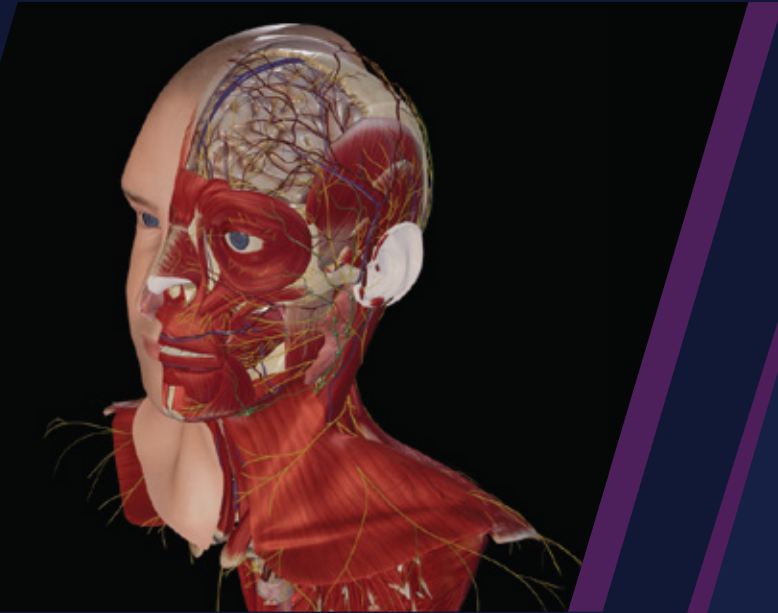




Quick Manual



Vesalii Anatomy 3D

About Vesalii

“Vesalii” the biggest medical library in the world, aims at assisting universities, students, healthcare professionals, and even patients in receiving quality and accurate medical information. It also provides different tools to easily view, study, and understand human anatomy of the male and female using 3D, virtual reality, and real CT scan models.

We have the largest medically accurate content developed by our anatomy experts and doctors, offering more than 1,000 histology images, 50,000 landmarks, 20,000 traceable blood vessel and nerve paths, 500,000 CT images, and over 5 million medical words. over 5 million medical words.



Vesalii Products

Vesalii has created software that mainly focus on the anatomy and histology of the human body in addition to radiology, and DICOM converter for the purpose of learning and harnessing the best tools to facilitate and empower the learning and researching process.



Our Products



Vesalii Anatomy 3D

Explore the comprehensive structure of the female and male human body in a stunning 3D environment, covering every anatomical structure with full medical information for each.

Vesalii Anatomy VR

Explore the comprehensive structure of the female and male human body in an immersive virtual reality environment, covering every anatomical structure with full medical information for each.



Vesalii Dicom Converter 3D

Convert your DICOM files into a 3D model that can be used on your desktop computer or smartphone, allowing you to explore your DICOM images in a 3D environment.

Vesalii Dicom Converter VR

Convert your DICOM files into a 3D model that can be viewed using virtual reality (VR) gear, allowing you to explore your DICOM images in a one-of-a-kind experience you never experience before.



Vesalii Radiology 3D

Learn and understand how to read CT medical images, control tissue density, and body planes (axial, sagittal, coronal) on a stunning 3D model created from over 1 million CT images available for you to study.

Vesalii Radiology VR

Learn and understand how to read CT medical images, control tissue density, and body planes (axial, sagittal, coronal) on a stunning 3D model viewed using immersive VR technology created from over 1 million CT images available for you to study



Quick Guide



Figure 1 | start screen









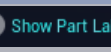



































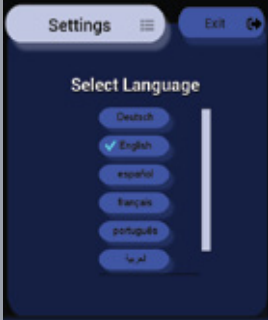

Button	Function
Male Body	Access 3D male body structure
Female Body	Access 3D female body structure
Multi Users	<p>Create or join multi-user session, if enabled</p> <p>Create or join session pages:</p> <p>Create Session  Create a new multi-user session</p> <ul style="list-style-type: none"> Server Name: Write the desired name of the session. Educator Name: Write the name other users will see over your avatar. Female: Click the female button to create a new session featuring the model of the female. Male: Click the male button to create a new session featuring the model of the male body.  <p>Join Session  Join a remote session through a VPN connection.</p> <ul style="list-style-type: none"> Session Address: Enter the IP address of the server (party that created the session). Student Name: Write the name other users will see over your avatar. Join: Join the session after entering the IP address. 
Help	Visit Vesalii support www.Vesalii.com/support
Exit	Exit Vesalii Anatomy 3D

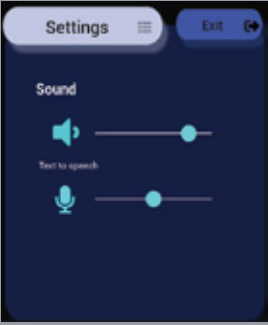


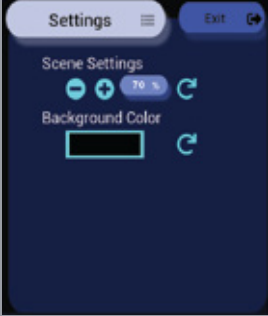


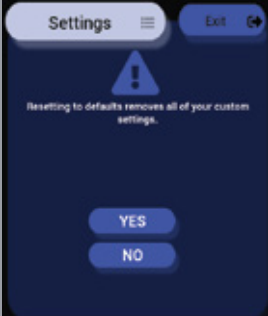

















Figure 2 | default workspace

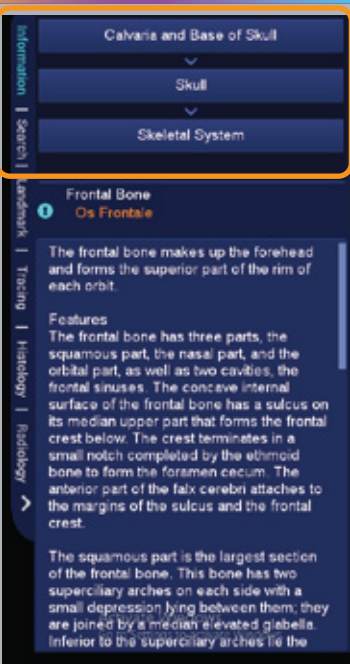
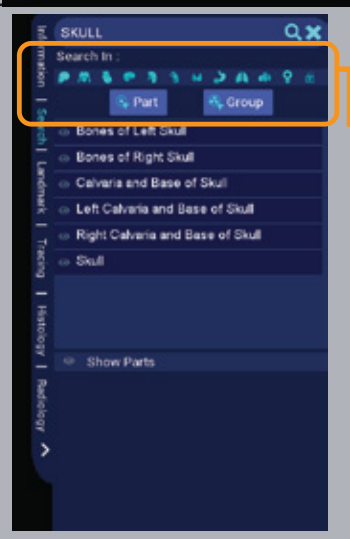

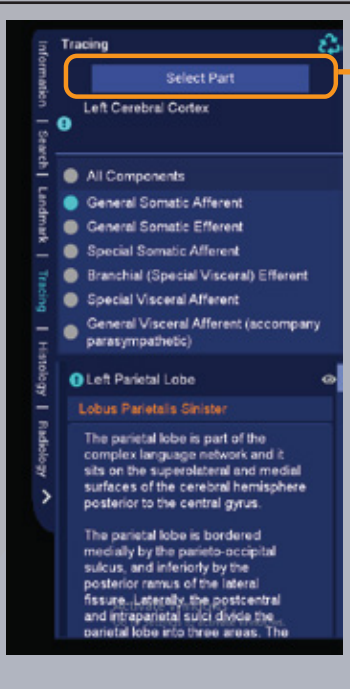
Num.	Icon	Name	Function
1		Tools bar:	
1.1		Select	Select a single part/multiple/group to control it
		Reset	Reset a single part/group to its original location
		Fade	Fade the selected single part/group and see underlying layers
		Hide	Make the selected single part/group invisible
		Explode	Expand the selected group to its primary segments
		Isolate	Isolate the selected single part/group from the whole body
		Play	Play\stop animation of the heart
		Drawing	Draw lines in free-hand or directly on the model
		Sticker	Add a personalized sticker to any body part
		Discover	A lens that shows the visible underlying body layers
		Screenshot	Takes and saves a screenshot of your current view
		Transform Body	Rotate the body in 3 axes
		Freeze	Make the selected part\group unaffected by Hide and Fade
		Freeze All	Make all parts in the current view unaffected by Hide and Fade
		Duplicate	Make another copy of the selected part/view
		Screen Record	Takes a video recording of the screen as you work on the model

Num.	Icon	Name	Function
2		Tools Options bar:	
2.1		Single selection	Select a single part from the 3D model
		Group selection	Select a group of parts from the 3D model
		Multiple selection	Select multiple parts from the 3D model
		No Label	Select the part without an indication to it by a label
		Show Part Label	Select a body part/multiple parts and show their label
2.2	! Type of selection depends on the tool selected (i.e if you select  only   will be active)		
		Duplicate Front	Place the duplicated single part in front of the original part
		Duplicate Beside	Place the duplicate single part on the left of the original part
		Duplicate All Front	Place the duplicated view in front of the original view
		Duplicate All Beside	Place the duplicate view on the left of the original view
3		Settings bar:	
3.1		ACL	The ACL button is only for the user that has created the session (host). It allows control over access permissions of other users.
		Access Request	The Access Request button is for users who join a session created by someone else. This button allows users to request permission to speak.
3.1.1			The ACL feature allows the host to control access permissions of other users.
			Search: Search for a user in the session by name.
			Refresh: Refresh the users in the session to reveal the name of users that have recently joined the session.
			Close: Close the ACL window.
		(apply to all users) 	Mute All: Mute sounds coming from all users in the session
		(apply to all users) 	Unmute All: Unmute sounds coming from all users in the session.
		(apply to all users) 	Grant partial access to all: Grant partial control to all users, i.e., all users can now freely control their own view of the scene and control the mouse cursor, allowing them access to change application settings.
		(apply to all users) 	Revoke partial access from all: Revoke partial control from all users with this permission.
			Mute User: Mute sound coming from the user's microphone.
			Unmute User: Unmute sound coming from the user's microphone.
			Grant partial access: Grant user partial access, i.e., the user can now freely control the view of the scene and control the mouse cursor, allowing the user access to change application settings.
			Revoke partial access: Revoke partial control from a user.
			Full Control: Grant user full control over the model. All actions done will be seen by all other users.
			Revoke Full Control: Revoke full control access from a user.


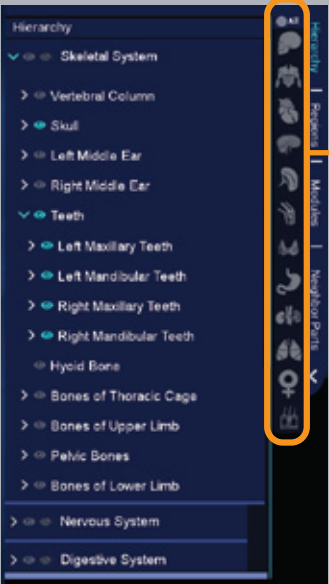


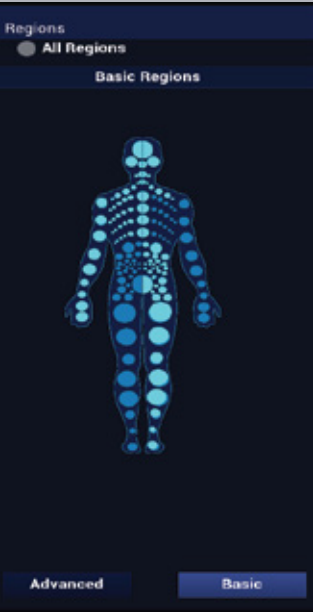
Num.	Icon	Name	Function
3.1.2		Access Request	<p>The button allows users to request permission to speak if the user was muted by the host</p> <p>When users are muted by the host, the users cannot unmute themselves because the microphone icon will be disabled . In this case, the Access Request  icon becomes active for the user; pressing the Access Request icon will send a notification to the host that the user is requesting access to speak.</p>
3.2	    	Mute self Syllabus Planes of Body Store Help center	<p>Users can mute or unmute themselves through this button</p> <p>View available syllabuses</p> <p>Reveal lines for the three planes to be moved on the body</p> <p>Open Vesalii store to view all Vesalii products</p> <p>View product manuals, FAQs, setup guides, and more</p>
3.2.1		Settings 	<p>Open settings menu where resolution, language, save path for screenshots and recordings, sound, and scene options can be changed.</p>
			<p>Resolution</p> <p>Resolution Quality: Change resolution quality (Best, High, Med, or Low).</p> <p>Texture Quality: Change the quality of textures (High or Low).</p> <p>Anti Aliasing: Change anti-aliasing option (Best, High, Med, or Low). The higher the setting, the smoother the edges of displayed objects in the scene become.</p> <p>Resolution:</p> <ul style="list-style-type: none"> - Choose between running the application in fullscreen or windowed mode. - Change the resolution of the application.
			<p>Language</p> <p>Select the language for the application. Language change is application-wide, meaning that it affects all aspects of the application, including menus, bars, panels, and body structure names and description. There are 7 languages available now.</p>
			<p>Save Path</p> <p>Select the desired save path for screenshots and screen recordings taken through the application.</p>

Num.	Icon	Name	Function
			<p>Sound</p> <p>Sound  Control background music volume.</p> <p>Text to Speech  Control text-to-speech volume.</p>
			<p>Scene</p> <p>Scene Settings Control the brightness of the model in the scene. Press  to reset brightness to default setting.</p> <p>Background Color Change the color of the scene background. Press  to rest background color to default setting.</p>
			<p>Reset</p> <p>Resets all options to the original setting.</p>
			<p>Exit </p> <p>Close the settings window.</p>




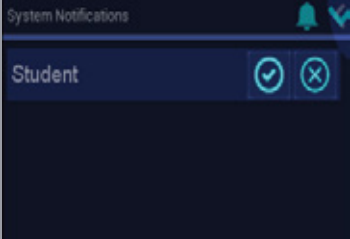




Num.	Icon	Name	Function
4		Edit & Reset Tools bar:	
4.1		Navigation button	Show / Hide navigation ring
		Undo	Revert last action
		Redo	Reapply last action (only activated after Undo function)
4.1.1	 Navigation Ring	Zooming	Clicking on  or  buttons to zoom in/out of the view
		Increase/Decrease Camera Depth	Use  or  buttons to increase or decrease camera depth
		Directional Arrows	Used to move the entire 3D view up, down, left, or right
		Reset Camera	Used to reset the camera view to the original position
		Move	Used to move navigation ring on screen
		Close	Used to close current navigation ring
		 Clicking on  I reopen the navigation ring	
4.2	 Remove Options	Clear Sticker	Remove all stickers
		Reset body	Reset all parts to the default system
		Disable hide	Undo the hiding action
		Disable fade	Undo the fade action
		Exit isolation	Undo the isolate action
		Disable Freeze	Disable freeze function on the selected part
		Remove Duplicate	Delete the duplicated part/view
5	 Right Side Panel	Right Side Panel:	<p>Consists of six main tabs:</p> <ul style="list-style-type: none"> Information Search Tracing Landmark Histology Radiology <p>By default, all tabs will be closed, click on  to expand the tab and see more options</p>

Num.	Icon	Name	Function
5.1		Information	<p>Contains the name of the selected part in English and Latin, in addition to information about the part.</p> <p>On the top, you can see the hierarchy path for the selected part to understand the anatomical structure of the human body.</p>
5.2		Search	<p>Use group filter to search for a group of structure</p> <ul style="list-style-type: none"> • use body system filter to search in a specific system. • use part filter to search for a single part. • use group filter to search for a group structure <p>In addition you can click on the logo  to show/hide the searched part in 3D.</p> <p>! Clicking on the part in the search result will highlight it in the 3D view</p>
5.3		Tracing	<p>Allows following the path of a blood vessel or nerve on the 3D model to trace its path from the origin to the related part.</p> <ul style="list-style-type: none"> • Select one or more systems to trace paths (cardiovascular, nervous, or lymphatic system) to see it on the 3D view. • When clicking on a path, its name will appear in addition to a full description of the path. It will also be highlighted in the 3D view.

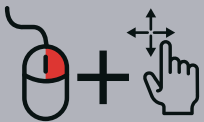
Num.	Icon	Name	Function
5.4		Landmark	<p>Show landmarks and their names on the selected part</p> <p>Clicking will show more information for the selected landmark</p> <p>Click to show/hide landmark on the body part, each landmark is identified with a number (for example) that can be shown on the selected part as a red circle</p>
5.5		Histology	<p>Browse histology images related to cell and tissue structure with their landmarks</p> <p>Use to browse histology images and find image description for each one</p> <p>The icon shows more information about the image, including description, tissue category, and tissues.</p> <p>Click on the image to maximize the view and see landmarks on it</p>
5.6		Radiology	<p>View CT/MRI/X-ray images for the selected part in any of the three planes (Axial/Coronal/Sagittal)</p> <p>Use to move between slices.</p> <p>Click on the image to maximize the view and to be able to rotate the image and see landmarks as red dots</p>

Num.	Icon	Name	Function				
6		Left Side Panel:	<p>Enables the user to show/hide anatomical structures in the 3D view by clicking on the desired system</p> <ul style="list-style-type: none"> • Available systems (skeletal system, muscular system, cardiovascular system, nervous system, lymphatic system, joints system, endocrine system, digestive system, urinary system, respiratory system, reproductive system, integumentary system). <p>! You can press: All to activate/disable all systems at once</p>				
6.1		Hierarchy tab	<p>Discover the systems and their parts and groups in a hierarchical form provides the ability to list the systems, displaying their relevant groups and parts.</p> <ul style="list-style-type: none"> • Enable/disable body system from the right side to show the hierarchy order for the related system. • <input checked="" type="checkbox"/> deep dive to the next hierarchy level. •  show/hide selected part in the 3D view. •  show/hide advanced parts in the 3D view. 				
6.2		Regions tab	<p>View body systems based on region. By clicking on the desired region, you can enable/disable it in the 3D view</p> <table border="1" data-bbox="571 1525 738 1653"> <tr> <td data-bbox="571 1525 738 1574">Basic</td> <td data-bbox="772 1525 1554 1574">Activated by default for the body</td> </tr> <tr> <td data-bbox="571 1615 738 1653">Advanced</td> <td data-bbox="772 1615 1554 1715">Open advanced regions to access advanced body structures, allowing a more detailed view, for example, showing all parts of the nervous system</td> </tr> </table> <p>! Default region view is basic view</p>	Basic	Activated by default for the body	Advanced	Open advanced regions to access advanced body structures, allowing a more detailed view, for example, showing all parts of the nervous system
Basic	Activated by default for the body						
Advanced	Open advanced regions to access advanced body structures, allowing a more detailed view, for example, showing all parts of the nervous system						

Num.	Icon	Name	Function
6.3		<p>Modules tab</p> <p>Create Module</p> <p>Vesalii Modules</p> <p>User Modules</p> <p>Exit Module</p> <p></p> <p></p>	<p>View available modules and use a search function by module name.</p> <ul style="list-style-type: none"> Use filter to search for any module based on system and/or region. <p>Create customized modules where users can add a description to the created module, filter based on systems and/or region for an easier search</p> <p>View pre-created modules from Vesalii</p> <p>View Modules created and customized by the user.</p> <p>Close the module tab and remove the selected module from the scene.</p> <p>Take a snapshot for the module and save it as a module cover photo</p> <p>Delete the created module</p>
6.4		<p>Neighbor Parts</p> <p>Select Part</p>	<p>Reveal the neighboring parts for any selected part from any other system (s).</p> <ul style="list-style-type: none"> Select a part from the model Select the system (s) for the neighboring parts you wish to reveal Move the slider to reveal the neighboring parts in a radius around the originally selected part

Num.	Icon	Name	Function
7		<p>System Notification bar:</p>   	<p>This is the notification bar as it appears to the professor. The first notification the professor receives in a session will expand the notification bar into a tab. Pressing the  will minimize the tab back into a bar. All subsequent notifications in the session will cause the notification bar to change color to red. Pressing the  button on the notification bar will expand it and remove its red color</p> <p>Notifications appearing on the notification bar include:</p> <p>A notification that appears to the professor when a student leaves the session.</p> <p>A notification that appears to the professor when a student joins the session.</p> <p>A notification that appears to the professor when a student requests access.</p> <p>Pressing the  button next to a student's name will unmute the student and enable their microphone button, allowing the student access to unmute and mute themselves freely until the student is muted again by the professor. Pressing the  button next to a student's name will remove the student from the list without giving them access to speak, i.e., nothing changes and the student's microphone remains muted.</p>

Mouse + Mac touchpad Controls



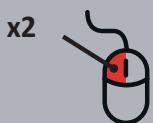
Rotate camera



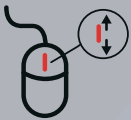
Right click menu



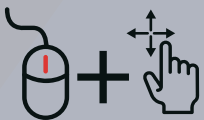
select, move, functions



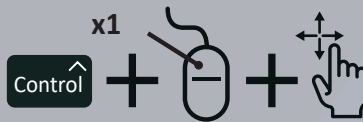
Focus on body part



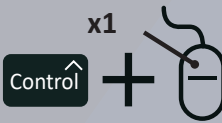
↑ Zoom out
↓ Zoom in



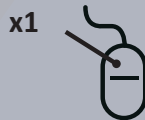
Pan camera



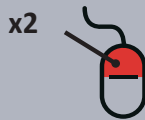
Rotate camera



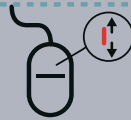
Right click menu



select, move, functions



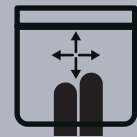
Focus on body part



↑ Zoom out
↓ Zoom in



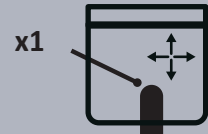
Pan camera



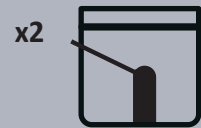
Rotate camera



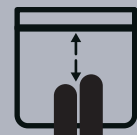
Right click menu



select, move, functions



Focus on body part



↑ Zoom out
↓ Zoom in



Pan camera



Right-click for macOS users can be activated from:
system preferences > mouse > secondary click activation