ATHENA
HUB

3D Virtual Interactive Platform
# for Anatomical Teaching

A product by

MEDICAL HARBOUR

Borderless Anatomy

Athena Hub is the most complete platform for anatomical study in the market, as it has the 3D virtual Human Cadaver, the complete Human Atlas and the anatomical atlas with 8 animals, including their systems and structures identified in 4 languages (Portuguese, English, Spanish and Latin). In addition, it offers a radiological workstation with a Photorealism module, which includes cases of radiological studies of humans and animals. It also includes Cytology module, Slides visualization and it is even possible to import any type of media to the system to visualize and make comparative studies with only one click.
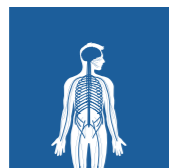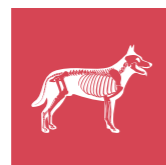
Virtual Cadaver   Human Atlas   Radiology   Photorealism

Cytology   Slides   Veterinary   Add Content

Reducing costs at Universities, complementing laboratory classes with real cadavers

The real cadaver requires constant care and special handling, in addition to having restrictive policies and generating a high maintenance cost with storage and documentation. In the other hand, human body simulators, in addition to being expensive, the anatomical parts are not faithful to reality in their color and texture aspects, which can harm the student in their teaching-learning process. The Athena Hub is the ideal solution as it has a real cadaver fully digitized in 3D, and other modules that complement the anatomical teaching classes.

- Less chemical costs
- Not required special care special care
- Less maintenance expenses
- There is no deterioration
- Does not require structure with ventilation or storage
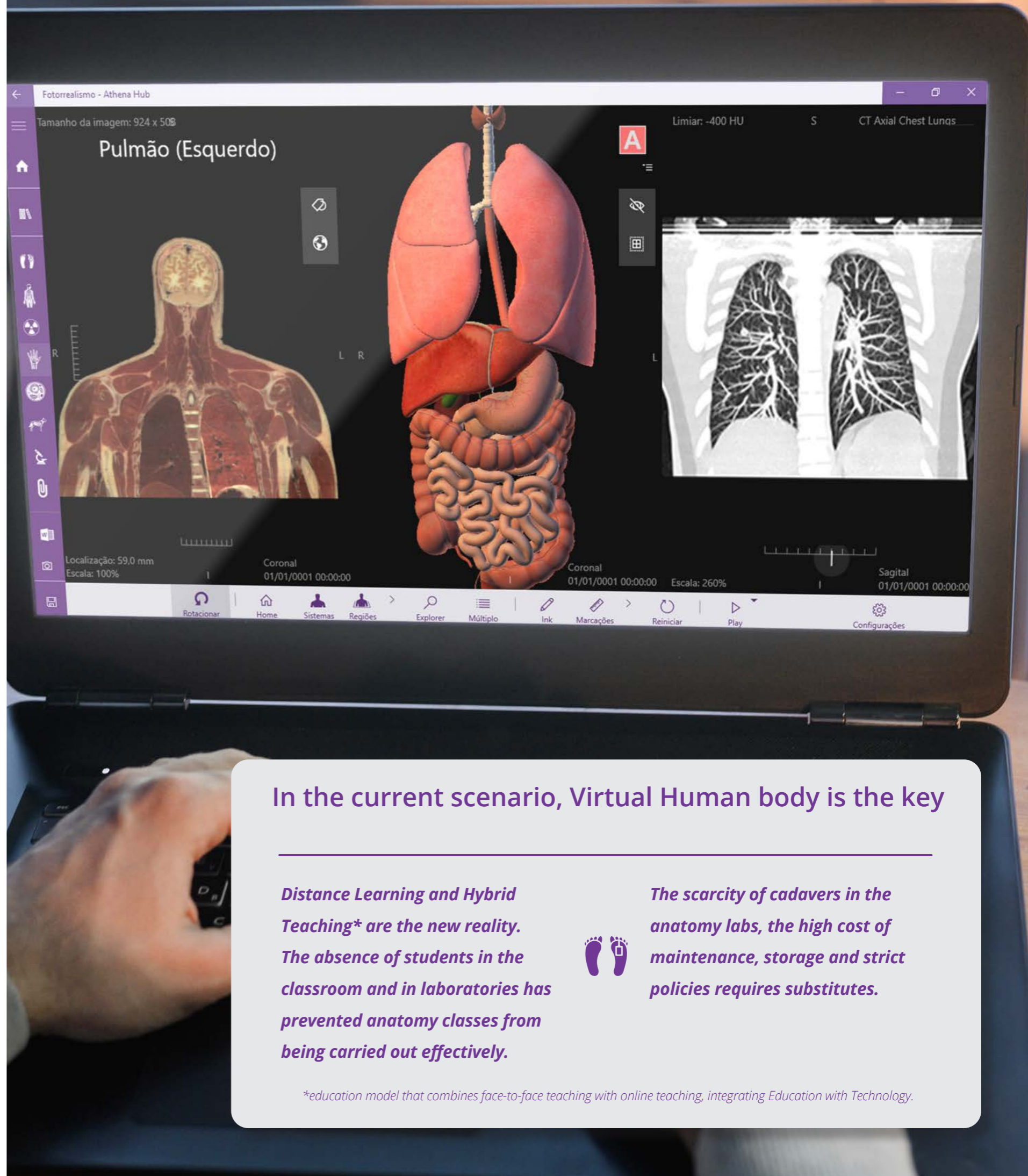
In the current scenario, Virtual Human body is the key

Distance Learning and Hybrid Teaching* are the new reality. The absence of students in the classroom and in laboratories has prevented anatomy classes from being carried out effectively.

The scarcity of cadavers in the anatomy labs, the high cost of maintenance, storage and strict policies requires substitutes.

*education model that combines face-to-face teaching with online teaching, integrating Education with Technology.

The Virtual Human Body is the key

Athena Hub is an interactive teaching platform for biological studies, 3D virtual dissection and medical image analysis. It has a Virtual Cadaver, a complete Anatomical Atlas and a Radiologic workstation, which allow the exploration and knowledge of human anatomy with digital resources that go beyond any other practice It can offer.
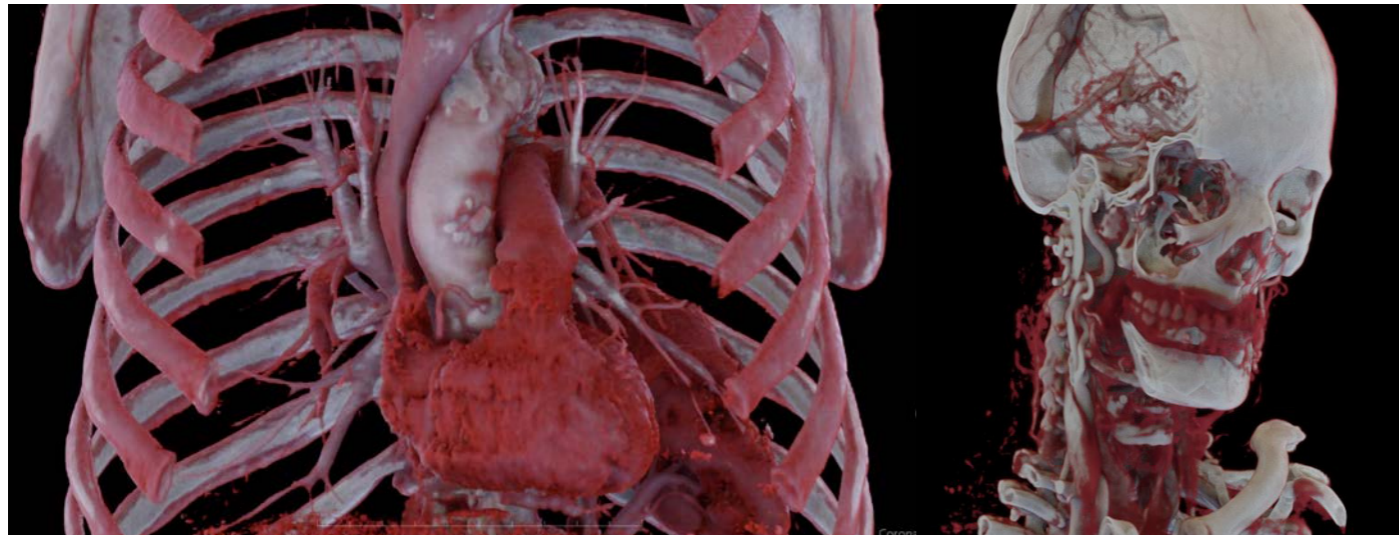
Images from the Photorealism module, detailing the bone structure and circulatory system.
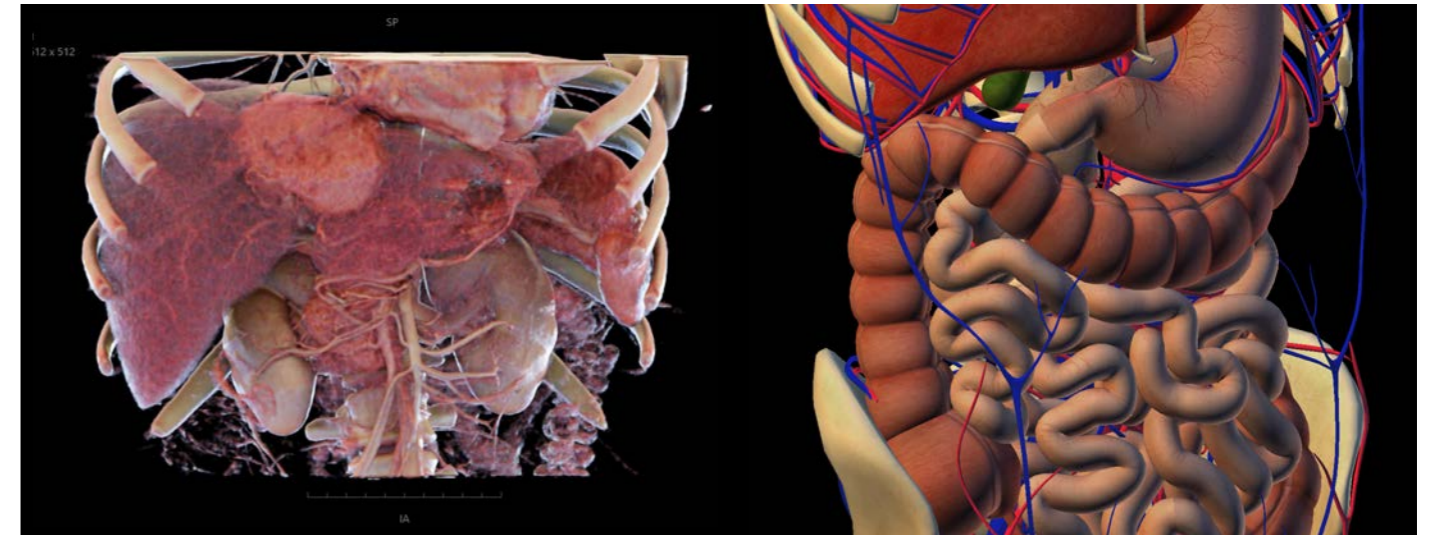
Images from the Photorealism and Human Atlas modules, respectively, detailing organs of the abdomen.

Endless Anatomy Exploration Resources

Athena Hub is a platform where students can interact with real patients in a virtual environment. The Photorealism module in Athena Hub facilitates clinical training with high quality standards, ensuring that the teaching of Anatomy is always achieved. Integration with real cases provides a greater wealth of training and clinical knowledge.

Anatomyrich content

The details and possibilities to visualize structures and rich content generate more interest and attention, leading the student more effective educational outcomes. Thousands of structures are meticulously segmented to provide the most accurate true 3D anatomy in any module view. In addition, it is the only software that allows the visualization of all modules in the same screen, thus facilitating teaching and learning in the health area.

Athena Hub is a complete and intuitive solution to carry out detailed analysis of the human and animal body using three dimensional and/or plan images. With this, it is possible to import DICOM images and other types of content (videos, audios, documents, images, etc.), as well as make annotations directly in the screen, overlaying the studies.

It's a complete and intuitive solution for performing detailed analysis of the human body

Also, it is possible to export the data generating images (print screen), audios and customized reports (Word). It is possible to save all activities performed in the viewer in Workspaces with titles and description, organizing according to the anatomical systems/regions. In the Workspaces screen, it is possible to manage (edit, export, duplicate and delete) the saved Workspaces, as well as import them locally.

Images from the Virtual Cadaver, Anatomical Atlas and Radiology modules.

Benefits for the Teacher:

· Dynamism in class

· Bringing together all teaching material in a single platform

· Share and promote case studies

· Promote the student's protagonism through active methodology

· Prepare the student for clinical practices

Benefits for the student:

· Increase visual concentration

· Flexibility in learning, study from anywhere

· Preparation for anatomical practices

· Emotional preparation for carrying out clinical practices

· Possibility of training before clinical execution

Benefits for the laboratory:

· Saving laboratory time

· Smaller number of licenses, taking turns

· Greater possibility of clinical practices due to the scarcity of cadavers

· Less expense with preserved parts

· Decrease in university dropout

Use of active methodology in face-to-face classes and complementarity of anatomical teaching.
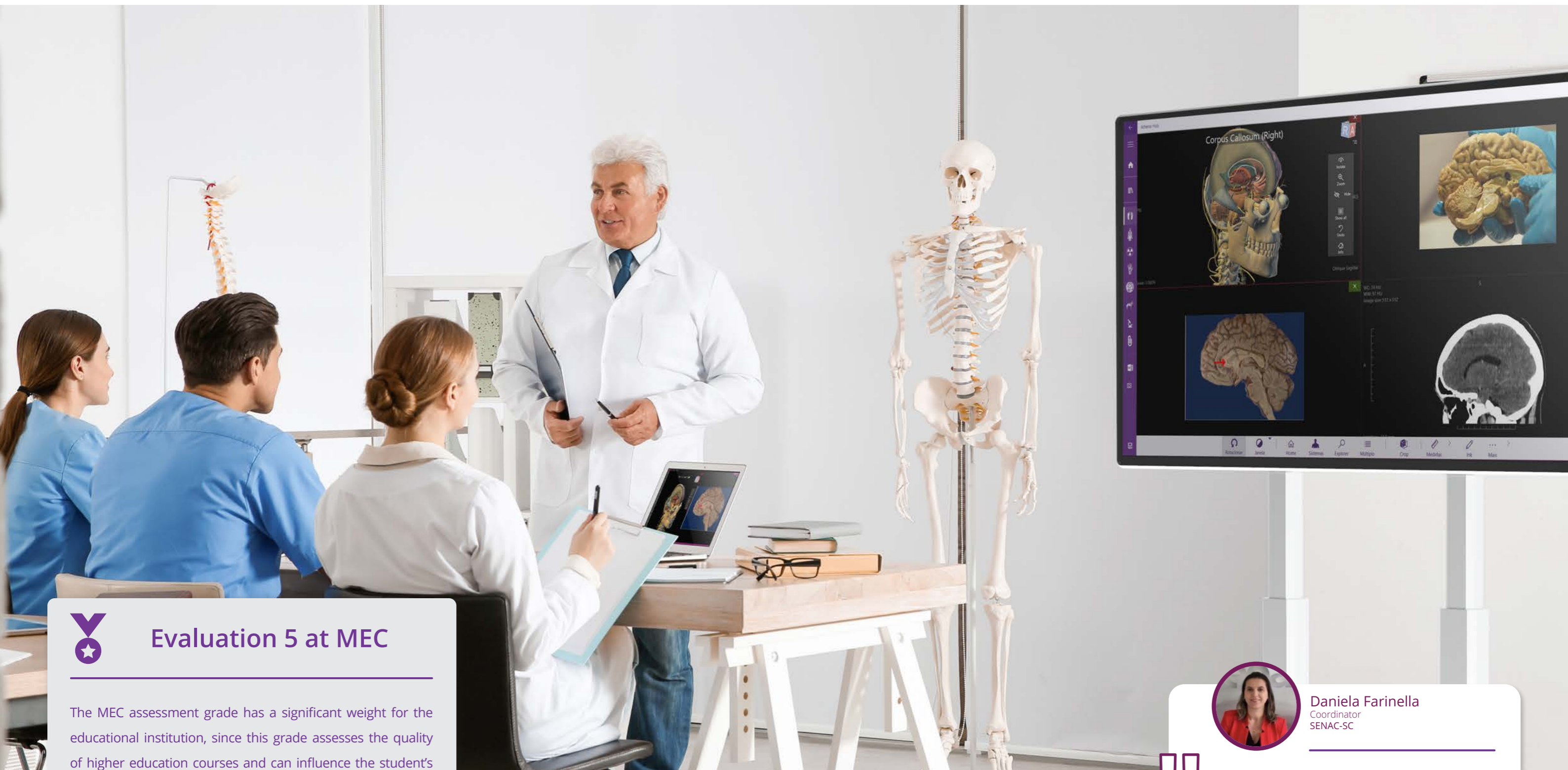
Evaluation 5 at MEC

The MEC assessment grade has a significant weight for the educational institution, since this grade assesses the quality of higher education courses and can influence the student's decision to choose or not where to study. The investment in tools that help to optimize learning has added weight to the criteria adopted by the Ministry of Education to evaluate courses.

Daniela Farinella
Coordinator
SENAC-SC

"We were impressed with the Athena Hub, the software brought a lot of innovation to the radiology course and today we are expanding the purchase to the nursing course."

Save your classes or studies and access them whenever you want!
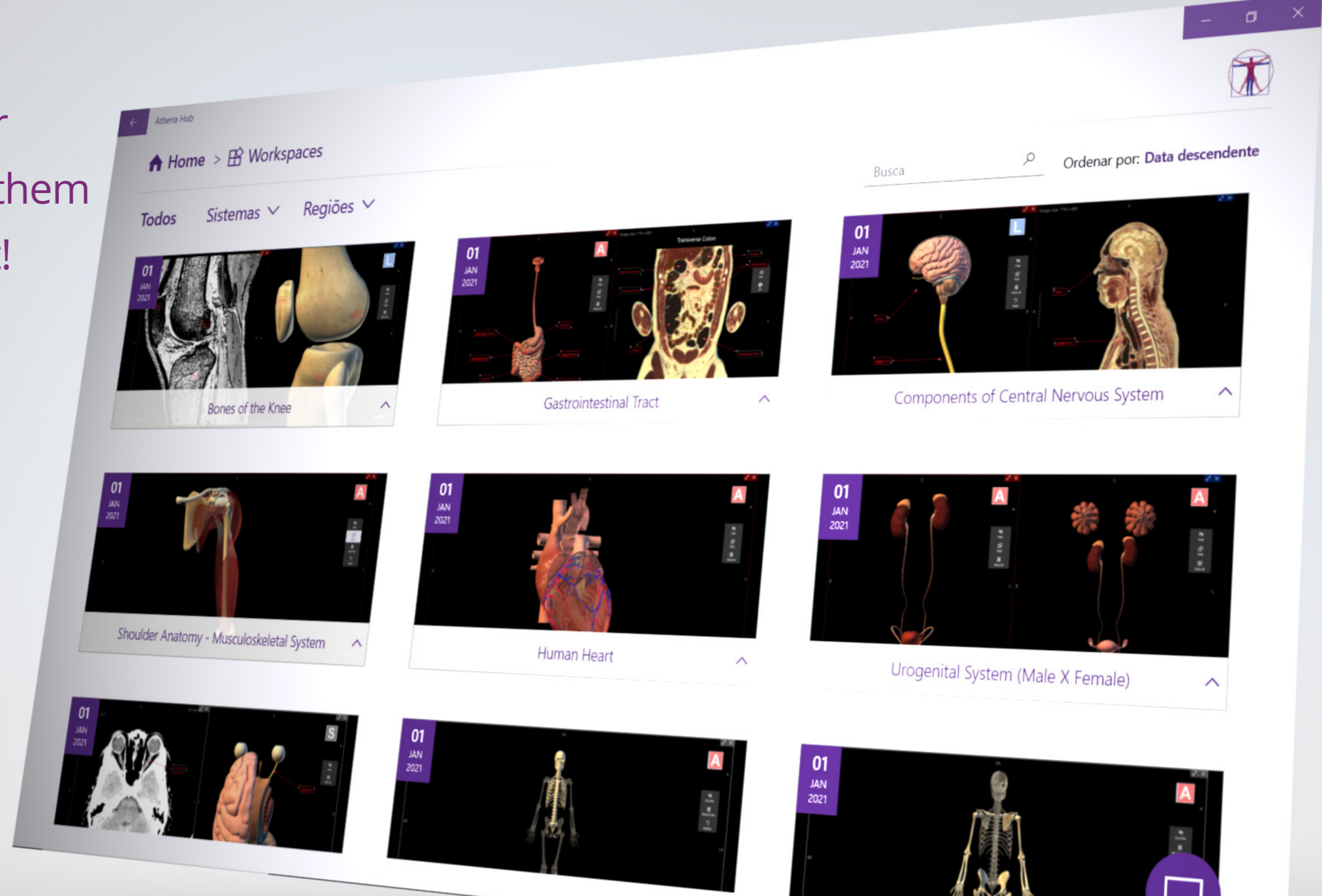
Workspaces

Workspace is the newest feature of Athena Hub that offers the user the possibility to save the visualization states, thus creating their classes, notes, guided studies, among others. It is a tool that makes it possible to store the last view, allowing the user to resume their studies or the teacher to continue their classes, from the moment they stopped.

The functionality also has a broad search engine, with title, date and categorization by regions and anatomical systems. In addition, it is possible to export and import Workspaces saved locally, allowing their sharing among Athena Hub users. The system offers a set of Workspaces as examples and the user will be able to edit them, delete them and create their own visualization states.

Effective Anatomical Education

A complete solution, allowing teachers and students to access content at a distance without losing the quality of education in the healthcare area.

💬 Languages

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

🇺🇸 **English**
FIPAT International Anatomical Terminology:
The Federative International Program for Anatomical Terminology

🇪🇸 **Spanish**
TAP – Pan American Anatomical Terminology

🇧🇷 **Portuguese**
SBA International Anatomical Terminology:
Brazilian Society of Anatomy

Latin
Atlas (Human and Veterinary), Virtual Cadaver following FIPAT.

Hardware Requirements - Athena Hub

Requirements	Processor	Video card	Memory
Minimum	Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM
Recommended	Intel Core i5 2nd generation or similar	Dedicated video card (2GB) or higher	8 GB RAM or superior

Applications

Health education

· Universities
· Technical Schools
· Educational institutions

Suitable for anatomy laboratories, anatomy and radiology classes, students, resident training, lectures and presentations from different areas of health area related to the use of radiological images / DICOM, 3D Interactive Virtual Human Atlas and Interactive Virtual Cadaver.

Surgical Planning

· Hospitals
· Medical rest/coffee rooms

An excellent tool for medical case discussions, pre- and post-surgical planning and ideal for rest rooms, clinics and operating rooms.
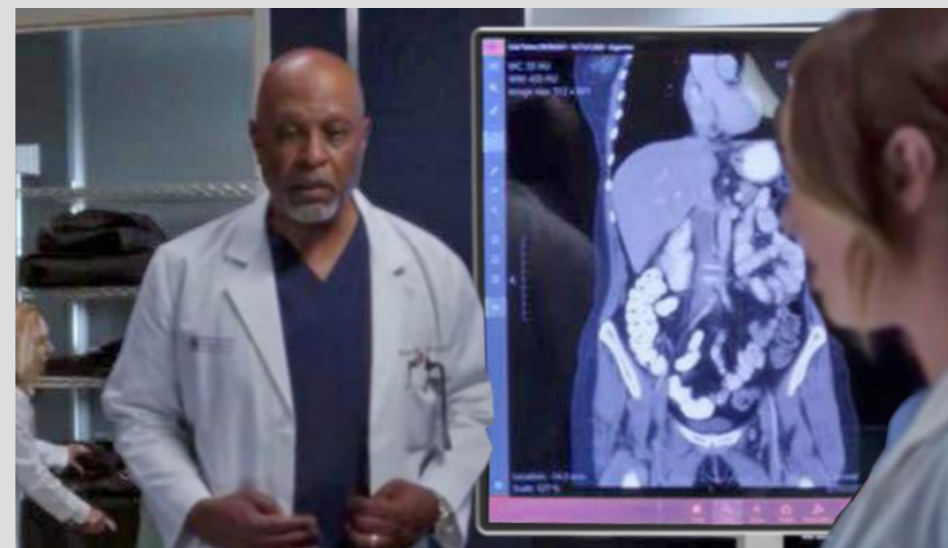
Clinical practice

· Health clinics
· Health institutions
· Health insurance

The Athena Hub can be used for explanations and presentations of patient studies and cases in an easy and didactic way, with rich details, adding value to medical consultations.

Other applications

· Nursing
· Veterinary Medicine
· Legal Medicine
· Physical Education
· Sports medicine
· Biology
· Bioengineering
· Psychology
· Museology
· Research institutes
· Graduate programs

Virtual Cadaver

A real body to study

* Real male human body

* Clean and safe

* Reduced infrastructure costs

* High resolution images

* Interactive dissection with tags

* Complete annotations and measurements

* MPR - Multiplanar Reconstructions

* 3D Reconstructions

* Complete tomography exam

The Virtual Cadaver comes with color images and preserved shapes, illustrating the precise anatomical realism of a living human being. It can be cut and dissected, revealing details of internal morphology. Custom measurements and annotations can be easily added to the visualization of anatomical parts. The high resolution allows for detailed and intuitive visualization of the systems and the regional content covers the head and chest, abdomen and pelvis, thighs and knees, legs and feet. These contents are useful for teaching and learning the details of regional structures.

The Virtual Cadaver is a real human body that was frozen, divided into 1,878 slices and photographed with very high resolution equipment. This module contains a series of Computed Tomography images of the complete human body and 5 series of RGBA images in high definition (4 series containing anatomical regions and 1 series containing the complete body). The 4 anatomical regions are: head and chest, abdomen and pelvis, thighs and knees, legs and feet.
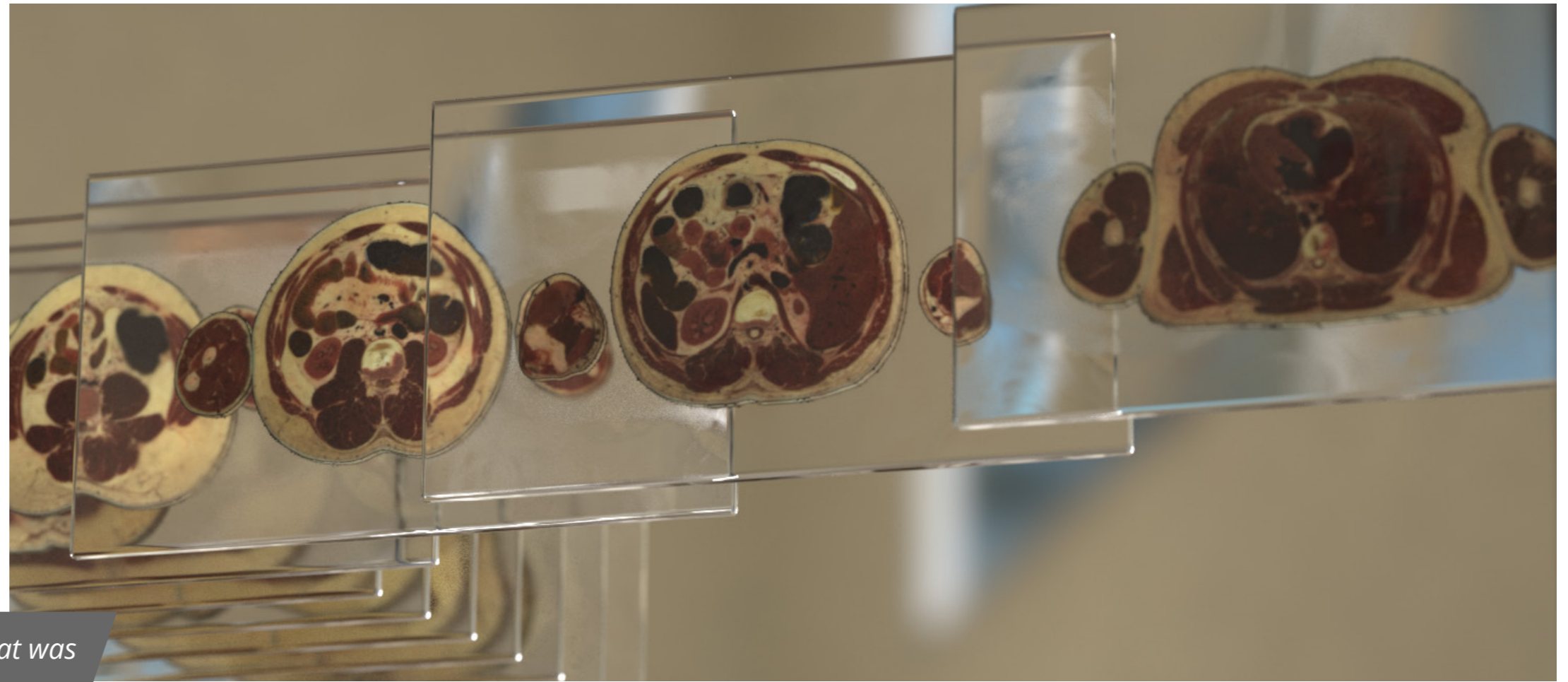
The Virtual Cadaver is a real human body that was frozen, divided into 1878 slices and photographed with very high resolution equipment.

Furthermore, this module can be reconstructed in 2D and 3D where every small region of the human body can be visualized in detail. Furthermore, the Virtual Cadaver has a threedimensional tissue segmentation with 211 parts named according to the International Anatomical Terminology and separated into the following anatomical systems: skeletal, muscular, joint, nervous, digestive, respiratory and circulatory.
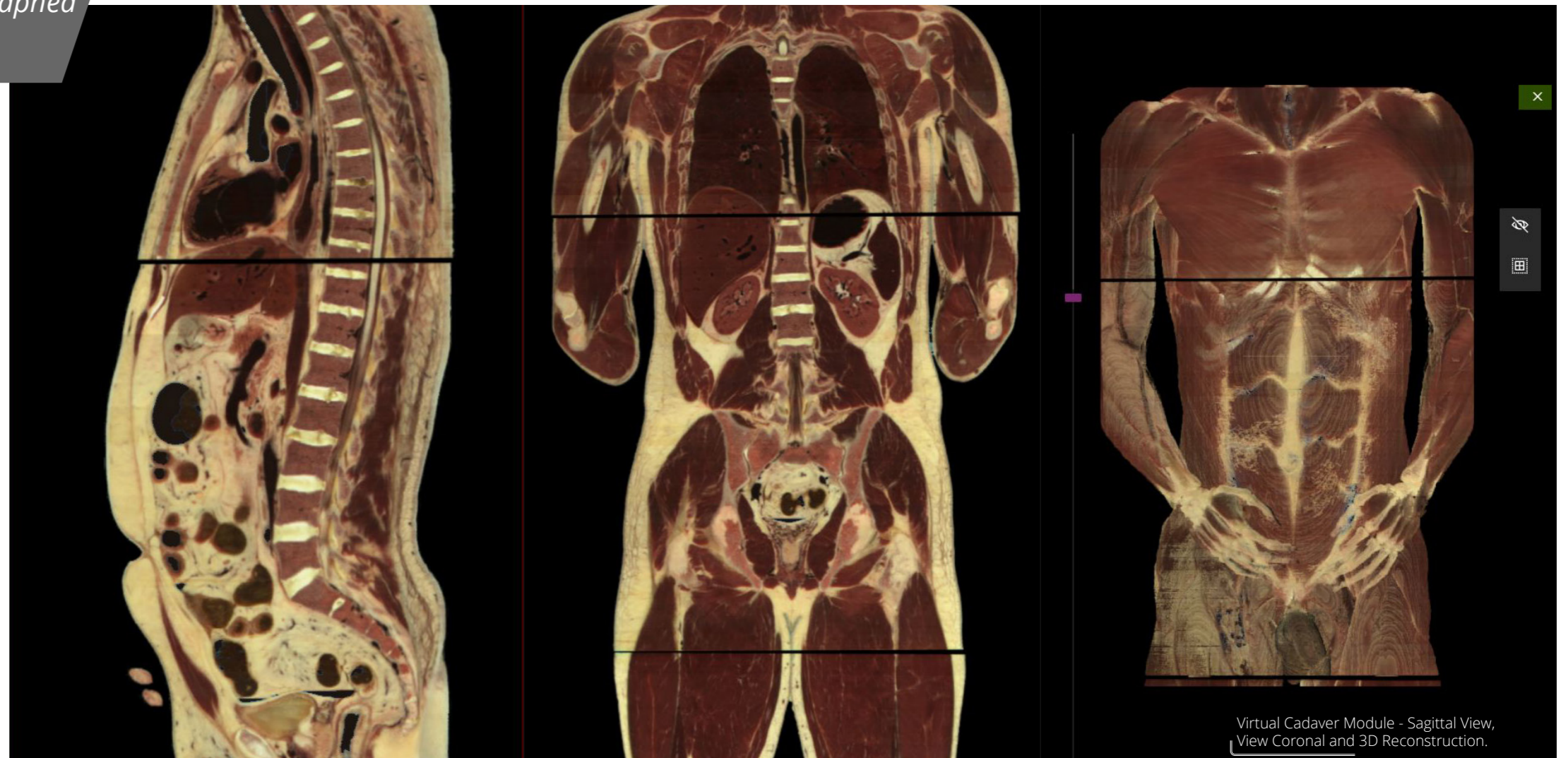
Virtual Cadaver Module - Sagittal View, View Coronal and 3D Reconstruction.
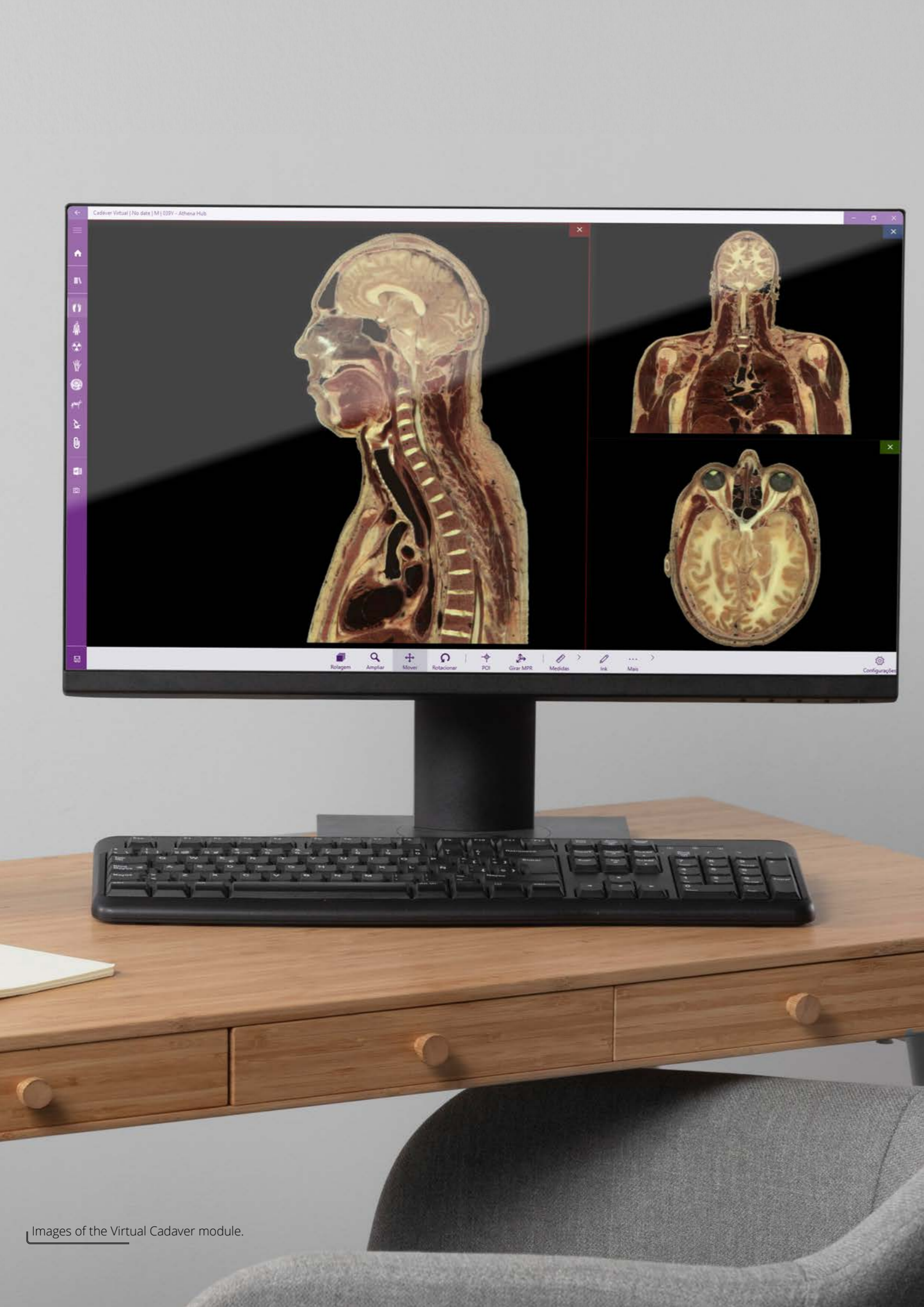
Images of the Virtual Cadaver module.

List of Features - Virtual Cadaver

	Teacher	Student
Human Virtual Cadaver	Visible Human Project (United States).	
Computed Tomography (CT)	Full CT view of the human body (1878 images) in high quality (512x512).	Not available
Anatomical Regions	View of the whole body in low and medium resolution (1878 images) or 4 anatomical regions with low, medium and high resolution (head and chest, abdomen and pelvis, thighs and knees, and legs and feet).	Body view in 4 anatomical regions with low and medium resolution (head and chest, abdomen and pelvis, thighs and knees, and legs and feet).
2D and 3D visualization	Possibility of viewing real cadaver images in 2D (axial, sagittal and coronal planes) and in 3D.	
Manipulation Tools (2D)	4 basic tools (scroll, zoom, move and rotate).	
Manipulation Tools (3D)	7 basic tools (magnify, move, rotate, isolate selection, hide selection, show all and undo).	
Annotation Tools and Measures	9 annotation and measurement tools (ruler, value, arrow, ellipse, rectangle, polyline, freehand, angle and text) with custom color options.	
Crop tool (only 3D visualization)	Makes it possible to cut the volume in the plans.	
Windowing tool (3D view and initial layer only)	Allows to change the 3D view window to a custom or predefined value.	
Multiplanar Reconstruction - MPR (2D view only)	Allows to view in 2D the slice of the human body in the axial, sagittal and coronal planes simultaneously.	
Rotate MPR (2D view and active MPR only)	Allows to rotate the plane of the MPR reconstruction.	
Point of Interest - POI (2D view only and with active MPR)	Allows to synchronize the preview windows at the selected point.	
Cadaver Segmentation	Selection and visualization of more than 200 anatomical structures in 2D and 3D images with their nomenclatures and synonyms in English, Spanish and Portuguese.	
Home	Returns the 3D volume to the starting position	
Anatomical Systems (3D visualization and segmentation module only)	Show/Hide 7 Anatomical Systems: Skeletal (75 structures), Muscular (20 structures), Articulate (38 structures), Nervous (8 structures), Digestive (23 structures), Respiratory (11 structures), Circulatory (29 structures).	
Menu Explorer (3D visualization and segmentation module only)	Menu with display of all visible anatomical structures.	
Multiple Selection (3D visualization and segmentation module only)	Allows to select multiple anatomical structures.	
Layer tool (3D visualization and segmentation module only)	Allows to change the visualization layer of the Virtual Cadaver.	

Hardware Requirements - Virtual Cadaver

Processor	Video card	Memory	
Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM	
*Intel Core i5 2nd generation or similar	*Dedicated video card (2 GB)	*8 GB RAM	*Or higher, recommended for best performance.

Images from the Anatomical Atlas module.

Human Anatomical Atlas
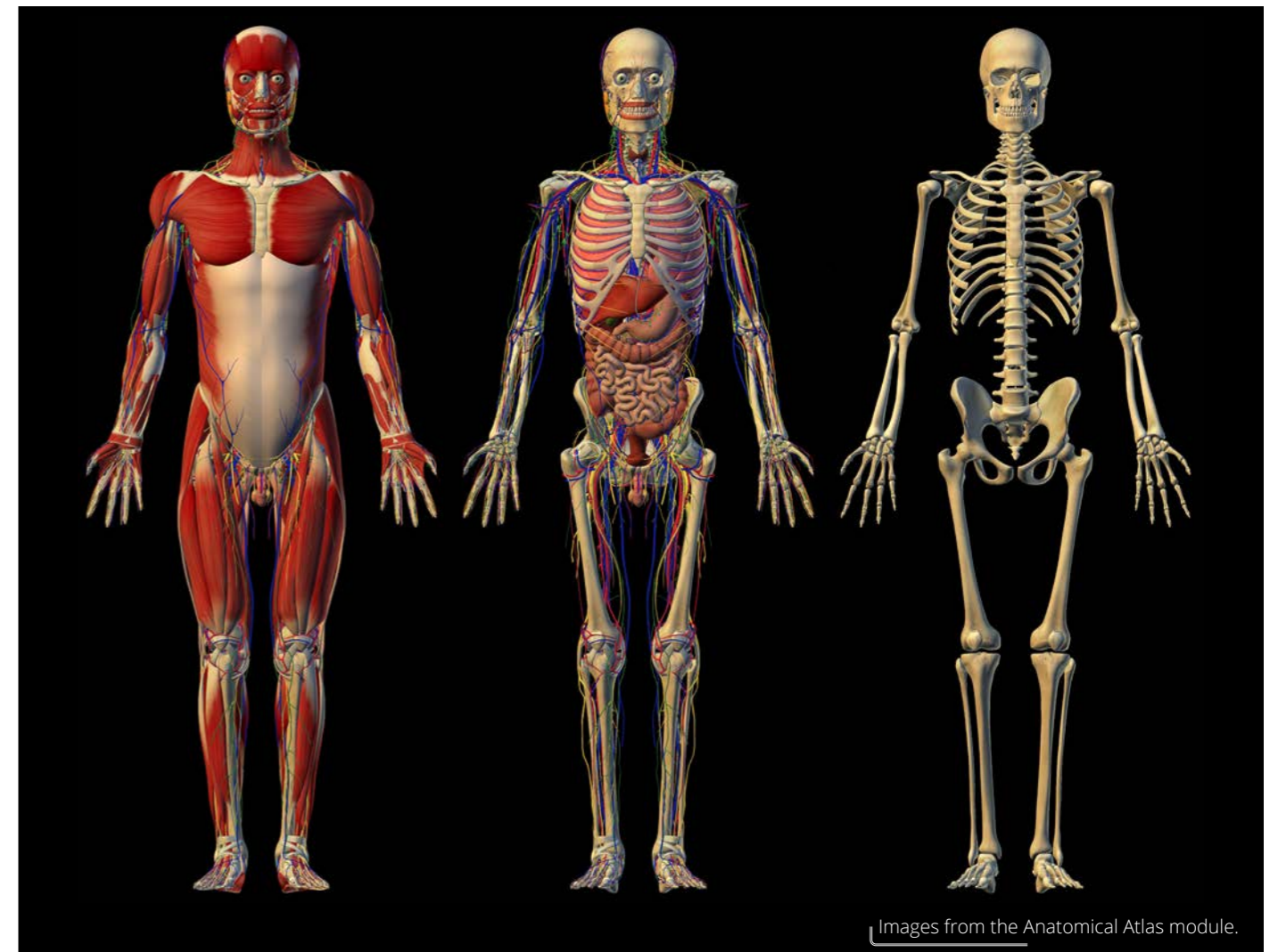
Systemic and Topographic Anatomy

- *3D male and female atlas*

- *More than 2000 revised structures*

- *All labeled in detail*

- *High resolution images*

- *Translated to 04 languages*

- *Interactive dissection with tags*

- *Complete annotations and measurements*

- *3D Reconstructions*

- *Advanced structure search system*

Athena Hub also features a highly interactive and versatile anatomical 3D Atlas with over 2500 structures. Navigate the entire human body, look for a specific part or organ, and visualize any organ system. It replaces the anatomical and skeletal models of the classroom and the laboratory, being a practical and intuitive alternative. Together, the Virtual Cadaver and our library of medical images of all modalities ensure an impressive set of data to be used during an anatomy class, providing support for a case discussion, a surgical plan, an explanation of the lecture or even a clinical consultation.

The Human Anatomical Atlas has more than 2500 structures of all anatomical systems of the human body tagged and with an advanced search system. The atlas, which was developed with the highest quality textures, guarantees an impressive set of data that can be used as a reference during a case discussion, surgical plan or anatomy class. These modules are separated into Male and Female models and organized according to 12 anatomical systems and 9 regions, they are:

The Human Anatomical Atlas has more than 2500 structures from all anatomical systems.
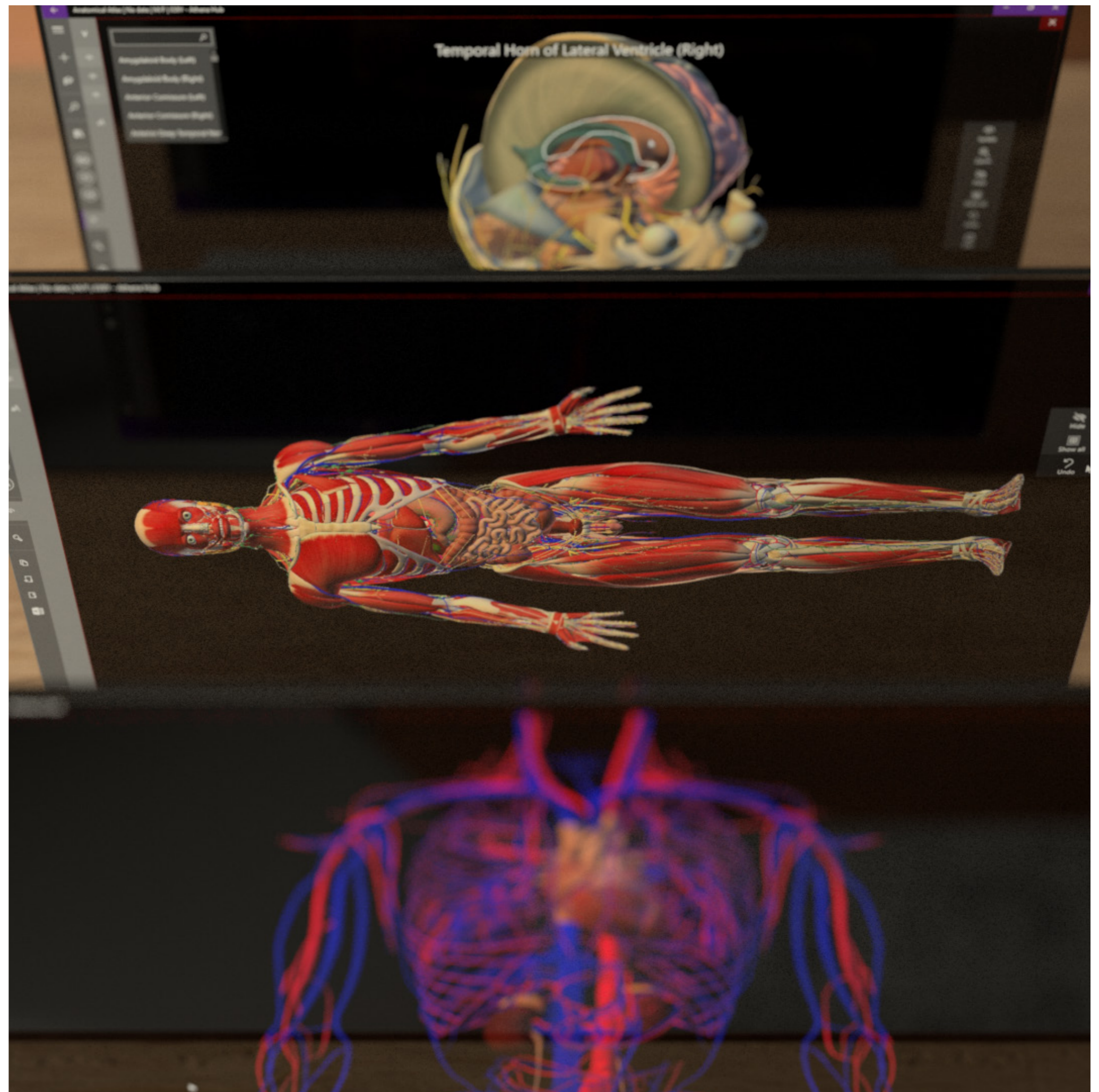
Anatomical systems

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.

For each anatomical part it is possible to visualize its name in Portuguese, English and Spanish in the upper region of the screen, and also in Latin, for that just click and select the part of interest. In addition, descriptive texts of anatomical systems and regions are also available, based on the most current anatomy books, by pressing the "Info" button.

Nasal
Parietal
Temporal

Module image
Anatomical Atlas.

Superior vena cava
Aorta
Right ventrículo
Left ventrículo

Module image
Anatomical Atlas.
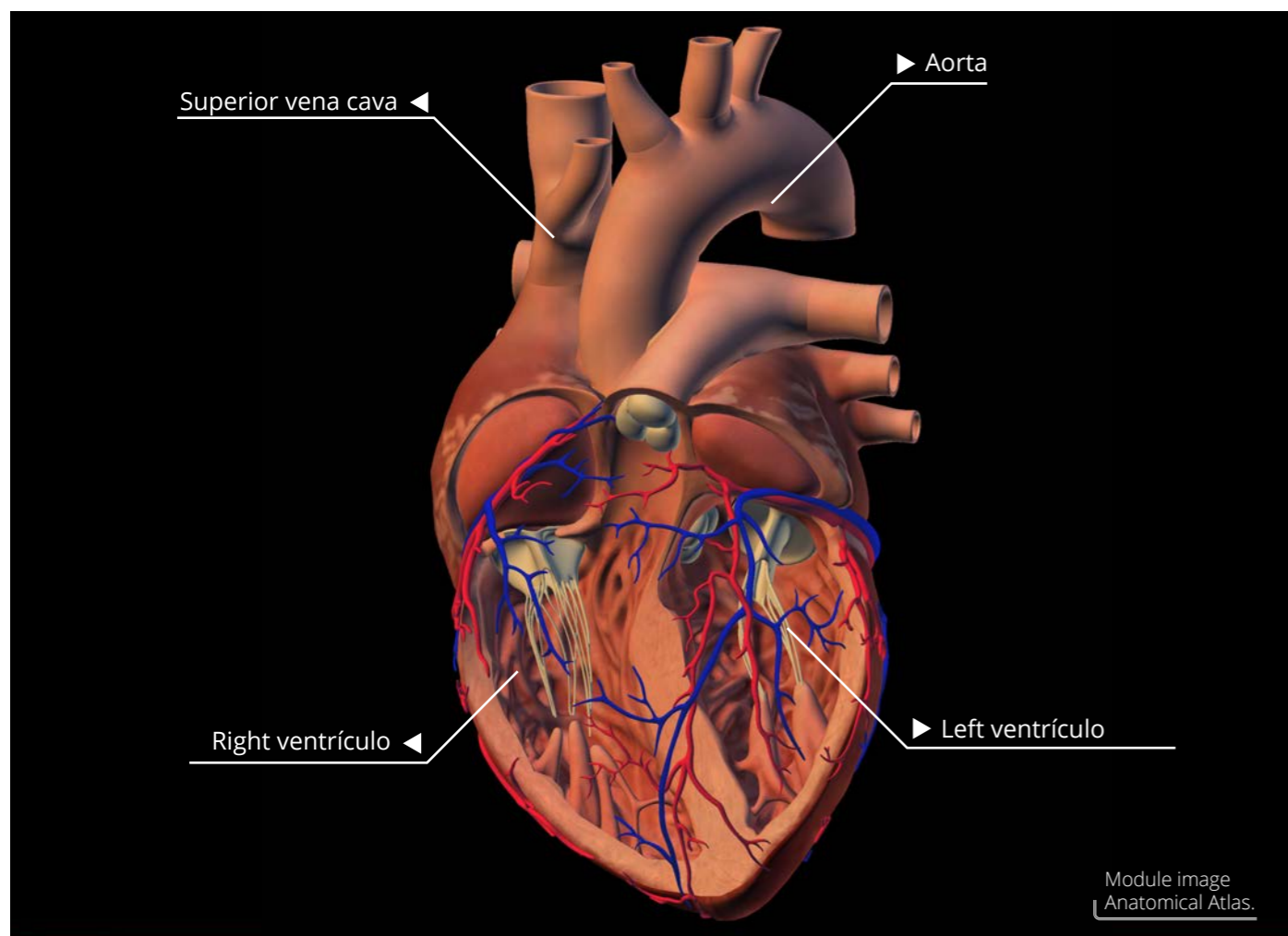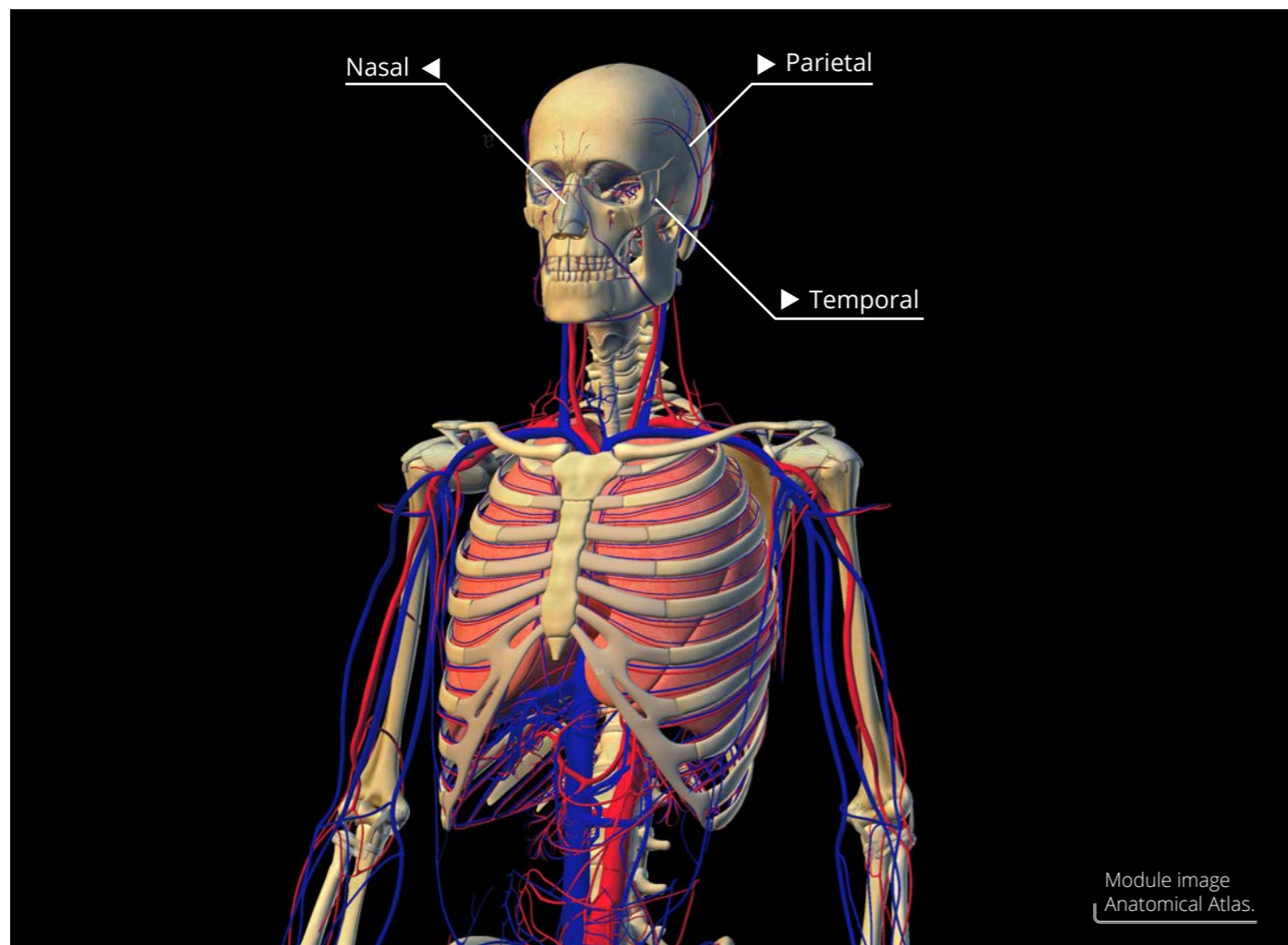
List of Features - Human Anatomical Atlas

	Teacher	Student
Anatomical Systems of the Human Atlas	Human anatomical atlas (male and female) with 2,463 structures with their nomenclatures and synonyms in English, Portuguese and Spanish.	
Anatomical Systems of the Human Atlas	**12 anatomical systems:** Skeletal (240 structures), Muscular (344 structures), Articulate (258 structures), Nervous (559 structures), Digestive (74 structures), Respiratory (99 structures), Venous (376 structures), Arterial (507 structures), Lymphatic (27 structures), Endocrine (12 structures), Integumentary (5 structures), Urogenital (51 structures).	
Anatomical Regions (human atlas only)	9 anatomical regions (head and neck, right upper limb, left upper limb, back, chest, abdomen, pelvis, right lower limb and left lower limb).	Not available
Basic Tools	3 basic tools (rotate, move and zoom).	
Atlas Tools	5 atlas manipulation tools (isolate, zoom, hide, fade, organ and show all)	
Home	Returns the 3D volume to the starting position.	
Explorer Menu	Menu with display of all visible anatomical structures.	
Multiple Selection	Allows to select multiple anatomical structures.	
Annotation Tools and Measures	2 annotation and measurement tools (arrow and text) with custom color options.	
Play/Pause	3D object rotation with start/pause and rotation speed control.	
Information (human atlas only)	Screen with information regarding the selected anatomical structure (structure description when available, anatomical region and anatomical system).	

Hardware Requirements - Human Anatomical Atlas

Processor	Video card	Memory
Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM
*Intel Core i5 2^{ndv} generation or similar	Dedicated video card (2 GB)	*8 GB RAM

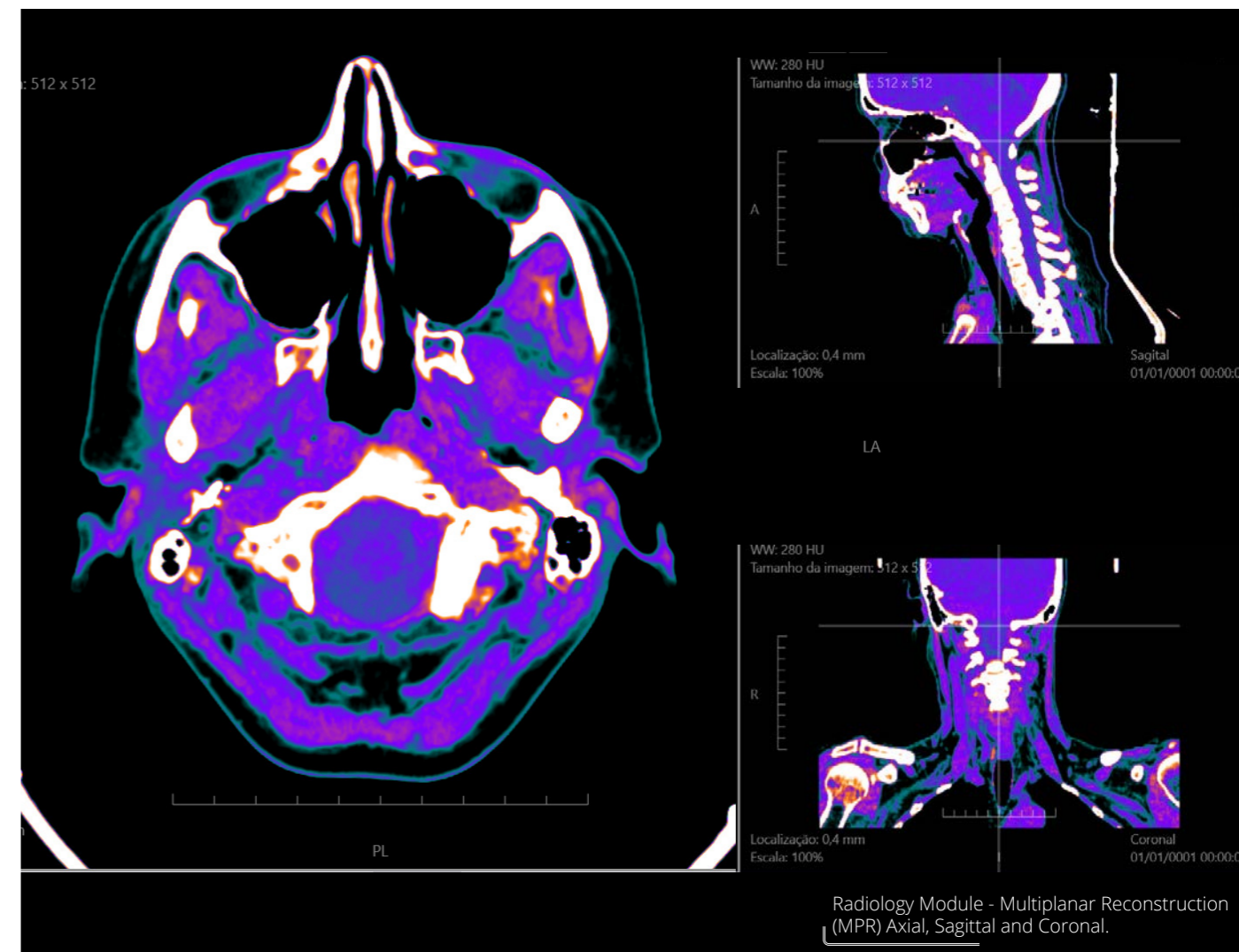*Or higher, recommended for best performance.

Radiology Module - Multiplanar Reconstruction (MPR) Axial, Sagittal and Coronal.
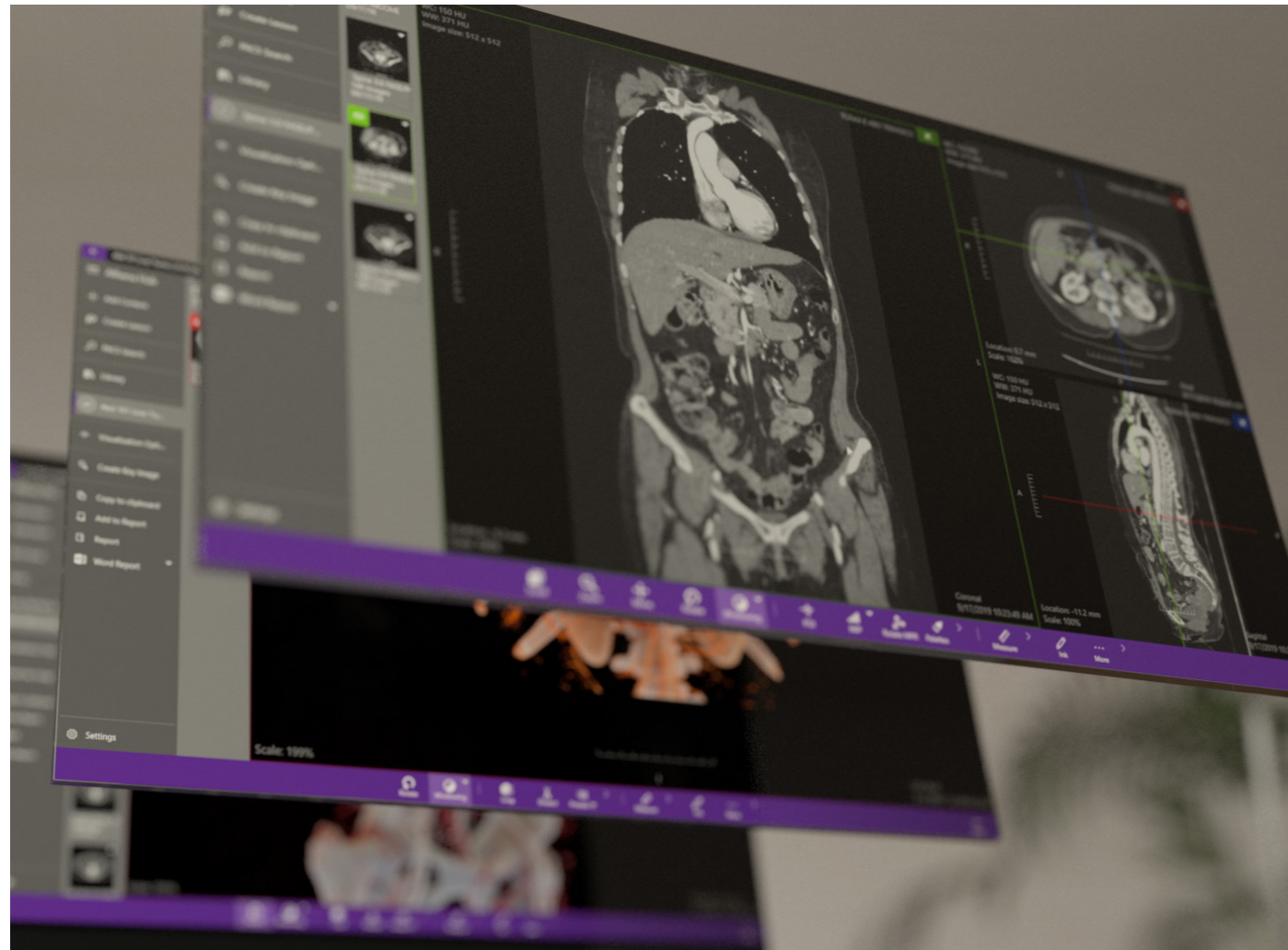
Radiological workstation

- *Integration with PACS*
- *DICOM mode (CT, RM, US, etc.)*
- *2D Multiplanar Reconstruction (MPR)*
- *Non-orthogonal MPR*
- *3D (Volumetric, Iso-Surface, MIP, X-Ray)*
- *Color filters (CLUT)*
- *Window customization*
- *Complete notes*
- *Column measurements and labeling*
- *Report and print*
- *Share directly to clipboard*

Athena Hub functions as a radiology workstation, supports most medical imaging data and provides high quality interactive 3D renderings. Whether your own scan or one of the cases from the digital library, Athena Hub is a complete radiological workstation that can be manipulated intuitively. Advanced tools and windows allow you to examine soft or hard tissue review images in a traditional way in radiology. The workstation is useful for studying various pathological examples or reviewing patient exams.

Radiology

Photorealism

Images of the modules of Radiology and Photorealism.

This module is a powerful DICOM image visualization system with advanced tools for manipulating clinical radiological studies and cases. In addition, it allows access to the Medical Harbour knowledge base with hundreds of DICOM human studies and more than 40,000 images of Computed Tomography, Magnetic Resonance, X-Ray, among others. The installation of this module already includes 3 DICOM studies with almost 1,000 images.

The installation of this module already includes 3 DICOM studies with 877 images.

Photorealism Module - Reconstruction loyalty 3D through Computed Tomography.

Advanced 3D Reconstructions

• *Photorealistic 3D reconstructions*

• *True realistic color fabrics*

• *Dissection tool*

• *Window presets*

• *Isolate and hide options*

• *Complete notes and measurement*

• *Advanced transfer functions*

A powerful 3D volumetric reconstruction tool for use in CT scans. It has manipulation, processing and segmentation tools that enable three-dimensional dissection to visualize the details of the exam in question.

Hardware Requirements - Radiology

Processor	Video card	Memory
Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM
*Intel Core i5 2nd generation or similar	*Dedicated video card (2 GB)	*8 GB RAM

Or higher, recommended for best performance.

It is a volumetric reconstruction module for DICOM Computed Tomography studies. It was developed using a 3D rendering algorithm that produces a photorealistic representation of three dimensional images, with greater depth and shape perception than standard 3D volume rendering, delivering more detailed and realistic medical image shapes. The Photorealism module can be applied both in classes and in deeper analysis of images outlining each part of the human or animal body, providing a detailed view of a part of the living body, without the need for any invasive procedure.

Hardware Requirements - Photorealism

Processor	Video card	Memory
Intel Core i5 2nd generation or similar	Dedicated video card (2 GB)	4 GB RAM
*Intel Core i7 2nd generation or similar	*NVIDIA Geforce GTX 1050 (2 GB)	*16 GB RAM

*Or higher, recommended for best performance.

Comparison of pre and post-surgical exams in high quality through the Photorealism module.
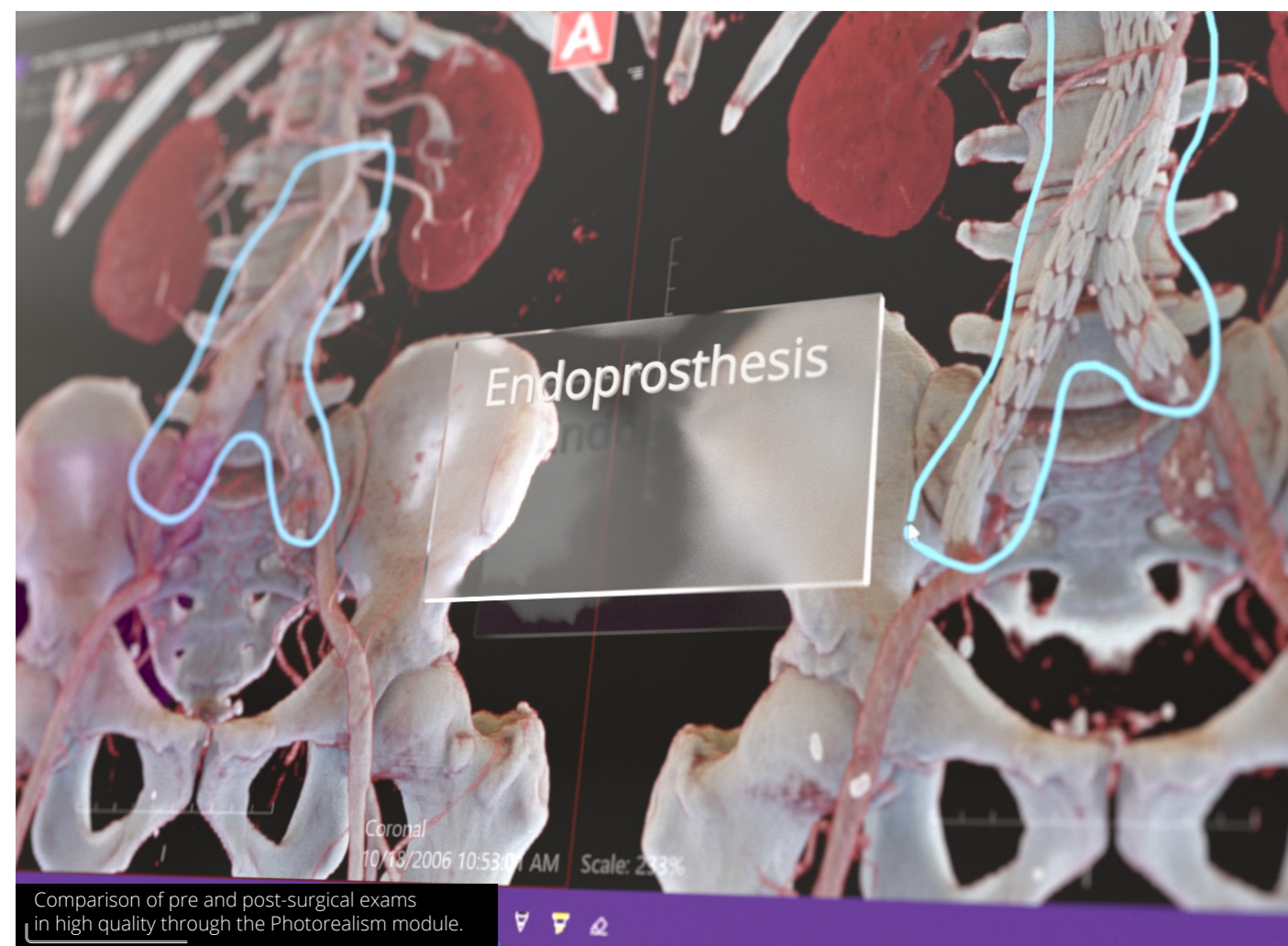
Features List - Radiology and Photorealism

	Teacher	Student
DICOM Compatibility	Compatibility with the main DICOM imaging modalities (computed tomography, x-ray, magnetic resonance, ultrasound, mammography, angiography and radiofluoroscopy)	
DICOM header	Screen with information regarding the DICOM tags (TAGs).	Not available
PACS server	PACS server configuration (WADO, HTTPS and recovery automatic).	
2D visualization	Possibility of viewing 2D DICOM images in the axial, sagittal and coronal planes	
3D visualization	Possibility to view DICOM images in 3D in volume, MIP, X Ray, Isosurface and Photorealism mode (only Computed Tomography and if the module photorealism is enabled).	Possibility of viewing DICOM images in 3D in volume and Photorealism mode (only Computed Tomography and if the photorealism module is enabled).
Manipulation Tools (3D)	Makes it possible to cut the volume in the plans.	
Multiplanar Reconstruction - MPR (2D view only)	Allows to view in 2D the slice of the human body in the axial, sagittal and coronal planes simultaneously.	
Rotate MPR (2D view and active MPR only)	Allows to rotate the plane of the MPR reconstruction.	
Point of Interest - POI (only 2D visualization and with active MPR)	Allows to synchronize the preview windows at the selected point.	
Basic Tools	5 Basic Tools (rolagem, ampliar, mover, rotacionar e janelamento).	
Advanced Tools	3 advanced tools (custom windowing preset, maximum/minimum/medium intensity projection, 16 color palettes)..	
Annotation and Measurement Tools	9 annotation and measurement tools (ruler, value, arrow, ellipse, rectangle, polyline, freehand, angle and text) with custom color options.	
3D Visualization Tools photorealistic	Preset and Transfer Function Editor. Dissect selected region (isolate, hide, undo, redo and reset).	
DICOMization of PDF and Word Files	Allows to convert PDF files to DICOM format and share reports and other information	
Export	Possibility to export an image in DICOM and JPEG formats.	Not available
Image Database Radiological	Access to the MHKB - Medical Harbour Knowledge Base with 137 human clinical cases. Access to PetKB - Pet Knowledge Base with 17 veterinary clinical cases. Access to SlidesKB - Slides Knowledge Base with 211 histology and pathology slides.	

High fidelity in 3D reconstruction of CT scans through the Photorealism module.

Dr. José Generoso
Doctor specializing in health simulation.

❝ "With Athena Hub you have the anatomical world in your hands, being able to learn anatomy how, where and whenever you want, in a practical and definitive way."

High degree of acceptance

• A tool that allows students to learn from real cases.

• An interface that is intuitive and allows for team discussion.

• A solution that takes the student from learning anatomy to developing critical thinking in clinical training or simulation lab.

Athena Hub has tools to view, manipulate, share and store Medical Images. Designed for students, doctors, clinics, universities, technicians, schools and research institutes. For doctors, healthcare professionals, clinics and hospitals, it is a powerful tool to aid in diagnosis.
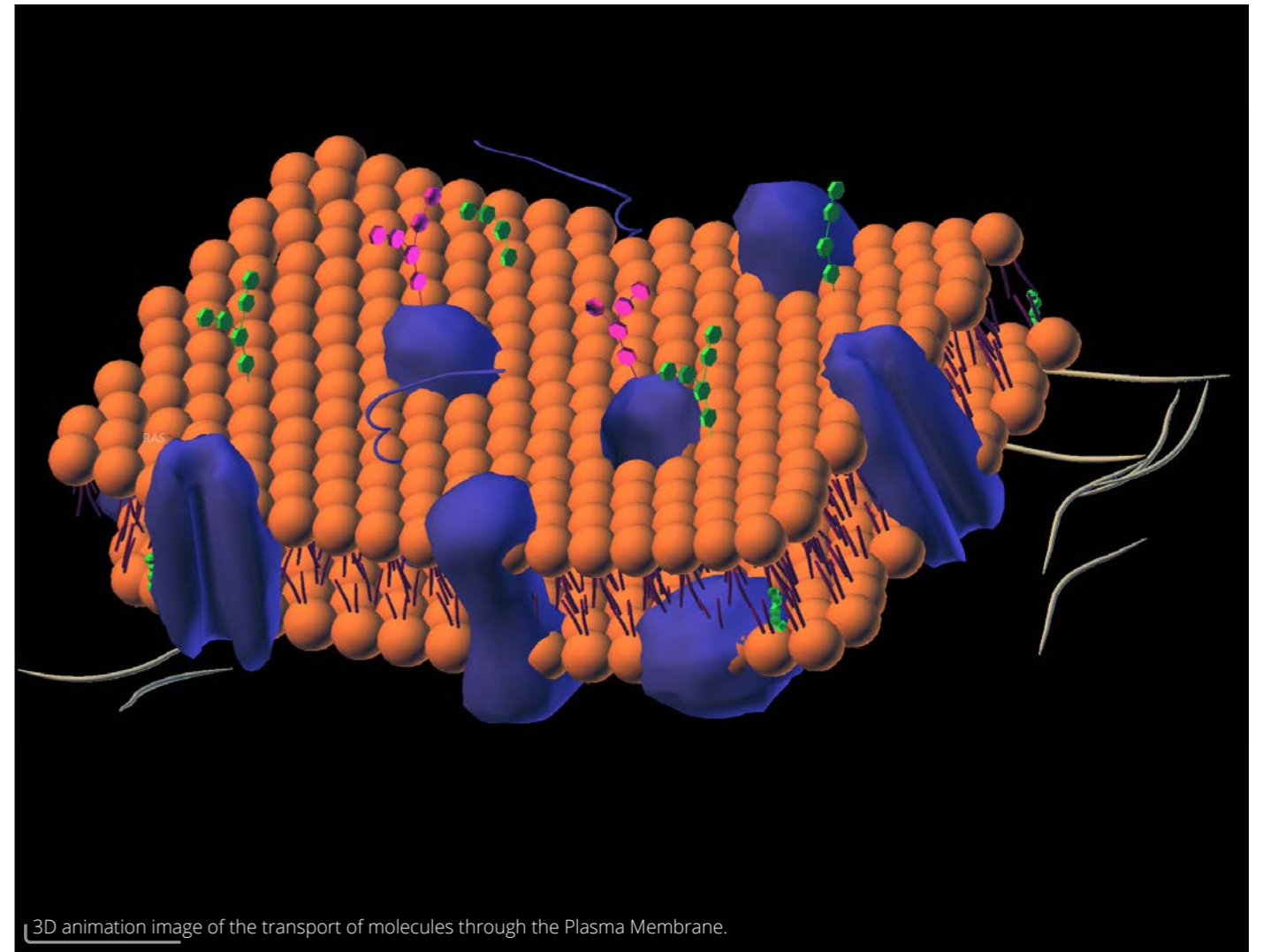
3D animation image of the transport of molecules through the Plasma Membrane.

Plasma Membrane and Organelles

• Visualization of 3D structures

• Animal Cell with 39 structures

• Mitochondria with 8 structures

• Plasma membrane with 12 structures

• Simple broadcast

• Diffusion facilitated

• Sodium and potassium pump

• Co-transportation

• Counter transport

The Cytology module allows the user to visualize and interact with three 3D models related to the Eukaryotic Cell of animal origin and with three dimensional animations related to the transport of molecules across the plasma membrane. In addition, it is possible to view each model structure with nomenclatures in Portuguese, English and Spanish.

Cytology
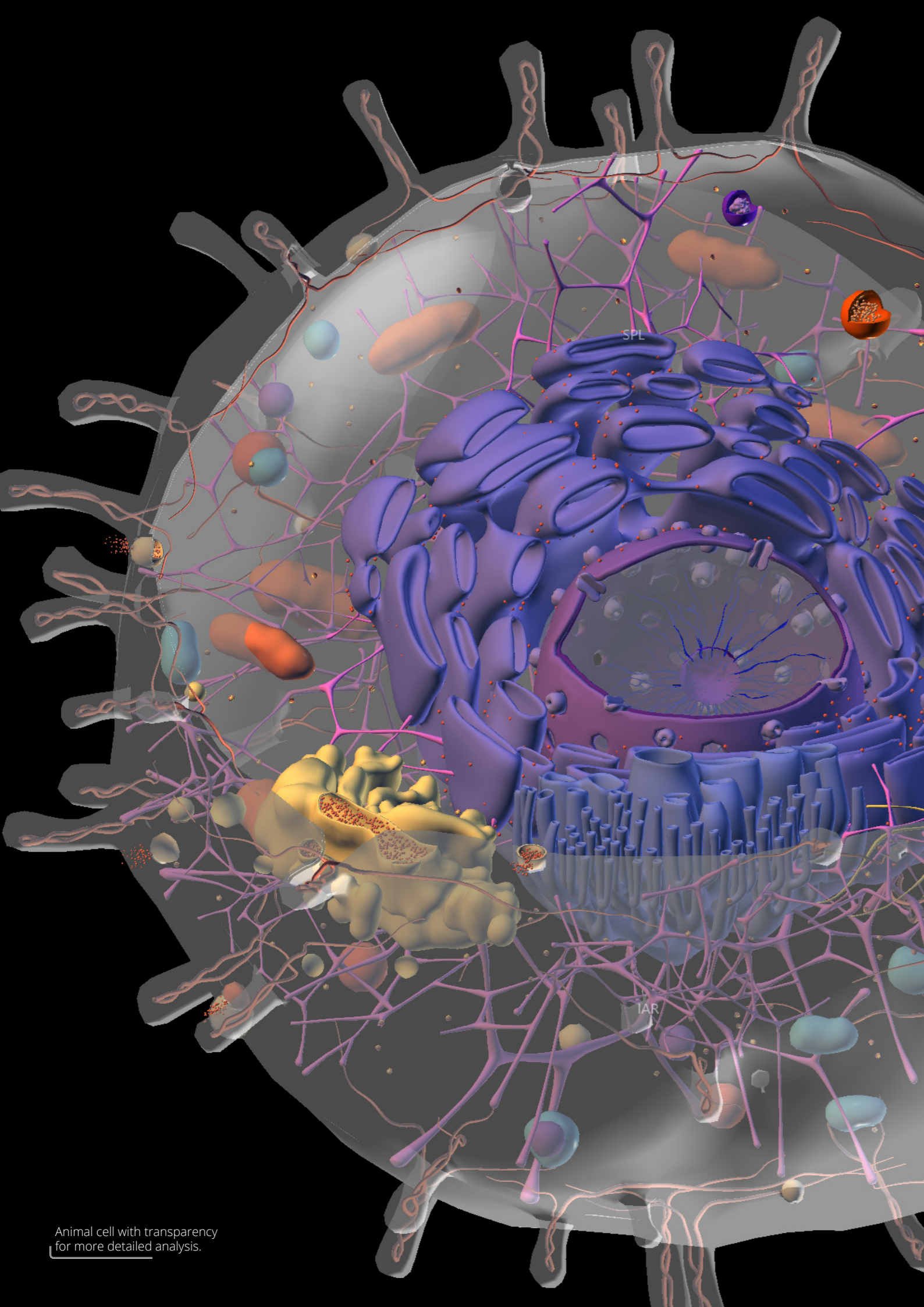
Animal cell with transparency for more detailed analysis.

Features List - Cytology

	Teacher	Student
Eukaryotic cell	Cytology atlas with 3 models: animal cell (39 structures), mitochondria (8 structures) and plasma membrane (12 structures). All models have structure nomenclatures in English, Spanish, Portuguese.	
Basic Tools	3 basic tools (rotate, move and zoom).	
Atlas Tools	5 atlas manipulation tools (isolate, zoom, hide, fade, organelle and show all)	
Home	Returns the 3D model to the starting position.	
Explorer Menu	Menu with display of all visible cell structures.	
Multiple Selection	Allows to select multiple non-anatomical cell structures	
Annotation and Measurement Tools	2 annotation and measurement tools (arrow and text) with custom color options.	
Play/Pause	3D object rotation with start/pause and rotation speed control.	

Hardware Requirements - Cytology

Processor	Video card	Memory
Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM
*Intel Core i5 2nd generation or similar		*8 GB RAM

*Or higher, recommended for best performance.
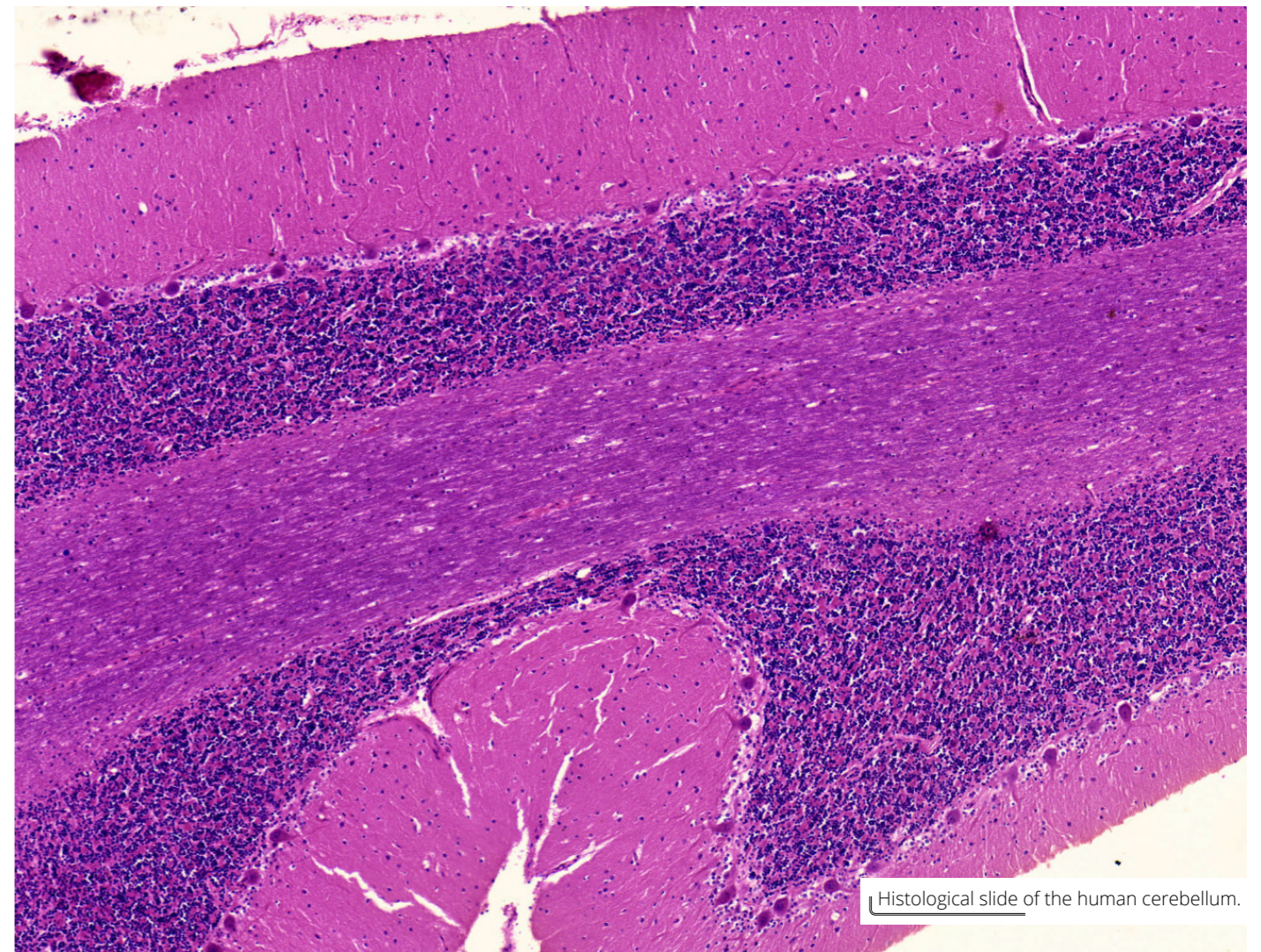
Histological slide of the human cerebellum.

Histological Slides*

- *Tool for visualization and analysis of microscopic structures*

- *Notes*

- *Slides of glands, organs, tissues and systems*

- *Slides with pathologies*

It is possible to download hundreds of histological slide images in JPEG (.jpeg) format via MH PACS CLOUD for demonstration purposes only. In addition, this module has an annotation tool (Microsoft Ink) with user-customized color options.

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

Slides*
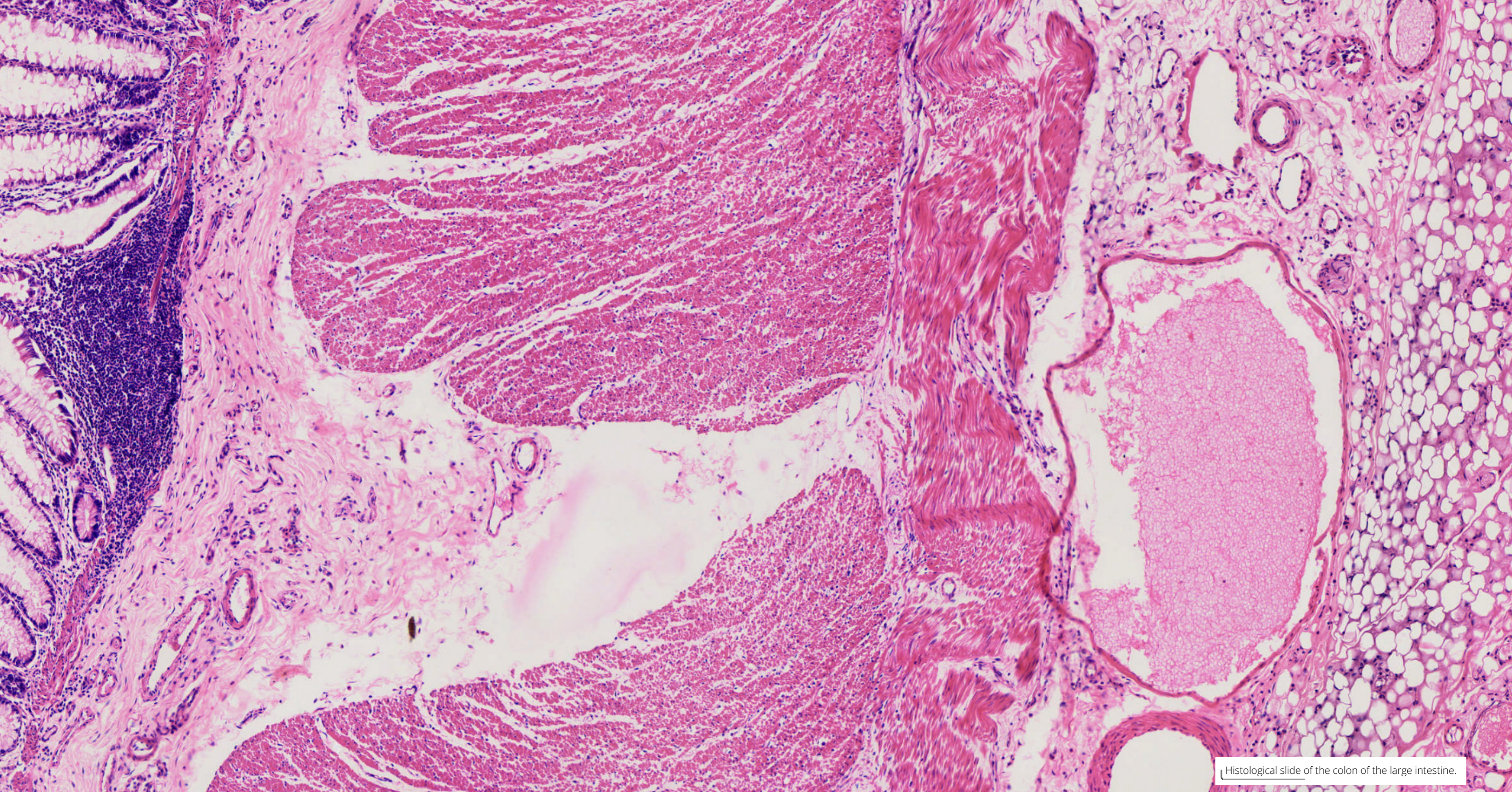
Histological slide of the colon of the large intestine.

Features List - Slides

	Teacher	Student
Annotation Tools and Measures		2 annotation and measurement tools (arrow and text) with custom color options.

Hardware Requirements - Slides

Processor	Video card	Memory
Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM
*Intel Core i5 2nd generation or similar		*8 GB RAM

*Or higher, recommended for best performance.*

Everything together and more!

Also, open any module at the same time. This mosaic feature is a great tool to compare and study Anatomical Atlas, Virtual Cadaver and Medical Images, with a simultaneous view. View, manipulate, and compare Medical Images with Real Body images and limitless 3D Anatomical Atlas.
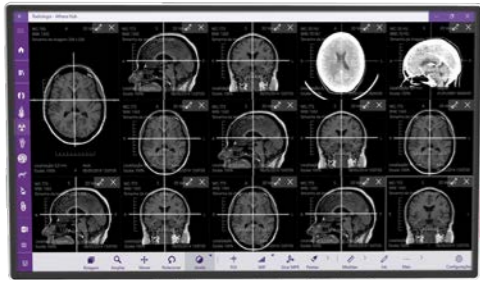
In the same screen, you have control of all types of anatomical structures. In mosaic mode, you can simultaneously open and compare DICOM studies, Photorealism, Anatomical Atlas, Virtual Cadaver, Histology, videos, images and more for many applications. Use it in lectures, classrooms, anatomy lab, etc.

Supported File Formats

JPG PNG MP4 PDF

DOC XLS PPT MP3
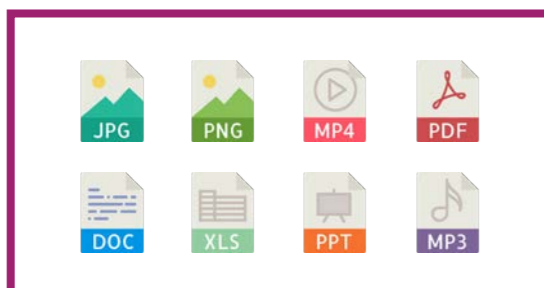
Clinical cases

Hundreds of clinical cases in different DICOM modalities and compiled and classified pathologies are available on the Athena Hub. This digital library module includes hundreds of clinical case examples, allowing students to not only dissect normal general anatomy, but also experience pathology on medical imaging exams, manipulate and add notes.
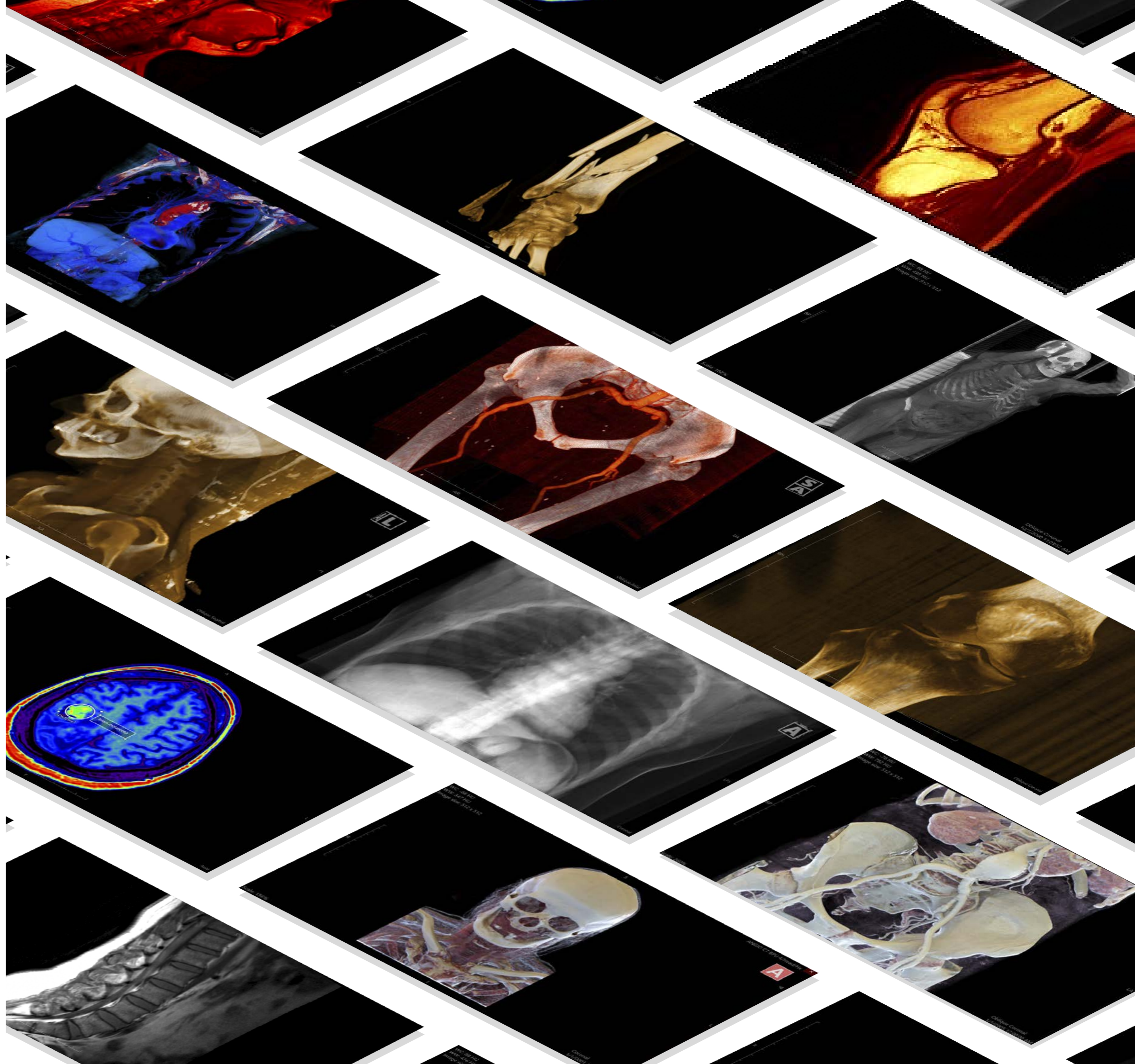
Tomography of a reconstructed alligator head in 3D - image available in our image base.

All in One for Veterinary

• Anatomical atlas of animals from 8 species

• All labeled in detail

• DICOM mode (CT, RM, US, etc.)

• PACS integration

• 2D Multiplanar Reconstruction (MPR)

• 3D (Volumetric, Iso-Surface, MIP, X-Ray)

• Color filters (CLUT)

• Complete annotations and measurements

• Report and print

The Athena Hub Veterinary Module is fully multipurpose, includes all the tools to view veterinary radiological images of any modality and also includes the Anatomical Atlas of 8 different species. Interactive, versatile and with 3D visualization, it has all the system structures of various animals labeled and with an advanced search system. Effectively replaces anatomical and skeletal models in the classroom and lab. They can be used as a reference when discussing cases, surgical plans, and conducting an anatomy class.

Veterinary

Tomography of the dental arch of a leopard being presented in a 3D reconstruction.
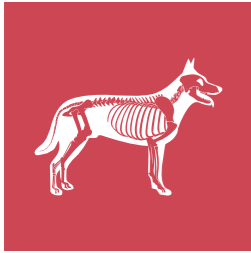
Veterinary Atlas
with 08 animals

Canine 3D	Feline 3D	Equine 3D	Bovine 3D	Porcine 3D	Anura 3D	Avian 3D	Rodent 3D

Features List - Veterinary

|	Teacher	Student
Veterinary Atlas (8 animals)	**Canine** with 1,250 structures. **Feline** with 1,050 structures. **Equine** with 952 structures. **Avian** with 331 structures. **Porcine** with 257 structures. **Bovine** with 563 structures. **Anura** with 393 structures. **Rodent** with 603 structures	
Anatomical Systems of the Veterinary Atlas	**Canine** with 10 anatomical systems: integumentary (2 structures), muscular (221 structures), skeletal (236 structures), articular (68 structures), nervous (332 structures), lymphatic (112 structures), digestive (34 structures), respiratory (18 structures), circulatory (184 structures) and urogenital (43 structures).	
	Feline with 10 anatomical systems: integumentary (4 structures), muscular (140 structures), skeletal (231 structures), articular (61 structures), nervous (205 structures), lymphatic (101 structures), digestive (31 structures), respiratory (14 structures), circulatory (225 structures) and urogenital (38 structures).	
	Equine with 9 anatomical systems: integumentary (11 structures), muscular (238 structures), skeletal (242 structures), articular (204 structures), nervous (24 structures), digestive (17 structures), respiratory (10 structures), circulatory (189 structures) and urogenital (17 structures).	
	Avian with 8 anatomical systems: integumentary (1 structure), muscular (93 structures), skeletal (108 structures), nervous (29 structures), digestive (12 structures), respiratory (14 structures), circulatory (65 structures) and urogenital (9 structures).	
	Porcine with 7 anatomical systems: integumentary (3 structures), skeletal (174 structures), nervous (6 structures), digestive (12 structures), respiratory (10 structures), circulatory (40 structures) and urogenital (11 structures).	
	Bovine with 7 anatomical systems: integumentary (1 structure), skeletal (191 structures), nervous (33 structures), digestive (23 structures), respiratory (11 structures), circulatory (290 structures) and urogenital (14 structures).	
	Anura with 9 anatomical systems: integumentary (5 structures), muscular (90 structures), skeletal (139 structures), nervous (45 structures), lymphatic (11 structures), digestive (10 structures), respiratory (4 structures), circulatory (74 structures) and urogenital (19 structures).	
	Rodent with 9 anatomical systems: integumentary (4 structures), muscular (134 structures), skeletal (251 structures), nervous (58 structures), lymphatic (25 structures), digestive (17 structures), respiratory (11 structures), circulatory (72 structures) and urogenital (31 structures).	
Basic Tools	3 basic tools (rotate, move and zoom).	
Atlas Tools	5 atlas manipulation tools (isolate, zoom, hide, fade, organ and show all)	
Home	Returns the 3D volume to the starting position.	
Explorer Menu	Menu with display of all visible anatomical structures.	
Multiple Selection	Allows to select multiple anatomical structures.	
Annotation and Measurement Tools	2 annotation and measurement tools (arrow and text) with custom color options.	
Play/Pause	3D object rotation with start/pause and rotation speed control.	

Andressa Ramin
Student of Veterinary Medicine
UniEduK

" I'm very sensitive to apps like this that help people with ADHD and dyslexia to be able to see and learn like other people!"

3D Tomography Reconstruction from the head of an intubated dog.
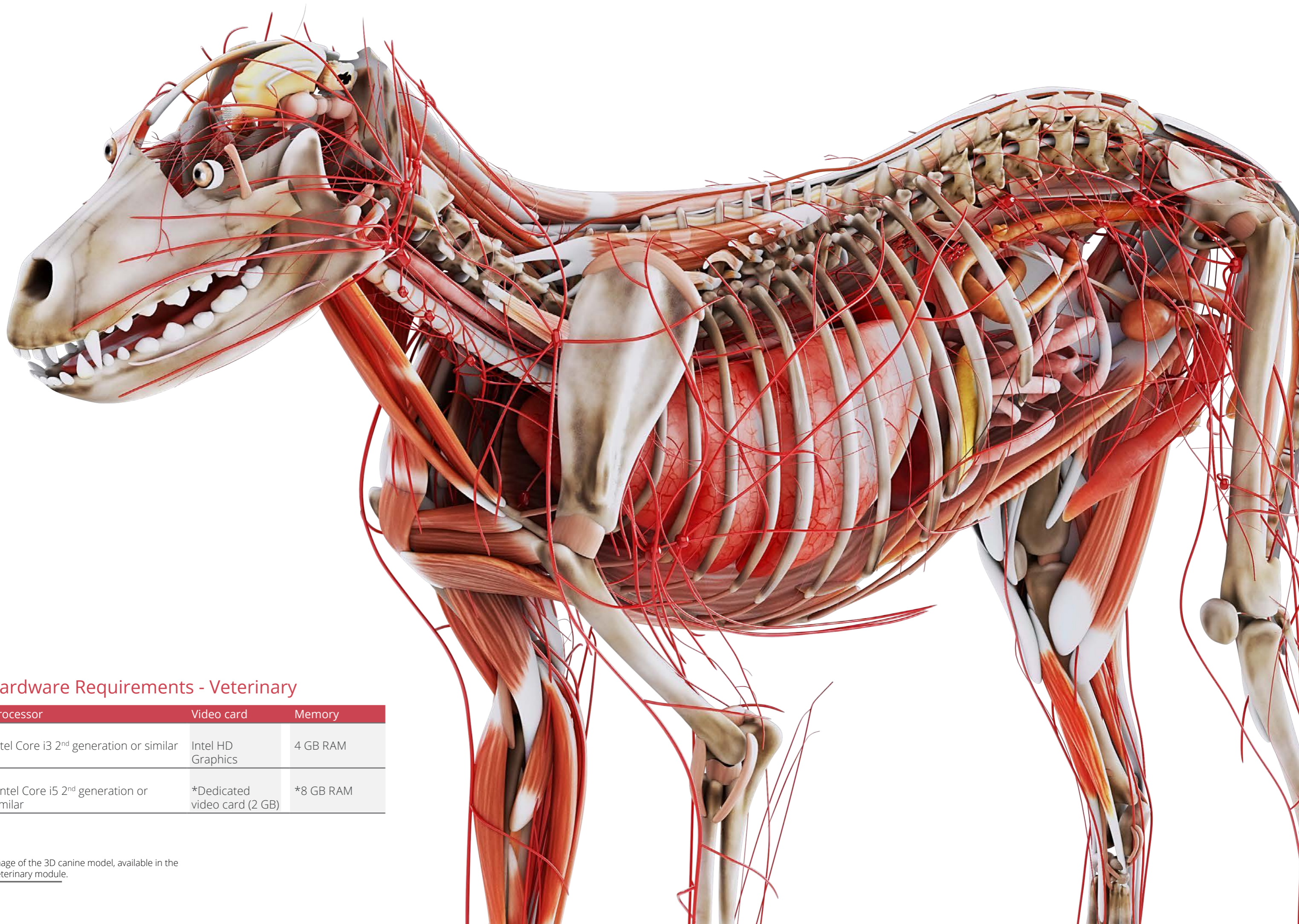
Hardware Requirements - Veterinary

Processor	Video card	Memory
Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM
*Intel Core i5 2nd generation or similar	*Dedicated video card (2 GB)	*8 GB RAM

Image of the 3D canine model, available in the Veterinary module.

# Athena Hub General Features

Intuitive Interaction

Everything you need at your fingertips. Interact naturally with pen or touch gestures. Roll, drag, zoom, cut, dissect and finger-swipe inside structures. It shortens the learning curve and helps the user feel more comfortable with the software.

Access control

User profile access control system to separate classes and studies from different users who interact with Athena Hub using the same machine.
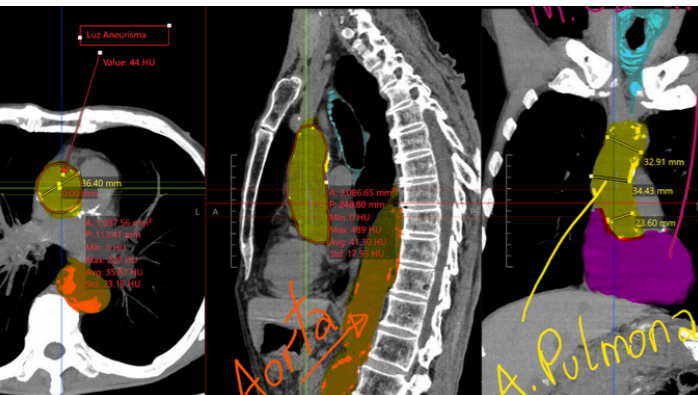

Notes and Measurements

In addition to Microsoft Ink, Athena Hub has its own set of annotation tools - line, arrow, angles, area, hounsfield scale, shapes (ellipses, rectangles), freehand drawing, and more.

Assembly of classes

Capture key images, take notes or any consideration for later presentation. Easy creation of classes or cases, all created classes are automatically sent to our Athena Hub* storage service.

*Contact us to know our plans.
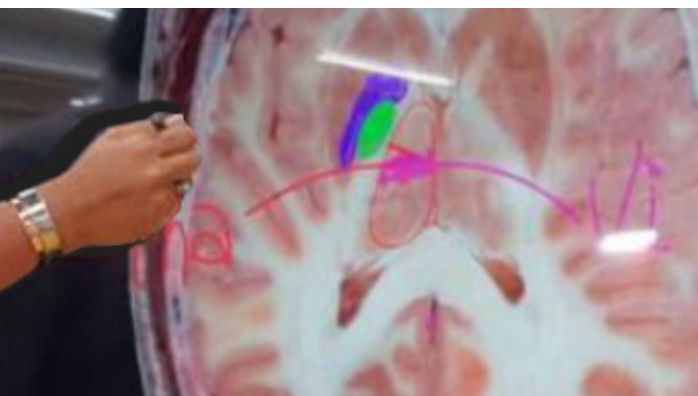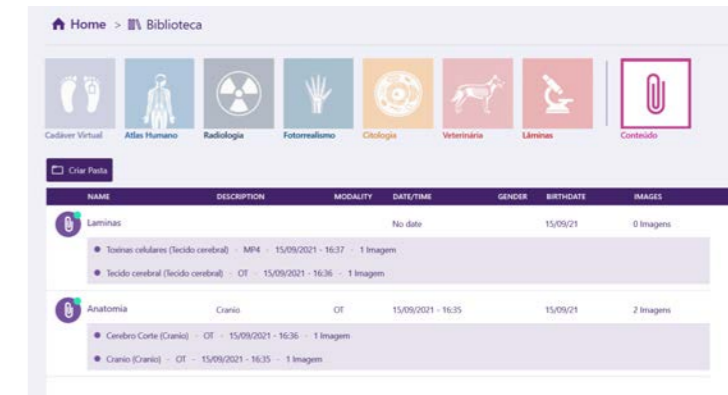
Generate Content

Athena Hub includes a Microsoft Ink-compatible pen, a powerful set of drawing and annotation tools with various types of colors, sizes, and also a virtual ruler to give the user the freedom to draw over images.

Content Sharing

Athena Hub can generate a complete report in various document formats such as Native, PDF or DOC. The report can include all annotated images, along with an image header and footnotes, automatically generated by the Athena Hub engine and can be printed, exported and shared.

3D Reconstruction of a Tomography for detailed analysis.
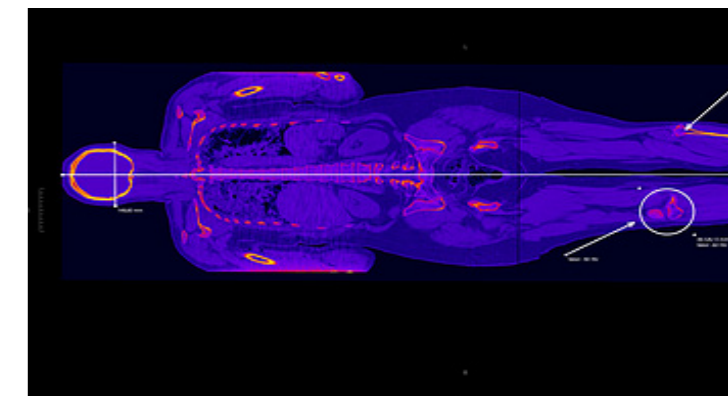
Versions for Teachers and Students

The system can be offered in two versions and the table below shows their differences:

Functionalities	Teacher	Student
Importing DICOM images (eg, TC, RM, US, MM modalities)	✔	✔
Importing and managing content (images, videos and audio)	✔	–
Copy to clipboard (eg, share via WhatsApp)	✔	✔
Creating Word reports	✔	✔
Annotations directly on the images (Ink)	✔	–
View options (Windows)	✔	✔
Quick guide, user manual and tutorial for use within the solution. online manual and videos	✔	✔
Mosaic mode (display on multiple screens)	✔	–
User profiles (admin mode)	✔	–
Save workspace state (save, edit and manage the workspaces list)	✔	✔
Opções de Idiomas (Português, Espanhol e Inglês)	✔	✔

Hardware Requirements - Athena Hub

Requirements	Processor	Video card	Memory
Minimum	Intel Core i3 2nd generation or similar	Intel HD Graphics	4 GB RAM
Recommended	Intel Core i5 2nd generation or similar	Dedicated video card (2GB) or higher	8 GB RAM or superior

Bibliographic references

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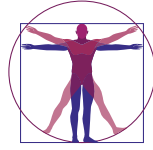
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