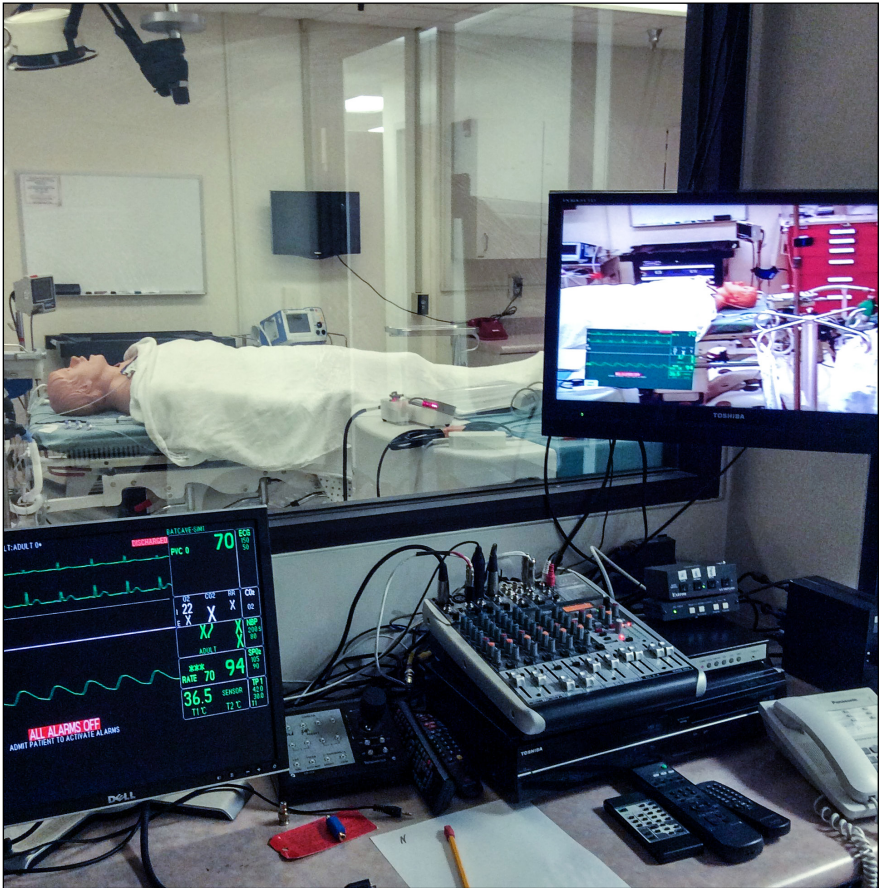




HEALTH  
SCIENCES

SCHOOL OF MEDICINE

BATCAVE Healthcare Simulation Program  
(Basic and Advanced Trauma Computer Assisted Virtual Experience)



## BATCAVE Simulation Equipment

The BATCAVE Healthcare Simulation Program provides medical simulations classes using a variety of state-of-the-art simulators, which include Adult Human Patient Simulators, Child Simulators, Infant Simulators, Ultrasound Simulators, and Trauma Simulators.



# Table of Contents

## HIGH-FIDELITY SIMULATORS

<u>HPS® Human Patient Simulator—Stan D. Ardman “Stan”</u>	<u>6</u>
<u>SimMan® 3G Advanced Patient Simulator “Sim G”</u>	<u>7</u>
<u>SimBaby™ “SimBaby”</u>	<u>8</u>
<u>SimNewB® “SimNewB”</u>	<u>9</u>
<u>NOELLE® and Newborn HAL® Maternal and Neonatal Birthing Simulator “Noelle and Baby Hal”</u>	<u>10</u>
<u>Premie HAL® “Little”</u>	<u>11</u>
<u>Pediatric HAL® S2225 “Pediatric HAL”</u>	<u>12</u>
<u>Simbionix GI-BRONCH Mentor™ System</u>	<u>13</u>

## MID-FIDELITY SIMULATORS

<u>MegaCode Kelly™ Advanced “Kelly”</u>	<u>14</u>
<u>Nursing Anne Simulator “Nursing Anne”</u>	<u>15</u>
<u>Resusci Anne® “Annie” AKA “Laura”</u>	<u>16</u>
<u>MegaCode Kid “Junior”</u>	<u>17</u>

## ULTRASOUND SIMULATOR AND EQUIPMENT

<u>Vimedix Cardiac Echo Simulator “Bob”</u>	<u>19</u>
<u>SonoSim Ultrasound</u>	<u>20</u>

**TASK TRAINERS**

Task Trainers – Airway Models ..... 23

Task Trainers – Heart Sound Models ..... 26

Task Trainers – Injection Models ..... 27

Task Trainers – Trauma Models ..... 31

Task Trainers – Ultrasound-Guided Models ..... 32

Task Trainers – Miscellaneous Trainer ..... 34

**BATCAVE FACULTY**

**BATCAVE NURSE EDUCATORS**

# High-Fidelity Simulators



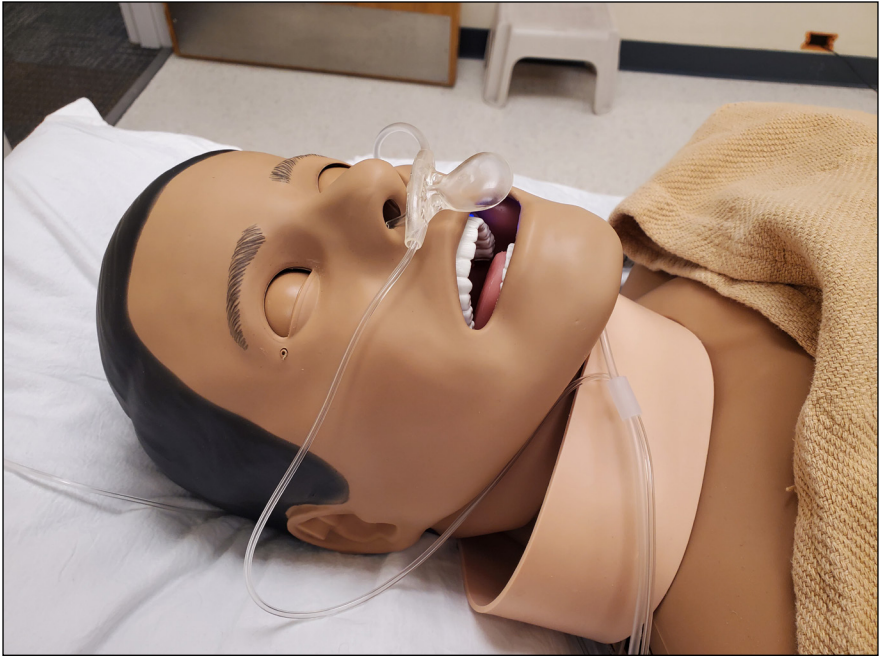
## **HPS® Human Patient Simulator—Stan D. Ardman “Stan”**

### **Key Features**

- O.R. Setting with Anesthesia
- PT Assessment and Treatment Skills
- Advanced Airway Skills
- Advanced Cardiac Skills

For more information, go to the manufacturer’s website:

<https://caehealthcare.com/patient-simulation/hps>



## **SimMan® 3G Advanced Patient Simulator** ***“Sim G”***

### **Key Features**

- Hospital Room Setting
- PT Assessment and Treatment Skills
- Advanced Airway Skills
- Advanced Cardiac Skills
- Quality CPR Feedback
- Convulsions

For more information, go to the manufacturer’s website:

<http://www.laerdal.com/us/products/simulation-training/emergency-care-trauma/simman-3g/>



**SimBaby™**  
*“SimBaby”*

**Key Features**

- Hospital Room Setting
- Airway Skills
- Pulmonary Skills
- Cardiovascular Skills
- Simulated Patient Monitor

For more information, go to the manufacturer’s website:

<http://www.laerdal.com/us/products/simulation-training/obstetrics-pediatrics/simbaby/>





**SimNewB®**  
**“SimNewB”**

**Key Features**

- Hospital Room Setting
- Airway Skills
- Pulmonary Skills
- Cardiovascular Skills

For more information, go to the manufacturer’s website:  
<http://www.laerdal.com/us/products/simulation-training/obstetrics-pediatrics/simnewb/>



**NOELLE® and Newborn HAL®  
Maternal and Neonatal Birthing Simulator**  
*“Noelle and Baby Hal”*

**Key Features for Noelle**

- Airway, Breathing and Circulation
- Maternal and Neonatal Monitoring
- Obstetric scenarios including vertex, breech, shoulder dystocia and PPH

**Key Features for Baby Hal**

- Advanced airway and ventilation
- Advanced cardiac rhythms, rates, and intensities
- Pulse sites including fontanelle and umbilicus

For other birthing models, [go to page 34.](#)

For more information, go to the manufacturer’s website:

<http://www.gaumard.com/s550>



## **Premie HAL®** ***“Little”***

### **Key Features**

- Advanced airway and ventilation
- Advanced cardiac rhythms, rates, and intensities
- Pulse sites including fontanelle and umbilicus

For more information, go to the manufacturer’s website:

<http://www.gaumard.com/s3009>



## **Pediatric Hal® SS225** *“Pediatric Hal”*

### **Key Features**

- Interactive eyes and active facial expressions
- Dynamic lung compliance with true ventilator support
- Real patient monitor support: SpO<sub>2</sub>, EKG, capnography, NIBP, live pacing, and defibrillation
- Emergency intervention: surgical airway, needle decompression, chest tube insertion
- Wireless and tetherless

For more information, go to the manufacturer's website:

<https://www.gaumard.com/s2225/>



## **Simbionix GI-BRONCH Mentor TM System “Bronch”**

### **Key Features**

- Covers the full extent of the upper and lower endoscopic procedures.
- Trains gastrointestinal procedures.

For more information, go to the manufacturer’s website:

<https://simbionix.com/simulators/bronch-mentor/>

# Mid-Fidelity Simulators



## **MegaCode Kelly™ Advanced “Kelly”**

### **Key Features**

- ACLS Mock Code Scenarios
- Defibrillator Safe
- Airway/Breathing Adjuncts

For more information, go to the manufacturer’s website:

<http://www.laerdal.com/us/MegaCodeKelly>



## **Nursing Anne Simulator** *“Nursing Anne”*

### **Key Features**

- Core Nursing Competencies
- Palpation Anatomical Landmarks
- Realistic Articulation

For more information, go to the manufacturer’s website:

<https://www.laerdal.com/us/products/simulation-training/nursing/nursing-anne-simulator/>





**Resusci Anne®**  
***“Annie” AKA “Laura”***

**Key Features**

- ACLS Mock Code Scenarios
- Airway/Breathing Adjuncts
- Defibrillator Safe
- Lendable to units in hospital

For more information, go to the manufacturer’s website:

<http://www.laerdal.com/us/products/simulation-training/emergency-care-trauma/resusci-anne-simulator/>



## **MegaCode Kid** *“Junior”*

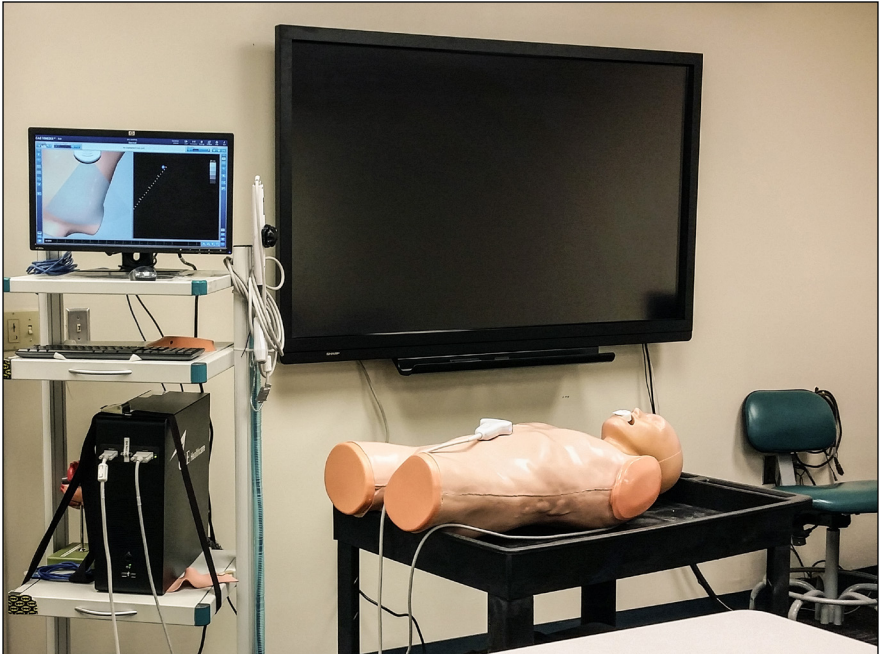
### **Key Features**

- PALS Mock Code Scenarios
- Airway/Breathing adjuncts
- Defibrillator safe

For more information, go to the manufacturer’s website:

<http://www.laerdal.com/us/products/simulation-training/emergency-care-trauma/megacode-kid/>

# **Ultrasound Simulator and Equipment**



## **Vimedix Cardiac Echo Simulator** ***“Bob”***

### **Key Features**

- Transesophageal Echo (TEE)
- Transthoracic Echo (TTE)
- Real-time Ultrasound Imaging
- Normal and Pathology Cases

For more information, go to the manufacturer’s website:

<https://caehealthcare.com/ultrasound-simulation/vimedix>



## **SonoSim Ultrasound**

### **Key Features**

- Performance Tracking
- Full Screen Image Display
- Procedure Training

For more information, go to the manufacturer's website:

<https://sonosim.com/ultrasound-training/>



## **M-Turbo Ultrasound**

### **Key Features**

- Performance Tracking
- Full Screen Image Display
- Procedure Training

For more information, go to the manufacturer's website:

<https://www.sonosite.com/products/sonosite-m-turbo>

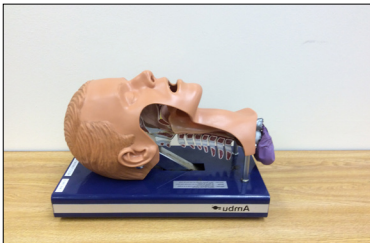
# **Task Trainers**

## Task Trainers – Airway Models



### **Prestan® Adult CPR Manikin**

*For cardio pulmonary resuscitation (CPR), abdominal thrusts, and ventilations.*



### **AMBU® Airway Management Trainer**

*For teaching intubation techniques with all known tubes and supraglottic airway devices.*



### **Prestan® Infant CPR Manikin**

*For cardio pulmonary resuscitation (CPR), back blows, and ventilations.*



### **Child Airway Management Trainer**

*For practicing the specialized skills required for child airway management.*



## Task Trainers – Airway Models



### Infant Airway Trainer Head

*For practicing the specialized skills required for infant airway management.*



### LUCAS® 3, 3.0 Trainer

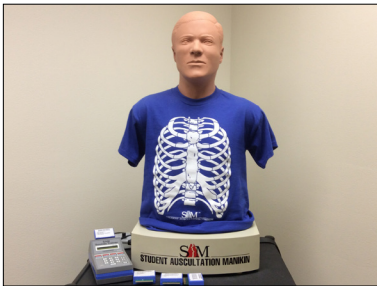
*For chest compressions to improve blood flow in victims of cardiac arrest.*



### Nasco Adult Airway Management Trainer with Board

*For practicing intubation, ventilation, and suction techniques.*

## Task Trainers – Heart-Sound Models



### **3B Scientific SAM, The Student Auscultation Manikin**

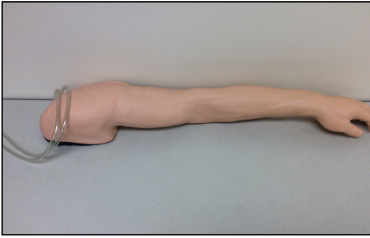
*Anatomically correct auscultation sites, heart, lung, bowel, and bruit sounds library. May be used for classroom and self-study.*



### **The CardioSim™ VII Teaching Simulator**

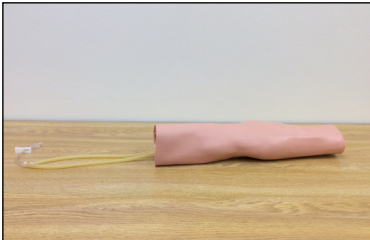
*Real heart sound library, wave format animation.*

## Task Trainers – Injection Models



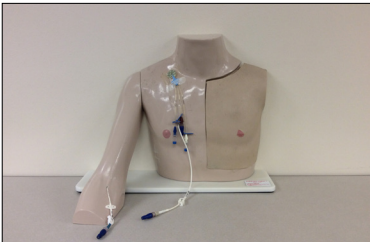
### Advanced Injection Arm

*For complete venous access for IV therapy and phlebotomy, intramuscular injections, and intradermal injections.*



### Arm Injection Model

*For practicing intravenous (IV) injections and phlebotomy skills.*



### Chester Chest™

*For teaching and practicing infusion, withdrawal, care, securement and dressings of multiple vascular access lines.*



### Elbow Joint Injection Model

*For practicing soft tissue joint injection*

## Task Trainers – Injection Models



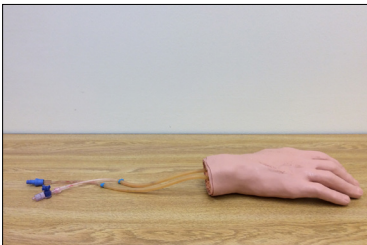
### Geriatric IV Arm

*For practicing geriatric IV therapy and intramuscular injections including veins that roll away or disappear while catheterizing the vessel of a specially developed skin.*



### Hand and Wrist Joint Injection

*For practicing soft tissue joint injection.*



### Hand Injection Model

*For practicing intravenous (IV) injections and phlebotomy skills.*



### Infant Intraosseous Infusion (IO) Legs Model

*For the practice of IO insertion in pediatric tibias.*

## Task Trainers – Injection Models



### Intramuscular Hip Injection Model

*For administering intramuscular injections.*



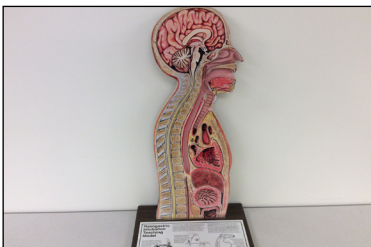
### Knee Joint Injection Model

*For practicing soft tissue joint injection.*



### Nasco CorMan® Adult Nasogastric/Nasojejunal Feeding Trainer

*For training in nasogastric and nasojejunal feed tube and gastrostomy device placement in adults.*



### Naso Gastric Intubation Teaching Model "Thin Man"

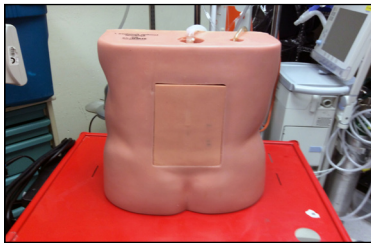
*For demonstrating the common hospital procedure of inserting a feeding tube.*

## Task Trainers – Injection Models



### Peter PICC Line™ Model

*For practicing placing peripherally inserted central catheter lines (PICC Lines).*



### Simulabs Lumbar Puncture

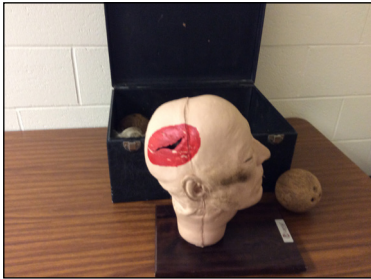
*For the practice of placing adult L.P. needles.*



### Simulab LumbarPuncture-Baby

*For ultrasound or blind technique lumbar puncture training.*

## Task Trainers – Trauma Models



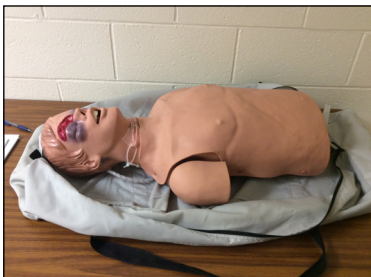
### Laerdal Trauma Head Model

*For realistic cranial trauma management.*



### Simulabs TraumaMan Model

*For ATLS, cricothyroidotomy, percutaneous tracheostomy, needle decompression, pericardiocentesis, chest tube insertion, diagnostic peritoneal lavage, and surgical procedures.*



### Simulaids ATLS Trauma Head and Neck Model

*For multi-systems trauma assessment.*

## Task Trainers – Ultrasound-Guided Models



### CAE Blue Phantom™ Female Pelvic Training Model

*For Obstetrics and Gynecology ultrasound imaging and procedures.*



### CAE Blue Phantom™ Paracentesis Ultrasound Training Model

*For ultrasound guided paracentesis procedures.*



### CAE Blue Phantom™ Thoracentesis Ultrasound Training Model

*For ultrasound guided thoracentesis procedures.*

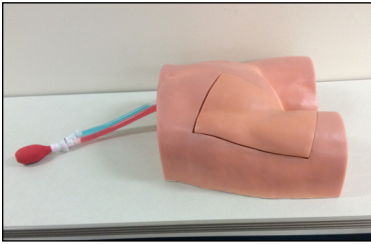


### CAE Blue Phantom™ Ultrasound CentralLineMan® Model

*For central line placement.*

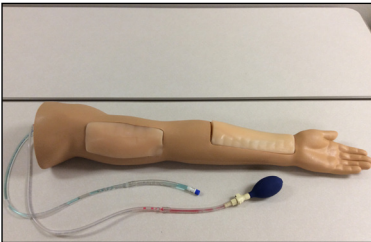


## Task Trainers – Ultrasound-Guided Models



### CAE FemoraLineMan System

*For femoral line placement.*



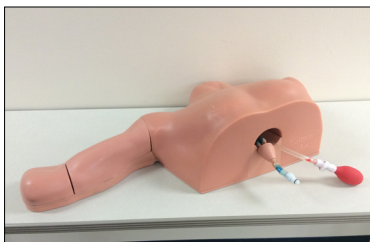
### CAE PICC Ultrasound Trainer Arm Model with Hand Pump

*For PICC line placement, arterial line placement, and peripheral IV access.*



### Simulab CentralLineMan

*For full catheterization using ultrasound guided or blind/landmark insertion.*



### Simulab PICCLineMan

*For vein isolation and selection.*

## Task Trainers – Miscellaneous Trainers



### FLS Trainer

*For laparoscopic surgery skills.*

# **BATCAVE Faculty**

# Faculty Directory

Click on Name for Vivo Page – (vivo page not available outside of UNM)

Name	Contact Information	Biography
<p><a href="#">Michel Boivin</a></p> 	<p>Clinician Ed Associate Professor IM Division of Pulmonary CC and Sleep 505-272-1666 Mboivin@ salud.unm.edu</p>	<p>Dr. Boivin is the medical director of the MICU and program director of the critical care fellowship. Dr. Boivin is a leading expert in teaching ultrasound. Dr. Boivin is interested in simulation education, particularly in ultrasound and ultrasound guided procedures. Dr. Boivin has passed the echocardiography boards and is active in simulation training in TTE and TEE.</p>
<p><a href="#">Dana Davis</a></p> 	<p>Clinician Ed Professor IM Division of Hospital Medicine 505-925-0660 DKDavis@ salud.unm.edu</p>	<p>10+ years experience teaching (IM simulation of critical care scenarios).</p>
<p><a href="#">Todd S. Dettmer</a></p> 	<p>Clinician Ed Associate Professor Department of Emergency Medicine Division of Critical Care 505-272-5062 TDettmer@ salud.unm.edu</p>	<p>I am originally from Alamogordo, New Mexico. I spent the majority of my education here in New Mexico at UNM, but was excited to pursue a fellowship in Critical Care Medicine at the University of Washington. Fortunately, I was offered a position to return home to UNM and continue a split career in Emergency Medicine and Critical Care Medicine. I spend the majority of my clinical time now in the ICUs primarily surgical and neurosurgical but have an interest in acute resuscitation and hope to balance my time a little better between the ICU and ED in the near future. I help to run the simulation curriculum for residents and students in the department. I enjoy teaching and clinical medicine. I love my job and I love my state, but the thing I am most proud of is my family. My parents and my siblings are my role models; my wife and son are my motivation. I've been married for two years to my beautiful wife Casey who I met more than 10 years ago and our biggest accomplishment together has been raising our son, Jet. I enjoy snowboarding, camping, and mountain biking.</p>
<p><a href="#">Jennifer Dillow</a></p> 	<p>Clinician Ed Associate Professor Director, Pediatric Anesthesia Fellowship Chief, Division of Pediatric Anesthesiology 505-272-2610 JDillow@ salud.unm.edu</p>	<p>Hi - I am a pediatric anesthesiologist who is triple boarded in anesthesiology, pediatric anesthesiology, and pediatrics. I have taught simulation scenarios for both anesthesia residents and pediatric anesthesia fellows for pediatric emergency scenarios. I have also taught the simulation sessions for PALS.</p>

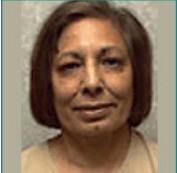
# Faculty Directory

Click on Name for Vivo Page – (vivo page not available outside of UNM)

Name	Contact Information	Biography
<p><a href="#">Ricardo J. Falcon</a></p> 	<p>Clinician Ed Associate Professor Department of Anesthesiology and Critical Care Medicine 505-272-2610 RFalcon@salud.unm.edu</p>	<p>My name is Ricardo Falcon. I am an anesthesiologist at UNMH. My simulation experience involves training residents in anesthesia in critical high-risk patient related scenarios. In addition, I assist with the Department of Anesthesiology's MOCA simulation course to educate anesthesiologists who are planning for recertification of their license to continue practicing anesthesia.</p>
<p><a href="#">Senan Hadid</a></p> 	<p>Clinician Ed Assistant Professor Department of Pediatrics Division of Critical Care 505 925-0684 SHadid@salud.unm.edu</p>	<p>Medical education Med school: Damascus University School of Medicine, class of 2005. Clinical research: John Strogers Hospital, Chicago, 2005-2007. Pediatric residency: Children's Hospital of New Jersey at Newark Beth Israel MC, class of 2010. Pediatric Critical Care Medicine Fellowship: University of Michigan, Ann Arbor, class of 2013. Assistant Professor of Pediatric critical Care Medicine, University of New Mexico, 2013-present. Interest: medical education including simulation, I designed a simulation curriculum for pediatrics residents that provides a learning opportunity for controlled clinical practice without putting patients or others at risk with the goal in mind being improving the patients safety and the education quality in our department and institution. I also hold pediatric critical care procedure simulation training sessions for pediatric residents including central lines placement (Internal jugular CVL, Femoral venous CVL and PICC), airways and chest tube (both percutaneous and surgical).</p>
<p><a href="#">Sepehr Khashaei</a></p> 	<p>Clinician Ed Associate Professor IM Division of Hospital Medicine 505-925-0660 SKhashaei@salud.unm.edu</p>	<p>I teach the internal medicine interns and residents one of the three procedures at Batcave, These procedures are Thoracentesis, paracentesis, and lumbar puncture. I am a hospitalist at the VA hospital and a faculty of UNM.</p>
<p><a href="#">Mary Lacy</a></p> 	<p>Clinician Ed Assistant Professor IM Division of Hospital Medicine 505-925-0660 MELacy@salud.unm.edu</p>	<p>3 years experience teaching (IM simulation of critical care scenarios).</p>

# Faculty Directory

Click on Name for Vivo Page – (vivo page not available outside of UNM)

Name	Contact Information	Biography
<p><a href="#">Veena Raizada</a></p> 	<p>Professor IM Division of Cardiology 505-272-6020 VRaizada@ salud.unm.edu</p>	<p>6/1988-present Professor of Medicine, IM/Cardiology. Education 1/94-12/94----One year sabbatical -training in Cardiovascular Molecular Biology and Biochemistry with Leslie Leinwand, Ph D, James Schauer MD, PhD at Einstein College of Medicine, New York 6/1983-6/1984----Research Fellowship in physiology/ cardiac muscle (with Jim Covell, MD) University of California, La Jolla, California Visiting Associate Professor of Medicine University of California, La Jolla, California 12/1974-2/1977----Cardiology Fellowship Institute for Cardiovascular Diseases Good Samaritan Hospital, Phoenix, Arizona 6/1971-11/1973----Registrar in Cardiology ( Program Directors: N. Coulshed, MBBS, and E. J. Epstein, MBBS) Regional Cardiac Centre, Sefton General Hospital University of Liverpool, Britain 6/1970—5/1971----Lecturer (Faculty in Internal Medicine), Lady Hardinge Medical College and Hospital, New Delhi, India 6/1968-6/1970----Research Fellowship ( Program Director: S. Padmavati, MBBS) G. B. Pant Hospital, New Delhi, India 1.Etiology of chronic cor pulmonale in India (sponsored by the National Institutes of Health, USA) 2.Clinical trial with peruvoside: A cardiac glycoside isolated from an Indian plant 8/1968----Post Graduate Examination in Internal Medicine (MD) University of Delhi, India Thesis: EKG in right ventricular hypertrophy of varied etiology 6/1966-6/1969----Registrar, Lady Hardinge Medical College and Hospital New Delhi, India 6/1963-6/1966----Residency in Internal Medicine Postgraduate Institute of Medical Education Chandigarh, India 6/1963, MBBS, Lady Hardinge Medical College, University of Delhi Delhi, India</p>

# Faculty Directory

Click on Name for Vivo Page – (vivo page not available outside of UNM)

Name	Contact Information	Biography
<p><a href="#">John Rask</a></p> 	<p>Director, UNM BATCAVE Simulation Education Center            Associate Professor            Department of Anesthesiology and Critical Care            505-272-2610            JRask@salud.unm.edu</p>	<p>Dr. Rask is currently an Associate Professor in the Department of Anesthesiology and Critical Care Medicine at the University of New Mexico (UNM). He has been administering anesthesia since 1986 with academic appointments at the University of Utah (1989-1991) and UNM (2005-present) separated by 16 years in an MD-only private practice. His practice has covered nearly all subspecialty areas but includes extensive experience in Acute and Chronic Pain, Trauma, Cardiovascular, Neurosurgical, Obstetrics, and Regional Anesthesia. He has held numerous administrative positions in private practice, the US Veterans system, and in academics. He has been the UNM Departmental Simulation-Education Director since 2006 and Director of the UNM MOCA® Simulation course since 2011. As the Director of the UNM BATCAVE Simulation and Training Center, he trains simulation faculty and coordinates support for all GME, advanced UME, and hospital staff training programs. He was a member of the ASA Committee on Simulation Education /Editorial Board for Simulation-based Training until Fall 2016. He has been involved with the ASA SimStat project since shortly after its inception and is a member of the ASA Editorial Board for Interactive Computer-based Education.</p> <p>He is engaged in research in communication, simulation education, and performance assessment and has presented and published locally and nationally in a broad range of areas. He is a member of the Simulation in Anesthesia Research Group (SARG) research consortium. His research and educational activities include programs addressing crisis resource management, communications, teamwork, simulation curriculum development, and in-situ simulation for diagnosis of systems failures.</p> <p>He has served for many years as an ABA Associate Examiner, an ASA Delegate, and as a board member of the New Mexico Society of Anesthesiologists.</p>
<p><a href="#">Kendall Rogers</a></p> 	<p>Clinician Ed Professor            IM Division of Hospital Medicine            505-925-0660            KRogers@salud.unm.edu</p>	<p>10+years experience teaching (IM simulation of critical care scenarios).</p>

# Faculty Directory

Click on Name for Vivo Page – (vivo page not available outside of UNM)

Name	Contact Information	Biography
<p><a href="#">Karl Stoltze</a></p> 	<p>Clinician Ed Assistant Professor IM Division of Hospital Medicine 505-925-0660 KStoltze@ salud.unm.edu</p>	<p>Dr. Stoltze received a BS in Biochemistry from UNM in 2011. He earned his Doctor of Medicine degree in 2016 from UNM SOM. Following his MD degree he completed a 3-year internal medicine residency at Legacy Health in Portland, Oregon. Area of Specialts includes Simulation Education Procedure Education Point-of-Care Ultrasound.</p>
<p><a href="#">Anthony Worsham</a></p> 	<p>Clinician Ed Associate Professor IM Division of Hospital Medicine 505-925-0660 AWorsham@ salud.unm.edu</p>	<p>5+ years experience teaching (IM simulation of critical care scenarios).</p>



# **BATCAVE Nurse Educators**

# Nurse Educators Directory

Name	Contact Information	Biography
Laurie Mason, RN	Educator Rn: BATCAVE 505-272-0937 LMason@salud.unm.edu	Laurie Mason, MSN, RN, CNOR Has been a nurse since 1987 and has worked in med/surg, geriatrics, and ambulatory/Endoscopy before finding her love of Surgical patients, working in the OR from that point for 21 years. Laurie discovered a passion for teaching and began working as a clinical educator in the OR and later, in the hospital, while concurrently employed at CNM, working with Level 3 nursing students in their nursing program. She is now working in the BATCAVE as a clinical educator and ACLS Instructor.
Mary B. Pafford, CNP	Education Specialist: BATCAVE 505-272-5799 MBPafford@salud.unm.edu	Mary B. Pafford MSN, BSN, ADN, ACNP-BC, RN, CCRN I have been in healthcare for over 35 years and a nurse for 35 years with the last 13 years as an acute care nurse practitioner. I started on med/surg floor and then moved to a SAC unit. I came to UNMH as a traveling nurse and worked on the cardiac SAC unit. I signed on and have been here for 29 years moving to the MICU and worked there for the last 22 years. I have always enjoyed teaching both fellow RNs and APPs, med students, interns and residents. I have recently moved to the BATCAVE to concentrate on education which is an essential and important part of providing the best healthcare.
Junelle Placencio, RN	Educator Rn: BATCAVE 505-925-0805 jplacencio@salud.unm.edu	I have been a nurse for 31 years with experience in Newborn Intensive Care, Pediatric Specialty Nurse for Pediatric Surgery, Mother Baby/High Risk OB. An Educator for Mother Baby as well. I am also a certified Clinical Informaticist. I have worked in Colorado at UHealth as an educator for 10 specialty clinics as well. I joined the Batcave last year as an RN Educator.
Lisa M. Trujillo, RN	Educator Rn: BATCAVE 505-272-3362 LMTrujillo@salud.unm.edu	I have been a registered nurse since 2004 and have spent my entire nursing career at UNMH. While at the bedside I worked in coronary care and as an RN Supervisor on the neurology unit. For the past six years I have been in an administrator/educator role in the BATCAVE. I serve on several hospital committees including the Nurse Residency Advisory Council, am a member of SSIH, and am nationally certified in Nursing Professional Development.



