began working as ILO when CASFER was funded in September of 2022

#### Previous Relevant Experience

Founded first agricultural company at age 27, continuing entrepreneurial adventures in the ag and real estate spaces. Serve as iTTU Mentor, advising and integrating strategies for innovation in early-stage startups by leading efforts to improve capacity and profitability for business growth. Ph.D. Candidate in Agricultural Education and Communications.

#### Expertise

- Entrepreneurship
- Marketing and Communications
- IAB Management
- IP and Tech Transfer

#### Responsibilities at Your ERC

- Innovation Ecosystem – Entrepreneurship, Commercialization, IP/Tech Transfer
- Strategic Planning & Direction
- External Partnerships – Marketing, Recruitment, Retention

#### Topic of Specialty

Resource recovery for modular, distributed, decarbonized nitrogen-based fertilizer production

### EDUCATION

Ph.D. (ABD) Agricultural Education & Communications, Texas Tech University, Lubbock, TX

M.S. Agricultural Education & Administrative Leadership, West Texas A&M University, Canyon, TX

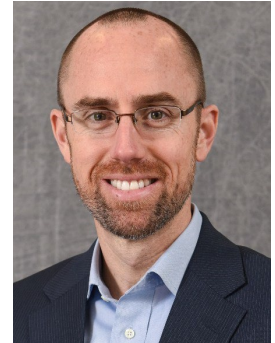
B.S. Agricultural Education, Texas A&M University, College Station, TX

# Biotechnology and Health Care



# ADAM CURRY

## ASSIST Center



### ERC PROFILE

Lead Institution:  
NC State University, Raleigh, NC

Core Partner Institutions:  
University of Virginia, Charlottesville,  
VA

Penn State University, University Park,  
PA

Florida International University, Miami,  
FL

Center Domain: Biotech and Health

ERC Cohort: Year 8, GEN3

### CONTACT

PHONE:  
919-515-3083

EMAIL:  
adam.curry@ncsu.edu

LinkedIn:  
<https://www.linkedin.com/in/adam-curry-phd/>

ERC WEBSITE:  
assistcenter.org

### WORK EXPERIENCE

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#### Years at the ERC

Joined ASSIST in Nov 2018

#### Previous Relevant Experience

Previous experience was in scientific research in industry

#### Expertise

- List the SME categories relevant to you (select from list below):
  - o ILO Role within ERC; IP and Tech Transfer; Entrepreneurship

#### Responsibilities at Your ERC

- List the responsibilities appropriate for you:
  - o Annual Report; Technology commercialization; Entrepreneurship; Recruiting; Industry-sponsored research

#### Topic of Specialty

Wearable devices, Smart devices, IoT, Medical devices and instrumentation, Energy harvesting

### EDUCATION

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B.S. Mechanical Engineering, NCSU

M.S. Mechanical Engineering, NCSU

Ph.D. Biomedical Engineering, Duke University



**CELL-MET**

## ERC PROFILE

Lead Institution:  
Boston University, Boston, MA

Core Partner Institutions:  
University of Michigan, Ann Arbor, MI

Florida International Univ., Miami, FL

Other Academic Partners:  
Harvard University, Cambridge, MA

Columbia University, New York, NY

Center Domain: Biotech and Health

ERC Cohort: Year 9; GEN3

## CONTACT

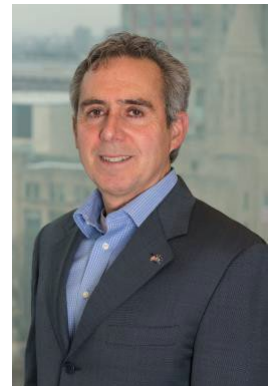
PHONE:  
617-358-4924

EMAIL:  
[tjdudley@bu.edu](mailto:tjdudley@bu.edu)

ERC WEBSITE:  
<https://www.bu.edu/cell-met/>

# THOMAS DUDLEY

NSF ERC in Cellular Metamaterials  
(CELL-MET)



## WORK EXPERIENCE

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### Years at CELL-MET

3 years

### Previous Relevant Experience

- Nearly 40 years high technology business experience
- Senior Management positions at Small Business Enterprises through Global large cap corporations
- Board and Advisory Board Directorships
- Managing Director of NSF Industry/University Cooperative Research Center (I/UCRC)

### Expertise

- IP Management and Tech Transfer
- Business Development
- Workforce Development & Entrepreneurship
- Organizational and Communication skills as ERC's ILO

### Responsibilities at Your ERC

- Marketing, Promotion and IPAB Recruitment
- Managing Seed Project Process
- Student Mentoring
- IPAB Management
- Proposal Creation and Editing
- Reporting

### Topic of Specialty

- Bio-materials
- Nano-structures and additive nano-manufacturing
- Cell & tissue engineering
- Cellular imaging
- Optogenetics

## EDUCATION

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B.S., Marine Engineering, U.S. Naval Academy

MBA, Saint Joseph's University



**PATHS-UP**  
Precise Advanced Technologies and  
Health Systems for Underserved Populations

## ERC PROFILE

Lead Institution:

Texas A & M, College Station, TX Core

Partner Institutions:

University California Las Angeles, LA,  
CA

Rice University, Houston, TX

Florida International University, Miami,  
FL

Center Domain: Biotech and Health

ERC Cohort: est. 2017; GEN3

## CONTACT

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952-855-3524

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<https://www.linkedin.com/in/chrisfinberg/>

ERC WEBSITE:  
pathsup.org

# CHRIS FINBERG

## PATHS-UP



## WORK EXPERIENCE

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### Years at the ERC

Started Nov 2018 (1.5 years)

### Previous Relevant Experience

Direct from Industry – Class III Medical Devices

### Expertise

- o IAB Management – Prospecting and Account Management

### Responsibilities at Your ERC

- o social media; communications; website; Annual Report; technology commercialization; entrepreneurship, Start-ups, Innovation Programs, IP Management, Industry Trends

### Topic of Specialty

Point of Care (POC) Medical Devices for Cardiovascular Diseases and Diabetes. Multiplex Assay Development, Diagnostic Biomarkers, Nanoparticles, Photo Sensors, Wearables, Implantable, Semiconductor Electronics, Flex circuitry, Computational Imaging - Deep Learning, Data Analytics, Behavioral Modifications

## EDUCATION

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B.S. Mechanical Engineering University of Minnesota

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CELL-MET

## ERC PROFILE

Lead Institution:  
Boston University, Boston, MA

Core Partner Institutions:  
University of Michigan, Ann Arbor, MI

Florida International Univ., Miami, FL

Other Academic Partners:  
Harvard University, Cambridge, MA

Columbia University, New York, NY

Center Domain: Biotech and Health

ERC Cohort: Year 5; GEN2

## CONTACT

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617-358-6910

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ERC WEBSITE:  
<https://www.bu.edu/cell-met/>

# JOHN HARTNETT

## CELL - MET



## WORK EXPERIENCE

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**Years at the ERC**  
Started in Fall of 2021

**Previous Relevant Experience**  
Director of Industry Engagement, Engineering and Physical Sciences,  
Boston University  
Thirty+ years in Life Sciences/Med-tech Industry

**Expertise**  
Market Assessment and Technology Adoption  
Business Development  
Entrepreneurship

**Responsibilities at Your ERC**  
Marketing, Promotion, IPAB Recruitment  
Manage Seed Project process  
Student mentoring  
IPAB Management  
Strategic Planning and Reporting

**Topic of Specialty**  
Biomaterials  
Nano-structures and additive nano-manufacturing  
Cell and tissue engineering  
Cellular Imaging  
Optogenetics

## EDUCATION

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M.B.A. Marketing/Finance Boston University  
B.A. Economics College of the Holy Cross



## ERC PROFILE

Lead Institution:  
Northwestern University, Chicago, IL

Core Partner Institutions:  
Massachusetts Institute of Technology,  
Boston, MA

Carnegie Mellon, Pittsburgh, PA

Center Domain: Manufacturing (also  
have experience in Biotech and  
Health)

ERC Cohort: Gen4

## CONTACT

PHONE:  
206-940-2959

EMAIL:  
scott.ransom@northwestern.edu

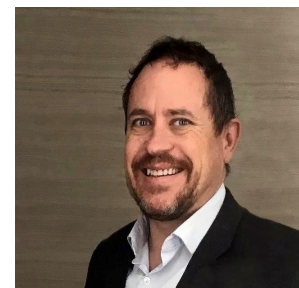
LinkedIn:  
<https://www.linkedin.com/in/scottransom/>

ERC WEBSITE:  
[www.centerforneurotech.org](http://www.centerforneurotech.org)

# SCOTT RANSOM

Center for Human Augmentation via  
Dexterity (HAND)

Center for Neurotechnology, Center  
for Cell Manufacturing Technologies



## WORK EXPERIENCE

### Years at the ERC

ILO at Center for Neurotech for 9 years, then CMA<sub>T</sub> for 2 years, now helping start HAND.

### Previous Relevant Experience

Worked at Medtronic, the world's largest medical device manufacturer, for 20 years. A range of roles including Field Clinical Engineering, managing and leading teams globally in clinical and education roles across heart failure, tachyarrhythmia and ablation businesses. Designed and developed new medical technology.

### Expertise

ILO Role within ERC; IAB Management; IP and Tech Transfer; Site Visit & Annual Report; Entrepreneurship; Marketing and Communications; Sustainability

### Responsibilities at Your ERC

Technology commercialization; Entrepreneurship; Quarterly IAB Meetings; Project Coordination; Fundraising; Retreat and Industry Day coordination; Newsletter; School Visits, Neural Engineering faculty at UW

### Topic of Specialty

Medical Device Design, Neural Engineering, Cardiac Anatomy & Physiology; Start-ups; Prototyping; Biomimetic Robotics; Education; Training & Performance Improvement; History of Science & Physics; Certified ROI Practitioner

## EDUCATION

B.S. Electrical Engineering, Illinois Institute of Technology

M.S. Electrical Engineering (Biomedical Emphasis), Illinois Institute of Technology

Ph.D. Education (Specialty in T&PI), Capella University

Certificate in Post-Secondary Education



# TIM TRIPP

A T P - B i o



## ERC PROFILE

Lead Institution: University of Minnesota, Minneapolis MN

Core Partner Institutions:  
Massachusetts General Hospital,  
Boston, MA

University of California Berkeley,  
Berkeley, CA

University of California Riverside,  
Riverside, CA

Center Domain: Biotech and Health

ERC Cohort: Year 2, Gen 4

## CONTACT

PHONE:  
612-624-6758

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ATP-Bio-SPI@umn.edu

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<https://www.linkedin.com/in/timtripp1>

ERC WEBSITE:  
[www.atp-bio.org](http://www.atp-bio.org)

## WORK EXPERIENCE

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**Years at the ERC**  
0.1

### Previous Relevant Experience

Former Director of the Biotechnology Resource Center and Assistant Director of University Economic Development at the University of Minnesota

### Expertise

- Tech Transfer
- Entrepreneurship & Innovation
- Relationship management
- IE Pillar Strategy

### Responsibilities at Your ERC

- Member Recruitment & Retention
- IAB Management
- Member & Stakeholder communications (including newsletter, website)
- IE Pillar Strategy & Annual Report
- Technology Commercialization Plans
- IP Management
- Cross-pillar projects with EWD, DCI, and Ethics & Public Policy (EPP) Pillars
- Internships / Industry Practice Fellows

### Topic of Specialty

Stem cells, operations, microbiology, commercial biotech

## EDUCATION

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B.S. Microbiology, University of Minnesota  
M.S. Molecular Pathogenesis, University of Minnesota  
MBA Carlson School of Management, University of Minnesota

# Microelectronics, Sensing, and Information Technology



## ERC PROFILE

### Lead Institution:

North Carolina State University,  
Raleigh, NC

### Core Partner Institutions:

Floria International University, Miami, FL  
Penn State Univ., University Park, PA  
Univ. of Virginia, Charlottesville, VA

### Affiliate Institutions:

University of North Carolina, Chapel Hill, NC  
University of Utah, Salt Lake City, UT  
University of Michigan, Ann Arbor, MI  
University of Texas, Austin, TX

### ERC Cohort:

Graduated 2022; Gen-3

## CONTACT

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[www.linkedin.com/in/ravi-chilukuri](https://www.linkedin.com/in/ravi-chilukuri)

ERC WEBSITE:  
<https://assistcenter.org/>

# RAVI CHILUKURI

## A S S I S T



## WORK EXPERIENCE

### Years at the ERC

Started September 2022

### Previous Relevant Experience

Global microelectronics leader, with 25+ years of experience and passion for developing and marketing innovative products.

### Expertise

- Drove successful product development programs from path finding to high volume manufacturing in USA, Europe and Asia.
- Led R&D, Product Dev., Business Dev. and Manufacturing, with a fast-paced entrepreneurial mindset, in IoT, Medical Device, Mobile, Consumer Goods, Optoelectronics, and Power industries.
- Built and mentored top performing teams, in diverse companies ranging from pre-seed to publicly traded, in areas of Wafer Level Packaging, 3D Heterogeneous Integration, System in Package, Thermoelectric Devices, Wide Bandgap Semiconductor Devices, Power Integrated Circuits and Discrete Devices.

### Responsibilities at Your ERC

- Member of ERC Leadership Team, ILO Role within ERC, Recruit and retain Industry Members, Annual Report; Develop industry-academia partnerships for Sponsored Research and Federal grants.

### Topics of Specialty

- Product Development/R&D, Product Management/Marketing, Joint Dev. Programs, Manufacturing Operations, Business Dev., Capital Fund Raising, Supply Chain, Outsourced Foundry, Assembly & Test

## EDUCATION

BS, Chemical Engineering, Indian Institute of Technology, Delhi, India  
MS, Chemical Engineering, NC State University, Raleigh, NC  
PhD, Electrical and Computer Engineering., NC State U., Raleigh, NC



## ERC PROFILE

Lead Institution:  
University of Illinois, Urbana-  
Champaign, IL

Core Partner Institutions:  
University of Arkansas, Fayetteville, AR

Stanford University, Stanford, CA

Howard University, Washington D.C.

Center Domain: Microelectronics,  
Sensing, and IT

ERC Cohort: Year 5, GEN3

## CONTACT

PHONE:  
217-244-2322

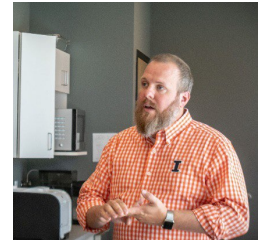
EMAIL:  
[odoyle@illinois.edu](mailto:odoyle@illinois.edu)

LinkedIn:  
<https://www.linkedin.com/in/owen-doyle-a826275/>

ERC WEBSITE:  
<http://poets-erc.org/>

# OWEN DOYLE

POETS – Power Optimization of Electro-Thermal  
Systems



## WORK EXPERIENCE

### Years at the ERC

Started with POETS in the ILO role, February 2020.

### Previous Relevant Experience

Just recently took on an academic facing role after spending the majority of my career on the corporate side, specifically within the electric utility industry. Over the last 5 years, I established and grew the Ameren Innovation Center at the University of Illinois' Research Park which utilizes a diverse, multi-disciplinary, award winning team of full-time employees and part-time student interns to deliver actionable results in the areas of analytics, application development, and emerging technology research.

### Expertise

- ILO Role within ERC
- IPAB Management
- IP and Tech Transfer
- Annual Meeting

### Responsibilities at Your ERC

- IPAB Website
- Support Annual Reporting
- Annual Meeting
- Support Innovation Ecosystem

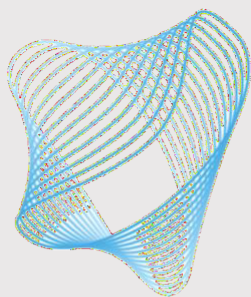
### Topic of Specialty

Power generation, transmission and distribution, project management, workforce development, organizational behavior, leadership

## EDUCATION

B.S. Electrical Engineering, University of Illinois

MBA University of New Hampshire



## Center for Quantum Networks

### ERC PROFILE

Lead Institution:  
University of Arizona

Core Partner Institutions:  
Harvard University  
Massachusetts Institute of Technology  
Yale University

Center Domain:  
Microelectronics and IT

ERC Cohort:  
Gen4, established Sept 2020

### CONTACT

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520-621-3150

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ERC WEBSITE:  
<https://cq-n-erc.org>

## STEPHEN FLEMING

Center for Quantum Networks



### WORK EXPERIENCE

#### Years at the ERC

Joined CQN at its launch in September 2020.

#### Previous Relevant Experience

Built new corporate engagement practice at University of Arizona. Previously, Vice President of Enterprise Innovation Institute at Georgia Institute of Technology:

Led staff of 200. Managed \$20+ million annual budget (95% from non-university sources). Attracted nearly a dozen Fortune 500 corporate innovation centers to Technology Square on the Georgia Tech campus. Initial PI helping NSF create I-Corps program.

Earlier, general partner at a \$260M early-stage technology venture capital firm. Former senior executive in both Fortune 500 and venture-funded startup companies.

#### Expertise

- ILO Role within ERC; IAB Management; IP and Tech Transfer; Site Visit & Annual Report; Entrepreneurship.

#### Responsibilities at Your ERC

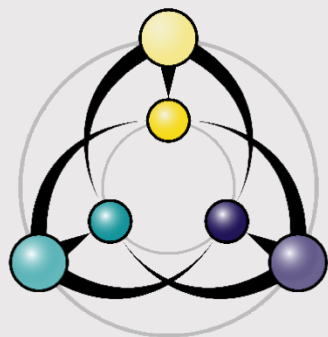
- External partnerships; strategic direction; social media; website; finance; technology commercialization; entrepreneurship.

#### Topic of Specialty

CQN is building the quantum Internet. A socially responsible quantum internet will spur new technology industries and a competitive marketplace of quantum service providers and application developers

### EDUCATION

BS, Physics, Georgia Institute of Technology



**TANMS**

## ERC PROFILE

Lead Institution:  
Univ. of California, Los Angeles, CA

Core Partner Institutions:  
Univ. of California Berkeley, CA

Cal. State Univ. of Northridge, CA

Univ. of Texas, Dallas, TX

Northeastern Univ., MA

Cornell Univ., NY

Center Domain: Microelectronics,  
Sensing, and Information Technology

ERC Cohort: GEN-3, 2012

## CONTACT

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310-825-7855

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[sgrimm@tanms-erc.org](mailto:sgrimm@tanms-erc.org)

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ERC WEBSITE:  
<http://www.tanms-erc.org/>

# SCHAFFER GRIMM

Center for Translational Applications of Nanoscale  
Multiferroic Systems (TANMS)



## WORK EXPERIENCE

### Years at the ERC

2 Years

### Previous Relevant Experience

- Spent 11 years at Northrop Grumman (an IAB member) so familiar with Aerospace and Defense
- Previous role at UCLA was to help PIs create startup companies based on IP. Therefore, familiar with:
  - Entrepreneurship
  - Pitch presentations
  - Intellectual Property

### Expertise

- Entrepreneurship
- IP and Tech Transfer

### Responsibilities at Your ERC

- Annual Report
- Technology Commercialization
- Entrepreneurship
- IAB Management

### Topic of Specialty

Leveraging Multiferroic material and modeling development for use in the following applications:

- Antennas - reducing the size by 100x
- Memory devices - reducing the power requirements by 1000x
- Cell Sorting - providing high throughput yet individual temporal assessment and classification

## EDUCATION

B.A. and B.S. Electrical Engineering, Univ. of San Diego, CA

M.S. Electrical Engineering, Univ. of Southern California, CA

M.B.A, Anderson School of Management, Univ. of California, Los Angeles, CA



# Advanced Manufacturing



# KATHRYN KELLEY HAMMER



## ERC PROFILE

Lead Institution:  
The Ohio State University, Columbus,  
OH

Core Partner Institutions:  
Case Western Reserve University,  
Cleveland, OH

North Carolina Agricultural and  
Technical State University,  
Greensboro, NC

Northwestern University, Evanston, IL

University of Tennessee, Knoxville, TN

ERC Cohort: Year 10; Gen-4

## CONTACT

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614-256-3724

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kelley.81@osu.edu

LinkedIn:  
<https://www.linkedin.com/in/kkelleycmh/>

ERC WEBSITE:  
<https://hammer.osu.edu/>

## WORK EXPERIENCE

### Years at the ERC

Started September 2022

### Previous Relevant Experience

Describe previous on-campus experience with industry partners

### Expertise

- Serve as executive director of the Ohio Manufacturing Institute (OMI), developing manufacturing policy and programs that support manufacturers.
- Manage NIST MEP-funded program on "Manufacturing 5.0" Digital Transformation for Manufacturers
- Catalyst for OSU's B.S. in Engineering Technology program, which will leverage OSU's regional campuses to provide manufacturing technical generalist graduates to serve regional industry.
- PI on \$2.24M US DoD Manufacturing Assistance Program and Defense Cybersecurity Assurance Program
- Produce and host "Manufacturing Tomorrow" podcast

### Responsibilities at Your ERC

- Member of ERC Leadership Team, ILO Role within ERC; Recruit and Retain Industry Members; Site Visit & Annual Report; Workforce Development; Curriculum Development; Diversity & Inclusion; Sustainability

### Topic of Specialty

Manufacturing innovation, regional and national public policy; advanced manufacturing workforce development and education

## EDUCATION

BA, English with Journalism, University of Virginia at Wise  
MA, Rhetoric and Communication Studies, University of Virginia  
Doctoral Studies, Communication, The Ohio State University

*Particle Science & Technology*  
**ERC**

## ERC PROFILE

Lead Institution:  
University of Florida, Gainesville, FL

Core Partner Institutions:  
N/A

Center Domain:  
Advanced Manufacturing

ERC Cohort:  
1994; GEN2

## CONTACT

PHONE:  
352-294-7561

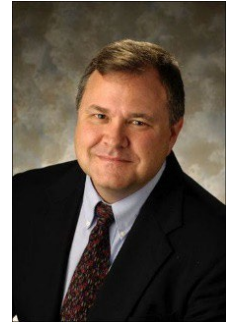
EMAIL:  
[esander@ufl.edu](mailto:esander@ufl.edu)

LinkedIn:  
<https://www.linkedin.com/in/erik-sander-8991a2/>

ERC WEBSITE:  
<http://perc.ufl.edu/>

# ERIK SANDER

## ERC for Particle Science and Technology (PERC)



## WORK EXPERIENCE

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### Years at the ERC

Served as the Associate Director for Industrial Collaboration and Technology Transfer with the ERC for Particle Science and Technology 1997-2004. Subsequently (2004-present) provide consultation and support to NSF ERC Program Office (e.g. member of 28 Site Visit Teams) and directly to 20+ ERCs in industrial collaboration, innovation, entrepreneurship, and technology transfer. Authored ERC Best Practices Manual Chapter on Industrial Collaboration and Innovation.

### Previous Relevant Experience

Created and led UF College of Engineering Industry Programs Office, Engineering Innovation Institute, and Florida Engineering Experiment Station, encompassing all outreach functions of the UF College of Engineering.

### Expertise

- ILO Role within ERC; IAB Management; IP and Tech Transfer; Site Visit & Annual Report; Entrepreneurship and Innovation; Marketing and Communications; Sustainability

### Responsibilities at Your ERC

- Industrial partnership recruitment and retention; Contracts and grants; Communications; Annual Report; Technology commercialization; Innovation and entrepreneurship; Sustainability

### Topic of Specialty

Advanced particle science and technology including production, processing and applications.

## EDUCATION

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B.S. Mechanical Engineering, University of Florida

M.S. Management of Technology (Cum Laude), University of Alabama-Huntsville



## ERC PROFILE

Lead Institution:  
Georgia Institute of Technology,  
Atlanta, GA

Core Partner Institutions:  
University of Georgia, Athens, GA

University of Wisconsin, Madison, WI

University of Puerto Rico Mayaguez, PR

Center Domain: Advanced  
Manufacturing; Biotech and Health

ERC Cohort: Year 3; GEN3

## CONTACT

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ERC WEBSITE:  
<http://cellmanufacturingusa.org/>

# CYNTHIA SUNDELL

Center for Cell Manufacturing Technologies (CMaT)



## WORK EXPERIENCE

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### Years at the ERC

3 years

### Previous Relevant Experience

15+ years life science executive management, drug discovery and clinical development strategies; University tech transfer and startup cultivation, entrepreneurship education, university- academia collaboration

### Expertise

- ILO Role within ERC; IPAB Management; IP and Tech Transfer; Entrepreneurship; Sustainability

### Responsibilities at Your ERC

- Industry recruitment and engagement, annual report preparation, site visit presentations, technology commercialization, entrepreneurship education, IPAB management, Head commercialization advisory board

### Topic of Specialty

- biomanufacturing, drug discovery and clinical development, industry-academia collaboration, entrepreneurship education, university technology commercialization

## EDUCATION

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B.A., Biology, Douglass College, Rutgers University

Ph.D., Biology, University of Pennsylvania

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