

# How Neuroscience & Wellesley Shaped My Career in Emergency Medicine

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Chief Resident, Harvard Affiliated Emergency Medicine Residency  
Brigham and Women's Hospital & Massachusetts General Hospital



BRIGHAM AND  
WOMEN'S HOSPITAL



MASSACHUSETTS  
GENERAL HOSPITAL



HARVARD  
MEDICAL SCHOOL

# Outline

- My journey at Wellesley College
- How Neuroscience Major shaped my career
- My current work
- Lessons learned at Wellesley College and Beyond



# Timeline

**1988-1999: South Korea**

**1999-2006: Los Angeles, California**

**2006-2010: Wellesley College**

Neuroscience Major and Women's and Gender Studies Minor

**2010-2011: University of Cambridge, UK**

Master in Philosophy (MPhil), Public Health - Wellesley Knafel Fellow

**2011-2016: Harvard Medical School**

Medical Degree (MD)

**2014-2016: Harvard Kennedy School of Government**

Master's degree in Public Policy (MPP)

**2016-now: Harvard Affiliated Emergency Medicine Residency**

Chief Resident (2019-2020)

**July 2020: Brigham and Women's Hospital**

Attending physician in Emergency Medicine, Harvard Medical School  
Director of Behavioral Health, Department of Emergency Medicine

## Choosing a Major

- Pre-med
- Biology vs Neuroscience vs Biochemistry?
- What's more applicable?

BISC 110 with  
Prof. Tetel

Fall 2006



Neuroscience  
Major



**Project-inspired  
Learning**

# Project: Bench Science

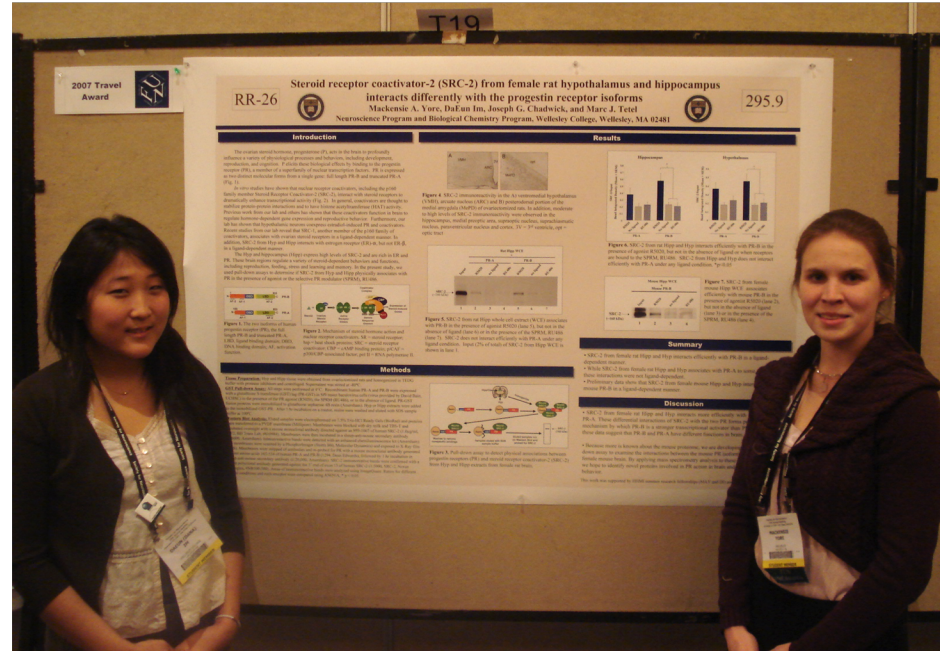
Tetel Lab 2006





# Project: Bench Science

Fall 2007



Summer 2018



Published in final edited form as:

*Neuroscience*. 2010 September 1; 169(3): 1017–1028. doi:10.1016/j.neuroscience.2010.05.053.

## Steroid Receptor Coactivator-2 Expression in Brain and Physical Associations with Steroid Receptors

Mackensie A. Yore<sup>1</sup>, DaEun Im<sup>1</sup>, Lena K. Webb<sup>2,\*</sup>, Yingxin Zhao<sup>3</sup>, Joseph G. Chadwick Jr.<sup>1</sup>, Heather A. Molenda-Figueira<sup>4,\*\*</sup>, Sigmund J. Haidacher<sup>3</sup>, Larry Denner<sup>3</sup>, and Marc J. Tetel<sup>1,4</sup>

<sup>1</sup> Neuroscience Program, Wellesley College, Wellesley, MA 02481

# Project: Service

## Helping Hands for ALS (Amyotrophic Lateral Sclerosis aka Lou Gehrig's Disease)





# Project: Global Health

## Projecto Doctoritas - El Triunfo, Guatemala



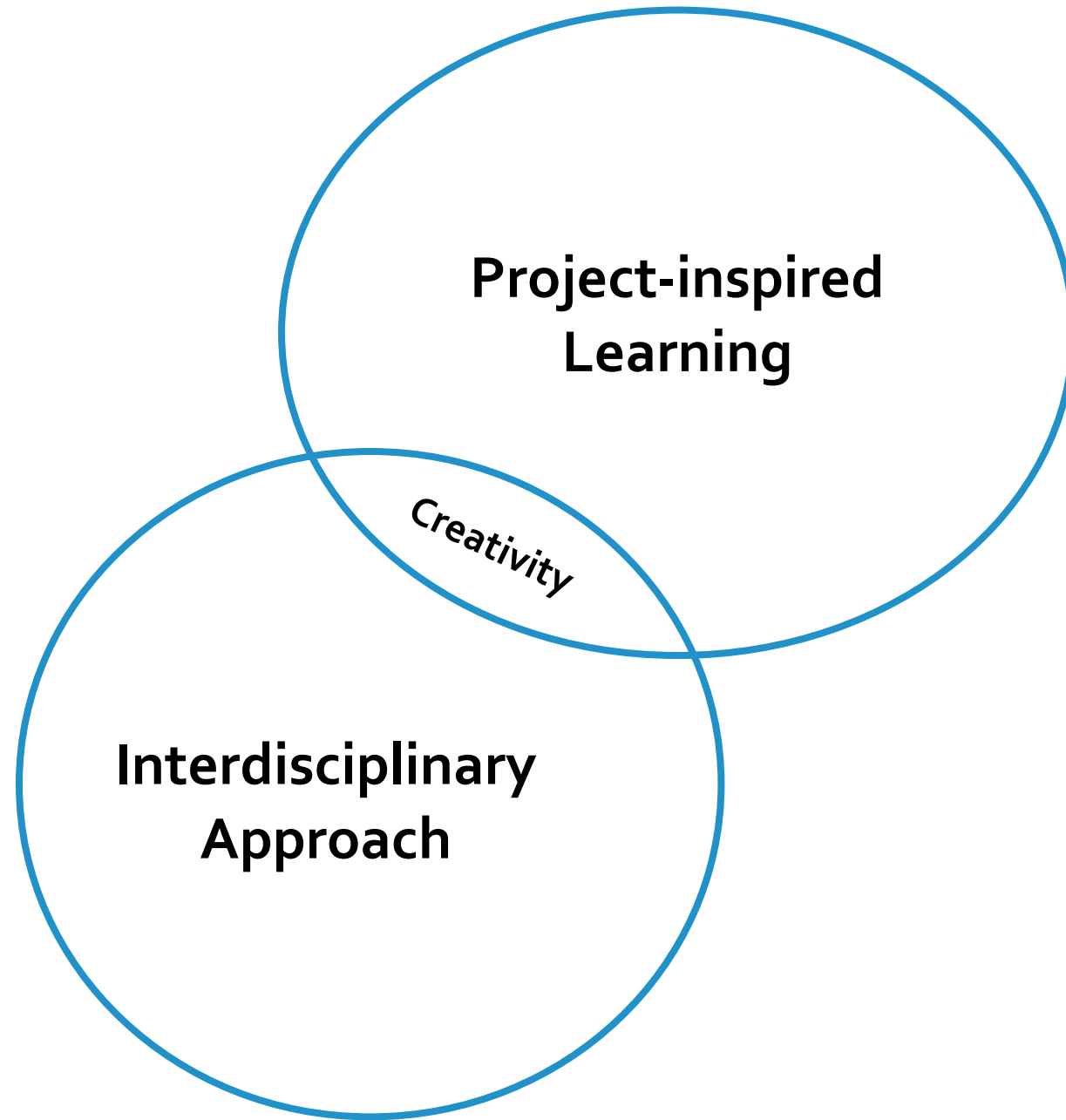


# Project: Global Health

## Proyecto Doctoritas - El Triunfo, Guatemala



# Neuroscience Major



# Interdisciplinary Approach

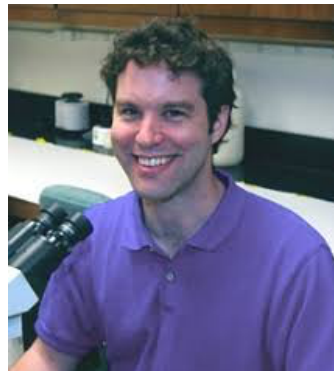


## Neuroscience Senior Thesis Project:

Understanding hormone action in the brain: interactions between mouse progestin receptor subtypes and steroid receptor coactivators

### Neuroscience

Professor Marc Tetel



### Biology

Professor Jennifer Hood-DeGrenier



### Biochemistry

Professor Didem Vardar-Ulu



# Interdisciplinary Approach

eNeuro

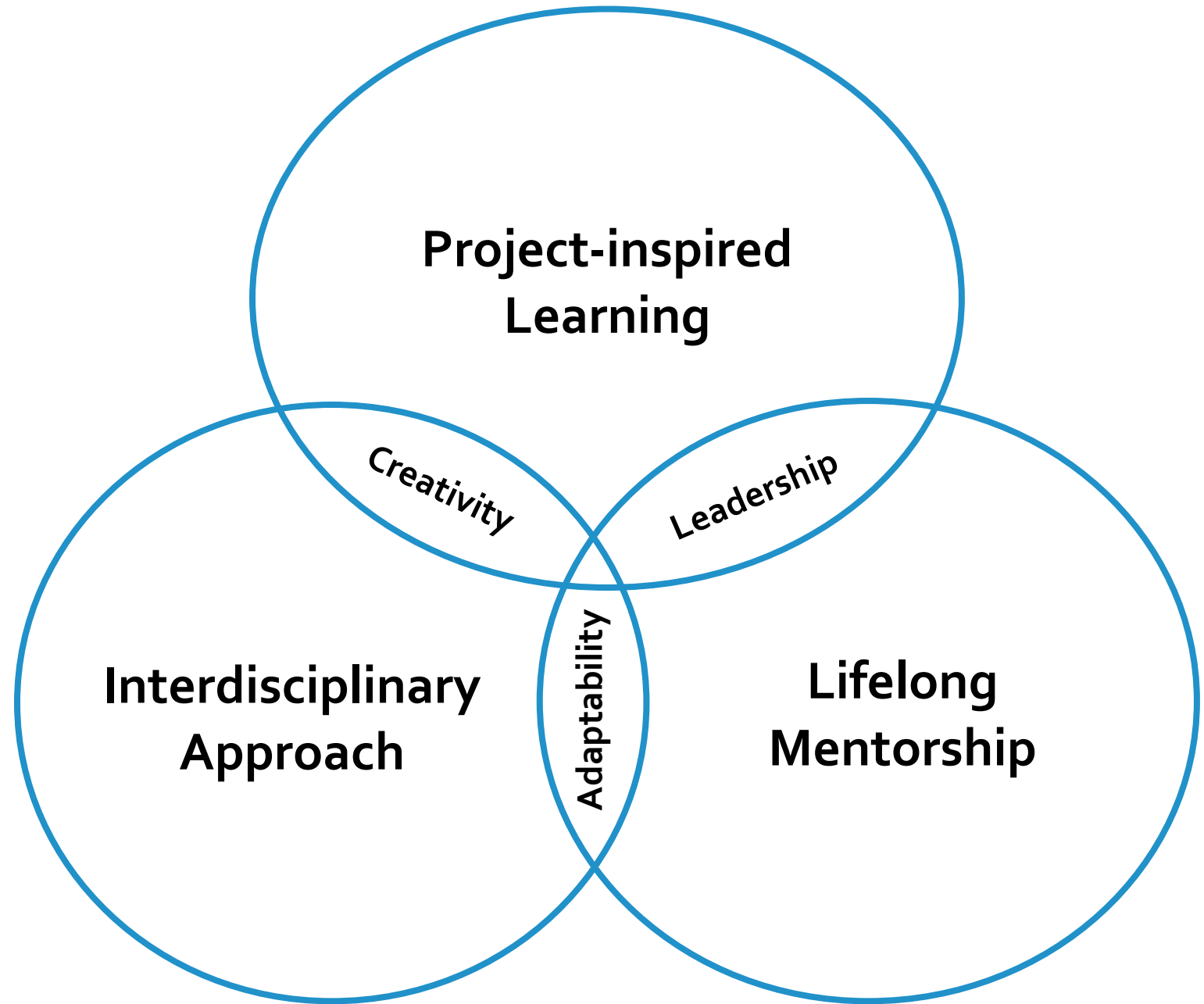
New Research

Integrative Systems

## The Progesterone Receptor Interactome in the Female Mouse Hypothalamus: Interactions with Synaptic Proteins Are Isoform Specific and Ligand Dependent

 Kalpana D. Acharya,<sup>1</sup>  Sabin A. Nettles,<sup>1</sup> Katherine J. Sellers,<sup>2</sup> Dana D. Im,<sup>1</sup>  Moriah Harling,<sup>1</sup> Cassandra Pattanayak,<sup>3</sup>  Didem Vardar-Ulu,<sup>4</sup> Cheryl F. Lichti,<sup>5</sup> Shixia Huang,<sup>6</sup> Dean P. Edwards,<sup>6</sup>  Deepak P. Srivastava,<sup>2</sup> Larry Denner,<sup>7</sup> and  Marc J. Tetel<sup>1</sup>

# Neuroscience Major





# Lifelong Mentorship

Topsfield, MA – May 2016



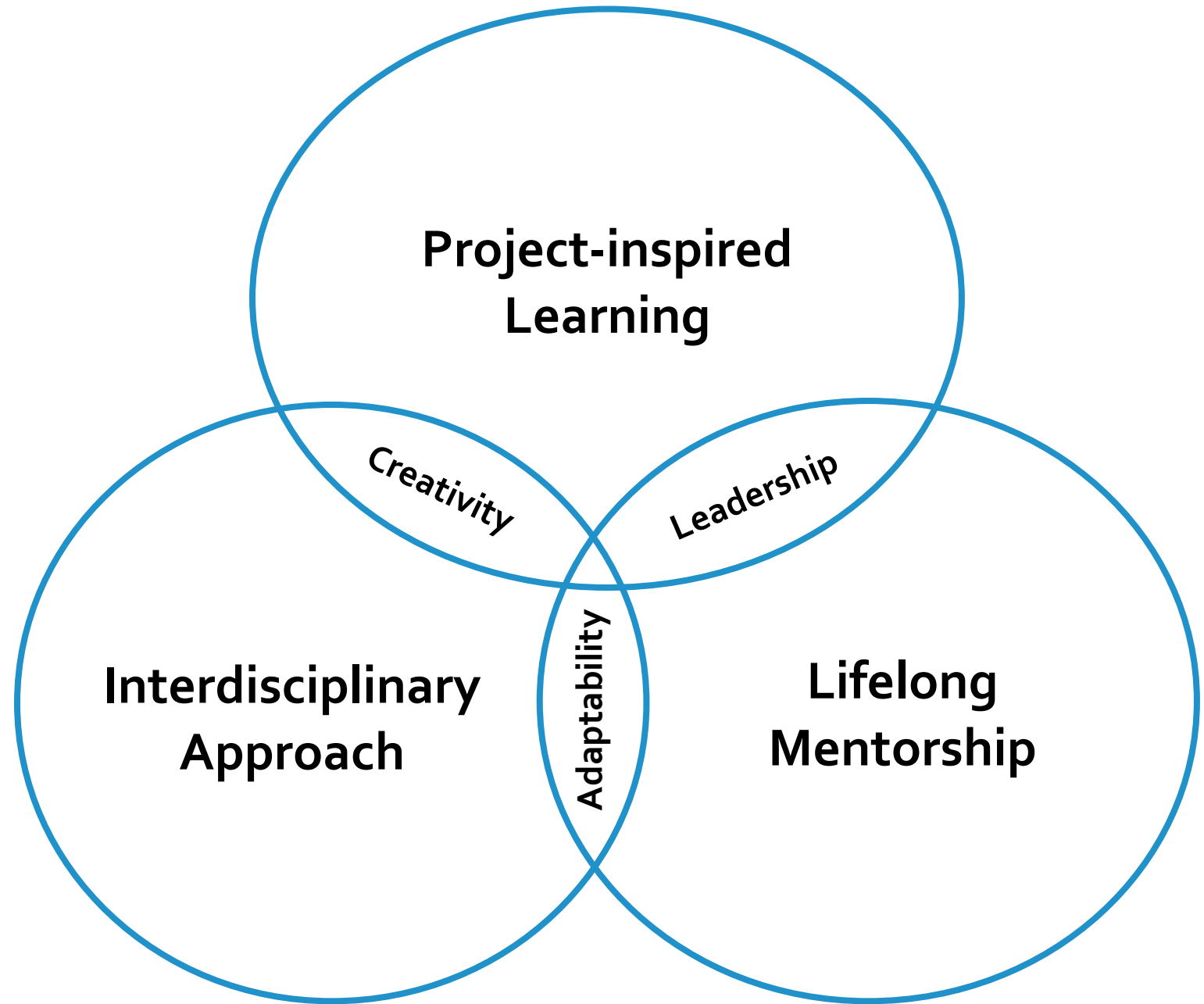


# Lifelong Mentorship

## El Triunfo, Guatemala – Summer 2010



# Neuroscience Major





# Life After Wellesley

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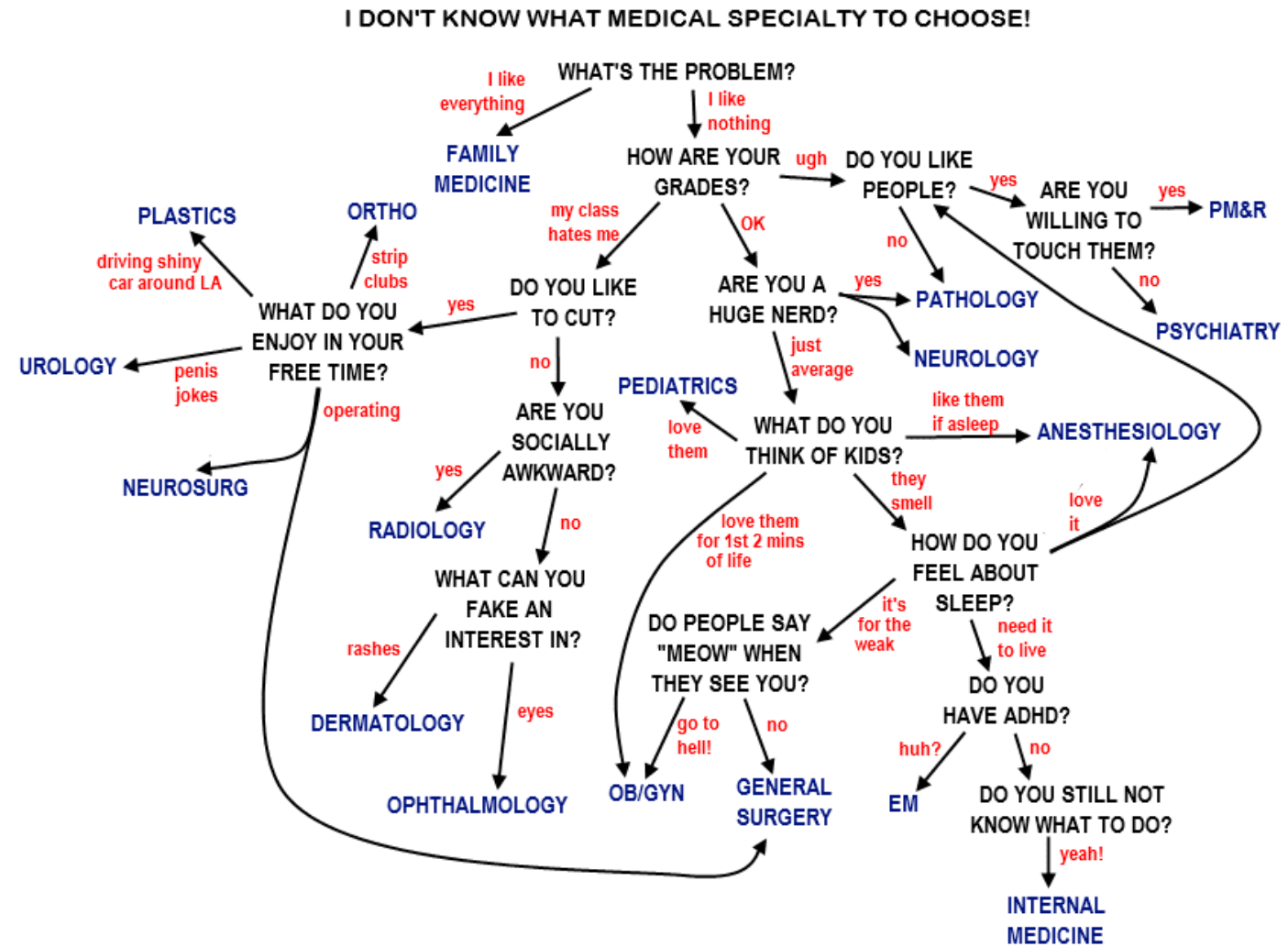
Chief Resident (2019-2020)

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# Choosing a Specialty



# Emergency Medicine





# Emergency Medicine





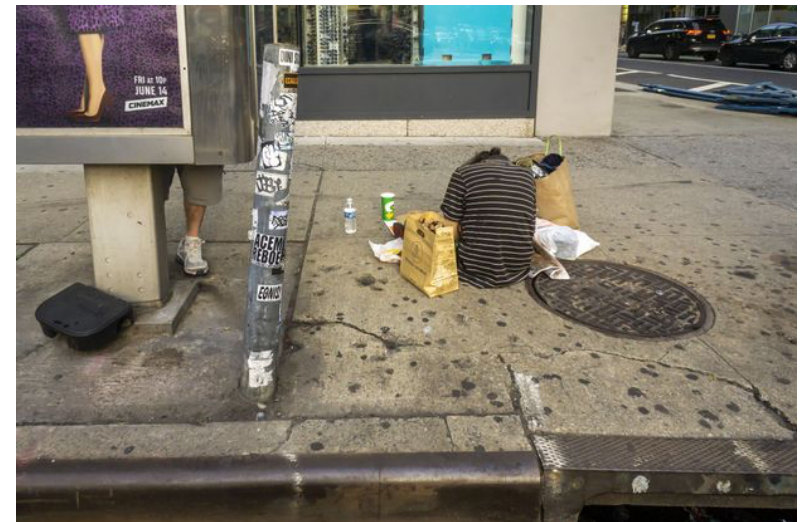
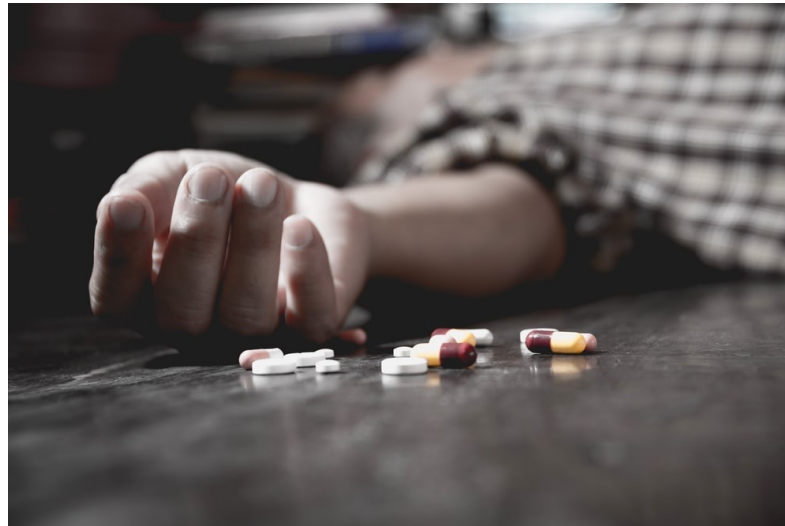
# Emergency Medicine



Photo Credit: Chris Bennett, MD



# Emergency Medicine



# Behavioral Health in Emergency Medicine

News > Medscape Medical News > Conference News > American College of Emergency Physicians (ACEP) 2016 Scientific Assembly

## Emergency Departments a 'Dumping Ground' for Psych Patients

Marlene Busko  
October 28, 2016

FIRST OPINION

### Mental health patients, with nowhere else to go, are overwhelming emergency departments

By ANNE ZINK / OCTOBER 18, 2018



DARREN MCCOLLESTER/GETTY IMAGES

## Modern Healthcare

NEWS SPECIAL FEATURES TRANSFORMATION DATA/LISTS OP-ED AWARDS EVENTS MORE +

Home > Providers

January 28, 2019 12:00 AM

### Emergency rooms fill up with psych patients — and then they wait

Jay Greene

CNN health Food Fitness Wellness Parenting Vital Signs

LIVE TV Edition

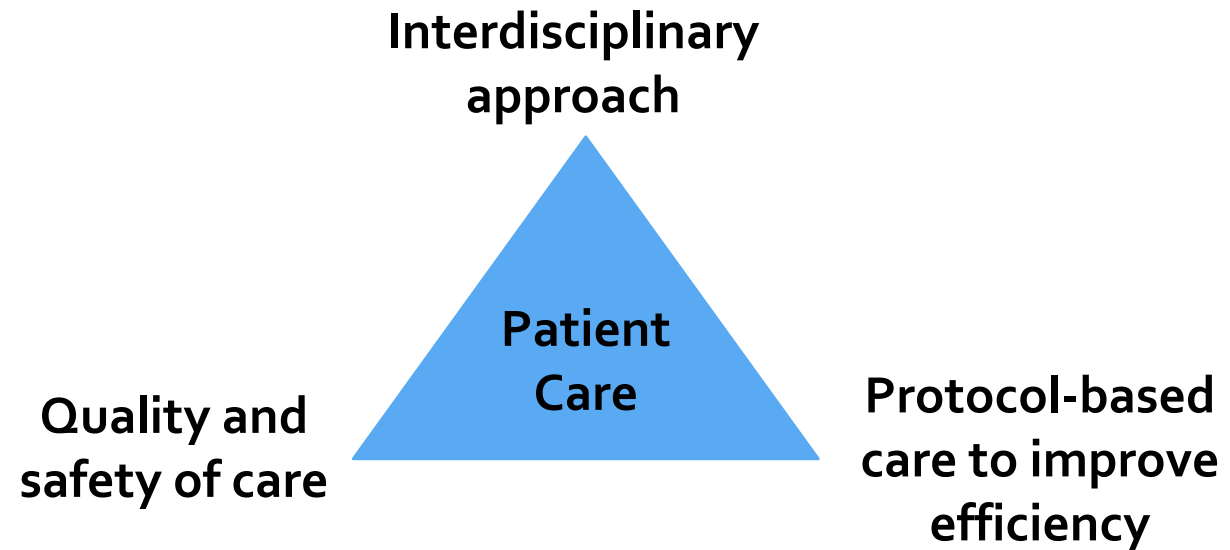
### ERs 'flooded' with mentally ill patients with no place else to turn

By Susan Scutti, CNN

Updated 9:45 PM ET, Fri January 4, 2019

# Behavioral Health in Emergency Medicine

## Behavioral Health Observation Unit





# Women in Emergency Medicine

## Leaky pipeline

In 2015, women earned

**48%**

of medical school degrees

**55%**

of life sciences doctorates

**38%**

of medicinal chemistry doctorates

In biotech, women represent

**50%**

of entry-level positions

**20%**

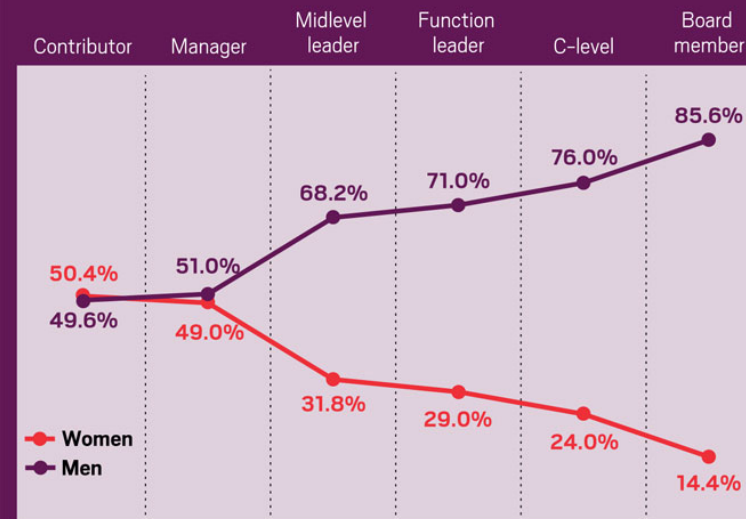
of leadership positions

**10%**

of board seats

Sources: Association of American Medical Colleges, National Science Foundation, Liftstream, MassBio

Women's and men's career paths diverge dramatically after the manager level.



Source: Liftstream and MassBio survey of more than 900 life sciences workers in Massachusetts

- 28% of emergency medicine physicians are women
- 17% of women emergency medicine physicians are associate or full professors
- 11% of academic department chair positions in emergency medicine are held by women

# Women in Emergency Medicine



**feminem**  
FEMALES WORKING IN EMERGENCY MEDICINE

REGISTER AGENDA ← BACK TO HOME

CART ACCOUNT

**fix**  
NEW ENGLAND  
feminem  
idea exchange 2020

FIX: New England 2020  
April 14, 2020 9:00 — 4:00  
Hosted by Harvard Affiliated Emergency Medicine  
Residency Women's Initiative (HWI) in Longwood  
Medical Area, Boston MA

Twitter Facebook Email

REGISTER NOW ADD TO CALENDAR

# Neuroscience Major & Emergency Medicine

## ORIGINAL RESEARCH

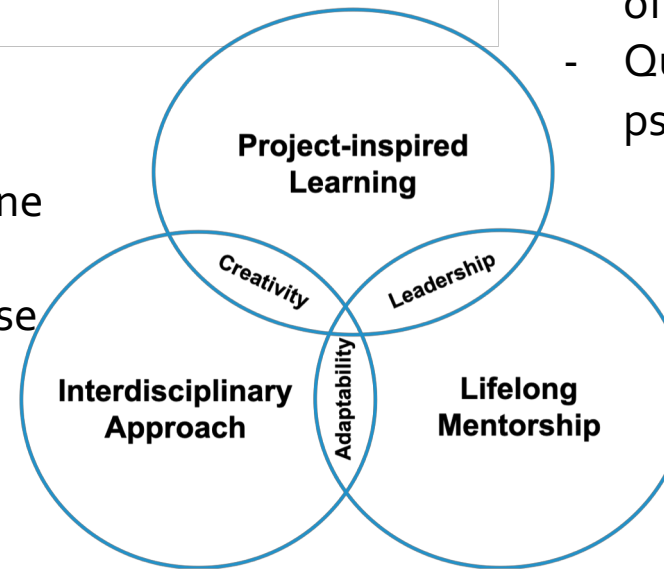
### Emergency Department Clinicians' Attitudes Toward Opioid Use Disorder and Emergency Department-initiated Buprenorphine Treatment: A Mixed-Methods Study

Dana D. Im, MD, MPP\*<sup>†</sup>  
Anita Chary, MD, PhD\*<sup>†</sup>  
Anna L. Condella, MD\*<sup>†</sup>  
Hunhan Vongsachang, MD, MPH<sup>‡</sup>  
Lucas C. Carlson, MD, MPH\*<sup>†</sup>  
Lara Vogel, MD, MBA\*<sup>†</sup>  
Alister Martin, MD, MPP\*<sup>†</sup>  
Nathan Kunzler, MD\*<sup>†</sup>  
Scott G. Weiner, MD, MPH<sup>‡</sup>  
Margaret Samuels-Kalow, MD, MSHP\*

\*Massachusetts General Hospital, Department of Emergency Medicine, Boston, Massachusetts  
<sup>†</sup>Brigham and Women's Hospital, Department of Emergency Medicine, Boston, Massachusetts  
<sup>‡</sup>University of Southern California, Keck School of Medicine, Department of Emergency Medicine, Los Angeles, California

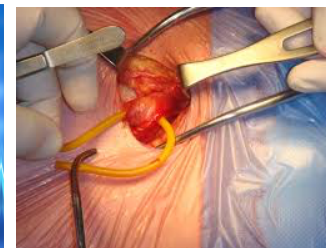
### Behavioral Health + Emergency Medicine

- Emergency Medicine
- Psychiatry
- Social work and case management
- Pharmacy
- Data scientists
- Finance



### Other Projects:

- Virtual windows in the ED
- Protocol development for managing agitation in the ED
- Qualitative interviews to understand patient experience of care in the ED
- Quality metrics for ED care of psychiatric emergencies



# Reflections

1. Apply, apply, apply
2. Build your narrative
3. Nothing is linear
4. Find your niche

## Reflection 1:

Apply, apply,  
apply.

- **Wellesley College: ~\$79,000**
  - Center for Work and Service, summer/winter internship/trip stipends
  - Susan Rappaport Knafel '52 Scholarship for Foreign Study
  - **Places I visited with grants from Wellesley:** Guatemala (three times), Israel, Mexico (twice), UK (for one year), San Diego, San Francisco
- **After Wellesley College: ~\$143,000**
  - University of Cambridge Overseas Scholar (Master's in Philosophy Degree in Public Health)
  - Soros Fellowship for New Americans (Medical Degree)
  - Harvard Kennedy School, Center for Public Leadership, Gleitsman Fellowship (Master's Degree in Public Policy)
  - Harvard Medical School Center for Primary Care Fellowship (Master's Degree in Public Policy)
  - Albert Schweitzer Fellowship



## Reflection 2:

**Build  
your  
narrative.**



### **Marshall Ganz: Public Narrative: Story of Self, Us, and Now**

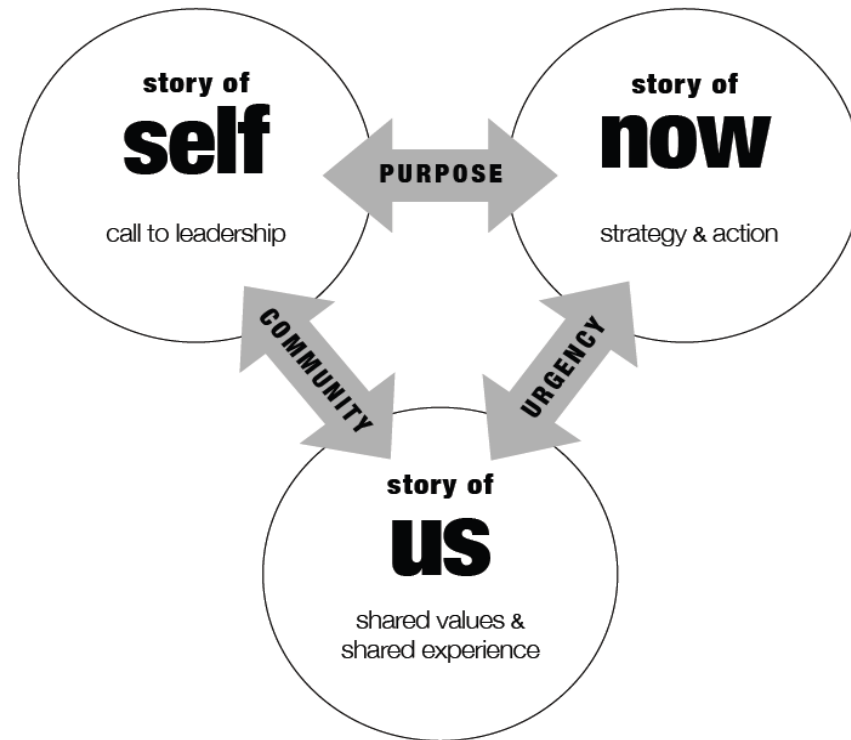
Exercise of leadership by motivating others to join you in action on behalf of a shared purpose

## Reflection 2:

# Build your narrative.

Personal stories of challenges you have faced, choices you have made, and what you learned from the outcomes

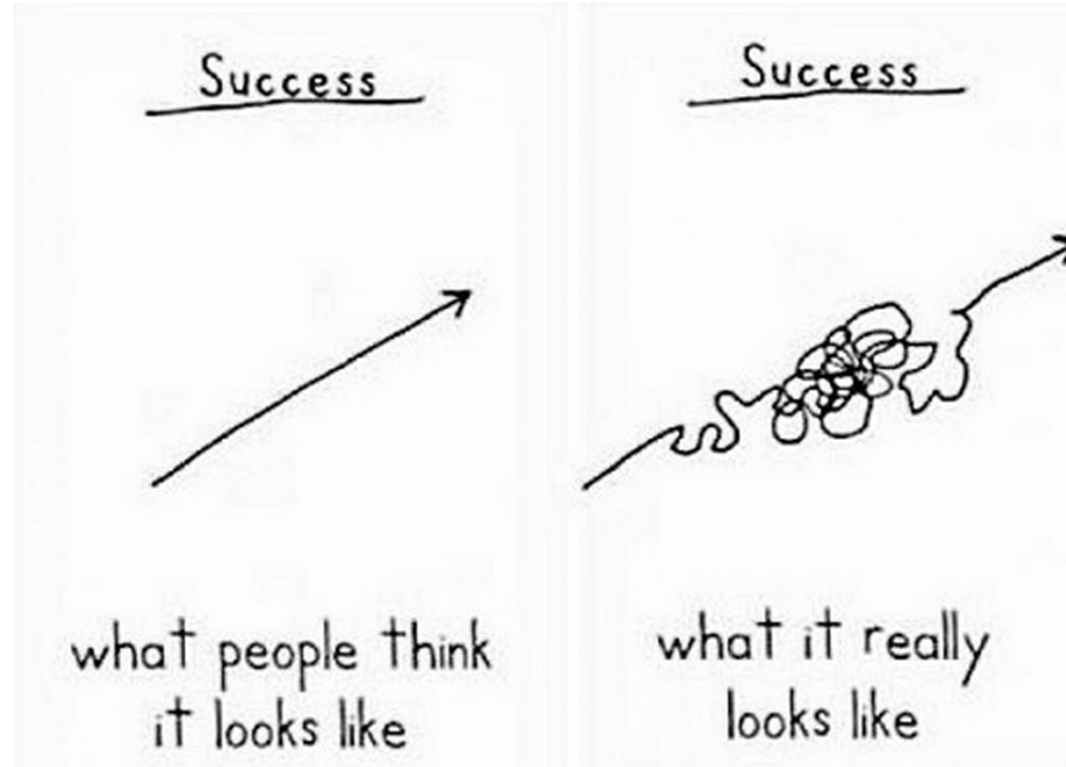
Urgency based on your story; what needs to happen? What shared values are threatened and what actions do we need to take?



How to move “us” to join you in action on behalf of a shared purpose

Reflection 3:

**Nothing is  
linear.**



- Your narrative *will* (inevitably) change
- Be flexible



## Reflection 4:

### **Find your niche.**

1. Try out a lot of stuff
2. Follow your passion
3. Become an expert
4. Advertise your expertise