

# UC San Diego

**NIH T32 PI Informational Meeting  
October 15, 2020 | 2:00 p.m.**

Office of Research Affairs + The Graduate Division



## AGENDA

- Updates on NIH requirements
- Institutional resources: ORA, Faculty Leadership & Development, and The Graduate Division
- Translational Science Certificate

## WELCOME & NIH UPDATES

# Professor Mark Lawson, Faculty Director – Postdoctoral Training and Education

- NIH Requirement Highlights
  - Coordination of a single Institutional Letter of Support and shared resources for training grants;
  - Mentor training for faculty members to ensure high-quality trainee experiences;
  - Support for program assessment and measuring trainee learning outcomes; and
  - Publish training program outcomes on public websites.

# Summary of Requirements and Oversight Areas

## Research Affairs

### Administrative Support

Centralized coordination of single Institutional Letter of Support—OPRSA  
Efficient use of central resources between training grants. Coordination of education resources to support training grants—OPRSA/Grad Division/HS RSC

### GAPS

Data collection and analysis

Coordination of outcomes and data tracking

Database for submissions, data table creation, trainee tracking, and outcomes (HS)

### Commitment to Culture of Excellence

Scientific rigor and reproducibility—PIs & RCI

Responsible Conduct of Research—RCI

Core facilities and technological resources—varies, ORA

Safety of trainees—EHS

External reviews of training grant programs—PI

## Equity, Diversity, and Inclusion

Enforce policies, procedures, & oversight to prevent discriminatory harassment  
Measures to support diverse, positive, supportive, and inclusive training environment for trainees, staff, faculty and leadership  
Assure accessibility to trainees with disabilities

## Academic Affairs/Health Sciences

### Support for Mentors

Protected time for mentoring, training, research

Consideration of teaching & mentoring in tenure & promotion

Start-up funds (support early career mentors)

Bridge funding for faculty (support mentors experiencing a funding hiatus) —  
Academic Senate

### Mentor Quality

Diverse cohort of mentors (underrepresented minorities, gender, career stage, etc.)—PIs

Remediation or removal of poorly performing faculty mentors—PIs

Foster and reward excellence in training and mentoring—Dept. Chairs

### GAPS

Training for Faculty Mentors of research trainees —Faculty Leadership and Development (Ellen Beck)

## Graduate Division

### Support for Trainees

Continued funding for predoctoral trainees moving off grants to ensure timely completion of degree

Access to student support services including professional development and job search support

Bridge funding for graduate students

Safety net of back-up mentors

## Teaching + Learning Commons

### GAPS

Program Evaluation

Support for program evaluation and assessment of trainee outcomes

## INSTITUTIONAL RESOURCES

Cory Davis, Research Scholar Manager Postdoctoral and Research Scholar Affairs, Office of Research Affairs

- Training Grant website: [trainggrants.ucsd.edu](https://trainggrants.ucsd.edu)
- Institutional Support Letter process for new proposals and renewals

## INSTITUTIONAL RESOURCES

Ellen Beck, Faculty Director, Faculty Leadership and Development

- Mentoring Consultations

## INSTITUTIONAL RESOURCES

Tamara Schaps, Assistant Dean of Graduate Strategic Initiatives, The Graduate Division

- Matching graduate student fellowships, usually a 4:1 ratio
- Supporting diversity goals of the institution
- Request Form: <https://bit.ly/SDFMatchRequest>

## MARK YOUR CALENDARS

**Better outcomes and greater efficiency: Aligning goals, activities and assessments for training programs and responding to the new NIH requirements**

Presenters: Bennett Goldberg & Denise Drane, Northwestern University

Friday, November 6th, 2020 from 12:00 to 2:00 p.m. PT



# Spotlight on a UC San Diego Program: Translational Science Certificate

**Colin Depp**, Ph.D., Director, Research Education and Training, Clinical Translation Research Institute

**Regent Laporte**, DVM, MSc, Ph.D., Program Director, Specialized Certificate in Translational Science

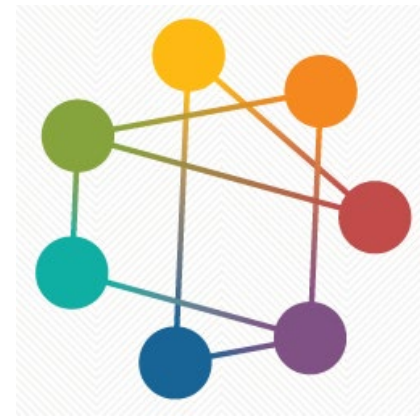
**Maria Paz Rodriguez**, DDS, MAS, Course Assistant, Specialized Certificate in Translational Science

# Graduate Program in Translational Science

Regent Laporte, DVM, MSc, PhD

Program Director

Altman Clinical and Translational Research Institute



**UC San Diego**  
SCHOOL OF MEDICINE

**UC San Diego**  
Altman Clinical and Translational  
Research Institute

**UC San Diego**  
EXTENSION

# Translational Science

From bench to bedside!



Discovery/Design



Development



Commercialization

Translational science is the discipline “turning observations in the laboratory, clinic, and community into interventions that improve the health of individuals and populations – from diagnostics and therapeutics, to medical procedures and observational behaviors.”

- *National Center for Advancing Translational Sciences, NIH*

Goals: Accelerate and improve efficiency and effectiveness of the discovery/design & development process

All biomedical products: From drugs and cell & gene therapy to medical technologies, including devices, wearables, diagnostics, and digital health

# CLRE-236 Translational Research Fundamentals

Objective: Learn about the application of translational science principles and tools to the discovery/design and development of biomedical products

## Principles & Tools of Translational Medicine

**Lesson 1**  
Overview of  
Translational Medicine  
& Biomarkers

**Lesson 2**  
Omics  
Tools

**Lesson 3**  
Functional Omics  
Analysis

**Lesson 4**  
Translational  
Imaging

## Applications to Biomedical Product R&D

**Lesson 5**  
Diagnostics

**Lesson 6**  
Drug  
Discovery

**Lesson 7**  
Non-Clinical  
Development

**Lesson 8**  
Clinical  
Development

**Lesson 9**  
Cell & Gene  
Therapy

**Lesson 10**  
Medical  
Technologies

- Tuesdays from 6 to 8 PM
- Offered twice a year: Winter and Summer quarters

# CLRE-236 Translational Research Fundamentals

Principles &amp; Tools

Applications

Week	Lesson	Faculty
1	Overview of Translational Medicine & Biomarkers	<b>Regent Laporte</b> , DVM, MSc, PhD - Senior Director, Translational Pharmacology, Peptide Logic <b>Kanthi Kollengode</b> , MD, MAS - Associate Medical Director, Clinical Development, Bristol-Myers Squibb
2	Omics Tools	<b>Timothy R. Geiger</b> , PhD - Field Applications Manager - North America West, ProteinSimple/Bio-techné
3	Functional Omics Analysis	<b>Elizabeth Brunk</b> , PhD - T32 Cancer Therapeutics Training Fellow, Moores Cancer Center, University of California San Diego
4	Translational Imaging	<b>Patrick McConville</b> , PhD - Vice President, Non-Clinical Research Services, inviCRO
5	Diagnostics	<b>Roberta V. Alexander</b> , PharmD, PhD - Senior Director, Clinical Research & Medical Affairs, Exagen Diagnostics <b>Kanthi Kollengode</b> , MD, MAS - Associate Medical Director, Clinical Development, Bristol-Myers Squibb
6	Drug Discovery	<b>Pierre Riviere</b> , PhD - Founder & Chief Executive Officer, Peptide Logic
7	Non-Clinical Development	<b>Marina Seme Nelson</b> , PhD - Drug Development Leader, Early Phase Development Solutions, Covance Laboratories
8	Clinical Development	<b>Mark S. Hixon</b> , PhD - Principal, Mark S. Hixon Consulting
9	Cell & Gene Therapy	<b>Amit Kumar</b> , PhD - Chief Executive Officer, Anixa Biosciences
10	Medical Technologies	<b>Andrew Baker</b> , BEng - Managing Director, Business Management, Industrial & Healthcare Business Unit, Maxim Integrated



# Certificate Program

## Specialized Certificate in Translational Science 10-unit

### Capstone Project 4-unit



### Elective 2-unit

Experiential Course



and/or



### Core 2 x 2-unit

Case Study Course



Foundational Course



CLRE-236: Translational Research Fundamentals  
 CLRE-237: Translational Regenerative Medicine  
 CLRE-238: Applied Translational Research  
 CLRE-239: Applied Translational Research II

## Learning Objectives

Quarter 4

- Apply acquired knowledge and skills in a **mentored individual- or team-based project** (e.g., practice-based work, simulation, field-based work, internship) in an academic or industrial setting

Quarter 3

- Emulating the biomedical industry R&D *modus operandi*, **mentored student teams** determine the translational and iterative chain of events from ideation to commercialization for **an existing or a potential new biomedical product** by analyzing publicly disclosed information, **building a business case**, and **defending it** in front of a jury of biomedical R&D leaders
- Learn and apply teamwork, brainstorming, and oral presentation methods

Quarter 2

- Through a **case study**, learn how to use publicly disclosed information to reconstruct the entire translational and iterative chain of events **for an existing biomedical product from ideation to commercialization**
- Develop critical thinking and slide design skills

Quarter 1

- Learn about the **application of translational science principles and tools to the discovery/design and development of biomedical products**—from drugs and cell & gene therapy to medical technologies, including devices, wearables, diagnostics, and digital health

\*: Learning objective is to acquire the skills needed to translate **stem-cell-based therapies** from **bench to bedside**

# Certificate Program

---

- Maximal flexibility:
  - Weekday evenings 6 to 8 pm
  - Once a week, one course per quarter
  - Four courses total, each offered twice a year
- Flexibility to complete the certificate within 1 to 5 years
- No need to commit to the whole certificate at once, only one course at a time

Course	Summer	Fall	Winter	Spring
CLRE-236	✓		✓	
CLRE-237			✓	
CLRE-238		✓		✓
CLRE-239	✓		✓	
Capstone		✓		✓

## FUTURE PD/PI MEETING TOPICS

### Possible Topics:

- NIH requirements and priorities
- Assessment: Program Evaluation & Trainee Outcomes
- Mentor Training
- Retention (grad division, postdoc office)
- How to talk about reproducibility in your T32 grant
- Resources/classes for Data Table support, templates, etc.
- Tips from Successful PIs—What I've learned submitting my grant.

Other ideas?



**QUESTIONS?**

UC San Diego