**Enas Kandil, MD, MSc**

Assistant Professor, Department of Anesthesiology and Pain Management

UT Southwestern Medical Center

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**BIRTHPLACE:** Cairo, Egypt

**CITIZENSHIP:** US Citizen

**EDUCATION:**

1989-1996 Cairo University, MD awarded December 1996, Cairo, Egypt

(combined 7 year program)

07/12-11/15 Master of Clinical Science with Distinction

Clinical Research Scholars program University of Texas Southwestern

Medical Center, Department of Clinical

Sciences & UT-STAR (CTSA)

**TRAINING:**

*Internship* General Surgery 7/1999 to 06/2000

Case Western Reserve University, Cleveland, Ohio

*Residency* Anesthesiology 07/200 to 06/2003

Case Western Reserve University, Cleveland, Ohio

*Fellowship* Pain Management 07/2003 to 06/2004

Cleveland Clinic Foundation, Cleveland, Ohio

Neuroanesthesia 07/2004 to 10/2004

Cleveland Clinic Foundation, Cleveland, Ohio

(accepted a faculty position starting 11/2004 at Dallas VA due to visa waiver requirement)

**ACADEMIC APPOINTMENTS:**

11/04-10/2013 Assistant Professor of Anesthesiology and Pain Management University of Texas Southwestern Medical Center and Dallas Veterans Hospital, Dallas, Texas, (Clinical Educator Track)

11/2013-present Assistant Professor of Anesthesiology and Pain Management University of Texas Southwestern Medical Center (Clinical Scholar Track)

07/12-11/15 Clinical Research Scholars program University of Texas Southwestern Medical Center, Department of Clinical

Sciences & UT-STAR (CTSA)

**LICENSURE:**

05/2000-10/2018 Ohio License #35084582

11/2013-11/2018 TX, License #p8260

**CERTIFICATION:**

*Primary Specialty* Anesthesiology Certification Date 04/2006

Recertification Date 1/2016

*Subspecialty* Pain Management, Certification Date 09/2006

Recertification Sep 2017

World Institute of Pain FIPP exam and certification

(Fellow of Interventional Pain Practice) 04/2010

**HONORS AND AWARDS:**

02/15 KL2 Scholar Award, UT Southwestern Medical Center

10/15 KL2 Scholar Award, UT Southwestern Medical Center

05/2004 Pfizer Scholars in Pain Management award for leadership dedication and commitment.

03/2003 Midwest Anesthesiology Conference Research Award (First Prize), Chicago, Illinois.

03/2003 Midwest Anesthesiology Conference Research Award (Second Prize), Chicago, Illinois.

03/2002 Midwest Anesthesiology Conference Research Award. Omaha, Nebraska

03/2001 Midwest Anesthesiology Conference Research Award. Milwaukee, Wisconsin

**OTHER PROFESSIONAL ACTIVITIES:**

05/2016–present UTSW Opioid work group led by Dr. Seth Toomay (previously led by Dr. Stan Taylor. Group meets biweekly goal is to address the opioid epidemic and guarantee UTSW compliance with TMB opioid prescribing regulations)

03/2016 Parkland’s site physician leader for vizient Opioid Performance Improvement Collaborative. The project is part of CMS effort to transform clinical practice.

**ADMNISTRATIVE/LEADERSHIP APPOINTMENTS:**

01/12-07/13 Chief division of Pain Management, Dallas VA medical center

01/12-10/13 UTSW VA Pain Fellowship Director

01/12-07/13 Chairman of hospital pain committee Dallas VA medical center

01/12-10/13 Chairman VISN17 pain committee (similar mission on a VISN level)

01/12-10/13 VISN 17 Pain point of contact

12/13-present Lead physician Opioid Safety initiative Project

Parkland Healthcare System

**COMMITTEE SERVICE:**

10/13–present Opioid Safety Initiative (Clinical practice workgroup leader)

Parkland Pain Hospital Committee member

UTSW Anesthesia Department QI Committee Member

11/2018 Parkland Healthcare and Hospital System Ethics Committee

Member

**ONGOING PROJECTS:**

**Repurposing FDA approved drugs for pain modulation:**

Over the last 18 months I have been heavily involved in collaborations with a number of colleagues/mentors to develop animal models for pain research at our institution. These models include sciatic nerve constriction and induced neuropathy, as well as opioid withdrawal models. Our goal is to identify novel therapeutic strategies for pain modulation. We focused our attention on the EphB1 receptor as a modulator of neuropathic pain and opioid withdrawal. We used *in silico* screens to identify FDA approved drugs that bind the ATP binding domain of EphB1/B2 receptors, which allowed us to identify a number of potential inhibitors. Molecular dynamic simulation confirmed the binding of our top 3 candidates (based on docking). Intriguingly, subsequent kinase assays confirmed the inhibitory effect of the 3 drugs on EphB1 kinase activity, with an IC50 well within tolerated doses. Subsequent *in vivo* studies confirmed the inhibitory effect on neuropathic pain induced by either capsaicin or CFA. We are currently preparing two manuscripts that outline these results.

**QA/QI Projects:**

**The Opioid Stewardship Project**

I currently lead two QI projects related to "Opioid Safety Initiatives", one at UTSW and another at Parkland Health Care System. Dedicated teams are assigned from both institutions to support these projects. Other members of the teams include pharmacy specialists, IT personnel, QI specialists, in addition to hospital leadership providers. Our goal is to address and regulate opioid prescribing practices at both systems, and assure hospital compliance. We are in the process of completing an opioid registry that encompasses all baseline information regarding opioid prescribing practices at both systems. We are also finalizing a plan to roll out an opioid dashboard, and the required educational material required for implementation. The Parkland team is also collaborating with PCCI for planned community collaboration and prediction models to assess the risk for opioid abuse, misuse and overdose. Our project has been chosen by Parkland’s leadership as their main QI project for the upcoming year which will greatly facilitate funding, as well as assignment of personnel and resources.

**Parkland Healthcare and Hospital System QI Training Curriculum**

In February 2018, I was tasked by the Parkland leadership to formulate training modules for pain management as part of the Corporate Integrity Agreement (CIA). This has become a mandatory training module for all healthcare personnel credentialed at Parkland Healthcare and Hospital System. This module is being updated annually, with incorporation of new guidelines, and EMR tools developed at Parkland.

**EDUCATIONAL INITATIVES:**

* UTSW Transition to Clinical Training Medical Student 4th year curriculum. Formulated a 3.5 hour team based learning course for 200 4th year medical students. Tasked by Dorothy Sendelbach, MD, Assistant Dean for Undergraduate Medical Education, University of Texas Southwestern Medical School (to take place on Feb 28th 2019)
* Quality Improvement Department, Gary Reed MD. Serve as medical student mentor for

several students studying for MD degree with distinction in QI. First student mentee thesis defense planned on Feb 22nd 2019 graduating May 2019. Currently tasked with creating a QI track centered around opioid stewardship. All mentee students with projects centered around opioid stewardship, all my mentee students present at the IHI annual meeting and several chosen for IHI story board 2018.

**Mentoring**

1. Medical student mentoring 2012-2015: Michael Shaw. Currently Anesthesiology resident at UTMB.
2. Anesthesia resident faculty advisor 2013-2016: Jason Chien. Anesthesiology Resident, UTSW. Currently practicing anesthesia in private practice.
3. Anesthesia Education and Research 2015 Medical Student Anesthesia Research Fellowship (FAER): Michael Weinfeld. Medical Student, Chicago Medical School, Rosalind Franklin University. Recently accepted into anesthesia residency at Northwestern University
4. 2015 –current: Medical student with degree in QI distinction faculty Mentor: Christopher Bender. UTSW. Tentative graduation date May 2019.

Project: **Improving Adherence to Texas Medical Board Rule 170.3 Regarding Requirements for The Treatment of Chronic Pain**

Presentations:

1.TMA TexMed Conference May 6th, 2017 Houston, TX

2.UTSW QI Boot camp Presentation June 2017 Dallas, TX, ***Using QI tools to measure compliance with state regulations on opioid use***

*3.*Intstitute of Healthcare Improvement National Forum December 10th - 13th, 2017, Orlando, FL, **Measuring adherence to state laws regarding chronic pain at UT Southwestern**

1. Jan-Mar 2018Research faculty mentor, 3rd year medical student Christopher McElrath. Project title: **Identification of Key pitfalls to Prevent Opioid Overdose in Patients Presented to the Emergency Room with Overdose.**
2. **2018-current: Medical student with distinction in QI faculty mentor: Jordan Bland UTSW, tentative graduation 2021**. Project title: **Decision Fatigue in Primary Care Physicians and effects of the Recent Opioid Regulation Changes**

## 2018-current Medical student with distinction in QI faculty mentor: Aemen Zamir, UTSW, tentative graduation 2021. Project title: Opioid Dashboard Effectiveness as a Tool to Improve Adherence to Opioid Prescribing State laws For Chronic Pain at UT Southwestern

## 2018-current Medical student with distinction in QI faculty mentor: Sonal Gagrani UTSW, tentative graduation 2021. Understanding Physician Practices on Chronic Pain Treatment Policy for The Improved Implementation of Newly Developed EMR Tools: A qualitative Study. Project selected to represent the IHI Open School Campaign to Recover Hope Session December 2018. One of four winners selected for this special session.

**PROFESSIONAL SOCIETIES AND ACTIVITIES:**

American Society of Anesthesiology ASA

International Anesthesia Research Society IARS

Society of Obstetrics Anesthesia and Perinatology SOAP

Texas Society of Anesthesiology TSA

Texas Pain Society TPS

American Society of Regional Anesthesia ASRA

**GRANTS:**

Pending Support:

Harrington Discovery Institute

Repurposing FDA Approved Drugs to Target EpgB1 Receptor

Role: co-PI

Date: 01/2019-12/2020

Prior Support:

Cephalon Inc

Title: The effects of Armodafinil on perioperative sleep apnea

Role: PI (investigator initiated study) Cephalon Inc.

Date: 12/2010-12/2013

VA VISN 17 Award

Title: Lidocaine infusion for pain in opioid Dependent patients

(Received fundable score, but I had to decline funding due transition out of VA)

Role: PI

Date: 10/2013-09/2015

NIH R21 (R21 DA034925-01A1) (Adinof PI)

Title: Lidocaine infusion for cocaine craving in cocaine dependent patients

Role: co-investigator

Date: 9/1/2013-8/31/2015

NIH/NCATS 2UL1TR000451-06 (Toto PI)

UT Southwestern Clinical and Translational Alliance for Research (UT-STAR) Role: Clinical Research Scholar

Date: 9/2012-5/2015

KL2 Scholar Award, UT Southwestern Medical Center $35,000

Date: 02/15

KL2 Scholar Award, UT Southwestern Medical Center $60,000

Date: 10/15

**EDITORIAL ACTIVITIES:**

*Editorial Board*

Nov 2016 –current Journal of Anesthesia & Clinical Research

**GRANT REVIEW:**

01/2019 Review for Department of Defense Congressionally-Directed Medical Research Program: Gulf War Illness Research Projects

**INVITED LECTURES:**

**Departmental Presentations 2013 - present**

1. UTSW Medical student lecture “Opioid Safety and Chronic Pain”

(Given every month till now to the 3rd and 4th medical students rotating through Anesthesia)

2. Anesthesia Department Grand Rounds

"Opioid Safety" November 9th 2016

“ Lidocaine Infusion for Chronic Pain” May 2013

3. UTSW Anesthesia Medical Student Interest Group Summer Symposium Speaker "Acute / Chronic Pain" lecture:

November 28th 2016 UTSW

November 21st 2017 UTSW

November 22nd 2018 UTSW

**Regional/Local Presentations**

11/2018 Webinar Parkland Healthcare and Hospital System

Opioid Stewardship

Roberto De la Cruz MD (Parkland CMO) and Enas Kandil MD, MSc

05/2018 Parkland COPC retreat “Opioid Stewardship Project phase 1

06/2017 Center of Medicare and Medicaide System TCPI site visit lecture/ project presenation “Opioid Stewardship”

11/2017 Parkland COPC retreat “Opioid Stewardship Project phase 2

11/2017 Expert Panel Vizient Intravenous Acetaminophen Task Force

**National Lectures:**

09/2019 (Planned)The Forgotten: The Antithesis of the Opioid Epidemic, *The Texas Society of Anesthesiology*

10/2017 American Society of Anesthesiology meeting, Multimodal Analgesia

08/2017 CMS TCPI guest speaker on nationwode expert pannel “TCPI All Clinician Event 1 - Specialty Care”

10/2016 Invited speaker. American Society of Anesthesiology. Role of Sympathetic Blocks in Chronic Pain. ASA meeting, Chicago.

10/2015 Invited speaker. American Society of Anesthesiology, Regional Techniques in Congenital Coagulation Disorders. ASA meeting, San Diego.

02/2011Disc Procedures: cooled radiofrequency and percutaneous disc decompression. Dallas 8th annual Pain management Symposium,

UT Southwestern, Dallas, TX

02/2011 Cadaver workshop instructor, Dallas 8thannual Pain management Symposium, UT Southwestern, Dallas, TX

01/2010 Spinal Cord Stimulation: New Advances in the Treatment of Neuropathic and Visceral pain. Dallas Pain Management Symposium, UT Southwestern, Dallas, TX

01/2010 Cadaver workshop instructor. Dallas Pain Management Symposium, UT Southwestern, Dallas, TX

01/2010 Cadaver workshop instructor. Dallas Pain Management Symposium, UT Southwestern, Dallas, TX

02/2007Complications of interventional procedures**.** DallasPain Management Symposium, UT Southwestern, Dallas, TX

**Poster presented 2017-2018**

1. Parkland Patient Safety Week “Opioid Stewardship Combating the Opioid Epidemic” Christopher McElrath, Carol Chamberlain, PharmD, Cheryl Edwards, PharmD, Kristin Alvarez, PharmD, Feb 14th 2018

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2. Society of Pediatrics Pain Medicine role Co-investigator March 22nd 2018. “A One Year Audit of Pediatric Opioid Prescribing Practices at a Tertiary Care Hospital for Burn Analgesia”

Asif Khan, M.D.; Mihir Parikh, M.D.; Timothy Williams; Ruth Abrams; Abu Minhajuddin, Ph.D.; EnasKandil M.D. MSc; Aditee Ambardekar M.D.

3. Society of Pediatrics Pain Medicine poster role Co-investigator March 22nd 2018 “A One Year Evaluation of Discharge Opioid Practices at a Tertiary Burn Hospital for One-Day Stay Pediatric Burn Patients”

Asif Khan, M.D.; Mihir Parikh, M.D.; Timothy Williams; Ruth Abrams; Abu Minhajuddin, Ph.D.; Enas Kandil M.D. MSc; Aditee Ambardekar M.D.

4. College on Problems of Drug Dependence (CPDD) 80th Annual Scientific Meeting. "The Efficacy of Lidocaine in Disrupting Cocaine Cue-Induced Memory Reconsolidation" accepted for an Oral Presentation in "Novel Treatment Strategies: Out with the Old".  June 14, 2018.

Enas Kandil, MD,MSC.

5. American Society of Anesthesiology. “Opioid Stewardship Combating the Opioid Epidemic”.

Oct 2018. Enas Kandil, MD,MSC.

**BIBLIOGRAPHY:**

***Peer-reviewed publications***

1. Mahmoud Ahmed, Yuji Nakada, Mark Henkemeyer and **Enas Kandil**. Structural Repositioning of FDA Approved Drugs Identifies Inhibitors of EphB1/B2 Receptors.*In preparation*
2. Mahmoud Ahmed, Yuji Nakada, Robert Bachoo, Mark Henkemeyer and **Enas Kandil.** Repurposing FDA Approved Drugs for Treatment of Neuropathic Pain and Opioid Withdrawal. *In preparation*
3. The Efficacy of Lidocaine in Disrupting Cocaine Cue-Induced Memory ReconsolidationJosh E Becker, Julianne L Price, David Leonard, Alina Suris , **Enas Kandil**, Meredith Shaw, Sven Kroener, E Sherwood Brown, and Bryon Adinoff. *(Manuscript under review)*
4. The Use of Nuvigil in Perioperative Management of Obstructive Sleep Apnea. Shaw M, Minhajuddin A, and **Kandil E**. (*Manuscript under review)*
5. A Case of Intrathecal Pump Therapy for Intractable Head and Neck Cancer Pain. Embabi M, and **Kandil E.** *Interventional Pain Management Reports.* *Accepted.*
6. Combating the Opioid Epidemic: The University of Texas Southwestern and Parkland Healthcare Systems Experience. *American Society of Regional Anesthesia Newsletter.* **Kandil, E. MD, MSc,** February 2018.
7. Combating the Opioid Epidemic in Dallas. *Dallas County Medical Journal.* **Kandil E. MD, MSc** July 2018.
8. The forgotten: The Antithesis of the Opioid Epidemic, *The Texas Society of Anesthesiology Newsletter*, January 2019. Christopher Bender, Kate Tindal MD, **Kandil E. MD, MSc.**
9. Opioid Prescribing practices in a Pediatric Burn Tertiary Care Facility: is it time to change? Burn Journal. Asif Khan, Mihir Parikah, **Kandil E**., Aditee Ambardekar. (manuscript under review)
10. Complex Regional Pain Syndrome Type 1 Predictors — Epidemiological perspective from a national database analysis. Elsharydah A, Loo N, Minhajuddin A, and **Kandil E.** *Clinical Journal of Anesthesia, March 2017.* PMID: 28494904
11. Outcomes of a preoperative "bridging" strategy with glycoprotein IIb/IIIa inhibitors to prevent perioperative stent thrombosis in patients with drug-eluting stents who undergo surgery necessitating interruption of thienopyridine administration. Alshawabkeh LI, Prasad A, Lenkovsky F, Makary LF, **Kandil E**, Weideman RA, Kelly KC, Rangan BV, Banerjee S, Brilakis ES. *EuroIntervention.* 2013 Jun 22;9(2):204-11. doi: 10.4244/EIJV9I2A35. PMID: 23454910
12. Serotonergic antidepressants and perioperative bleeding risk in patients undergoing total knee arthroplasty: A retrospective study. Thottam MR, Mancuso P, **Kandil E**. *International Journal of Orthopedics Sciences. 2015;* 1 (3): 01-05.
13. Anesthetic management for laser excision of recurrent respiratory papillomatosis in a third trimester parturient**.** [Tripi PA](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&itool=pubmed_Abstract&term=%22Tripi+PA%22%5BAuthor%5D), [**Kandil E**](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&itool=pubmed_Abstract&term=%22Kandil+ES%22%5BAuthor%5D), [Arnold JE](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Search&itool=pubmed_Abstract&term=%22Arnold+JE%22%5BAuthor%5D). *J.Clin Anesth.* 2005 Dec;17(8):610-3. PMID: 16427531

***Review Articles***

Lidocaine Infusion for Opioid Dependent Patients: A promising Pharmacotherapeutic Approach. **Kandil** **E** and Adinoff B*. Journal of Anesthesia and Clinical Research.* 2017, 8:1 PMID: 28239510

***Book Chapters***

Opioid Safety: We Are Not There Yet, Ingrid Kepinski, Emily Melikman, **Enas Kandil.** *Current Anesthesiology Reports* (2016) 6:314–318

Invasive Pain Management, Surgical and Palliative Care. **Enas Kandil**, Amy Pearson, Jackie Weisbein. Oxford University. *In Press.*