Brochure

# ANATOMY TABLE


MEDICAL·X
ADVANCING SIMULATION

Product code: AT0001

Version **202511**

MEDICAL-X
ADVANCING SIMULATION

# Anatomy Table

## Interactive Anatomy Learning Platform

The **MEDICAL-X Anatomy Table** is designed to transform anatomy education through immersive, hands-on visualization.

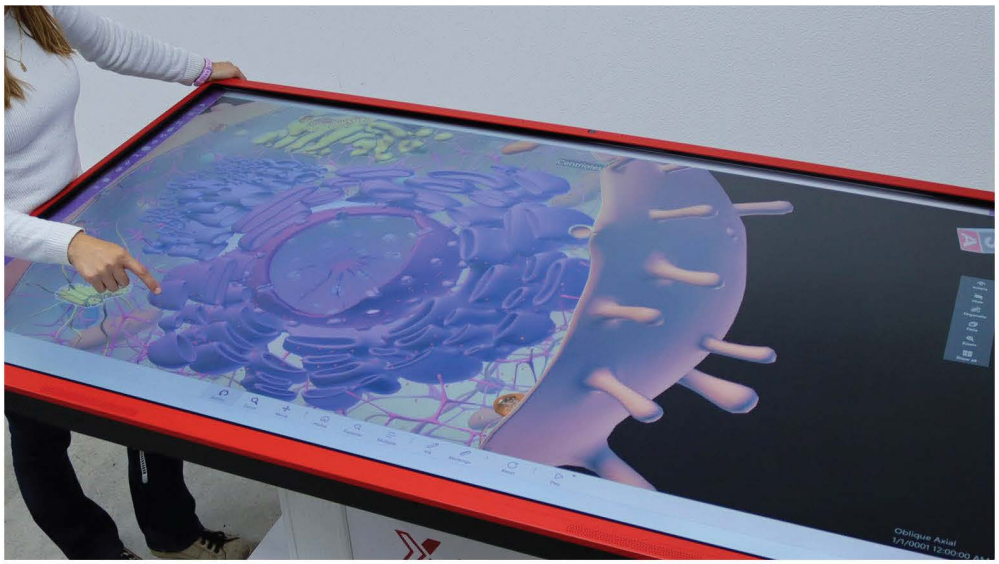
It features a large **75” touchscreen display with 4K UHD resolution and wide viewing angles**, delivering exceptional image clarity and precision for medical students, educators, and professionals.

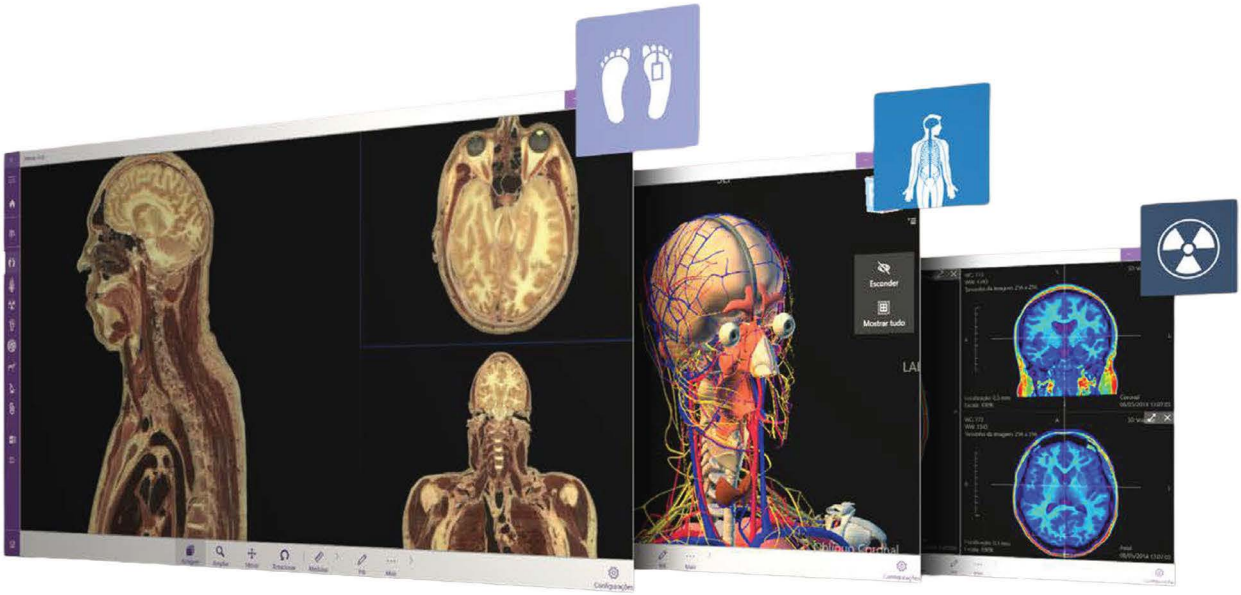
The ultra-high-resolution display brings anatomical structures and medical datasets to life, allowing users to explore every detail in stunning visual fidelity.

Built with flexibility and comfort in mind, the **motorized stand** allows for **height and tilt adjustments**, providing an ergonomic and personalized viewing experience. **Lockable 360° wheels** ensure smooth mobility and secure positioning in any classroom or lab environment.


ATHENA
HUB
Home
Library
Workspaces
MEDICAL-X


MEDICAL-X


Oblique Axial

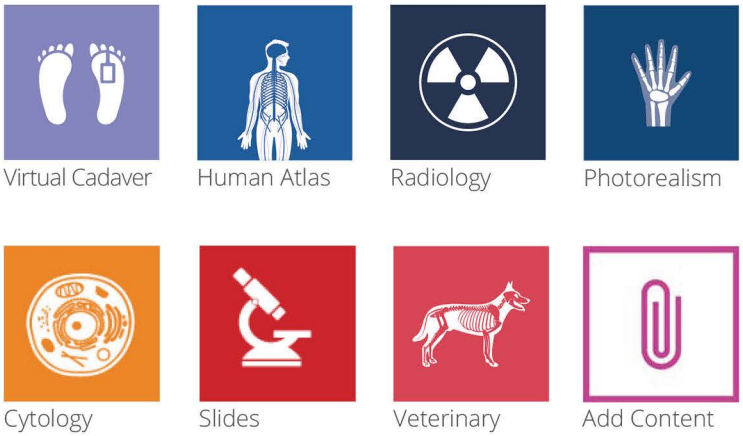


## Anatomy Without Boundaries

The **MEDICAL-X Anatomy Table** comes equipped with **Athena Hub**, the most comprehensive platform for anatomical study on the market.

Athena Hub includes a **complete Human Atlas**, a **3D Virtual Human Cadaver**, and an **Animal Anatomical Atlas** featuring eight species, all with systems and structures identified in four languages: Portuguese, English, Spanish, and Latin.

The platform also features a **Radiological Workstation** with a **Photorealism Module**, offering human and animal radiological study cases for enhanced visualization. In addition, it includes a **Cytology Module**, **Slide Visualization**, and supports the **import of diverse media**, including images, videos, documents, and DICOM files, enabling comparative analyses and presentations with just one click.




**Languages**

Interface, Atlas (Human and Veterinary), Virtual Cadaver, and Cytology:

FIPAT – Federative International Programme for Anatomical Terminology

TAP – Pan American Anatomical Terminology

SBA – Brazilian Society of Anatomy Terminology

*Latin*
FIPAT – Federative International Programme for Anatomical Terminology

## Key Features:

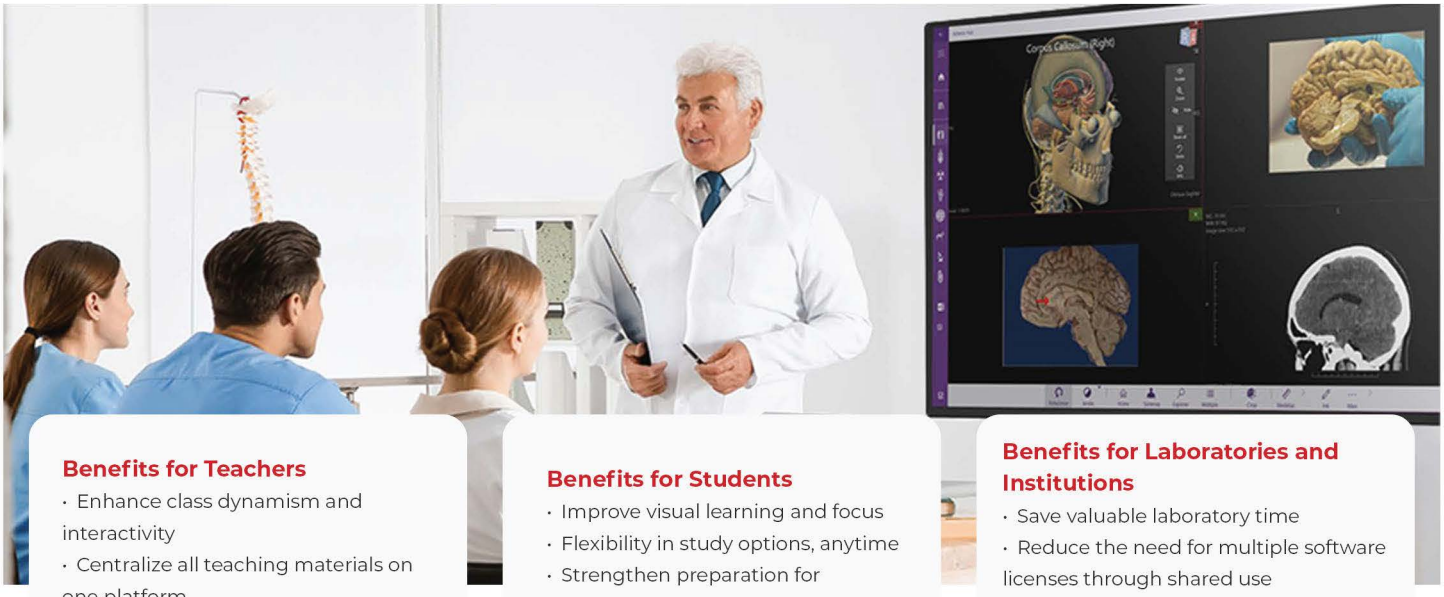
1. **High-Resolution 3D Anatomy Models:** Explore realistic human anatomy with full interactive control.
2. **Layer Dissection & Cross-Section Views:** Peel away skin, muscles, organs, and bones with precision.
3. **Pathology & Clinical Case Integration:** Access authentic medical cases and radiological datasets.
4. **Customizable Learning Modules:** Adapt content for any level - from basic anatomy to advanced medical studies
5. **Collaboration & Multi-User Support:** Enable group learning, remote collaboration, and real-time interaction.
6. **Touchscreen & Gesture Navigation:** Zoom, rotate, and dissect using intuitive multi-touch gestures.


# Athena Hub: A Comprehensive Platform for Anatomy Education

**Athena Hub** is an advanced and intuitive platform designed for detailed exploration of the human and animal body through three-dimensional and planar images.

It enables users to **import DICOM files** and a variety of other media, including videos, audio, documents, and images, and make **annotations directly on the screen** for enriched study sessions and case discussions.

Users can also **export data, images, screenshots, audio, and custom reports** (in Word format). All activities can be saved in **Workspaces**, which include titles and descriptions, and can be organized by anatomical systems or regions. From the Workspaces panel, users can manage, export, duplicate, delete, or import saved sessions locally, ensuring full flexibility for teaching and learning.



### Benefits for Teachers

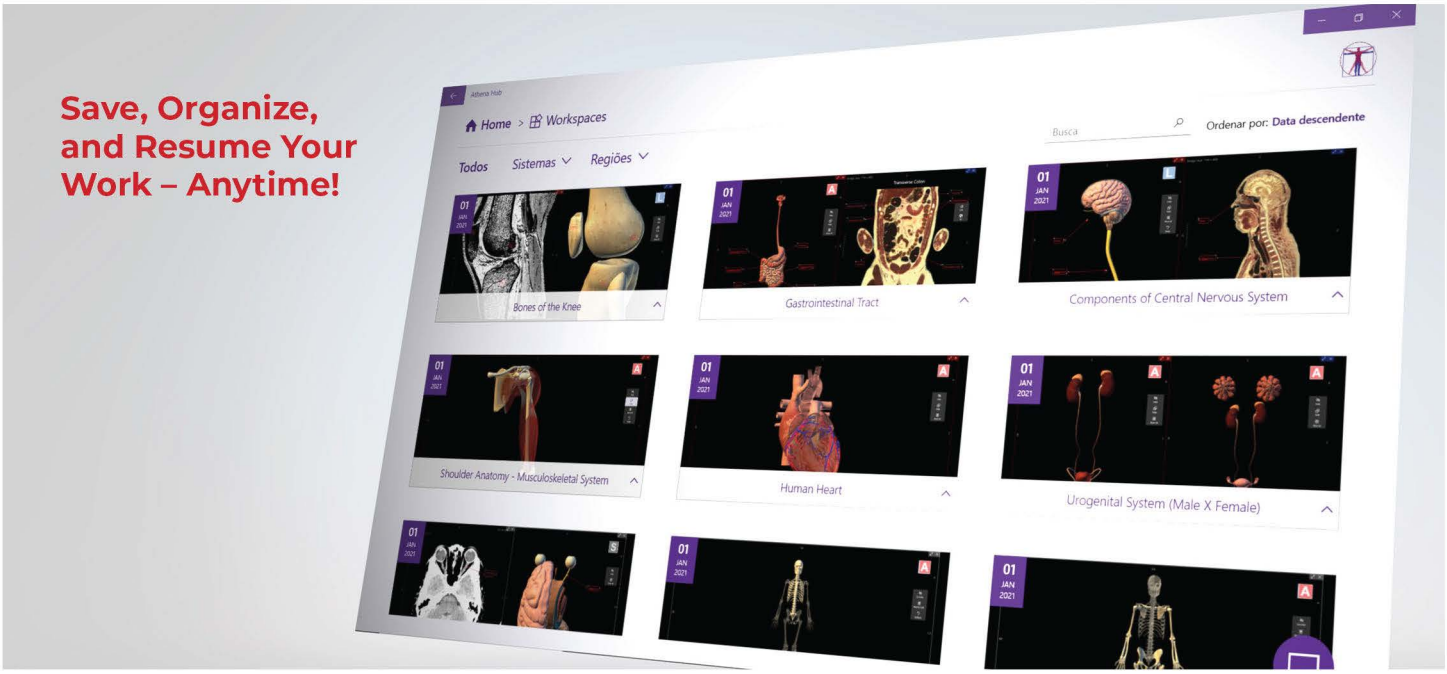
- Enhance class dynamism and interactivity
- Centralize all teaching materials on one platform
- Easily share and promote case studies
- Encourage student engagement through active learning methodologies
- Prepare students effectively for clinical practice

### Benefits for Students

- Improve visual learning and focus
- Flexibility in study options, anytime
- Strengthen preparation for anatomical and clinical practice
- Build emotional readiness for patient care
- Gain opportunities for simulated practice before real clinical execution

### Benefits for Laboratories and Institutions

- Save valuable laboratory time
- Reduce the need for multiple software licenses through shared use
- Compensate for cadaver scarcity with virtual dissection
- Decrease expenses related to preserved specimens
- Support student retention by enhancing learning engagement




## Workspaces

**Workspaces** is one of the latest features of Athena Hub, allowing users to save their visualization states and create personalized classes, notes, guided studies, and projects.

With this tool, teachers and students can **resume exactly where they left off**, ensuring a seamless learning experience.

Workspaces include a **comprehensive search engine**, enabling users to locate content by title, date, anatomical region, or system. Saved sessions can be exported and imported locally, making it easy to share studies with other Athena Hub users.

The system also includes a set of example Workspaces that can be edited, deleted, or customized to create new learning materials and visualizations.

**The MEDICAL-X Anatomy Table** with Athena Hub is a versatile solution designed to support medical education, clinical practice, and research. Its combination of high-fidelity visualization and interactive features makes it suitable for a wide range of learning and professional environments.

## Applications

### Health education

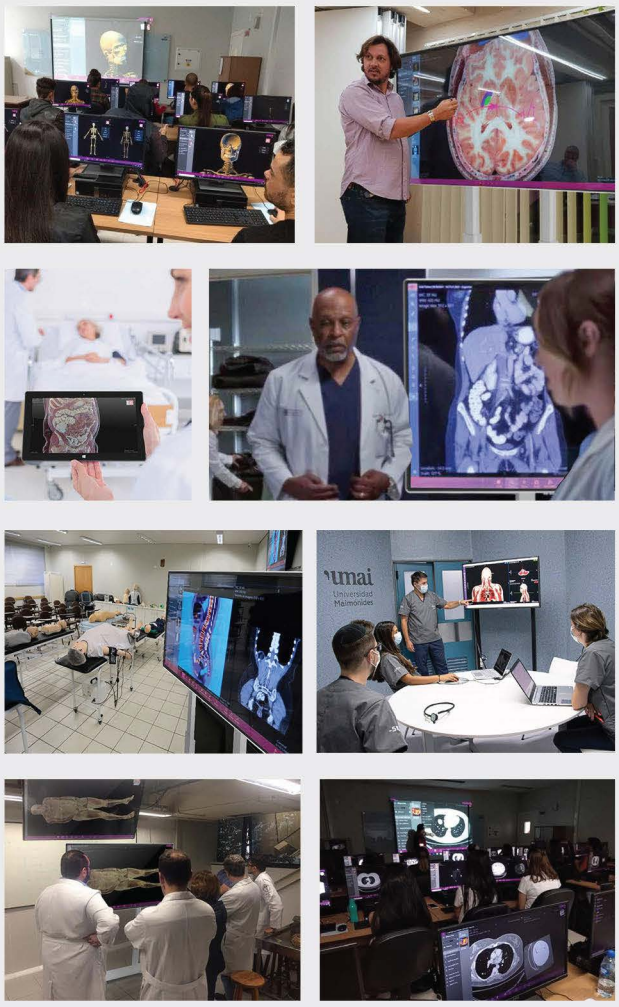
Ideal for:
- Universities and medical schools
- Technical and nursing programs
- Educational and research institutions

The Anatomy Table enhances anatomy and radiology classes, student training, lectures, and demonstrations. With access to DICOM images, a 3D Interactive Human Atlas, and a Virtual Cadaver, educators can provide engaging and immersive lessons across all health-related disciplines.

### Surgical Planning

Ideal for:
- Hospitals
- Clinics
- Conference rooms

An excellent tool for case discussions, pre- and post-surgical planning, and collaborative medical review. Surgeons and specialists can analyze, visualize, and present patient studies with precision.



### Clinical practice

Ideal for:
- Healthcare centers and private clinics
- Medical institutions and insurance organizations

Athena Hub enables healthcare professionals to present patient cases in a clear and didactic manner, adding value to medical consultations and enhancing patient understanding.

### Other Areas of Application

Beyond traditional medical education, the platform also supports:
- Nursing
- Legal Medicine
- Physical Education
- Sports Medicine
- Biology and Bioengineering
- Psychology
- Veterinary Medicine
- Research Institutes and Graduate Programs

# Virtual Cadaver

The **Virtual Cadaver** offers an exceptional opportunity to study real human anatomy in high definition.

It presents **color-accurate images and preserved anatomical structures**, replicating the precision and realism of a living human body. Users can **cut, dissect, and explore** internal morphology in detail, adding **custom measurements and annotations** for a deeper learning experience.

The high-resolution imagery provides clear and intuitive visualization of all major anatomical regions — **head and chest, abdomen and pelvis, thighs and knees, legs, and feet** — supporting accurate and engaging anatomy education.


### A Real Body to Study

- Real male human body
- Safe, clean, and cost-efficient alternative to cadaver labs
- High-resolution images with preserved color and structure
- Interactive dissection with labeled tags
- Custom annotations and measurements
- Multiplanar (MPR) and 3D reconstructions
- Complete tomography datase

# Technology Behind the Virtual Cadaver

The Virtual Cadaver was created from a **real human body**, frozen and divided into **1.878 slices**. Each slice was then photographed using **ultra-high-resolution equipment**.

The dataset comprises CT images of the entire body and five series of high-definition RGBA images, including four regional series (head/chest, abdomen/pelvis, thighs/knees, and legs/feet) and one complete-body series.

This module allows **2D and 3D reconstruction** for in-depth visualization of every region of the human body. It includes 3D tissue segmentation with 211 labeled parts, organized according to the International Anatomical Terminology and classified into the following systems: **Skeletal, Muscular, Articular, Nervous, Digestive, Respiratory, and Circulatory**.

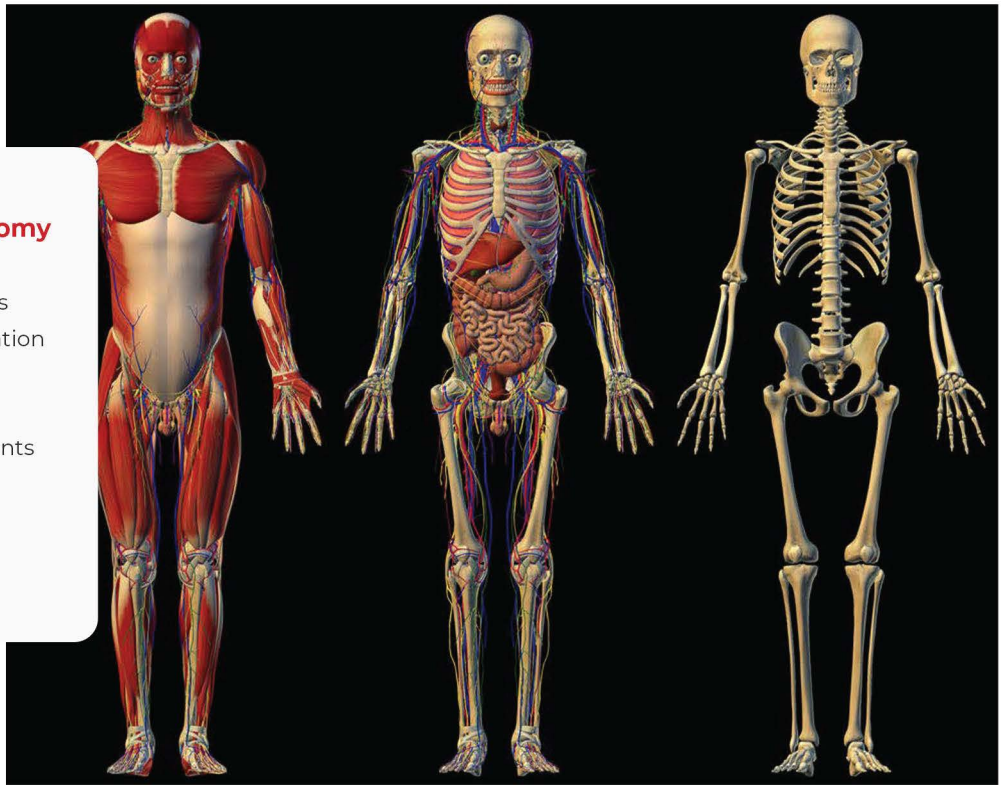
# Human Anatomical Atlas

The **Athena Hub Human Anatomical Atlas** provides a highly interactive and versatile 3D learning experience, featuring over **2.500 anatomical structures**.

Users can navigate the entire human body, search for specific parts or organs, and visualize any system in detail.

Replacing traditional anatomical models, the Atlas provides a **practical, precise, and intuitive alternative** for classroom and laboratory use.

Together with the Virtual Cadaver and Athena Hub's extensive library of medical images, the Human Anatomical Atlas forms a powerful dataset that enhances anatomy lessons, case discussions, surgical planning, and clinical consultations.



### Systemic and Topographic Anatomy

- 3D male and female atlas
- Over 2.500 carefully labeled structures
- High-resolution textures and visualization
- Interactive dissection with tagged structures
- Custom annotations and measurements
- 3D reconstructions
- Advanced search and filtering tools
- Available in four languages

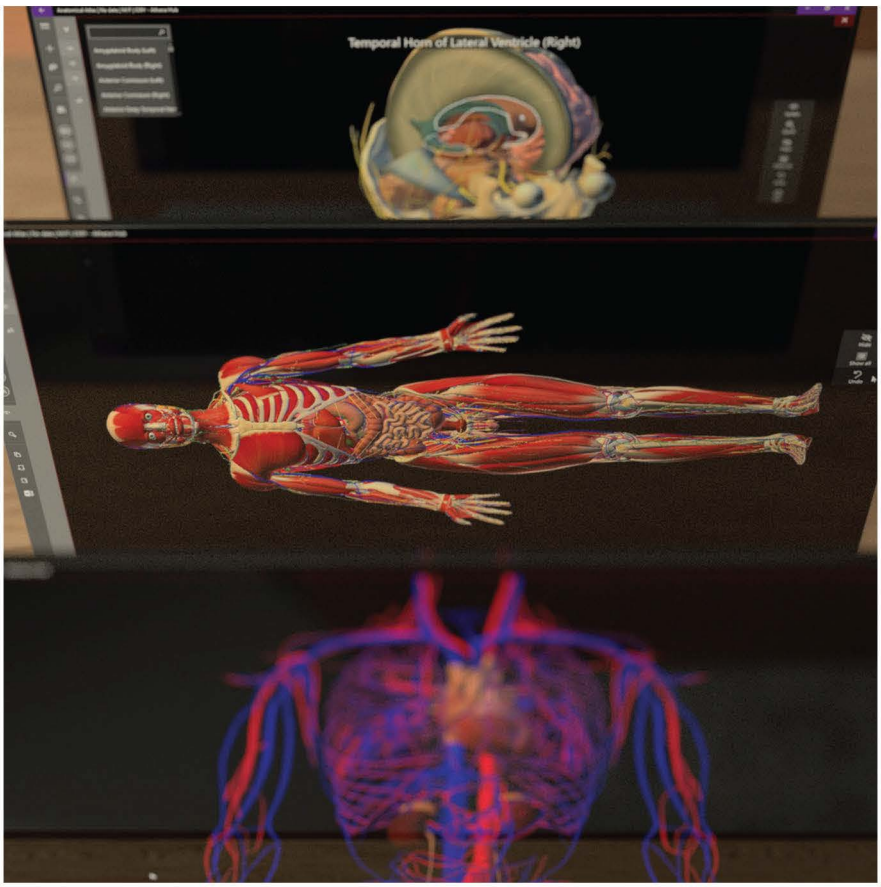
# Comprehensive Structure and Organization

The **Human Anatomical Atlas** is divided into **12 anatomical systems** and **9 regional areas,** each designed for detailed study.

**Anatomical Systems:** Integumentary, Muscular, Skeletal, Articular, Nervous, Lymphatic, Digestive, Respiratory, Arterial, Venous, Endocrine, and Urogenital.

**Anatomical Regions:** Head and neck, right upper limb, left upper limb, back, chest, abdomen, pelvis, right lower limb, and left lower limb.

Each anatomical part displays its name in **Portuguese, English, Spanish, and Latin**, which can be viewed by simply clicking the area of interest. Descriptive texts based on the **latest anatomy references** are also available through the “Info” button, supporting deeper understanding and context during study.



# Radiology

The **Athena Hub Radiology Module** transforms the MEDICAL-X Anatomy Table into a **complete radiological workstation**, supporting most medical imaging data and offering interactive 3D renderings with exceptional detail and clarity.

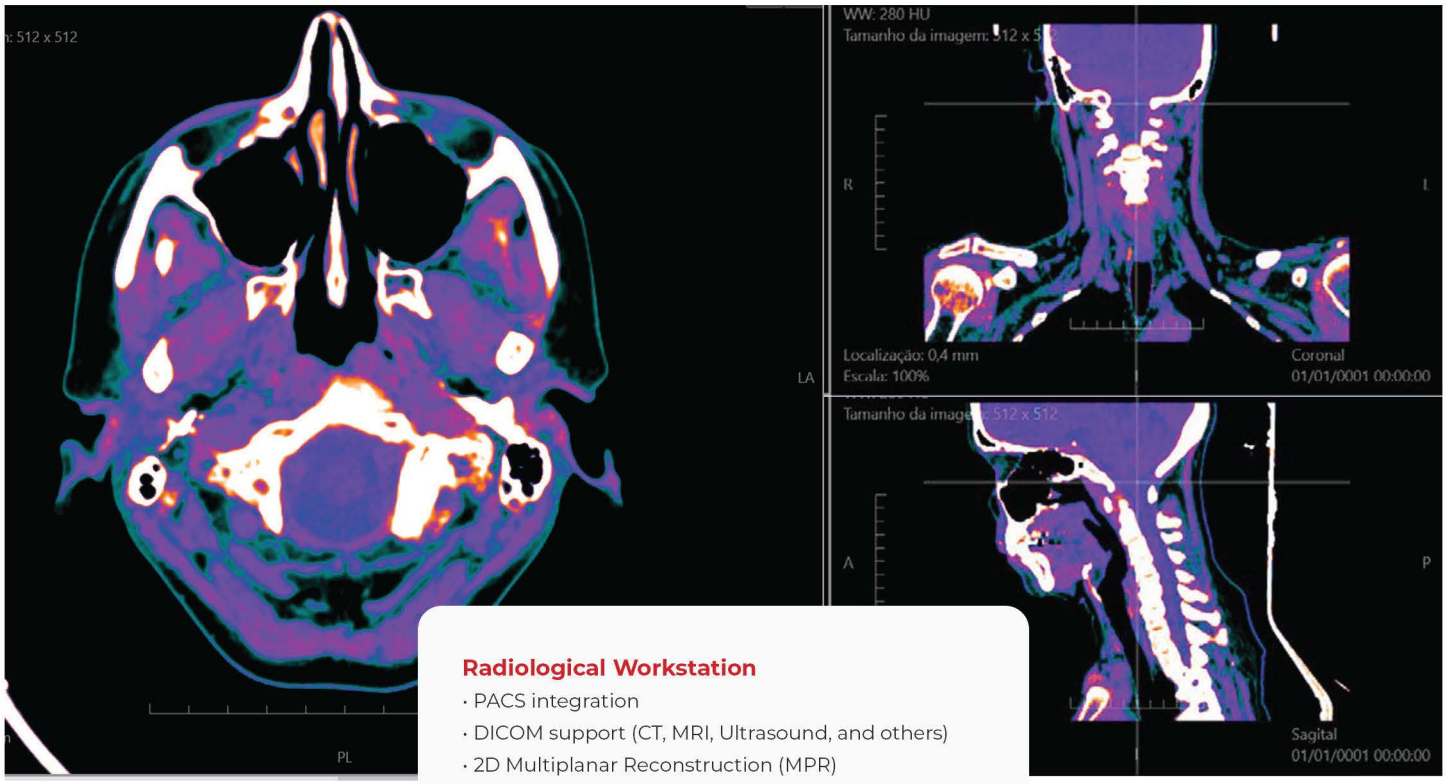
Whether using your own scans or exploring the platform's digital case library, Athena Hub enables **intuitive visualization and manipulation of medical images**, enhancing radiology education, pathology studies, and clinical review.

# Comprehensive Radiology Workstation

This module provides a powerful **DICOM image viewer** with advanced tools for analyzing and managing radiological studies.

It also includes access to the Medical Harbour Knowledge Base, a vast repository containing hundreds of DICOM studies and over 40.000 images from various modalities, such as **Computed Tomography (CT), Magnetic Resonance Imaging (MRI)**, and **X-ray**.

Every installation includes three complete DICOM studies with nearly 1.000 images, allowing immediate exploration and training.




**Radiological Workstation**

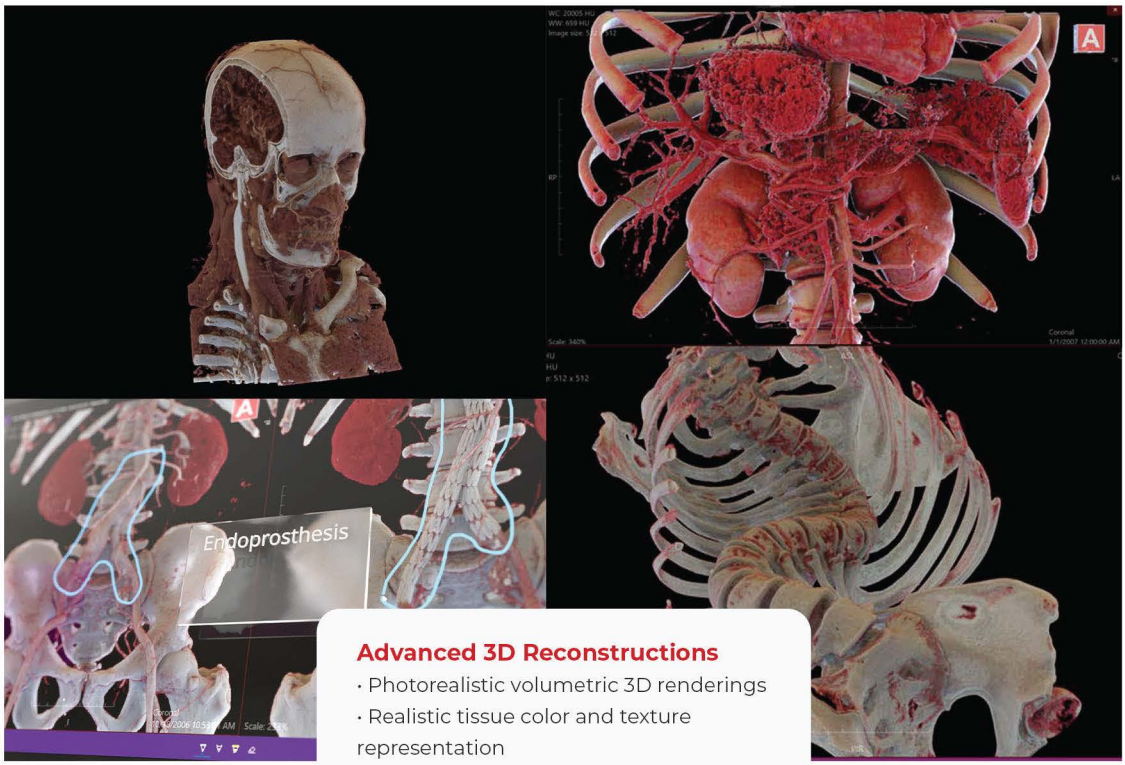
- PACS integration
- DICOM support (CT, MRI, Ultrasound, and others)
- 2D Multiplanar Reconstruction (MPR)
- Non-orthogonal MPR
- 3D visualization (Volumetric, Iso-Surface, MIP, X-Ray)
- Color filters (CLUT)
- Window and contrast customization
- Comprehensive annotation tools
- Column measurement and labeling
- Report generation and printing
- Direct clipboard sharing

# Photorealism

The **Photorealism Module** provides a powerful 3D volumetric reconstruction tool, designed to analyze CT scan data with exceptional detail. Using advanced rendering algorithms, it generates **highly realistic three-dimensional representations** that provide true depth, texture, and spatial understanding far beyond standard 3D volume visualization.

This technology enables users to virtually manipulate, segment, and dissect anatomical regions, providing a realistic view of tissues and structures — much like examining a living specimen.

It can be used in both **educational** and **clinical** contexts, supporting anatomy instruction, radiology training, and detailed diagnostic exploration without the need for invasive procedures.




**Advanced 3D Reconstructions**

- Photorealistic volumetric 3D renderings
- Realistic tissue color and texture representation
- Interactive dissection and segmentation tools
- Adjustable window presets for optimal visualization
- Isolate and hide options for targeted study
- Comprehensive notes and measurements
- Advanced transfer functions for enhanced image processing

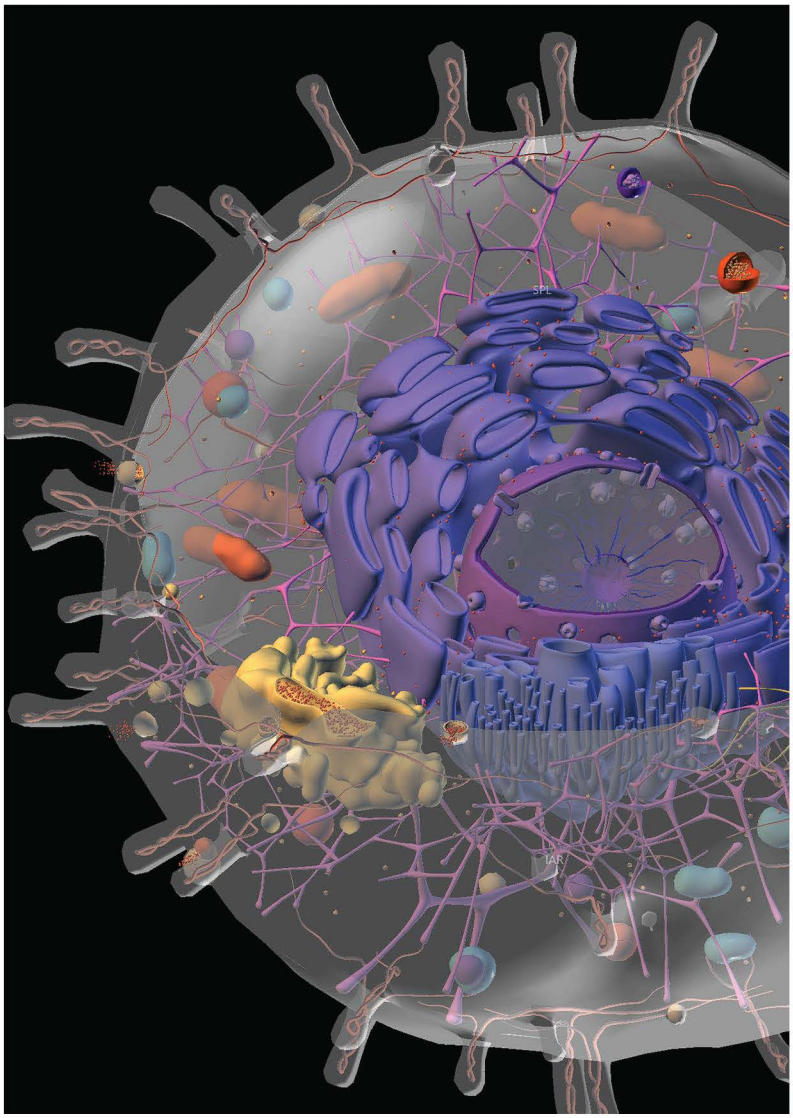
# Cytology

The **Cytology Module** allows users to explore and interact with **3D models of animal eukaryotic cells,** offering a detailed view of cellular structures and processes. It also includes **three-dimensional animations** illustrating key biological mechanisms, such as molecular transport across the plasma membrane.

Each structure can be displayed with **multilingual nomenclature in Portuguese, English, and Spanish**, supporting learning in diverse educational settings.

### Plasma Membrane and Organelles

- 3D visualization of cellular structures
- Animal cell model featuring 39 components
- Mitochondrion model with 8 components
- Plasma membrane model with 12 components
- Demonstrations of molecular transport mechanisms
  - Simple diffusion
  - Facilitated diffusion
  - Sodium-potassium pump
  - Co-transport
  - Counter-transport

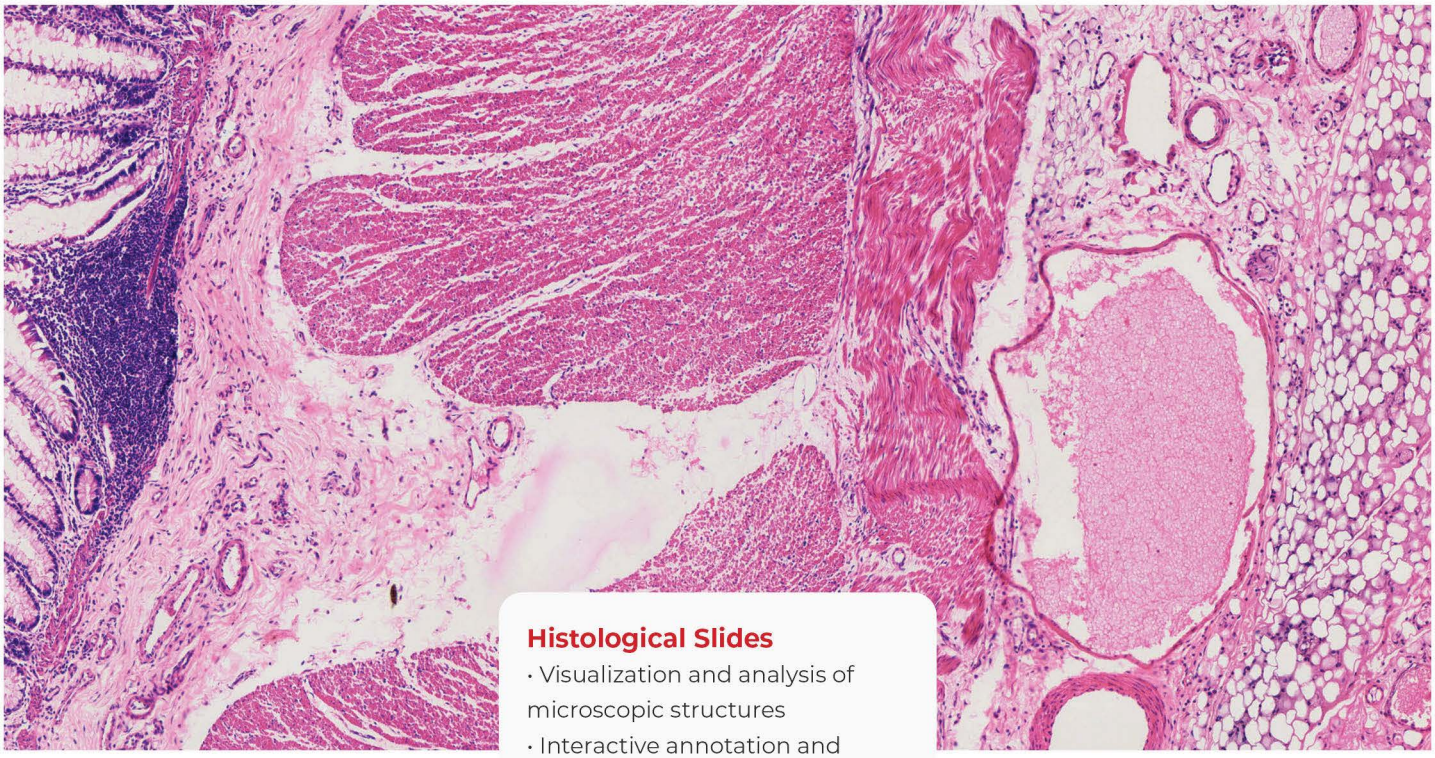


# Slides

The **Slides Module** provides access to an extensive collection of **histological slide images** available for download in JPEG format through the **MH PACS Cloud** (for demonstration purposes only).

It also features an **interactive annotation tool** compatible with **Microsoft Ink**, offering a variety of color and brush options for marking and highlighting key structures.

This module is ideal for teaching **microscopic anatomy and histopathology**, allowing users to analyze glands, organs, tissues, and systems directly on the screen — with the ability to take notes, draw, and compare samples side by side.



**Histological Slides**

- Visualization and analysis of microscopic structures
- Interactive annotation and note-taking tools
- Wide selection of slides covering glands, organs, tissues, and systems
- Includes normal and pathological samples

*To purchase this module, consult our sales team for more information.

# Everything Together and More!

The **Athena Hub** is the **only system in the world** that allows multiple modules to be opened **simultaneously**.

This **mosaic feature** enables seamless comparison and analysis of various datasets, including the Anatomical Atlas, Virtual Cadaver, and Radiological Images, all on a single screen.

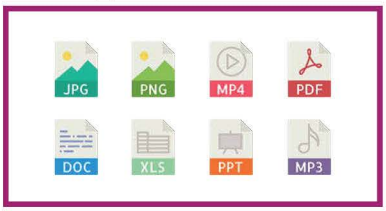
Educators, students, and professionals can **view, manipulate, and compare** diverse resources side by side, combining 3D anatomical visualization, radiological studies, and histological slides in real time.

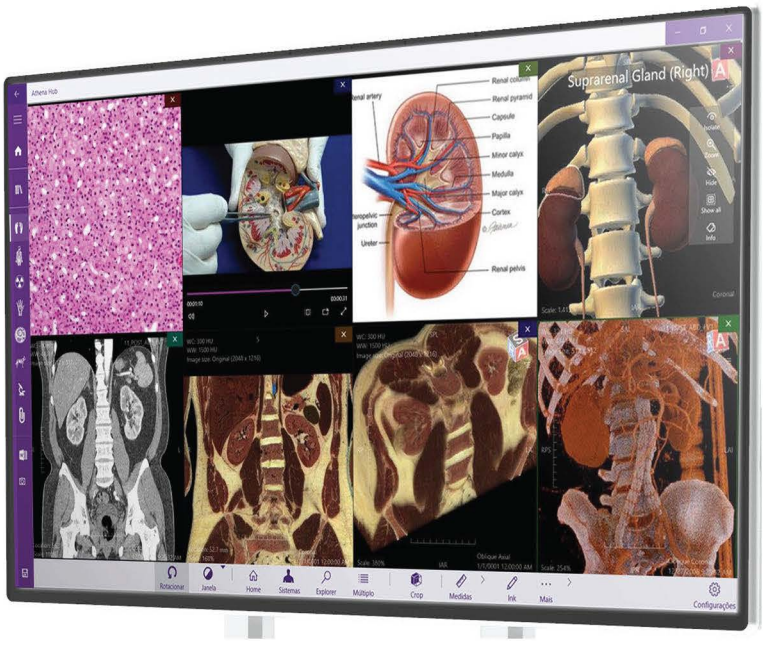
This powerful multi-view environment transforms the way anatomy and medicine are taught, offering a comprehensive perspective that connects structure, function, and pathology in a single interactive space.

Ideal for **lectures, classrooms, anatomy labs**, and **clinical discussions**, this feature enhances engagement and fosters a deeper understanding through integrated visualization.

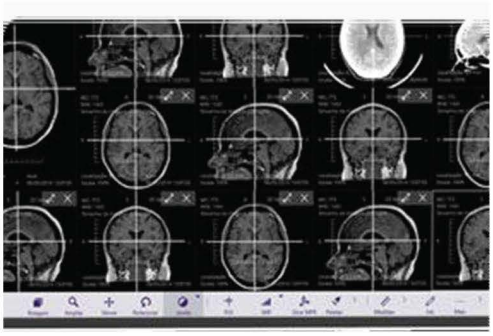
*The Only System in the World with Simultaneous Opening!*

Supported File Formats



# Clinical Cases

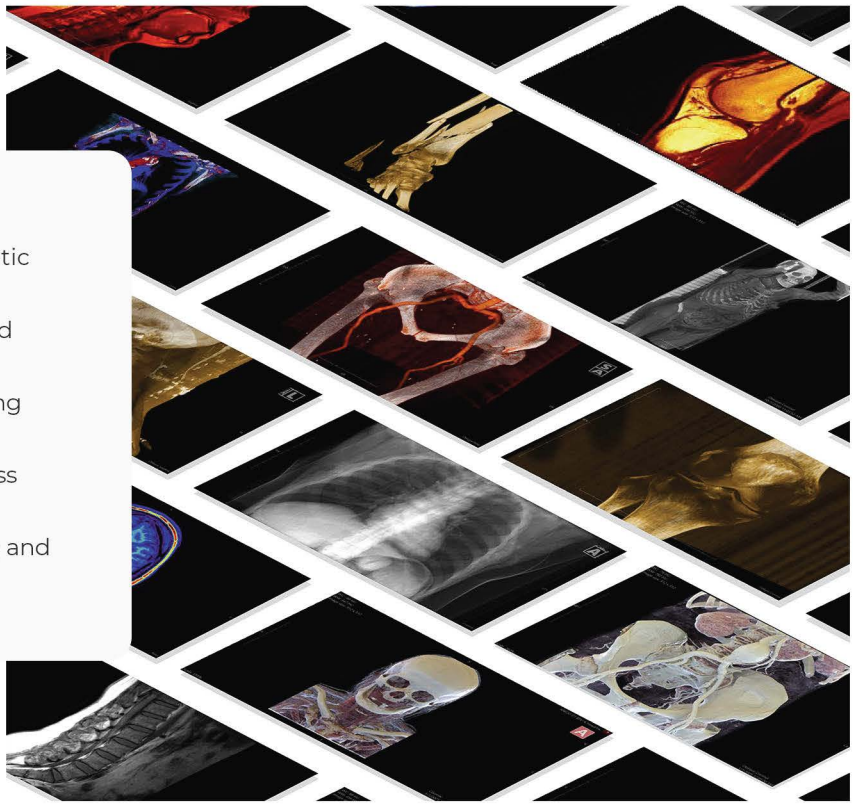


The **Clinical Cases Module** expands the Athena Hub experience beyond anatomy by integrating real-world medical data.

It includes **hundreds of clinical** cases across various **DICOM imaging modalities**, along with a library of pathologies for in-depth exploration and teaching.

This digital resource allows students and healthcare professionals to **study both normal and pathological anatomy**, manipulate real imaging exams, and make annotations directly within the system.

By bridging the gap between anatomy and clinical medicine, the Clinical Cases module supports a more complete understanding of human health and disease.



**Key Benefits**

- Access a wide range of authentic clinical cases and pathologies
- Explore anatomy in normal and altered (pathological) states
- Manipulate real DICOM imaging data interactively
- Annotate, compare, and discuss findings within the platform
- Enhance diagnostic reasoning and applied anatomy learning

# Veterinarian

The **Athena Hub Veterinary Module** is a comprehensive and versatile tool for **veterinary anatomy and imaging education.**

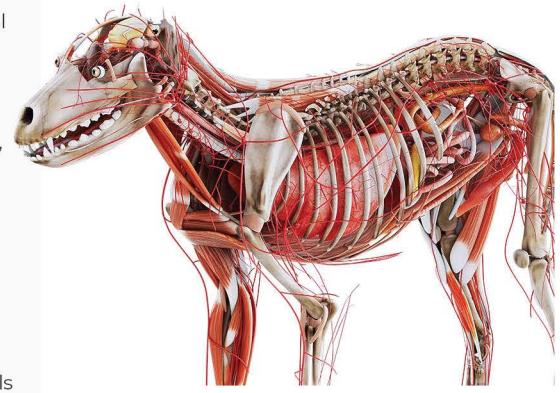
It combines advanced visualization features with interactive functionality, supporting the study and comparison of anatomical and radiological data from multiple animal species.

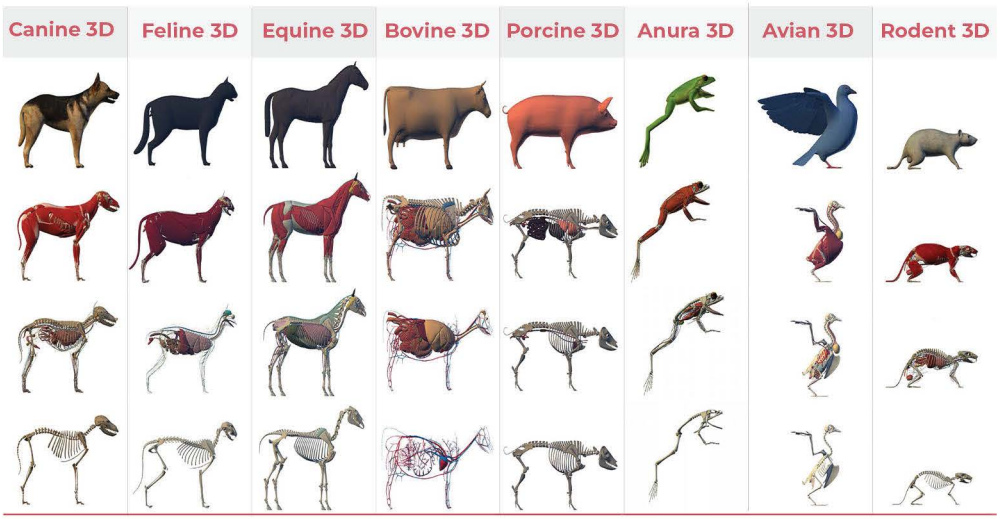
This module includes a complete **3D Anatomical Atlas of eight species,** each with all systems and structures clearly identified and labeled.

It also supports **DICOM imaging** from any modality, making it a valuable asset for veterinary schools, clinics, and research institutions.


**All-in-One for Veterinary**

- Anatomical atlas covering eight animal species
- All systems and structures labeled in detail
- DICOM mode with support for CT, MRI, and Ultrasound
- PACS integration for easy image management
- 2D Multiplanar Reconstruction (MPR)
- 3D visualization (Volumetric, Iso-Surface, MIP, X-Ray)
- Color filters (CLUT)
- Full annotation and measurement tools
- Report generation and printing option





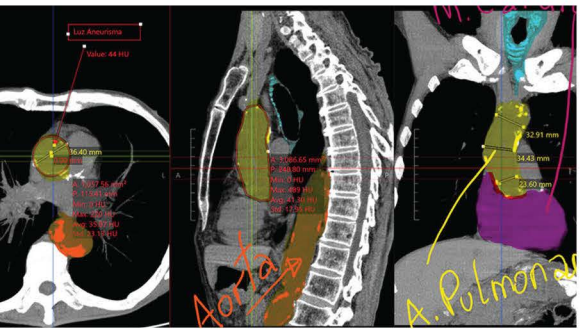
# Athena Hub General Features

The **Athena Hub platform**, integrated into the **MEDICAL-X Anatomy Table**, offers an intuitive and interactive experience designed to enhance learning, teaching, and clinical visualization.

Every function has been developed to support dynamic, engaging, and accurate study of human and animal anatomy.

## Intuitive Interaction

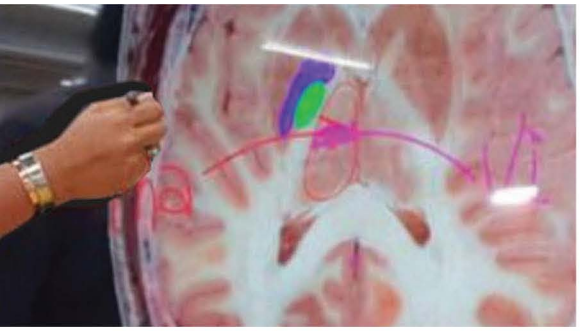
Everything you need is right at your fingertips.
Interact naturally using **touch gestures** or a **digital pen** — rotate, zoom, dissect, or navigate within structures effortlessly.
This intuitive design significantly shortens the learning curve, making users feel immediately comfortable with the system.




## Notes and Measurements

Beyond Microsoft Ink compatibility, Athena Hub offers a comprehensive annotation toolkit, including lines, arrows, angles, areas, and shapes (such as ellipses, rectangles, and freehand drawing).
Users can also apply **Hounsfield scale values** and perform **precise measurements**, enabling detailed analysis of anatomical and radiological data.

## Content Creation and Drawing Tools

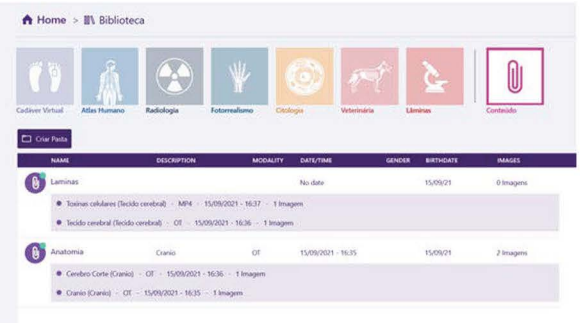


Athena Hub integrates seamlessly with a **Microsoft Ink-compatible** stylus, offering customizable drawing tools, color palettes, and a virtual ruler.
These features allow educators and students to create visual notes, highlight structures, and illustrate findings directly over images or 3D models.

## Access Control

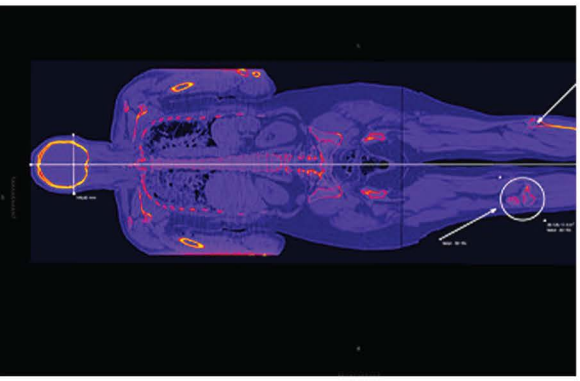

A **user profile management system** allows secure access for multiple users, ensuring that classes, studies, and personal projects remain separate and organized when using the same device.

## Class Assembly




Capture key images, take notes, and organize content for future presentations.
All created classes can be automatically stored in the **Athena Hub cloud service**, allowing educators to prepare, share, and access materials at any time.

*Contact us for plan details.



## Content Sharing

Generate complete reports in multiple formats — including native files, **PDF**, and **DOC**.
Reports can include automatically generated annotations, headers, and footnotes by the Athena Hub engine, making it easy to print, export, or share study materials with colleagues or students.

MEDICAL-X
ADVANCING SIMULATION

# Specifications

## GENERAL

Screen Size: 75”

Resolution: 3840 (H) × 2160 (V) – 4K UHD

Aspect Ratio: 16:9

Touchscreen: 20-point IR touch

Camera & Microphone: 13 MP camera with 8-array microphone

Speakers: 2 × 15W high-fidelity speakers

Processor: Ultra-performance CPU

Graphics & Cooling: Discrete GPU with advanced cooling and integrated panel design

Power Supply: Built-in UPS box for uninterrupted operation

Warranty: 2 years

## HARDWARE

Operating System: Windows 11 Pro

Processor (CPU): AMD Ryzen™ 7 8700G (8 cores / 16 threads)

Memory (RAM): 32 GB DDR4

Storage: 1 TB SSD

Graphics (GPU): AMD Radeon™ 780M (12 cores)

Connectivity:

- Bluetooth 5.0
- Dual-band Wi-Fi (2.4G / 5G)
- RJ45 Ethernet 2.5 Gbps

## AUTOMATED H/V TABLE SYSTEM

Motorized rotation from 0° to 90° (horizontal to vertical position)

Height and tilt adjustment with electric motor and actuator

360° mobility with lockable wheels

Wired and wireless remote controls included

Constructed from high-quality, durable materials

## ACESSORIES

Anatomy Table Remote Control ×1

Smart Pen ×1

Automated Table Remote Controls ×2

3-in-1 wooden shipping box (air-freight ready)

## Contact us

### Headquarter & Factory

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### Brazil office

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### Support

Contact us at:

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info@medical-x.com

## Warranty

This product is covered by a 2-year warranty against manufacturing defects. If a defect occurs within this period, MEDICAL-X will repair or replace the defective item at no additional cost. For warranty claims, proof of purchase and detailed documentation of the defect are required. Please contact our customer support team for assistance.

## Disclaimer

The warranty does not cover damages resulting from misuse, improper handling, or unauthorized modifications. The warranty does not include normal wear and tear, including discoloration or material degradation due to repeated use. MEDICAL-X assumes no liability for improper usage or failure to follow the product's instructions.


## About MEDICAL-X

MEDICAL-X is a Dutch company specialized in the design, development, manufacturing, marketing and distribution of simulation products for medical teaching and training. Our mission is to provide healthcare professionals with simulation-based training solutions and cutting-edge technological simulators that are cost-effective and time-efficient to teach and train clinical skills without risk to actual human patients.

### Design philosophy

Realism is the key to our design philosophy! Simulator training gives medical teams the experience, competence, and confidence they desire. Realism adds to the quality and efficacy of training.

Our products are developed through extensive feedback programs to produce an engaging experience for healthcare professionals. Form and function come together in a realistic and interactive simulator, ready to be used in training for all levels of care.

MEDICAL·X

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