



# UCI Simulation

Winter/Spring 2017

Issue 9



**Cameron Ricks, MD**

Director

I would like to welcome our new simulation specialist, Ryan Gouras!

Our Simulation Fellows are/were instrumental in writing scenarios and being able to provide the instruction to our medical students.

**We are actively recruiting instructors to facilitate our medical students. Most sessions are Tuesday and Thursday afternoon, and we ask a 4-hour commitment. If you would like to teach basic science instruction via medical simulation for MS 1 and MS 2 students, please contact me.**

We continue to service the residency and nursing programs as scheduling allows.

We will be installing a badging system, similar to the hospital, for medical student sign-in. We will also be moving our surveys to Qualtrics as part of center quality improvement process.

As we come into the home stretch of the academic year, we are looking ahead to the upcoming budget process, and new adventures for the next academic year.

Cameron Ricks, MD  
Director, Medical Education Simulation

## Code Training (Simulation Based Team Training)

April 17 1p-330p

May 30 1p-330p

June 20 1p-330p

Location: UCI Medical Center, Building 50

[Sign up today!](#)

## Closures

### March

31 Sim Center Closed

### April

None

### May

29 Memorial Day

### June

None

## Simulation Instructor Training Course

March 27-28

Call us today to reserve  
your spot!



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ENHANCING PATIENT SAFETY THROUGH SIMULATION

American Society of  
Anesthesiologists

Endorsed Program  
Simulation Education Network

## Mobile Simulation

As many of you are aware, UCI has a mobile simulation platform that has been on campus (parked by the heli-pad) since July 2016. This vehicle is currently owned by Quality and Safety through the Chief Medical Officer. A simulation coordinator was hired in September 2016; however, the position has been vacant since December 2016. Current discussions on the future direction of this project are underway. Inquiries of use and tour should be directed through the Quality and Safety Office.



### Do you want to teach medical students?

We are recruiting a cadre of faculty to help instruct some of the basic science simulation sessions next year.

Possible topics include:

- Cardiovascular Physiology,
- Neuroscience,
- Microbiology, and
- Biochemistry

Instructing at the undergraduate level looks great if you are seeking advancement within the UC system.

Minimum commitment time is 4-hours

Contact our office for details  
949.824.8835

Or contact Dr. Ricks directly

## Inter-professional Simulation-based Team Training (Code Training)

### UCI Medical Center, Building 50

Upcoming inter-professional code training dates presented by the Medical Education Simulation Center.

<http://sites.uci.edu/hare/>

*Sign up!*

### Simulation-Based Team Training at UCIMC Academic Year to Date

**Total Sessions:** 4

**Total learner hours:** 107.5

**Total learners Jul – present:** 43

**Total Sessions since Inception:** 26

**Total learner since Inception:** 168

August session  
– cancelled due  
to learner no  
show

### Meetings

On October 28th, Dr. Ricks and Keith Beaulieu attended the 3rd Annual Fall UC Simulation Consortium Meeting. Medical directors and operational directors from UC San Francisco, Davis, LA, San Diego, and Riverside came together to discuss UC simulation in a one-day summit.

This year's meeting was held at UC Davis, and included discussion on operations, research collaboration, simulation fellowship, and amendments of the vision, mission, and bylaws.

On April 24th the Consortium will get together for the Spring Teleconference.

### March

- 20 MOCA
- 27 Sim Instructor Course

### April

- 6-7 Clinical Foundations 4 simulation
- 10-14 Clinical Foundations 4 ACLS
- 17 SBTT-Code Training (Bldg. 50)
- 24-25 ATLS

### May

- 15-19 Clinical Foundations 3
- 22 MOCA
- 30 SBTT – Code Training (Bldg. 50)

### June

- 12-13 ATLS
- 20 SBTT-Code Training (Bldg. 50)

## Simulation around UC Irvine

### Medical Education Simulation Center

#### Manuscript published

Anne Beissel, Christian Bauer, Marc Lilot, Keith Beaulieu, Baptiste Balanc, Thomas Rimmele, Cameron Ricks. **A Trans-Atlantic High-Fidelity Mannequin Based Telesimulation Experience.** Anaesthesia Critical Care and Pain Medicine [Ahead of Print].

<http://www.sciencedirect.com/science/article/pii/S2352556816301680>

#### Abstract

Beaulieu, Keith; Rogacion, Danica; Vicente, John; Ricks, Cameron. **Integration of Simulation in Undergraduate Medical Education as an Elective Course.** Presented at IMSH 2017. Published in Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare, December 2016 (11:6), Pg. 452.

**Integration of Simulation in Undergraduate Medical Education as an Elective Course**

Author(s): Keith A. Beaulieu, MBA, BS, BA, Danica Rogacion, BS, John Vicente, Cameron Ricks, MD  
University of California Irvine Medical Education Simulation Center

**Background**  
All medical students at the University of California, Irvine participate in medical simulation activities throughout their undergraduate years. In fact, a survey published by Association of American Medical Colleges (AAMC) states that 100% of students participate in simulation at some point during their training. Furthermore, medical students participate in 64% and 91% medical simulation in their first and second year of medical school respectively. Currently, 204 and 2nd year UC Irvine medical students participate in 18 hours and 24 hours of medical simulation activities respectively. Simulation education continues on through many residencies and fellowships; however, a limited number of students have the opportunity to learn skills including simulation operations, debriefing, and curricular development. The project's goal was to create and implement an elective for senior medical students who demonstrate interest in expanding their simulation knowledge and experience.

**Methods**  
The Medical Education Simulation Center at UC Irvine School of Medicine has created a 4-week elective for senior medical students. The elective used a combination of educational presentations, hands-on learning with simulation specialists, curricular development, and facilitating simulation-based education. The objectives of the elective were to:

- (1) Understand the role of using simulation technology for education as an instructional modality.
- (2) Discover the technical side of medical simulation (set-up, hardware, operations, programming).
- (3) Identify the principles of debriefing professionals at various levels.
- (4) Gain exposure to medical simulation research studies and literature, and
- (5) Plan and develop new educational curricula/scenarios.

The course evaluation was based upon participation, feedback from simulation center staff, and the final project—an original simulation case.

**Approximate Time Distribution**

Category	Percentage
Pre- and Post-Workshop	25%
Simulation	75%

**Confidence in Instructing and Facilitating**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Students who facilitate medical education are well-prepared to teach.	0.00	0.00	0.00	0.00	1.00
Students who facilitate medical education are well-prepared to manage the classroom.	0.00	0.00	0.00	0.00	1.00
Students who facilitate medical education are well-prepared to facilitate learning.	0.00	0.00	0.00	0.00	1.00
Students who facilitate medical education are well-prepared to facilitate learning.	0.00	0.00	0.00	0.00	1.00

**Results**  
The elective has been accessible for three academic years, with annual enrollment increasing from one student to four students; a total of six students have completed the elective. Each student successfully facilitated sessions, operated the simulator, and created and piloted a novel simulation case, with 1 student submitting for publication and 2 students submitting a student research abstract. This most recent year, the elective student convened a simulation interest group to further implement medical simulation through student-led initiatives such as symposiums and workshops. The students' pre-elective confidence level mean was 2.5 (out of 5) for instructing/facilitating medical simulation. The post-elective confidence level mean increased to 4 (out of 5). Students expressed satisfaction with the elective with a mean Likert score 4.5, SD 0.37. To date, 67% of the elective students have continued to acquire leadership roles in simulation education at their residency programs.

**Conclusions**  
While much of the published research in simulation education is primarily adapted to interns and residents, a medical simulation elective for senior medical students can create an innovative experience that enhances the students' education beyond traditional approaches to undergraduate medical education. The medical simulation elective provides a unique learning experience that encourages decision making skills and inspires students to become leaders within the field of medical simulation. Finally, it provides the opportunity for simulation centers to develop and implement additional curricula. The elective has been requested by the UC Irvine School of Medicine and is now integrated into the teaching course catalog for senior medical students. Simulator programming was evaluated from this elective because of time constraints. The curriculum will continue to be modified based on student feedback, as well as the evolution of scheduled events during the elective.

Abstract presented at IMSH 2017



American Society of Anesthesiologists (ASA) provides aggregated survey results to endorsed programs each year. Here are some of the selected survey results (right).

Average of I had sufficient opportunity to actively participate in the scenarios.	4.98
Average of I had an opportunity to reflect on my performance.	4.92
Average of I have a better understanding of the subject matter.	4.92
Average of What I learned will change my practice.	4.83
Average of This was an effective use of my time.	4.81
Average of Overall, this was a positive learning experience.	4.90
Average of I would recommend this course to my colleagues.	4.88

## *Simulation Fellowship around UC Irvine*

### *Medical Education Simulation Center*

For the 2016-2017 year, the Medical Education Simulation Center has had the privilege of having Dr. Rheem Almhizai as a simulation fellow from the Saudi Arabian Cultural Mission (SACM). Dr. Almhizai is a Saudi Arabian Board Certified Pediatrician and Assistant Professor of Pediatrics at AL-IMANM University. Throughout this year Dr. Almhizai has been instrumental in creating many of the new scenarios that were added to the curriculum, and thus far has taught over 40 hours of medical simulation to medical students including 16 hours of residency skills to UCI's first year residents during the annual resident skills day.



Dr. Almhizai teaching the students lumbar puncture at the Simtoberfest 2016

Dr. Almhizai's interests include clinical teaching and medical education through the application of simulation.

### *Emergency Medicine Simulation*

Dr. Kimberly Sokol is in the middle of her first year of a 2 year simulation fellowship with the Department of Emergency Medicine.

Dr. Sokol has been active in creating new medical student scenarios and has over 30 hours of medical student instruction this year, on top of her clinical requirements. Dr. Sokol has also taught simulation-based code training at UCI Medical Center and is an instructor for the Simulation Instructor Course.

Dr. Sokol is also active in the Simulation Interest Group and research for the Department of Emergency Medicine.



Dr. Sokol observing an EM simulation session

*The UCI Nursing Program is now UCI Sue and Bill Gross School of Nursing*

Building on the highly ranked nursing program established at UCI a decade ago, the new Sue & Bill Gross Nursing School was created by the University of California Board of Regents on January 26, 2017. The School will grow rapidly to address a nationally identified need for 1.2 million new nurses in the next five years. The nursing school also welcomed its Founding Dean, Adey Nyamathi PhD, ANP, FAAN on January 1. Thanks to a \$40 million gift from the William & Sue Gross Family Foundation, the School of Nursing will embark on construction of a state-of-the-art building that includes increased classroom and research space.



The School of Nursing is looking to fill a newly created position for a full-time Skills Center Specialist (Req. number 2017-0247).

## Quality Initiatives

Medical Education Simulation Center



This next academic year, the Medical Education Simulation Center will be enacting some quality initiatives to better align ourselves with *best practices, improve efficiency, and provide better overall service to our stakeholders*. Many of these initiatives will be background work you may not see. A few of the new quality initiatives that you may see include: discontinuation of paper sign-in, the use of badging in for attendance, use of Qualtrics® for post-simulation surveys, and provide more feedback from the program office to simulation instructors. We've invested in a few iPads for the smaller groups to accomplish attendance and surveys.

## *Simulation Interest Group (SIMIG)*

**President** - Daniel Meller

**VP Research** - Luke Walls-Smith

**Research Committee** - Christina Kong, Katherine Moran

**VP Education** - Divya Ramakrishnan

**Operations** - Diane Shin

Simulation Interest Group is made up of medical students interested in medical education and medical simulation. Activities include Simtoberfest and collaboration with Ultrasound Interest group for Ultrafest 2017 and Neuro Interest Group for Brain Day 2017.





**Keith A. Beaulieu**  
*Director of Operations*  
*Medical Education Simulation Center*

**Staffing**

As many of you are aware one of our simulation specialists resigned last October. It took a bit, but we have hired Ryan Gouras as a simulation specialist. He started in January and has quickly learned the position. Welcome Ryan!

**Budget and Planning**

It is that time of year again that each of the departments submit their budget for the upcoming academic year. The Medical Education Simulation Center has met with finance and sent a draft budget to Medical Education. The proposed budget will look similar to last year’s approved budget. Going forward, the simulation center is committed to providing high quality education through medical simulation. We continue to increase our integration within the school curriculum, and continue to push to have a presence in the simulation community.

The newly termed “School of Nursing” is asking for increased collaboration in the next upcoming year so they can increase the simulation integrated into their curriculum. Discussions are currently underway at the Dean’s level.

**Scheduling**

We can begin to take requests for clerkship and resident simulation scheduling through our

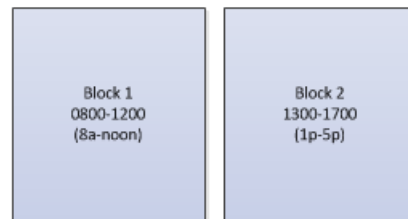
website; however, we cannot confirm nor slot those requests until the MS 1 & 2 simulation curriculum is firmly on the schedule.

We will be sitting down, in the near future, with Dr. Suchard, Clinical Skills, Ultrasound, and the CF coordinators to begin the schedule building process for the next academic year.

All requests for scheduling can be submitted via the [www.medsim.uci.edu](http://www.medsim.uci.edu) website. If you have any questions regarding scheduling, please contact us at 949-824-8835.

**Important Change this year**

All scheduled sessions starting after August 1 will fall into “time blocks.” This means, based on request, your scheduled simulation session will fall into 0800-noon block or 1pm-5pm block. If you request an all-day slot, your session will still be within these block times with a lunch break during 1200-1300. This doesn’t affect most of your programs, but a few programs may have to start a little later.



This is being operationalized in effort to keep overtime costs and time down and give my staff time for lunch (as required by union rules) and time for setup/cleanup.

**Curriculum**

This year we’ve had to redo the entire simulation curriculum to align to the Clinical Skills Immersion model. Canvas and Ilios are being used for medical student curriculum. Once the MS 1 & 2 simulation sessions are scheduled, all of the simulation



documents and resources, specific to courses will be added to the simulation sessions.

The simulation center staff are going through the current curriculum and scenarios to provide quality assurance to the accuracy of the scenario as well as the appropriateness of treatment. We are also reviewing the learning objectives to ensure that the learning objectives for the simulation sessions match/align with the course that the sessions fall into.

Curriculum resources as well as medical education and simulation resources can be found at <http://sites.uci.edu/medsim>.

### Student Sign in, Disclosure, and Surveys

As part of the simulation center's quality improvement processes, starting with this upcoming academic year the simulation center will be transitioning from the paper student sign-in and disclosure forms to electronic medium.

#### Student sign in

Will be accomplished with badge swipe at the beginning of the session. The data will be sent to the clinical foundation coordinators for attendance purposes.

#### Confidentiality and Disclosure

All MS 1 students will be required to fill out a confidentiality and disclosure form via Qualtrics at Simulation Orientation. This will be applicable for all 4 years of medical school

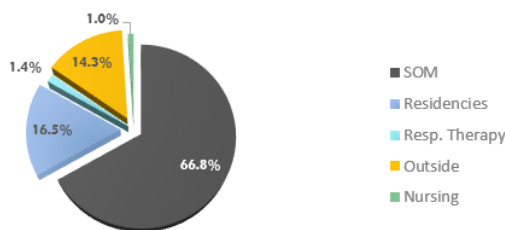
#### Surveys

Campus EEE is being phased out. The simulation center uses EEE for all post-simulation surveys. Because of this, the simulation center will be transitioning all surveys to Qualtrics for the new and subsequent academic years.

## *Medical Education Simulation Center Current Operational Metrics*

All data as of 1 March 2017

**Medical Education Simulation Center  
Total Time by Department  
AY 2016-2017**



Month	% Hours Actual Sim Operation	% Hours Prep	% Hours Admin
July	69%	14%	18%
August	37%	16%	48%
September	58%	16%	25%
October	61%	16%	23%
November	58%	19%	23%
December	58%	16%	26%
January	56%	15%	29%
February	56%	17%	28%
March			
April			
May			
June			

Utilization by Month		
Month	Center	Staffing
July	73%	106%
August	31%	85%
September	82%	140%
October	86%	140%
November	85%	145%
December	78%	134%
January	60%	107%
February	58%	103%
March	0%	0%
April	0%	0%
May	0%	0%
June	0%	0%
<b>Overall Avg</b>	<b>69%</b>	<b>120%</b>

\*Nationwide simulation center average utilization is 60%

## Medical Education Simulation Center Mission

To provide state-of-the-art health care education and research using medical simulation technology to promote superior clinical care and patient safety by delivering quality immersive education to healthcare professionals and the community.



### Mission

Discover • Teach • Heal



If your organization has a simulation related story you wish to share in this newsletter, please contact Keith Beaulieu, [kbeaulie@uci.edu](mailto:kbeaulie@uci.edu).



UC Irvine School of Medicine  
Medical Education Simulation Center