

ACADICUS



Virtual Simulation Center

Version 0.79.0 Q2 2024

by



Welcome!

Greetings!

When we set out to build Acadicus more than 5 years ago, we formed a community of experts, and built a platform based on their guidance, combined with decades of existing research and best practices that made simulation the powerful modality that it is today.

Instead of using virtual technology as a way to automate simulation, replace manikins, or minimize the role of the instructors, we identified its potential to extend a powerful virtual dimension that could lower costs and increase access to simulation.

We're on an important mission to help address the rapidly growing shortage of clinicians by harnessing the power of virtual technology.

We hope you'll join us!

Sincerely,



Jon Brouchoud

CEO at Arch Virtual | Developers of Acadicus

jon@archvirtual.com

acadicus.com



Welcome to Acadicus

The best way to learn about Acadicus is by seeing how it is being successfully deployed in schools and hospitals. In these 3 video features, we interview experts, tour their VR labs, and learn more about the enormous opportunities unlocked by virtual simulation.



Open RN

Open Education Resources for Nursing

<https://acadicus.com/open-rn-vr-nursing/>



Madison College XR Center An Inside Look at a Cutting-Edge Facility

An Inside Look at a Cutting-Edge Facility

<https://acadicus.com/madison-college/>



Redefining Neonatal Education and Training

University of Wisconsin School of Medicine

McAdams Research Group

<https://acadicus.com/vr-neonatal-simulation/>

More Than an App

We understand that there is more to virtual technology than automating simulations with pre-programmed experiences. Our goal is to reduce costs, increase access to simulation, while supporting established standards and best practices based on decades of research and experience, and still allow you the control you want to customize your simulations.

Access

There are different options for accessing Simulations in Acadicus, which is [free to download on our website](#). We provide high fidelity virtual simulation experiences by leveraging the power of a windows PC.



Non-VR Viewer Mode

Windows PC



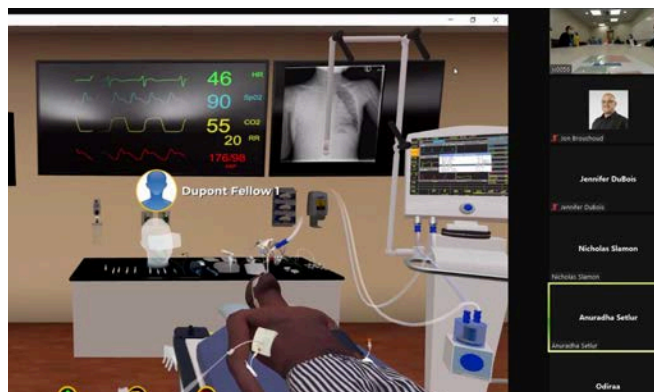
VR Mode

Windows PC



Classroom Projected

Screen share for class viewing



Remote Access

Screen share via Zoom, etc.

Multi User or Solo

Enter a simulation experience in solo mode, or enter with multiple simultaneous participants, joining from any location.

Holographic avatars are minimal by design, enabling the experience to focus on learning objectives, rather than how each student customizes their avatar.



Access

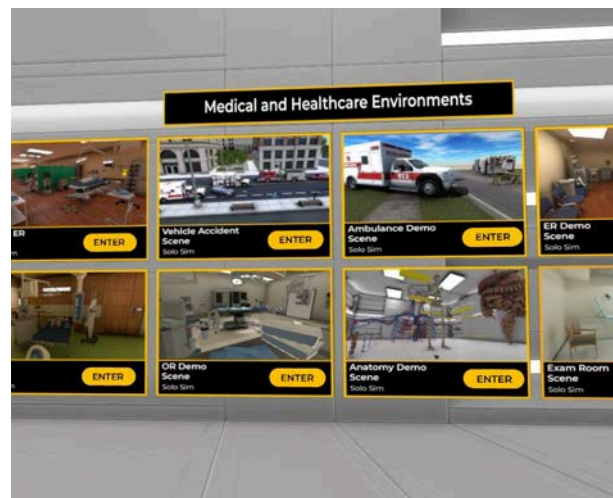
Like a traditional simulation center, simulations in Acadicus are hosted within individual Labs.

Public

After installing Acadicus, anyone can enter the **Acadicus Commons**, a public multi-user Lab featuring a directory of freely available Featured Simulations to explore.

Private

When you're ready to run your own Simulations, subscribe to a private Campur or Lab, where you gain access to the entire Shared Content Library and can run private multi-user Simulations.



Community

Become part of a growing community of simulation innovators, building and defining the future of this exciting new frontier!

Simulation Pulse

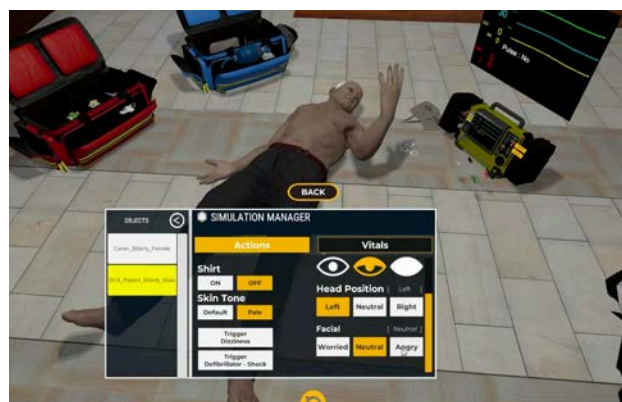
Stay informed about what's new in the virtual sim world by subscribing to the [Simulation Pulse](#) on our website. Gain access to live simulation demonstrations, expert interviews, new content unboxing, virtual sim lab tours, tutorials, and more.



Simulation Manager

Instructors and Sim Techs can control live Simulations using the Simulation Manager dashboard.

Instructors or trained actors can role play patients and other characters (family members, other providers, etc.), manipulating their animations, changing patient states, vital signs, triggering alarms, and a variety of other variables to create lifelike learning experiences.



3D Spatial Recordings

Play and capture 3D recordings of instructor demonstrations and interactive lessons.

Learners can replay these recordings, viewing from any angle, following along and repeating as many times as needed.

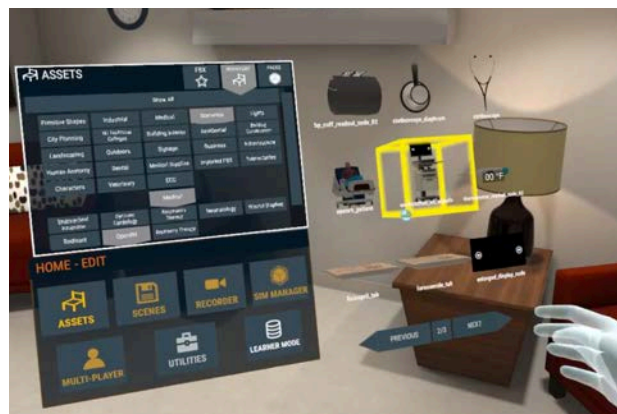


Scene Editing

Acadicus' powerful scene editing tools enable technicians to customize and easily update scenarios.

Save as many configurations in your private Lab as you'd like.

As new content is added to Acadicus, it becomes immediately available to all Lab subscribers as downloadable content packs.



Onboarding

Training and Support

Each private Lab comes with 3 training sessions, providing everything you need to know to run your own Simulations.

The Acadicus team provides robust support through a Knowledge Base, FAQ, Tutorials, Discord channel, an upcoming new Orientation Hub, and the ability to submit tickets to our help desk.



Pricing Options

Acadicus Lab

The cost of Acadicus is \$20,000 per year, per private Lab. This subscription unlocks access to all features, shared content, multi-user capabilities, all support channels, and anything added to the library during your subscription. Each Private Lab supports one concurrent active Simulation. Expand your capacity as your program grows with additional Labs.



Acadicus Campus

This \$100,000 / year option includes a Campus Hub custom branded to your organization, along with 6 Labs.

Acadicus Assist and Custom Content

An optional budget allowance can be added to your Quote for any amount you would like to include. Allowances have ranged from \$1,000 to \$100,000, depending on the organization's goals. These allowance budgets can be applied toward any of our Acadicus Assist services, such as:

- sponsoring custom content
- advanced training sessions
- scene editing services
- assistance running simulations
- patient actors



If you don't use your designated allowance, it can be applied toward future Lab renewals as well.

Featured Content Catalog

Find additional information about this content on our [Shared Library Wiki](#).



Gen2 Patients

Our Gen2 patients introduce a new class of patients. This enhancement will allow you to multiply the variety of patient simulations you can create through a powerful range of new features and capabilities. Many of the OpenRN cases feature Gen2 patients ([learn more here](#)).

The initial Gen2 lineup includes several patients you can configure in an infinite range of states via our Simulation Manager. Most newly created patients will include this standardized feature-set!



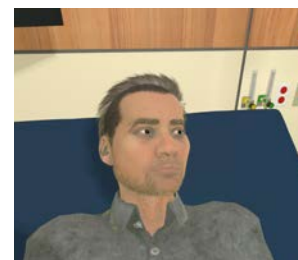
Millie



Amy



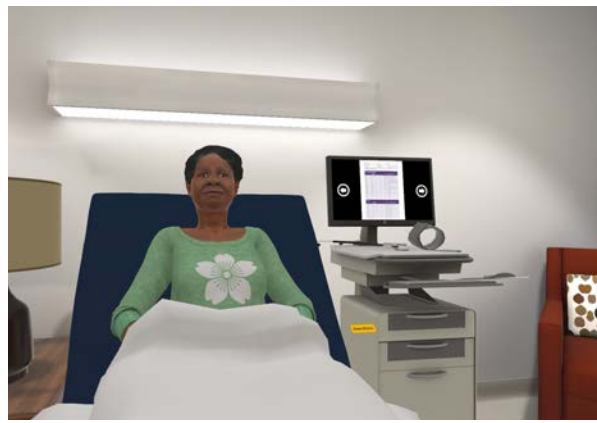
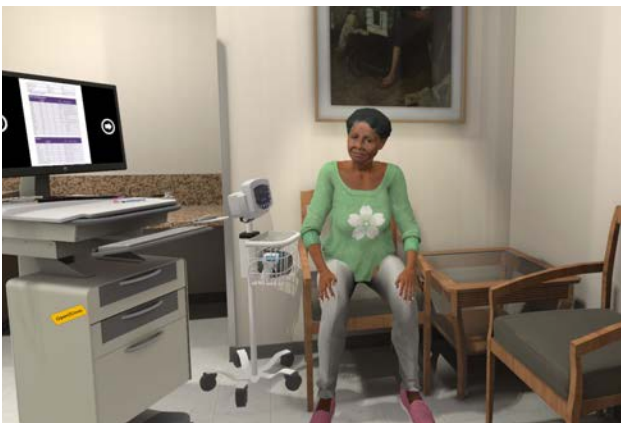
Micheal



Nao

Limitless Possibilities

Each Gen2 patient can be easily configured using the Simulation Manager to support a wide variety of scenarios.



Below is a sample of Gen2 patient capabilities, subject to change.

Animation Status

- Talking
- Emotion
- Head Gesture
 - Shake
 - Shrug
- Arm Gesture
 - Push away
- Head Pose
 - Left
 - Center
 - Right
- Body Position
 - Fowler's 30
 - Fowler's 45
 - Fowler's 90
 - Fowler's Leaning Forward
 - Sitting (Bed Edge)
 - Sitting (Chair)
 - Sitting Leaning Forward (Chair)
 - Supine
 - Lateral Recumbent (Right)
 - Lateral Recumbent (Left)
 - Prone
 - Sims'
 - Standing
 - Fallen

Socket Functionality

- Socket Functionality
- Forehead Thermometer
- Pen Light
- Tympanic Thermometer
- Mouth/nose Sockets
- Non-rebreather Mask
- Venturi Mask
- Nasal Cannula
- CPAP Mask
- Surgical Mask
- Mouth Thermometer
- Nebulizer Mouthpiece
- ETT
- NG Tube
- Tongue Depressor
- Pen light
- Tracheostomy Collar
- Shock Pad
- ECG Stickers and Electrodes (x10)
- IV (x6)
- BP Cuff (x2)
- PICC Line
- Chest Tube
- Pulse Oximeter (x2)
- Stethoscope (x17)
- Learner Interactions Panel
- Vitals Monitor
- Hospital Bed

Pupils

- Dilation
- Response Rate

General Apparel and Equipment

- Clothing
- Partial Gown
- Blanket
- Hospital Bed

Heart Auscultation

- Normal
- Atrial Fibrillation
- Murmur

Lung Auscultation

- Coarse Crackles
- Fine Crackles
- Wheezing

Digestive and Abdomen

- Tongue
 - Tongue Out - Center
 - Tongue Out - Left
 - Tongue Out - Right
- Vomit
 - Normal
 - Bloody
 - Black
 - Green
- Mouth
 - Normal
 - White Patches
 - Ulcers
- Teeth
 - Good Teeth
 - No Teeth
 - Decayed Teeth

Respiratory

- Cough (Single)
 - Nonproductive
 - Productive - Clear
 - Productive - Yellow
 - Productive - Green
- Cough (Ongoing)
 - Off
 - Occasionally
 - Frequently
- Breathing
 - Normal
 - Shallow
 - Labored
 - Stridor
- Nose
 - Default
 - Bloody Drainage
 - Clear Discharge
 - Yellow/green Discharge

Bowel Auscultation

- Absent
- Hypoactive
- Present
- Hyperactive

Edema

- Absent
- 1+
- 2+
- 3+
- 4+

Skin and Subcutaneous Tissue

- Skin Tone
- Perspiration
- Pressure Injury (Sacral)
- Pressure Injury (Heel - Left)
- Pressure Injury (Heel - Right)
- Leg Swelling (Left)
- Leg Swelling (Right)

Nervous and Musculoskeletal

- Seizure
- Shiver
- Tremor
- Eye
- Face Droop
- Hemiplegia

Strength Test

- Arm Raise (Forward)
- Hand Squeeze
- Leg Raise
- Foot Press

Cognition

- Conscious
- Sleepy
- Nonresponsive (with pulse)
- Nonresponsive (pulseless, non breathing)

Accompanying Assets

- PPE Door Card (Contact)
- PPE Door Card (Droplet)
- PPE Door Card (Airborne)
- Dentures
- Hearing Aids
- Pen Light
- Nasogastric Tube
- Tracheostomy Collar
- Emesis Bucket
- Emesis Bag
- Wheelchair
- Sanitization Station (Wall)
- PICC Line
- Tongue Depressor

Learner Interaction Panel

- Blanket
- Bed Side Rails
- Bed Height
- Bed Lock
- Reposition Patient

Environments

Set the Stage Your Simulations



Operating Room



Emergency Room



PICU



Hospital Lobby



Clinic



4 Bay Multi-Sim



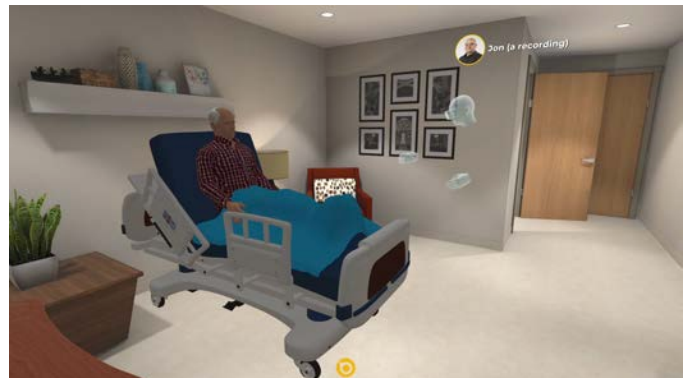
Exam Rooms



Neonatal



Assisted Living



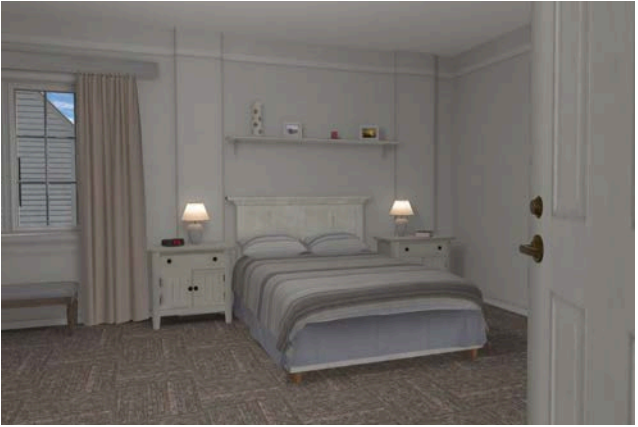
Long Term Care



Suburban Residential



Suburban Residential Interior



Suburban Residential Interior



Classroom



Simulation Hall



Downtown 1



Downtown 2



Condo Interior



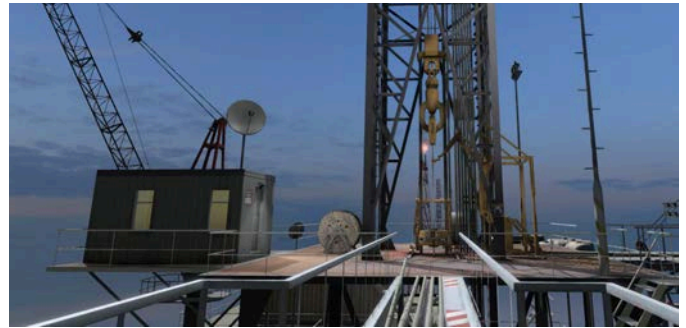
Old Farmhouse with Interior



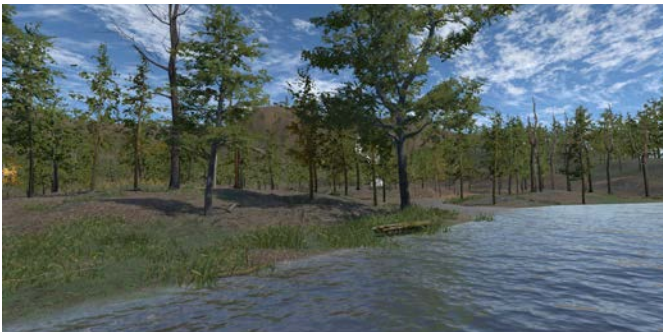
Office Interior



Industrial Shop



Oil Rig



Forest Lake and Meadow



Warehouse



Beach Pavilion



Soccer Stadium



Mars



Space Pavilion

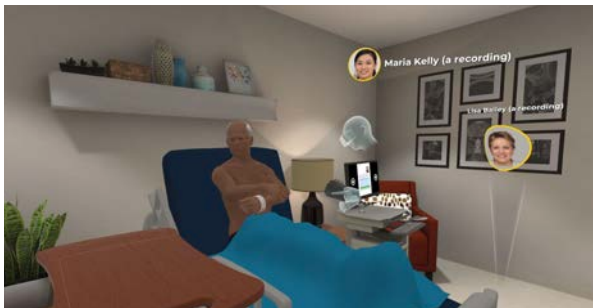
Featured Simulations

As new content is added to Acadicus, it becomes immediately available to all users.



Birthing Simulator

Many of the OER OpenRN cases feature this content ([learn more here](#))

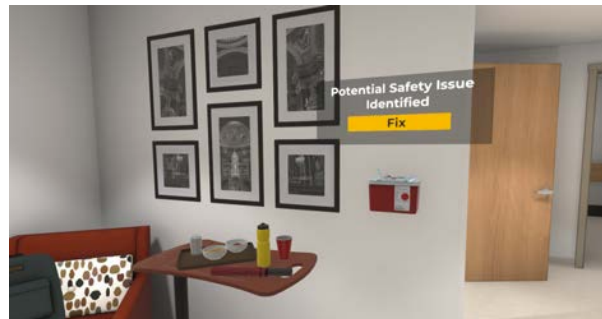


Administering Cardiac Medications to a Patient with Dementia

An OpenRN Scenario

Miles Johnson is an 87 year old resident of Shady Acres rehabilitation facility. He has a past medical history of dementia, hypertension, atrial fibrillation, and chronic renal failure.

Students must perform appropriate assessments prior to safely administering cardiac medication while also communicating therapeutically with a patient with dementia.



Addressing Safety Hazards

An OpenRN Scenario

Students must identify and resolve safety hazards in Miles' room while also communicating therapeutically with him.



Caring for a Pediatric Patient Experiencing Pain

An OpenRN Scenario

Ella Peterson is a seven-year-old patient who underwent a tonsillectomy this morning. She tolerated the surgery well but could not swallow fluids during the post-op recovery period, so was admitted for overnight observation until she can swallow fluids and food. Ella has been sleeping since being admitted. Her mother was at Ella's bedside all day, but recently went home to care for Ella's siblings. The student should assess Ella for pain and safely perform interventions to manage her pain while communicating therapeutically.

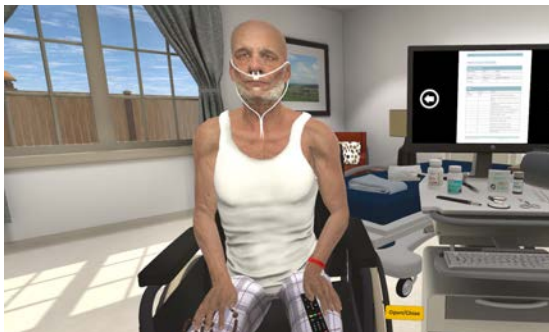


Caring for a Client with Chronic Heart Failure

An OpenRN Scenario

Hector Fernandez is a 62 year-old Hispanic male recently admitted to a long term care facility due to recent falls. He has a history of chronic heart failure.

Students must assess Hector while communicating therapeutically regarding his concerns. Any new or unexpected findings should be communicated to the provider and cardiac medications administered safely.



Administering Nitroglycerin to a Client with Chronic Angina

An OpenRN Scenario

Bjorn McClelland is a resident who was admitted to a Long-Term Care (LTC) setting yesterday. He has a history of chronic stable angina, hypertension, and heart failure. As his morning medications are prepared to be administered, he complains of chest pressure. Students must perform appropriate focused assessments, apply the nursing process, and use clinical judgment to provide safe, effective care.



Alcohol Withdrawal

An OpenRN Scenario
(currently in development)

Students assess a patient withdrawing from alcohol in a Medical Surgical hospital unit and appropriately administer medication based on a CIWA (Clinical Institute Withdrawal Assessment for Alcohol) protocol.



Cirrhosis and GI Bleed



Congestive Heart Failure



PPE



Respiratory Therapy



End of Life



ECG Lead Placement



Foley Catheter Placement



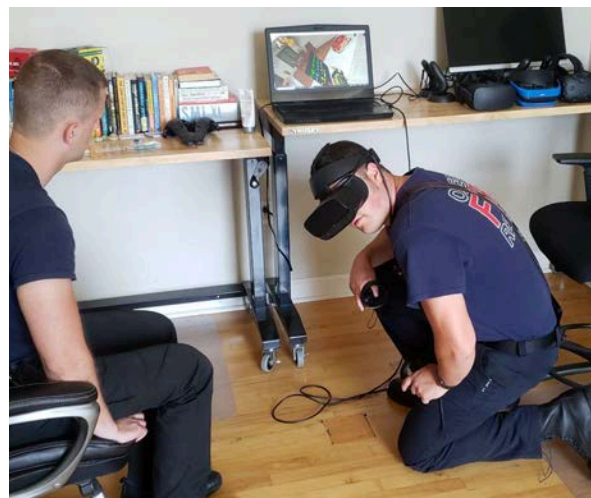
Lumbar Puncture



Dynamic Cardiology

Staged within a residential environment, the Dynamic Cardiology scene template includes 'Miles', a patient configured with a Simulation Manager used by facilitators to manipulate patient vital signs and animations.

Miles' wife Karen is standing in the kitchen. Interactivity includes a defibrillator with pads, BVM, IV, blood pressure cuff and more.

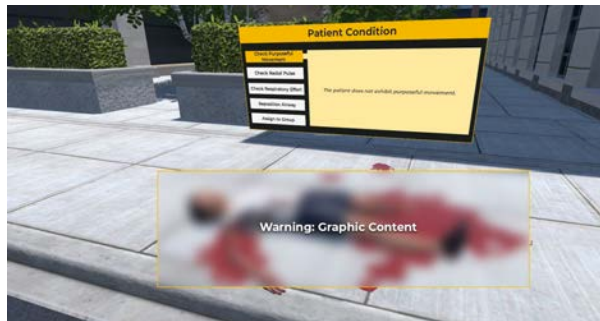




Multiple Casualty

The goal of the virtual MCI content is to provide a demo scenario enabling users to triage severely injured patients following a series of explosions.

This pack also includes firefighters, police officers, an ambient soundboard, an ambulance with scene lights and a siren, an interactive triage board, and more.





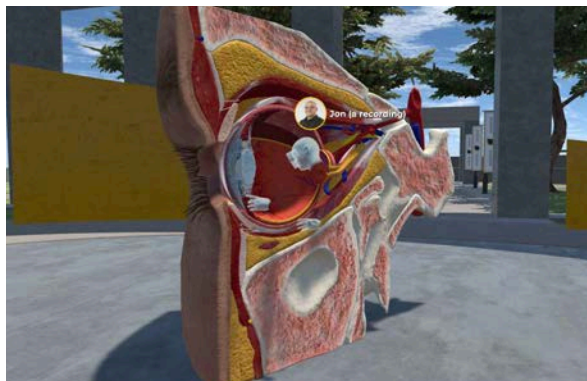
Interactive Skull Visualizer



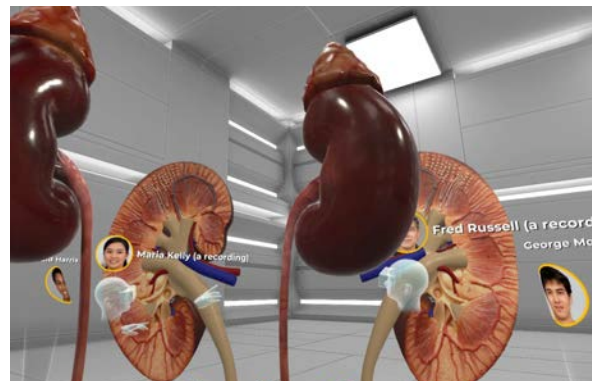
Skeletal Visualizer



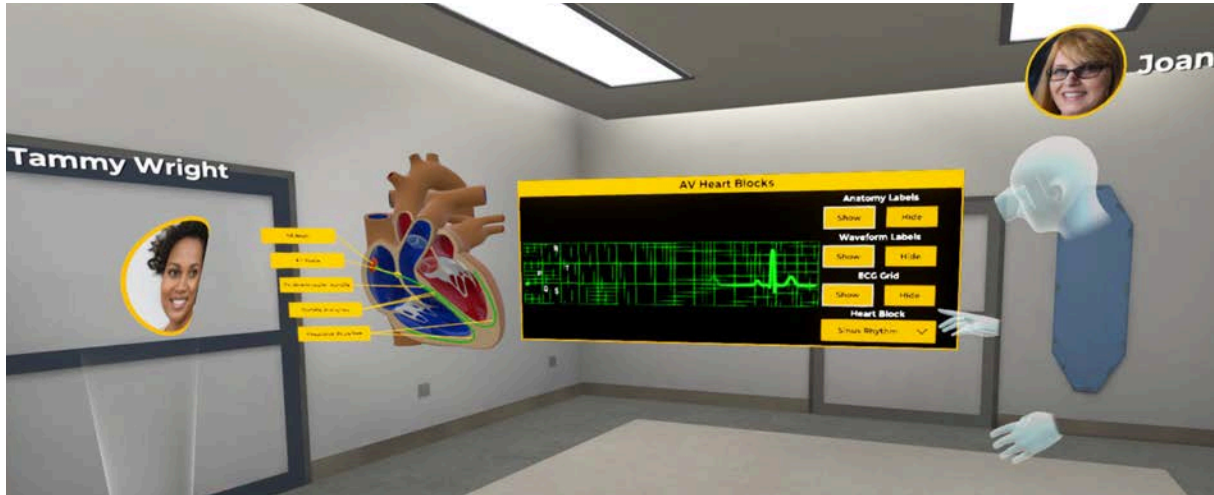
Muscle Visualizer



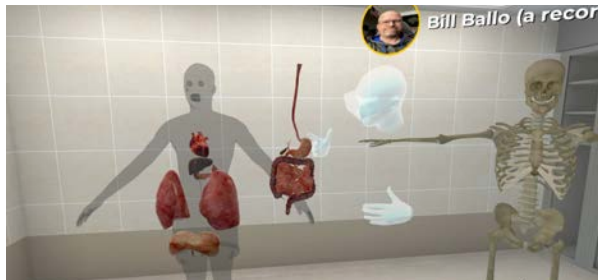
Eye



Kidneys



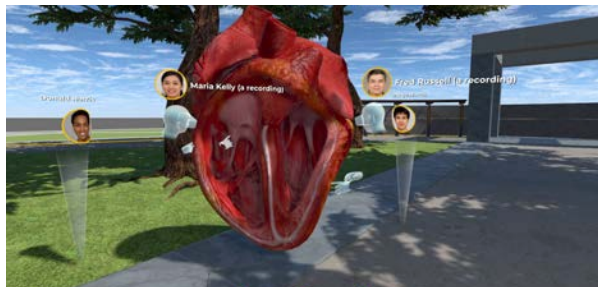
Heart Block Visualization



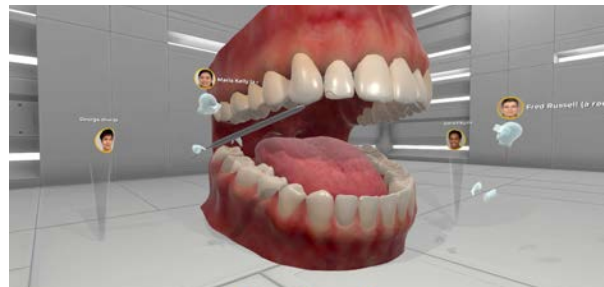
Interactive Organs



Skin Surface



Animated Heart



Dental Anatomy



Molecular



Brain

Thank You!



Visit the [Academic Website](#)

Contact Us at info@academic.com to request a Quote, or to ask questions.

Submit a support email: support@academic.freshdesk.com

Learn more: [FAQ](#)

Join us: [Discord Community](#)

See content in action on episodes of the [Academic Simulation Pulse](#).