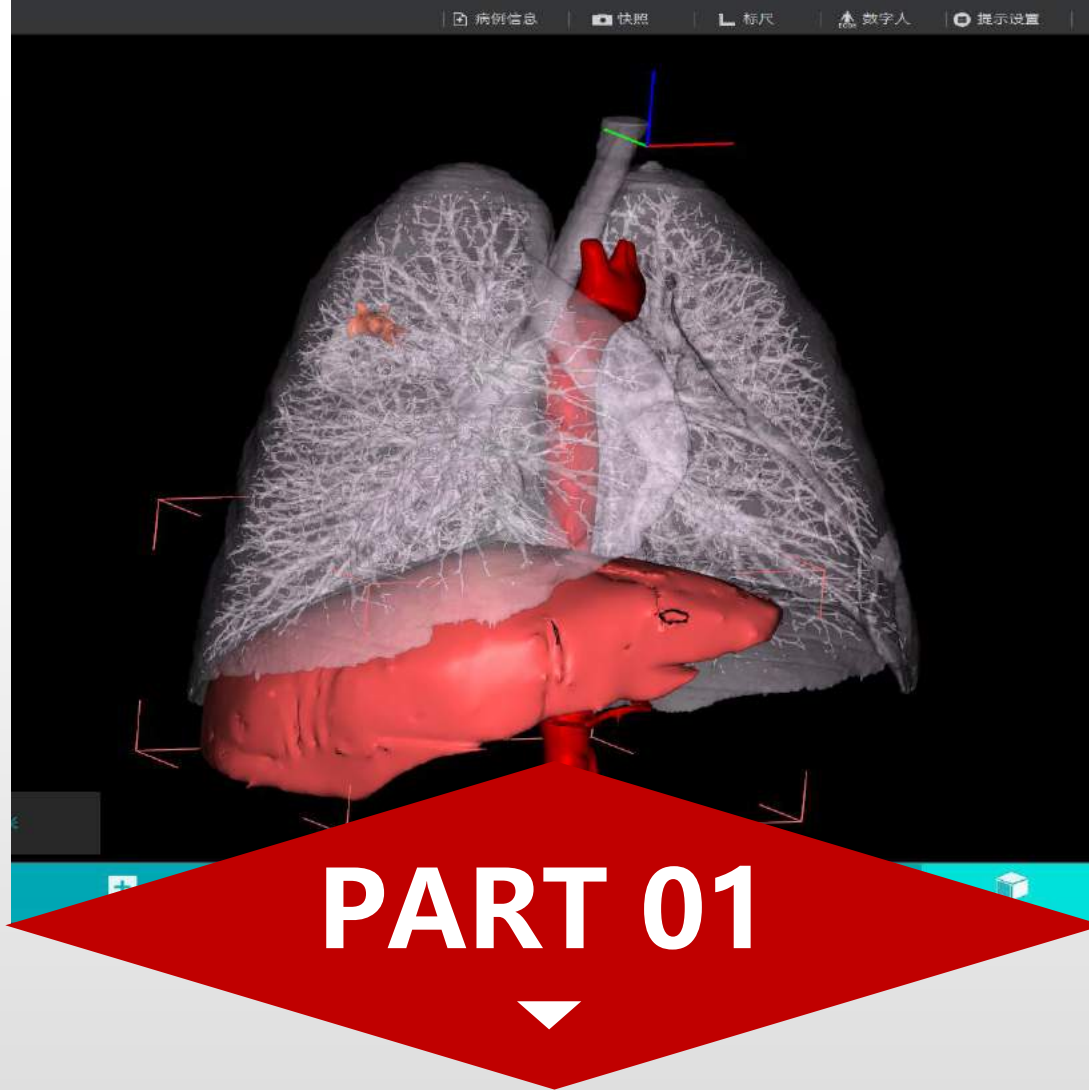




**EDUMED SCIENTIFIC LTD.**

# **ANATOMİ EĞİTİMİNDE BEKLENEN İNNOVASYON**

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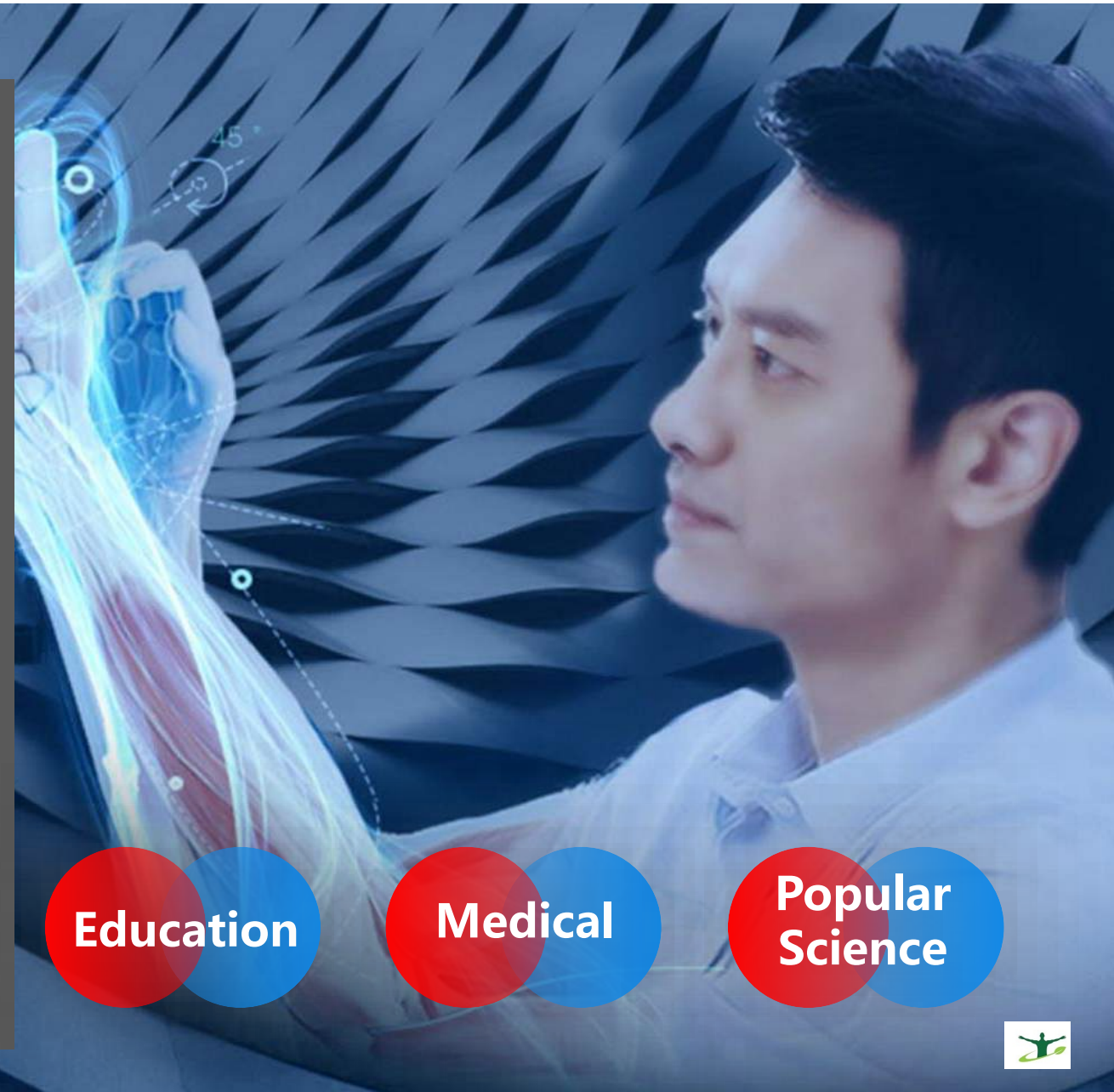


# Digital Human Virtual Anatomy Eğitim Sistemi



Virtual Technology is a **technology-driven** technology company. Completely self-developed with independent intellectual property rights. Digihuman Technology focuses on **the development and application of Chinese digital human**. In cooperation with experts from leading Chinese medical schools (institutes), we have successfully developed a series of innovative products such as the first "Digital Human Anatomy System" in China, "Digital Human Clinical Surgery Planning System" and "Digital Human Virtual Simulation Teaching System", which has alleviated the worldwide problem of shortage of cadaver sources (specimens) in medical education.

Virtual Technology is a typical representative enterprise of **new dynamic energy** that applies digital technology to improve efficiency. We provides products and services for **digital medicine clinical, education and science popularization** through the application of "Digital Human" technology with international leading technology level and talent accumulation, which has both economic value and social value.

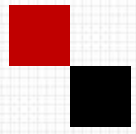


**Education**

**Medical**

**Popular  
Science**





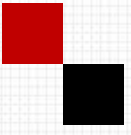
*Inovasyon...*





# *Anatomi eđitiminde gelenekten geleceęe*





***Anatomi eğitiminde***

***Taşlar Yerinden oynuyor...***



● **Direction One**

We are committed to building the world's largest and most complete database of human morphology.



● **Direction Two**

We are committed to accelerate the digital transformation and intelligent upgrade of medical education through the innovative application of new generation information technology (AI 5G 3D VR) in medical education.



● **Direction Three**

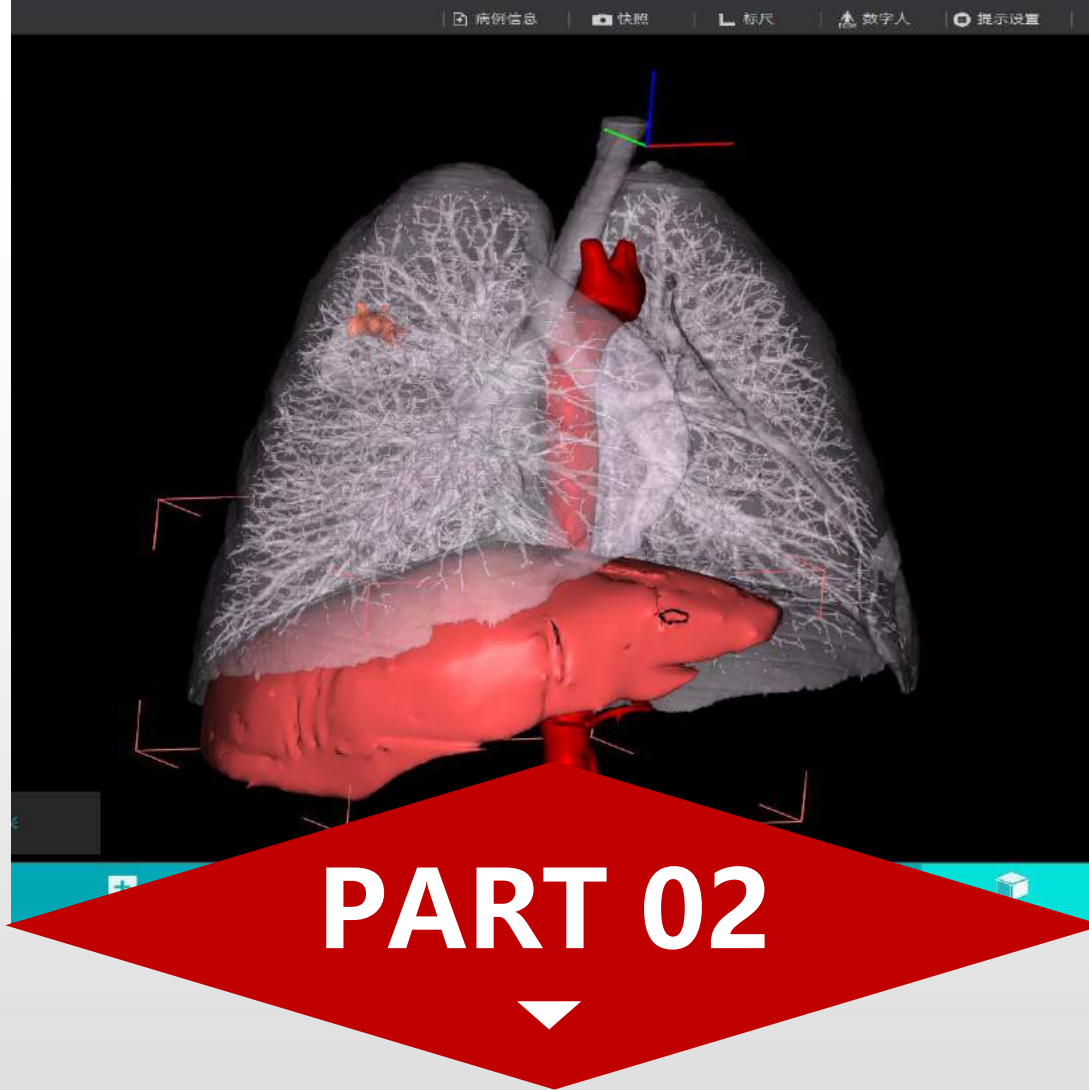
We are committed to the innovative application of the digital human body in clinical medicine to accelerate the development of precision medicine.



● **Direction Four**

We are committed to the innovative application of life science visualization in science education, presenting the mystery of life for the public.



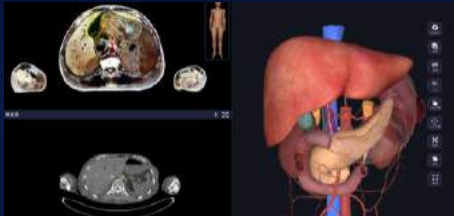


# Medical Education

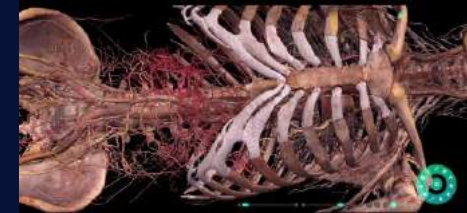




01 **Dighuman Virtual Anatomy System**



02 **HD Digital Human Virtual Anatomy Table System**



03 **Medical Morphology Teaching Platform**



04 **3D Printing Products**



# 01 Digihuman Virtual Anatomy System



**14 years**

**Non-stop R&D**

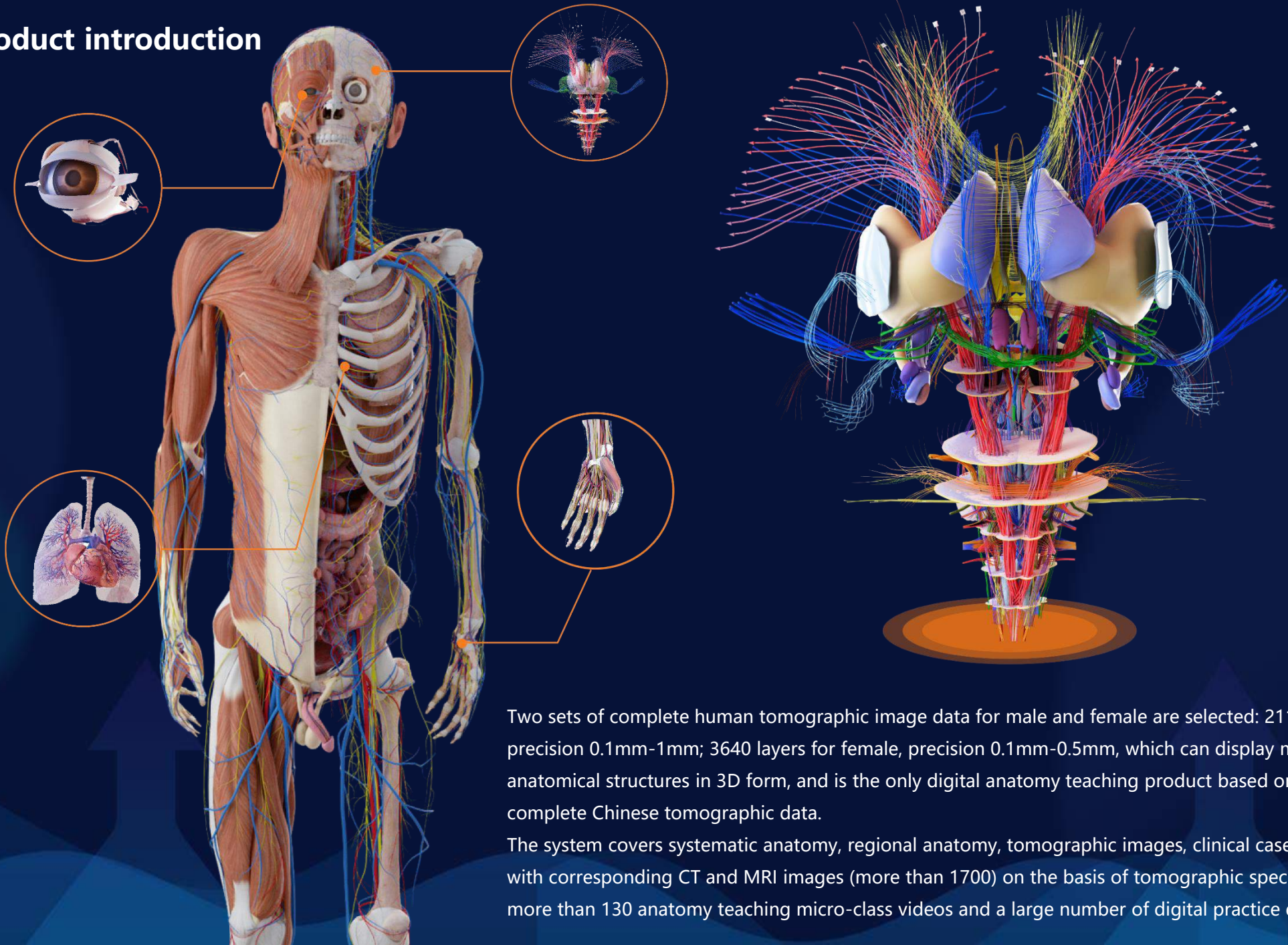


**7 times**

**Large-scale data  
upgrades**



## Product introduction

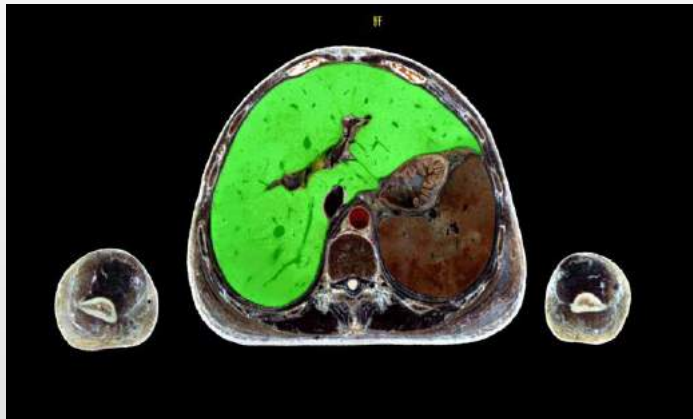


Two sets of complete human tomographic image data for male and female are selected: 2110 layers for male, precision 0.1mm-1mm; 3640 layers for female, precision 0.1mm-0.5mm, which can display more than 6000 anatomical structures in 3D form, and is the only digital anatomy teaching product based on the reconstruction of complete Chinese tomographic data.

The system covers systematic anatomy, regional anatomy, tomographic images, clinical cases, etc. It is equipped with corresponding CT and MRI images (more than 1700) on the basis of tomographic specimen images, and has more than 130 anatomy teaching micro-class videos and a large number of digital practice questions.



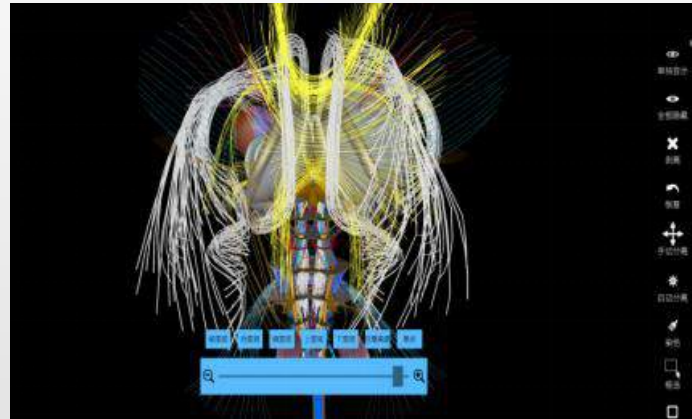
Digital human anatomy system integrates a large number of real human cross-sectional data into a computer to reconstruct the three-dimensional structure image of human body. It is the result of combination of medicine, information technology and computer technology. It is the only digital human anatomy product based on complete Chinese sectional reconstruction at present. The content setting is close to the syllabus and easy to operate.



## Accurate data



The system is developed using continuous transverse sectional images of human specimens. The section precision for men and women was 0.1-1mm and 0.1-0.5mm, respectively, and the thickness is unequal. In the parts of head and chest, the layer spacing is up to 0.1mm because they need to be displayed finely.



## 3D structures Fine and realistic



More than 6000 fine and realistic reconstructed anatomical structures were embedded in ECHUNG Digital Human Anatomy System, which can provide a lot of material for anatomy teaching.



## Multi-angle Stereoscopic observation



The digital human can be rotated at any angle and arbitrarily zoom in and out. It can be observed in all directions from the perspective of looking up and looking down. The structures will be more visual and intuitive contrast with the models and specimens.



# Digital Human Anatomy System---More Professional, More Comprehensive, More Real

It covers the contents of systematic anatomy + regional anatomy + sectional anatomy, and has anatomy micro-course and self-learning module .

The image displays the ECDH (Digital Human Anatomy System) interface. The main menu features six colored buttons with icons and labels:

- SYSTEMATIC ANATOMY** (Teal button with a human silhouette icon)
- REGIONAL ANATOMY** (Purple button with a head profile icon)
- SECTIONAL ANATOMY** (Green button with a stack of books icon)
- CLINICAL CASE** (Red button with a magnifying glass icon)
- ANATOMICAL VIDEO** (Yellow button with a film strip icon)
- 3D specimen of human body** (Purple button with a human torso icon)
- AUTONOMOUS LEARNING** (Blue button with a person reading icon)

Three preview windows on the right show:

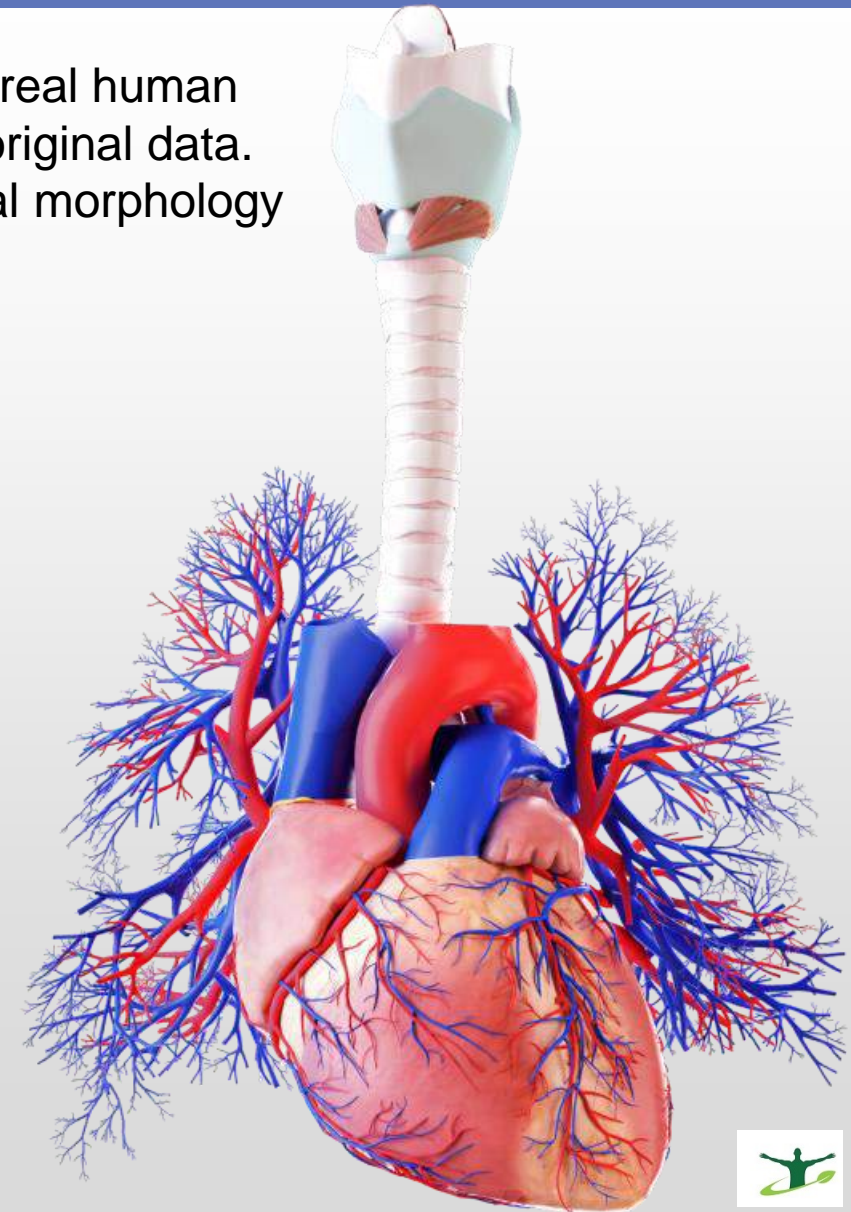
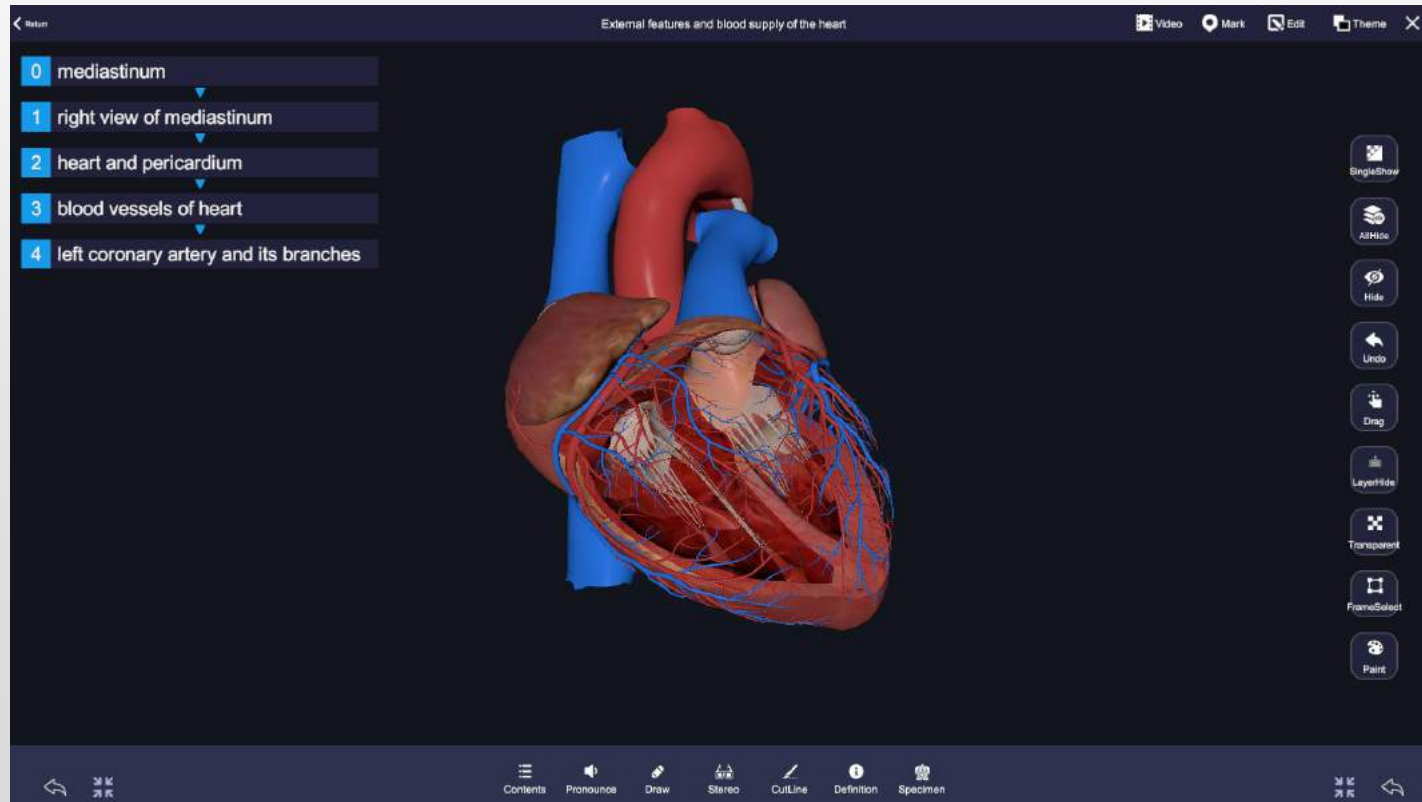
- A 3D model of a liver.
- A diagram of a human torso with a vertical spine and labels (C3, C5, T4) and the text "刺激" (Stimulate) and "刺激运动器的本体感觉" (Stimulate proprioception of the motor organ).
- A 3D model of a human torso with internal organs visible.

The ECDH logo is prominently displayed at the top center of the main menu. The interface also includes a "Sign in" button and a language selector (EN) in the top right corner.



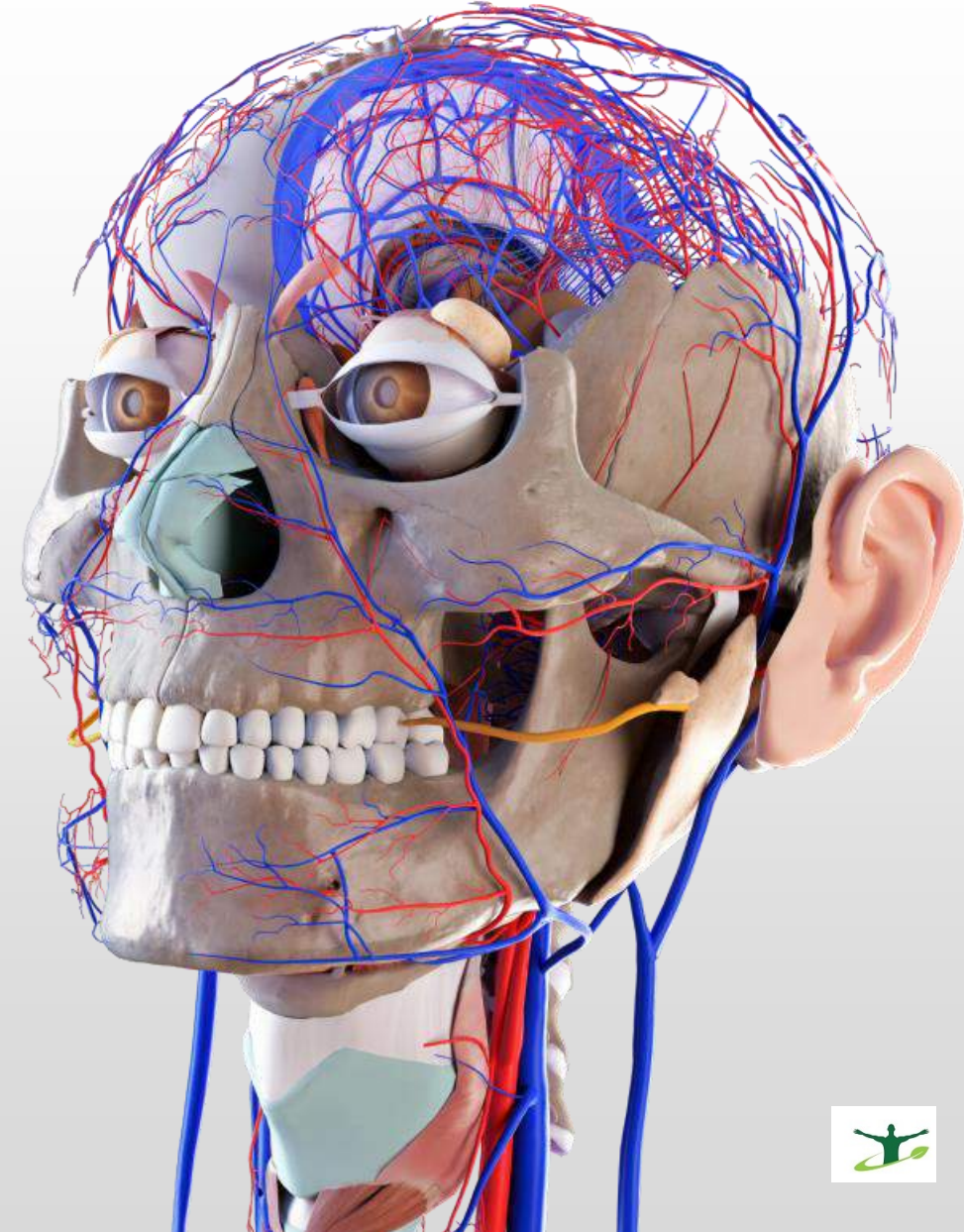
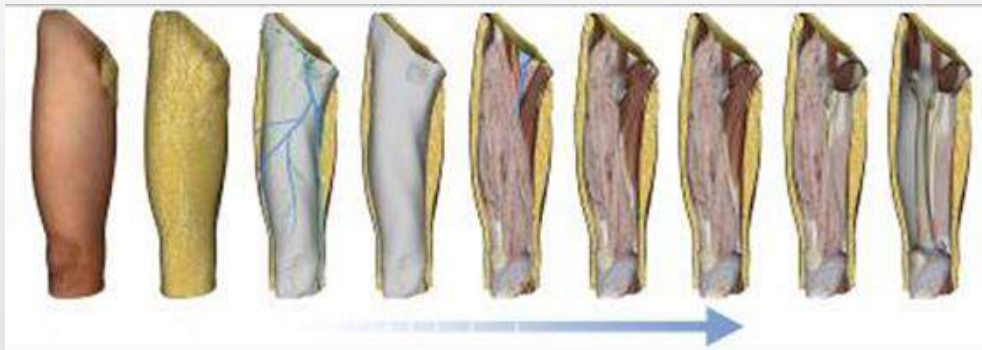
# Systematic anatomy

The three-dimensional structures are obtained by 3D reconstruction of real human cross-sectional data. Their position and shape are consistent with the original data. The structures are divided into nine systems. And the three-dimensional morphology of more than 6000 anatomical structures can be displayed.



# Regional anatomy

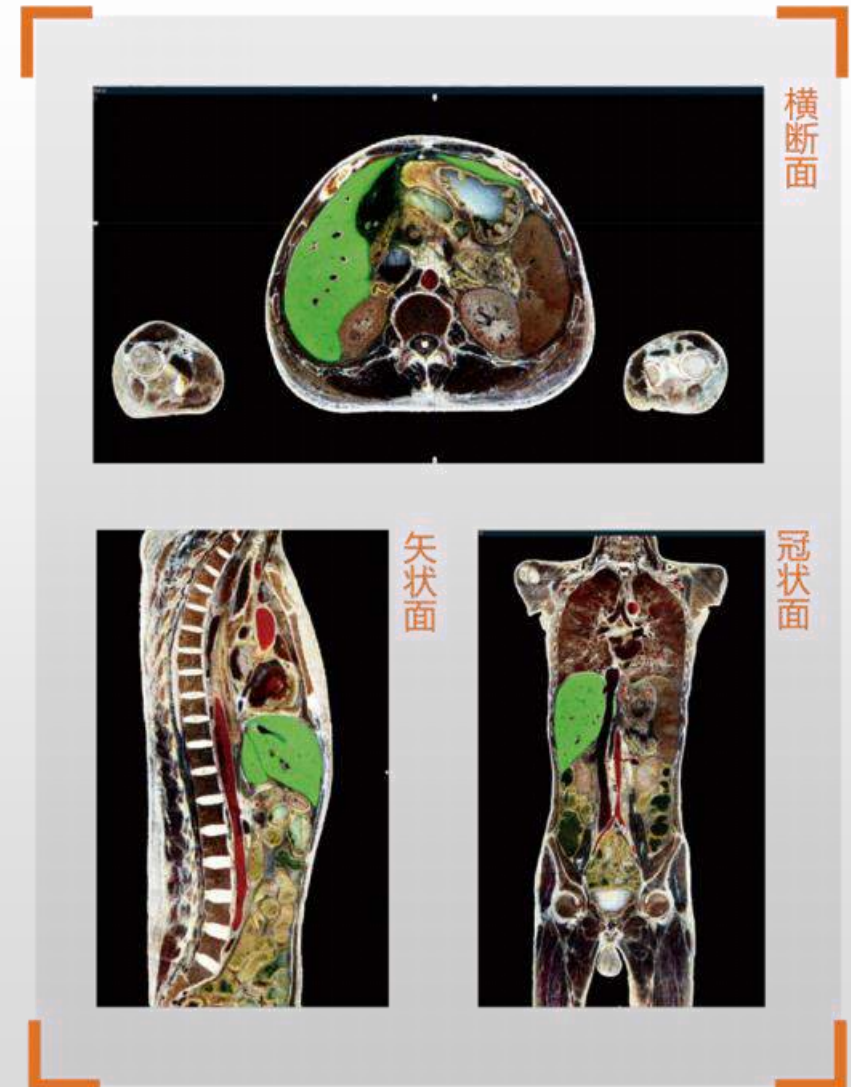
For the teaching of Regional Anatomy, teachers can display the structures from superficial layer to deep layer using the digital human body with stripping and perspective functions. The students are able to build local hierarchical concepts and know the adjacent relationships of the structures even in the classroom. The Digital Human Anatomy System includes a large number of regional anatomy teaching videos to facilitate teaching and students' self-study.





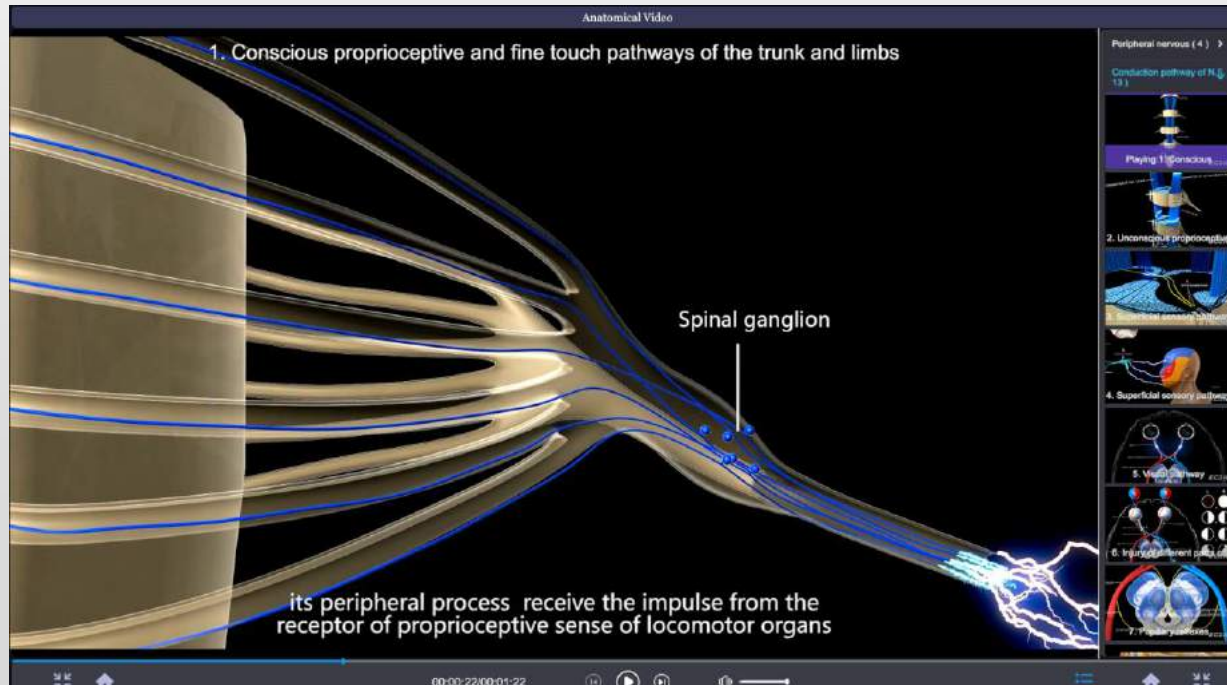
# Sectional anatomy

It's easy to obtain sectional images of any section. Using the highlighting function, the sectional structures can be identified, their Chinese and English names can be obtained quickly, and their positions and shapes can be showed in the three-dimensional human body. Which can provide real specimens and imaging images for students' learning sectional anatomy.



# Anatomical Video

**Anatomy Microlecture, Courseware system, Assisted autonomous learning.** There are a large number of anatomy teaching videos in the part of anatomy microlectures, including 52 videos of systematic anatomy, 49 videos of regional anatomy and 33 videos of sectional anatomy. The contents describe in detail the operation methods, procedure and related structures for the systematic and regional anatomy, which can allow the students grasp the knowledge of human body structure vividly and comprehensively. The videos contain abundant contents and clear images, which are suitable and useful for teaching and learning. They are important learning materials for students to prepare for pre-class study and after class review, and also provide practical anatomy references for clinicians and graduate students.



## Microlearning Video



The content shows in detail the operation methods, steps and related structures of systematic or local anatomy, so that students can master the knowledge of human body structure vividly and comprehensively.

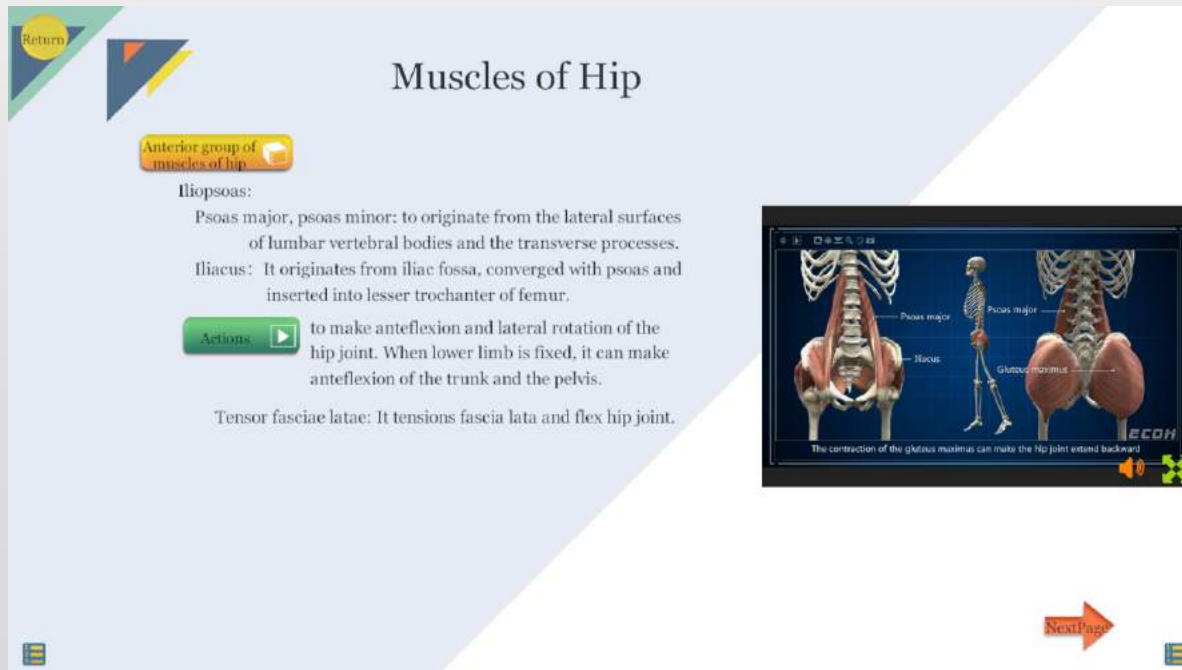
# 130+



# Autonomous learning

According to the teaching requirements of systematic anatomy and regional anatomy, a large number of courseware have been edited and produced. And students can be assisted in autonomous learning through animation, video, 3D models, pictures and words.

A large number of theory test questions and specimen test questions of anatomy are built in the system to facilitate students' self-evaluation and improve their learning pertinence.




**Muscles of Hip**

**Anterior group of muscles of hip**

**Iliopsoas:**  
Psoas major, psoas minor: to originate from the lateral surfaces of lumbar vertebral bodies and the transverse processes.  
Iliacus: It originates from iliac fossa, converged with psoas and inserted into lesser trochanter of femur.

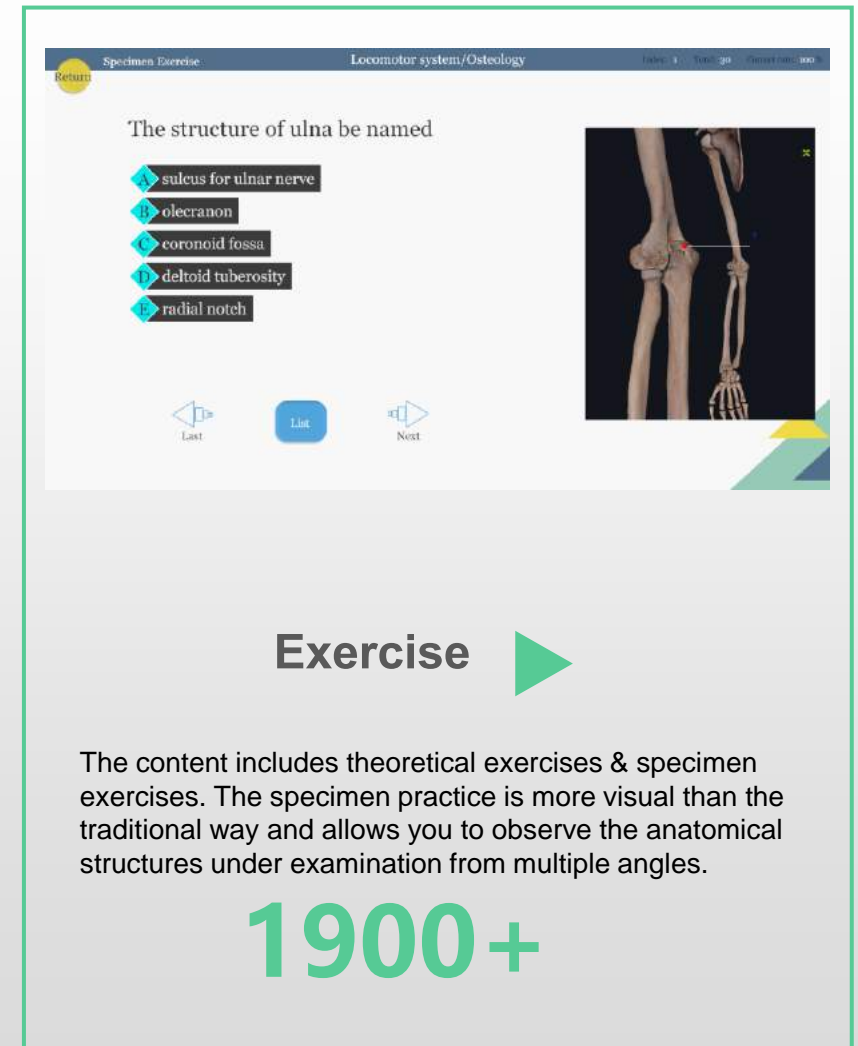
**Actions:** to make ante flexion and lateral rotation of the hip joint. When lower limb is fixed, it can make ante flexion of the trunk and the pelvis.

Tensor fasciae latae: It tensions fascia lata and flex hip joint.



The contraction of the gluteus maximus can make the hip joint extend backward.


Next Page



Specimen Exercise: Locomotor system/Osteology

The structure of ulna be named

- 1. sulcus for ulnar nerve
- 2. olecranon
- 3. coronoid fossa
- 4. deltoid tuberosity
- 5. radial notch



Last List Next

## Exercise

The content includes theoretical exercises & specimen exercises. The specimen practice is more visual than the traditional way and allows you to observe the anatomical structures under examination from multiple angles.

# 1900+



# Rich in functions

The system has designed a variety of quick and convenient functions, including background switching, labeling, separation, transparency, dyeing, stripping, searching, bilingual pronunciation, freehand drawing and stereotaxic display et al. Note: The stereoscopic display function requires hardware support



# ■ Educational Facilities

## 1、ECDH- Int 86

The professional version of the built-in digital human anatomy system allows teachers to visually explain the three-dimensional structure of the human body during teaching, as well as courseware, pictures and video projection, providing 4K high-resolution display effect, which perfectly replaces the projector for digital teaching



## 2、ECDH-Int 55

The professional version of the built-in digital human anatomy system enables students to conduct virtual and real comparison of human body structure during learning, quickly and accurately master relevant knowledge, and preview and review before or after class. Provide 4K high-resolution display effect.



The structure is reconstructed from real human tomographic data, ensuring the authenticity and scientificity of the structure and its spatial adjacency.



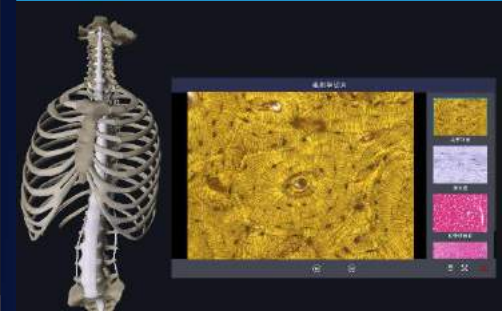
Tens of thousands of fine human tissue structures ensure the accuracy and realism of digital models and fine structure restoration.



The integration of digital resources according to the needs of different courses, including: real human 3D models, video micro-lessons, etc. ensures the systemic nature of the curriculum and the integrity of the content.



The various types of knowledge content such as gross anatomy and microanatomy, basic medicine and clinical medicine are interrelated, ensuring the availability of teaching resources for horizontal and vertical integration of courses.



# 02 HD Digital Human Virtual Anatomy Table System

- Virtual Anatomy Table - Virtual Anatomy MINI Table - Intelligent Assistant (XiaoChuang)

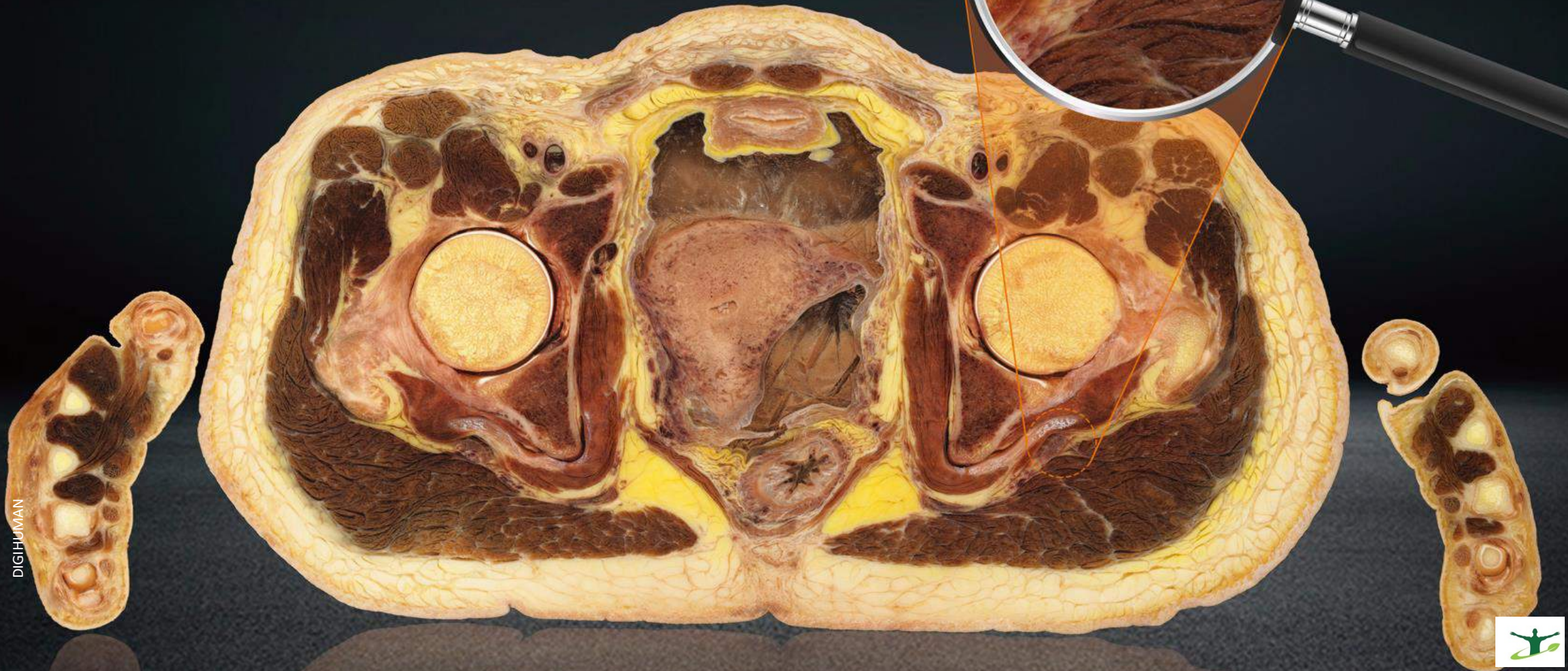




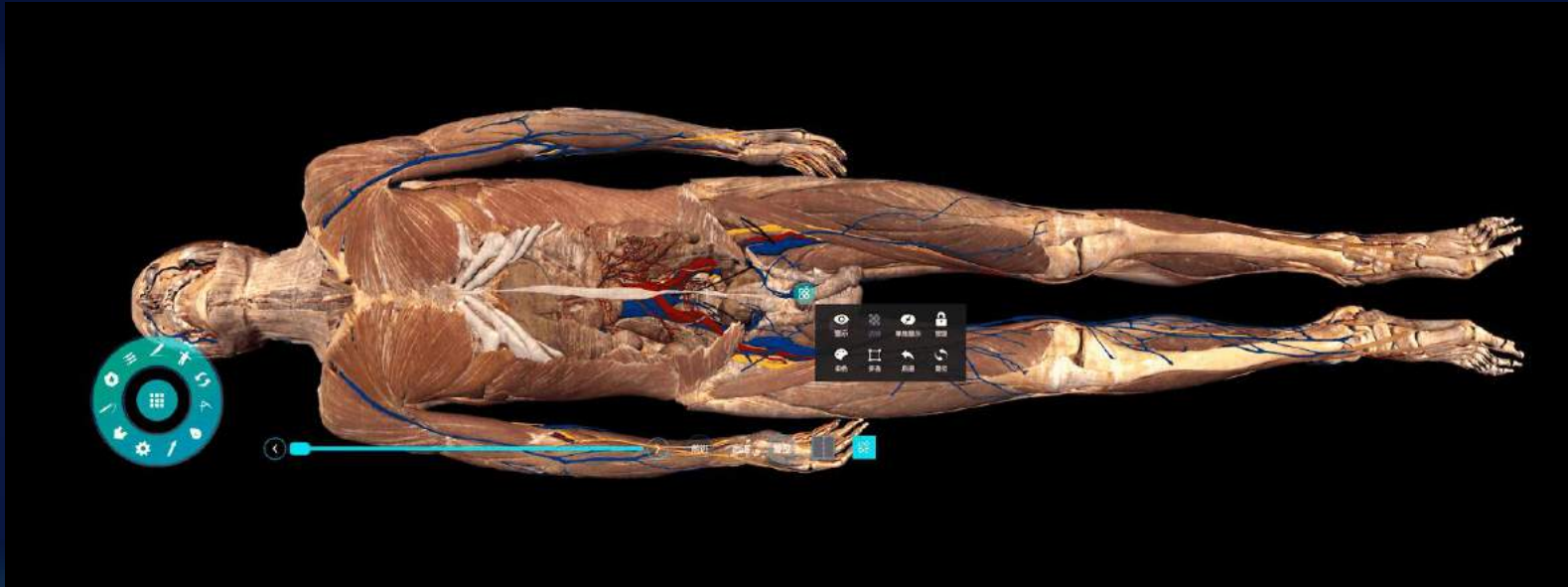
We have built the highest precision human tomography data acquisition laboratory in the world to date and acquired complete human tomography data.



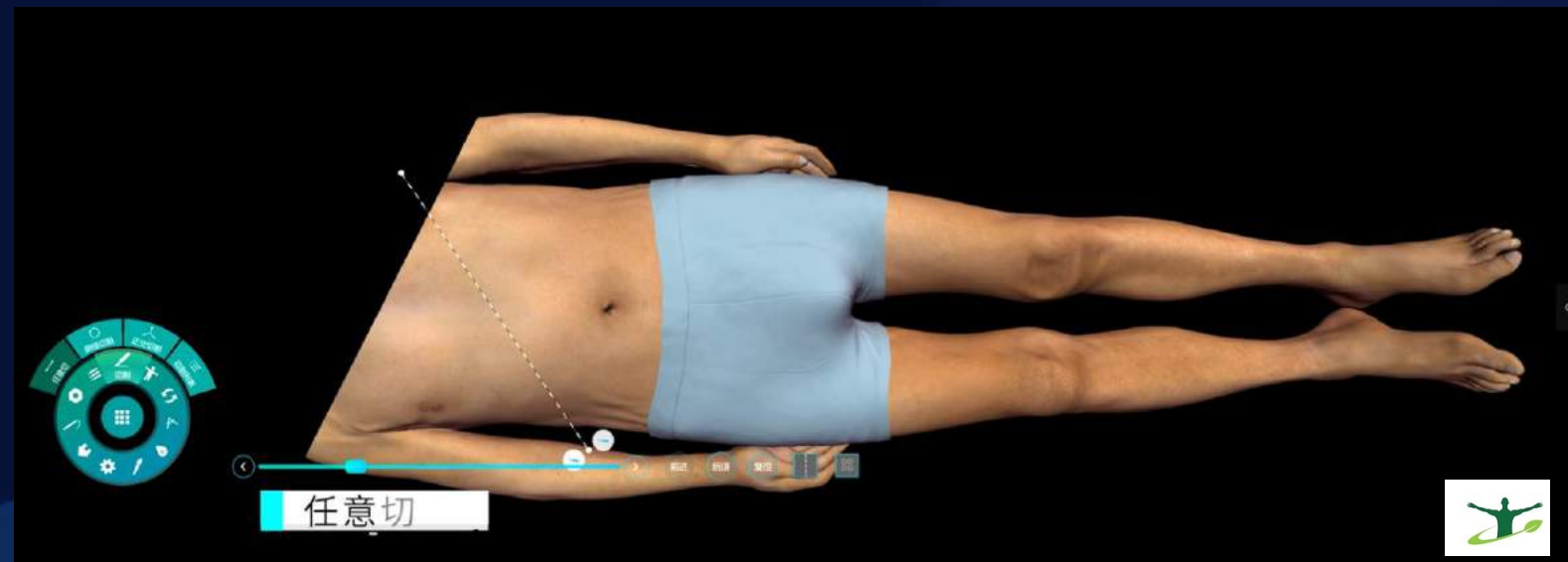
Single image: 26,000\*16,000\*3 Layer thickness: 0.1mm



## Product introduction



It can display the structure of any part of the digital human body at any angle, so that students can establish the concept of local 3D levels and adjacent relationships.





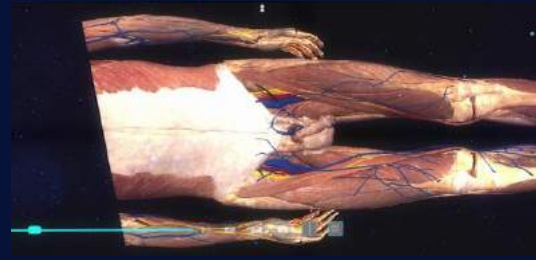
Male





### Ultra-refined data Entity modeling

Using the ultra-high precision data as the basis, the reconstructed human tomography accuracy reaches 0.1mm, the number of tomography reaches 17000 layers. After 3D reconstruction, it generates the structure model with completely realistic appearance form, surface texture and internal color, realizing real-time drawing of human structure with super-large data.



### Simulated anatomy Arbitrary cutting

The operation of the table can realize the dissection and observation of the human body structure at any angle, integrating the knowledge of human anatomy, regional anatomy and tomographic anatomy. The virtual cutter can be used for continuity display. And it helps the user to establish the concept of 3D spatial structure by constructing a virtual anatomical combination model.



### Clinical Support Comprehensive Specialties

The content covers clinical anatomy training needs, enabling doctors and medical students to obtain professional anatomy knowledge. It can also be associated with the corresponding structure of tissue sections and imaging data, so that users can easily build a knowledge framework and improve the knowledge system.



### Fast and smooth running

The system can display high-resolution tomography and quickly complete cutting, endoscopic and other types of surgical operations with no delay in running loading.





## 1 HD Virtual Anatomy Table ( 1 : 1 )

"HD digihuman virtual anatomy table system" through the ultra-high-precision human tomographic sequence image technology processing, to achieve large data human structure of real-time drawing. The main features are high-precision virtual human body, real structure 1:1 ratio, interactive touch operation, lying perspective observation, Chinese and English bilingual system.





## 2 HD Digihuman Virtual Anatomy MINI Table

The operation of the table can realize the dissection and observation of the human body structure at any angle, integrating the knowledge of human anatomy, regional anatomy and tomographic anatomy. The virtual cutter can be used for continuity display. And it helps the user to establish the concept of 3D spatial structure by constructing a virtual anatomical combination model.





### 3 HD digihuman anatomy intelligent assistant (Xiaochuang) --- mobile version

With two display screens, the front screen can be operated by touch, the back screen synchronized with the front one. With the voice system, it can be operated interactively by voice, which is convenient to carry out anatomical experimental operation while learning the simulation operation of relevant anatomical parts, realizing the teaching mode of combining reality and imagination.

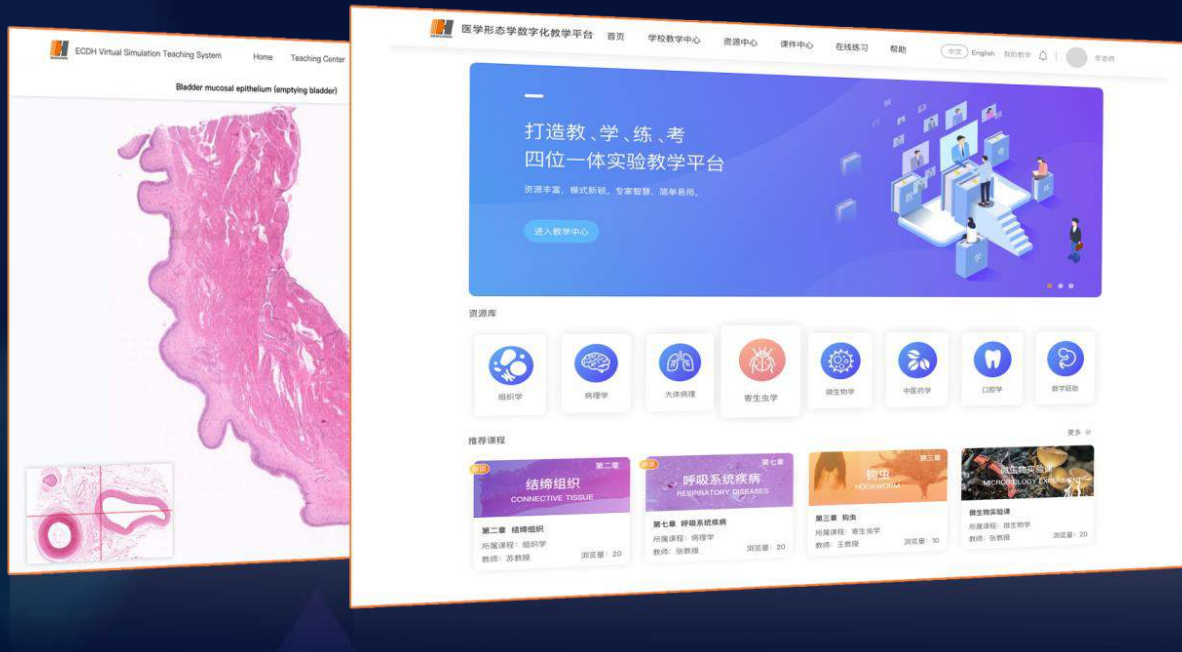
- ❖ Allows for arbitrary cutting and simulates regional anatomical operations
- ❖ Meet the **unplugged, mobile** needs
- ❖ Two displays with voice system, more convenient for operation, observation and explanation



# 03 Medical Morphology Digital Teaching Platform



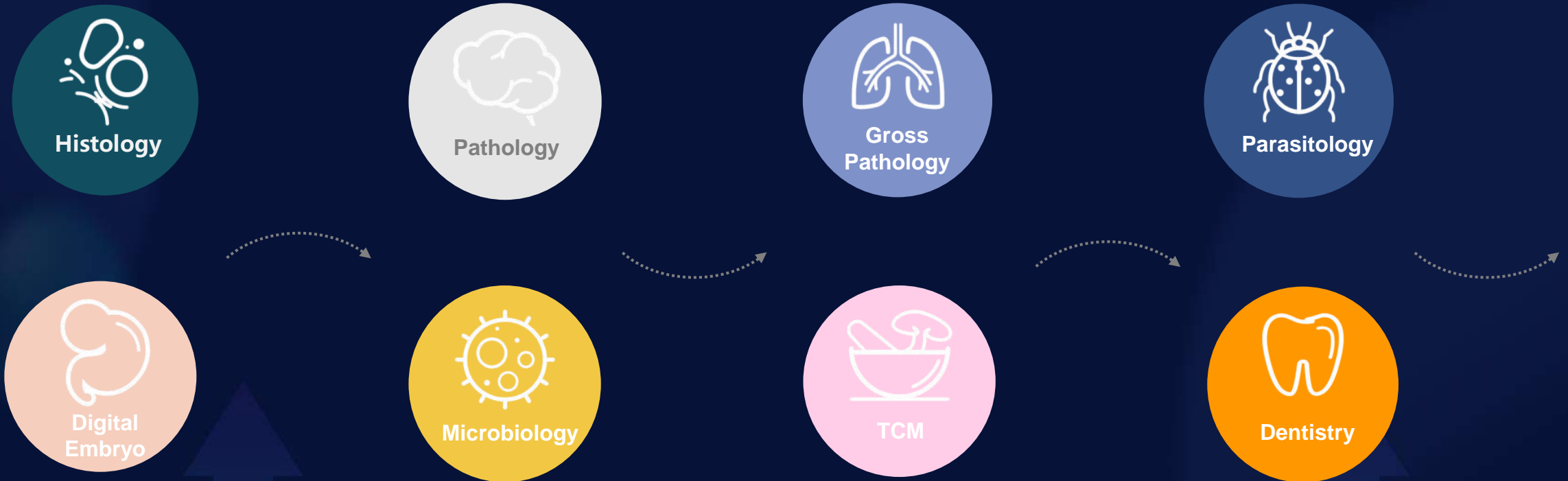




## Product introduction

After more than 10 years of accumulation, the system resources are selected from more than 10,000 sections/specimens (including the 10 sessions of Etron Cup sectioning competition) by integrating the high-quality teaching resources of hundreds of medical schools across the country.

Adopting the company's most professional digital section production technology, it represents the highest level of digital section production at present.



# Teach

Quality Bilingual Teaching Resources  
Course Design  
Classroom Quizzes  
Statistical Analysis  
.....

# Learn

Ubiquitous self-directed learning  
Notes, homework, exercises  
Pre-learning, revision  
.....

# Practice

Online Practice  
Practice Exam  
Wrong Question Collection  
.....

# Exam

Real sliced exams  
Process exams  
Formal Exam  
.....

# Manage

User Management  
Teaching Management  
Exam Management  
.....



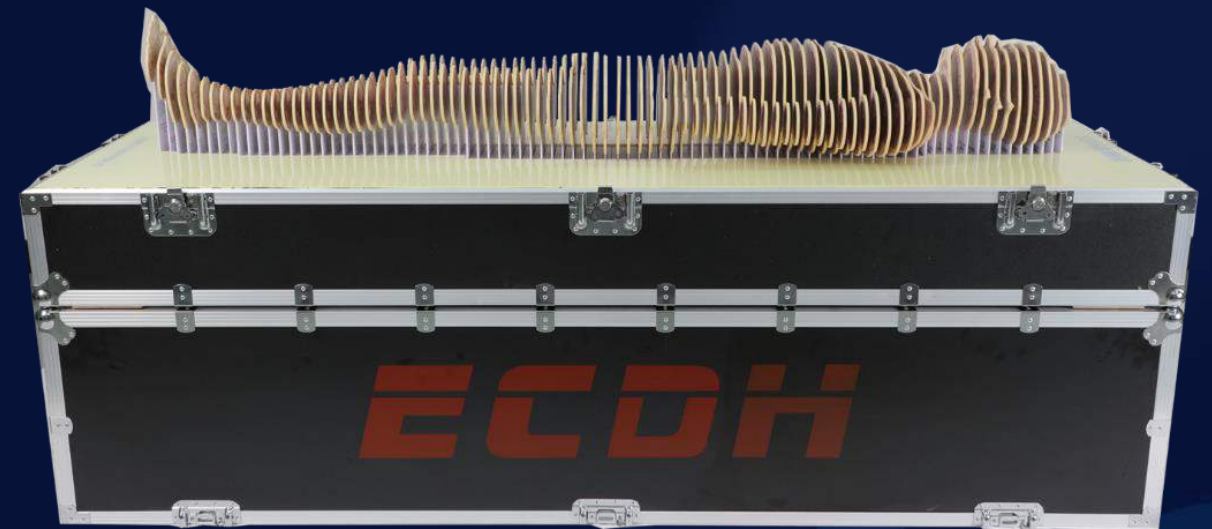
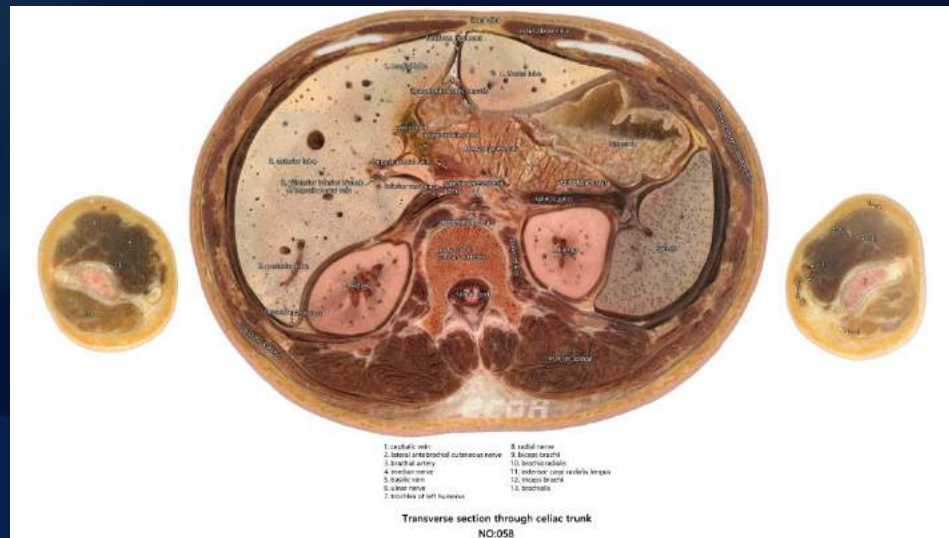
# 04 Digihuman 3D Printing Product Series

- HD tomography 3D printing model - Anatomy 3D printing model - Embryo 3D printing model



## 1 Digihuman HD tomographic 3D printing model

High-precision continuous tomographic optical images of male and female intact specimens with 1.2 billion pixels in cross-section were collected by freezing and milling. The specimens were all continuous tomographic data of human body without organic lesions and without defects. The tomographic 3D printing model is printed on both upper and lower surfaces, and each section of the tomographic 3D printing model is a continuous section with a 1:1 dimensional ratio to the real human body. The lower surface tomographic images are labeled in Chinese and the upper images are labeled in English.



## Product introduction

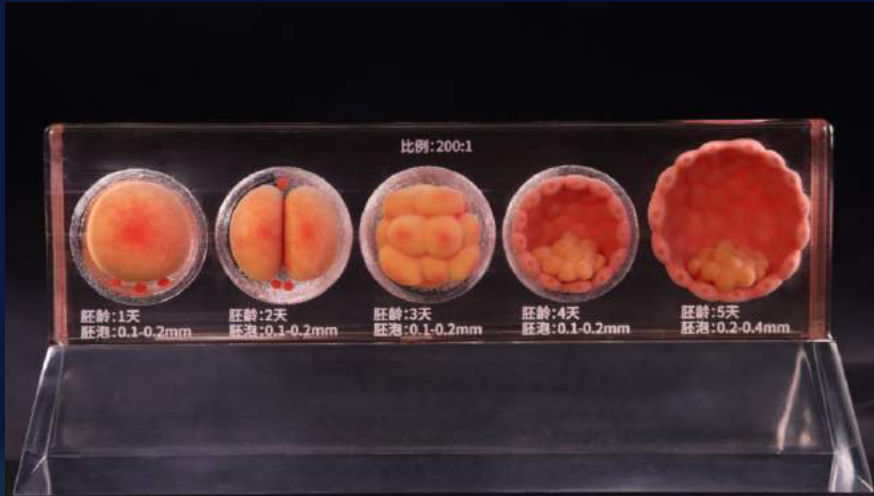
### 2 Digihuman 3D Printing Model Series

We construct 3D digital anatomical models with multiple structures coexisting through high-precision digital human data, extract voxels of corresponding parts in digital human data as texture maps of digital models, and print high-simulation anatomical specimen models using full-color, multi-material 3D printers, with a view to providing high-simulation physical anatomical models for cadaveric specimens that are severely lacking.



### 3 Digihuman 3D Printing Embryo Model Series

The "family package" of 3D printed embryo models consists of 35 models, from the first day of fertilized egg to 8 weeks of embryonic age, and then to 3 months, 5 months and 7 months of fetal age, all stages of development are perfectly shown, and what is more valuable is that it also contains 15 models of typical cases of embryonic malformations.



## 1、 High precision datasets

- Select data from the real human body processed by milling and cutting
- Extract voxel data from a fault to generate a texture map



## 2、 Full simulation type printing

- Adopt international advanced full-color and multi-material printer
- Full-color hard printing, soft and hard composite printing, full-color soft printing transparent molding, opaque molding materials





anatomi eğitiminde taşları yerinden  
oynatacak inovatif ürünler artık bizimle

**TÜRKİYE TEMSİLCİSİ**

**EDUMED SCIENTIFIC EĞİTİM VE SAĞLIK  
HİZMETLERİ LTD. ŞTİ.**

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