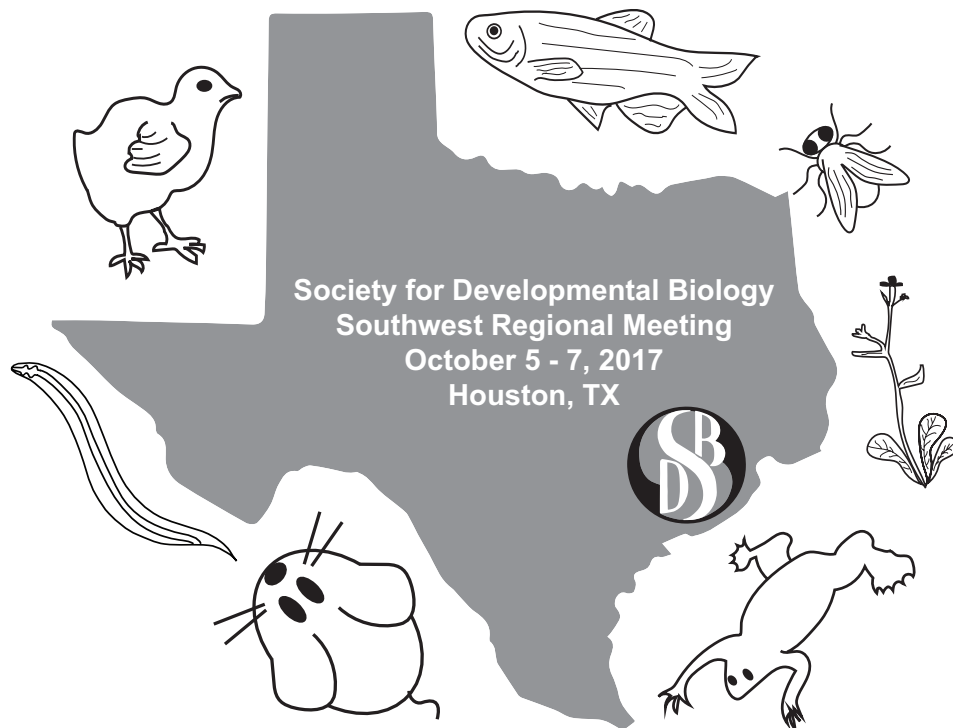


Society for Developmental Biology Southwest Regional Meeting

Texas Medical Center, Houston
October 5 - October 7, 2017



Organized by:

Swathi Arur, PhD (Chair), *University of Texas MD Anderson Cancer Center*
George Eisenhoffer, PhD (Co-Chair), *University of Texas MD Anderson Cancer Center*
Anna Sokac, PhD (Co-Chair), *Baylor College of Medicine*

Local Organizing Committee:

Richard Behringer, PhD, *University of Texas MD Anderson Cancer Center*
Andrew Groves, PhD, *Baylor College of Medicine*
Peter Lwigale, PhD, *Rice University*
Angabin Matin, PhD, *Texas Southern University*
Rachel Miller, PhD, *University of Texas McGovern Medical School*
Amy Sater, PhD, *University of Houston*
Daniel Wagner, PhD, *Rice University*
Joshua Wythe, PhD, *Baylor College of Medicine*

Schedule at a glance

Thursday, October 5 – Saturday, October 7, 2017

Thursday	2:00 pm	Registration
	4:15 pm	Opening Remarks
	4:30 pm	Keynote Lecture I
	5:30 pm	Reception
Friday	7:30 am	Breakfast and Registration
	8:30 am	Cellular and Molecular Dynamics in Development
	11:00 am	Pathogenesis: Developmental Mechanisms Gone Awry
	12:45 pm	Lunch
	2:00 pm	Communicating Science and Publishing
	2:30 pm	Regeneration and Development
	4:45 pm	Teaching and Research in an Undergraduate Institution
	5:30 pm	Poster Session 1
Saturday	8:00 am	Breakfast and Registration
	9:00 am	Evolution and Development
	11:30 am	Keynote Lecture II
	12:30 pm	Lunch
	2:00 pm	Undergraduate Research Colloquium
	3:00 pm	Mentor-Mentee Relationship Workshop
	4:00 pm	Poster Session 2
	6:30 pm	Banquet and Awards

Thursday session held at Duncan Hall, Rice University

Friday and Saturday sessions held at BioScience Research Collaborative (BRC) building.

Banquet at the Third Coast, 6th floor, John P. McGovern Commons Texas Medical Center

SPONSORS

MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences

Program in Developmental Biology, Baylor College of Medicine

University of Houston

Pediatric Research Center, UTHealth

Exiqon

AbCAM

Iowa Hybridoma Center

Tecniplast

NIKON

Intavis

Karbach Brewing Company

Holler Brewing Company

Developmental Biology Journal, Elsevier

BIOART COMPETITION

Organized by:

Oscar Ruiz, PhD, *University of Texas MD Anderson Cancer Center*



Winner of 2016 FASEB Bioart Competition

Entries for the BioArt competition will be displayed in the poster hall at the BRC during the course of the meeting. Each registrant should cast one vote with their top pick in the ballot boxes made available. The winner will be announced during the Banquet.

The winning entry will be published on the cover of *Developmental Biology* Journal.

POSTER INFORMATION

Poster dimensions are 4 feet H x 3.5 feet W.

Posters will be presented in two sessions.

Poster numbers are indicated in the Program Book.

The Poster Session is for a duration of two hours.

SESSION 1 will be held on FRIDAY, October 6, 2017. Install your posters by noon and ensure that they are removed by 8:30 PM on Friday night.

SESSION 1 Posters will be on the following topics:

**Pathogenesis: Developmental Mechanisms Gone Awry
Cellular Dynamics in Development
Innovations in Developmental Biology**

SESSION 2 will be held on SATURDAY, October 7, 2017. Install your posters by noon and ensure that they are removed by 8:30 PM on Saturday night.

SESSION 2 Posters will be on the following topics:

**Molecular Dynamics in Development
Regeneration in Development
Evolution and Development**

INFORMATION FOR POSTER COMPETITION:

Odd numbered posters will be judged during the **first** hour

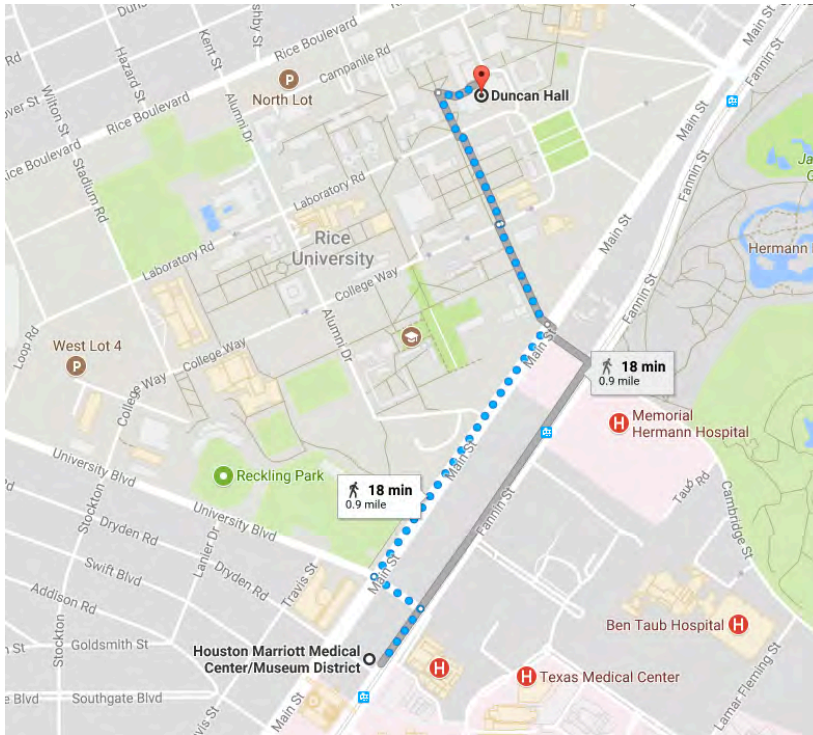
Friday: 5:30 pm - 6:30 pm
Saturday: 4:00 pm- 5:00 pm

Even numbered posters will be judged during the **second** hour

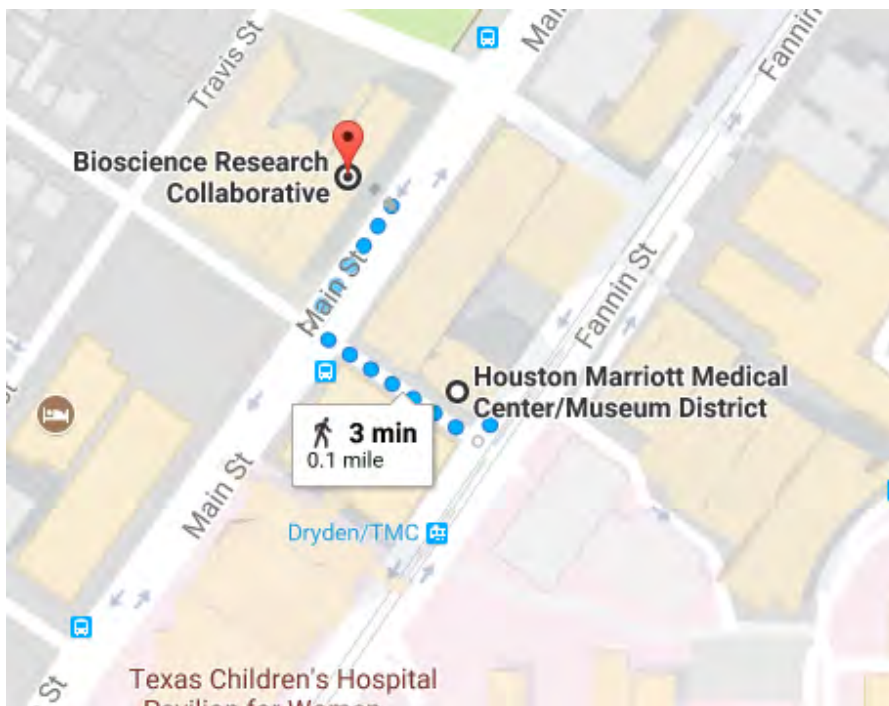
Friday: 6:30 pm – 7:30 pm
Saturday: 5:00 pm – 6:00 pm

VENUE

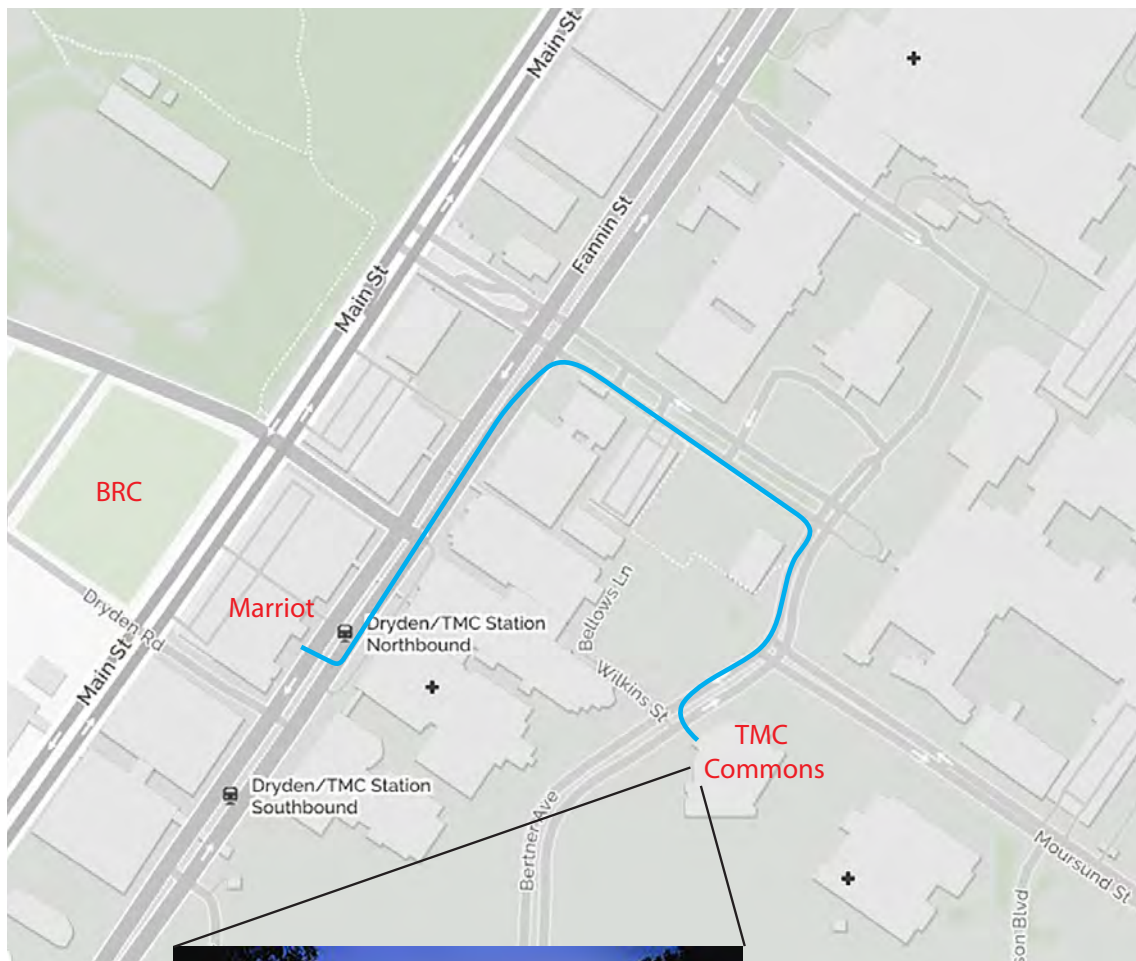
Rice University Duncan Hall, which holds the McMurtry auditorium.
Venue for Thursday, October 5, 2017



BioScience Research Collaborative (BRC) building
Venue for Friday, October 6 and Saturday, October 7, 2017



VENUE- Banquet

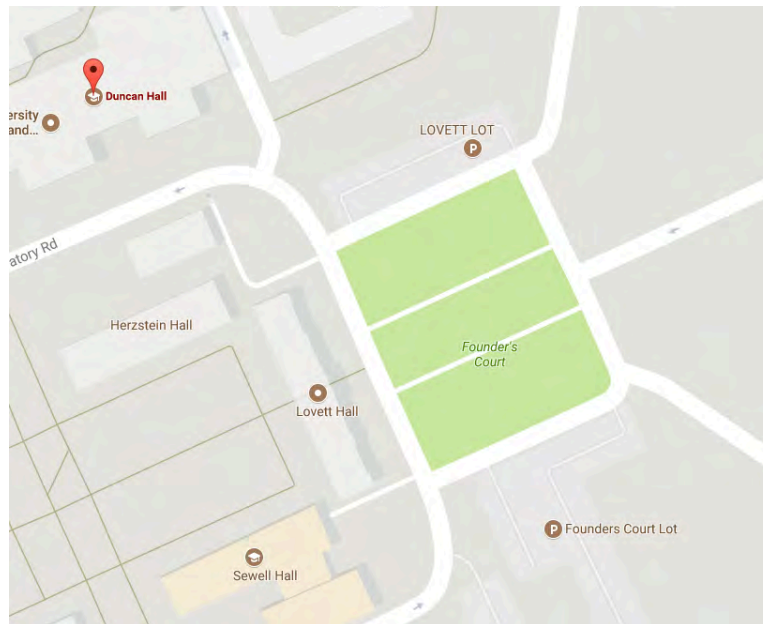


Third Coast Restaurant
6th Floor of TMC Commons
6550 Bertner Ave.
Houston, TX
77030

PARKING

Attendees traveling to Houston and lodging at the Marriot: A shuttle service is available from the Marriot Hotel to travel to and from the venues of the meeting. Please call the front desk to reserve the shuttle service.

Parking for Thursday, October 5 is available at Rice Lovett Lot and Founders Court Lot, open-air parking lots. Parking rates apply.



Parking for Friday, October 6 and Saturday, October 7 is available at the BRC garage. Parking rates apply.

Parking for the Banquet at Third Coast Restaurant, is available at the Texas Medical Center Commons Garage, Garage 15, and is free of charge for the event. Bring your yellow token (used to get into the garage) for validation at the restaurant.

SOCIAL MEDIA

Society for Developmental Biology Southwest Regional Meeting is present on Twitter.  Please use [#SWSDB17](https://twitter.com/SWSDB17) for all your tweets.

Please maintain the confidentiality of new research being presented. Do not tweet new research especially if the speakers request not to share their work on Twitter.

PROGRAM

Thursday, October 5, 2017

VENUE: RICE UNIVERSITY, DUNCAN HALL

2:00 pm - 4:15 pm Registration

4:15 pm - 4:30 pm Opening Remarks from the Chair

4:30 pm - 5:30 pm

KEYNOTE LECTURE, McMURTRY AUDITORIUM

Huda Zoghbi, MD, *Howard Hughes Medical Institute, Baylor College of Medicine*

“What I Have Learned About Neurodevelopment Studying Humans and Model Organisms”

5:30 pm - 7:00 pm Reception, Martel Main Hall

Friday, October 6, 2017

VENUE: BIOSCIENCE RESEARCH COLLABORATIVE (BRC) BUILDING

7:30 am - 8:30 am Breakfast and Registration

8:30 am - 10:45 am

SESSION 1: CELLULAR AND MOLECULAR DYNAMICS IN DEVELOPMENT

Chair: Rachel Miller, PhD, *University of Texas McGovern Medical School*

8:30 am - 9:00 am

Kristen Kwan, PhD, *University of Utah*

““Eye” get by with a little help from my friends: how neural crest shapes the optic cup”

9:00 am - 9:15 am

Lauren Figard, PhD, *Baylor College of Medicine*

“Cofilin mediates an inducible actin stress response that protects embryos”

9:15 am - 9:30 am

Charles Lovely, PhD, *University of Texas at Austin*

“Requirement for Bmp signaling in endoderm and jaw development identified from a gene-ethanol screen in zebrafish”

9:30 am - 10:00 am

Hong Qiao, PhD, *University of Texas at Austin*

“Transcriptional repression in hormone-regulated plant growth”

10:00 am - 10:15 am

James Nichols, PhD, *University of Colorado*

“Transcriptional variability underlies the incomplete penetrance of craniofacial anomalies”

10:15 am - 10:45 am

Michael Galko, PhD, *University of Texas MD Anderson Cancer Center*

“Flying wounded: Using *Drosophila* to uncover the molecular genetics of wound healing”

10:45 am - 11:00 am Coffee Break, First floor Atrium

11:00 am - 12:45 pm

**SESSION 2:
PATHOGENESIS: DEVELOPMENTAL MECHANISMS GONE AWRY**

Chair: Joshua Wythe, PhD, Baylor College of Medicine

11:00 am - 11:30 am

James Collins, PhD, University of Texas Southwestern Medical Center
“Stem cells and the Schistosome Tegument: Are the Origins of Parasitism in Flatworms Only Skin Deep?”

11:30 am - 11:45 am

Jose Salazar, Baylor College of Medicine
“Functional characterization of TM2D family member genes in Notch signaling and Alzheimer’s disease pathogenesis”

11:45 am - 12:00 pm

Naomi Tjaden, PhD, Baylor College of Medicine
“A role for vitamin A metabolism during enteric nervous system development in the pathogenesis of Hirschsprung disease”

12:00 pm - 12:15 pm

Shahab Younesi, Baylor College of Medicine
“Detection of Early Amyloid Species in a Mouse Model of Alzheimer’s”

12:15 pm - 12:45 pm

James Martin, MD, PhD, Baylor College of Medicine,
“Hippo signaling in heart development and regeneration”

12:45 pm - 2:00 pm

Lunch, First floor Atrium

2:00 pm - 2:30 pm

EDUCATION SESSION 1

Marie Bao, PhD, Editor-in-Chief, Developmental Cell, Cell Press
“Communicating Science and Publishing”

2:30 pm - 4:45pm

**SESSION 3:
REGENERATION AND DEVELOPMENT**

Chair: George Eisenhoffer, PhD, University of Texas MD Anderson Cancer Center

2:30 pm - 3:00 pm

Peter Lwigale, PhD, Rice University
“Corneal development and regeneration in chick and mouse”

3:00 pm - 3:30 pm

Kenro Kusumi, PhD, Arizona State University
“The evolution of regeneration in reptiles”

3:30 pm - 3:45pm

Kenneth Trimmer, University of Texas MD Anderson Cancer Center
“Plasticity of *C. elegans* germ line stem cells under stress”

3:45 pm - 4:15pm

Graciela Unguez, PhD, New Mexico State University
“Exploring conserved mechanism(s) of neural-dependent muscle plasticity and regeneration in Gymnotiforms”

4:15 pm - 4:30pm	Lele Li , <i>Baylor College of Medicine</i> “Lack of PITX2 during myocardial regeneration leads to ventricular fat deposition”
4:30 pm - 4:45pm	Coffee Break, First floor Atrium
4:45 pm - 5:30pm	EDUCATION SESSION 2 Graciela Unguez, PhD , <i>New Mexico State University</i> “Teaching and Research in a Predominantly Undergraduate Institution”
4:30 pm - 6:00pm	Vendor Show, First floor Atrium
5:30 pm - 7:30 pm	POSTER SESSION 1 , First Floor Atrium
7:30 pm onward	Dinner on your own

Saturday, October 7, 2017

VENUE: BIOSCIENCE RESEARCH COLLABORATIVE (BRC) BUILDING

8:00 am - 9:00 am	Breakfast and Registration
9:00 am - 11:15 am	SESSION 4: EVOLUTION AND DEVELOPMENT Chair: Richard Behringer, PhD , <i>University of Texas MD Anderson Cancer Center</i>
9:00 am - 9:30 am	Melissa Wilson Sayres, PhD , <i>Arizona State University</i> “Sex based genome evolution”
9:30 am - 9:45 am	Kody Mansfield , <i>University of Southern Mississippi</i> “Expression pattern of developmental genes in the American House Dust Mite, <i>Dermatophagoides farinae</i> ”
9:45 am - 10:00 am	Mia Konjikusic , <i>University of Texas at Austin, Dell Medical School</i> “A conserved role of Kif6 in brain development of vertebrates”
10:00 am - 10:30 am	Lisa Nagy, PhD , <i>University of Arizona</i> “Counting segments one by one: dynamic regulation of arthropod growth zone”
10:30 am - 10:45 am	Idse Heemskerk, PhD , <i>Rice University</i> “Morphogen dynamics control patterning in a stem cell model of the human embryo”
10:45 am - 11:15 am	Daniel Meulemans Medeiros, PhD , <i>University of Colorado, Boulder</i> “Comparisons of head skeleton development across vertebrates highlight mechanisms underlying vertebrate head skeleton diversification”
11:15 am - 11:30 am	Coffee Break, First floor Atrium

11:30 pm - 12:30 pm

KEYNOTE LECTURE

Gertrud Schüpbach, PhD, *Princeton University*
“The establishment of axial polarity and epithelial morphogenesis in *Drosophila*”

12:30 pm - 2:00 pm

Lunch, First floor Atrium

2:00 pm - 2:45 pm

EDUCATION SESSION 3

Undergraduate Research Colloquium

Chairs: Amy Sater, PhD, *University of Houston*
Daniel Wagner, PhD, *Rice University*

2:00 pm - 2:09pm

Crystal Hernandez, *New Mexico State University*
“Rap1 affects the cell fate of cone cells in the *Drosophila melanogaster* eye”

2:09 pm - 2:18pm

Jovany Franco, *University of Texas MD Anderson Cancer Center*
“Cell crowding during wound closure promotes epithelial cell extrusion to facilitate tissue repair”

2:18 pm - 2:27pm

Roberto Gonzalez, *University of Texas at Austin, Dell Medical School*
“Mutations in Adamts9 Generates Caudal Spinal Defects”

2:27 pm - 2:36 pm

Hannah L. Hanania, *University of Texas McGovern Medical School*
“Targeted CRISPR/Cas9 gene knockout in *Xenopus laevis* kidneys”

2:36 pm - 2:45 pm

Tyson S Burnham, *Brigham Young University*
“Obesity and Neural Tube Defects: The Teratogenic Role of Ceramide in Failed Neurulation”

2:45 pm - 3:00 pm

Coffee Break, First floor Atrium.

3:00 pm - 4:00 pm

EDUCATION SESSION 4

Anna Sokac, PhD, *Baylor College of Medicine*
Mentor/Mentee Relationship Workshop

4:00 pm - 6:00 pm

POSTER SESSION 2, First Floor Atrium

4:00 pm - 6:00 pm

Vendor Show, First floor Atrium

6:30 pm - 8:30 pm

BANQUET AND AWARDS, THIRD COAST, 6th floor, John P. McGovern Commons, Texas Medical Center.