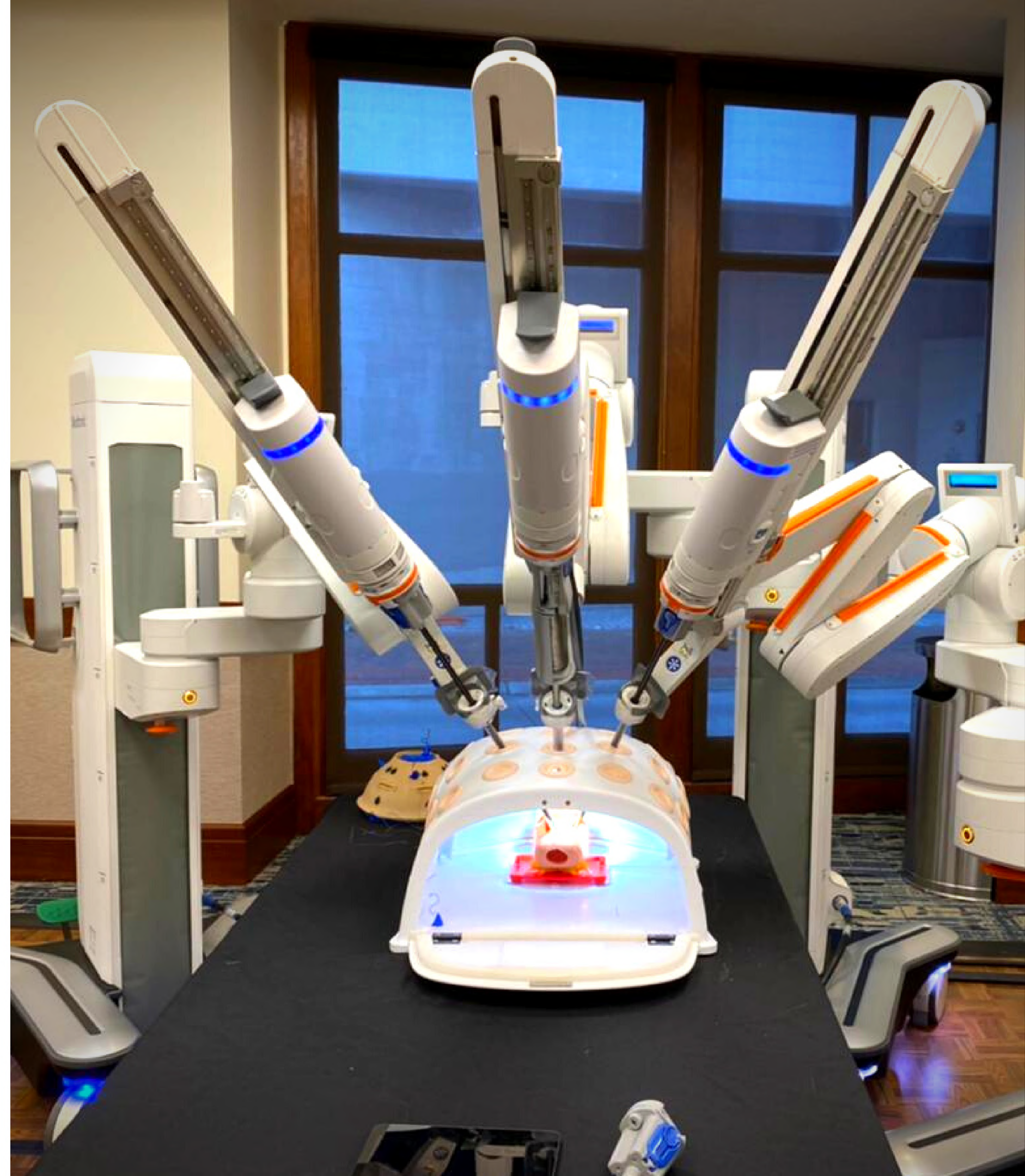




Advanced simulation for
partial nephrectomy and radical prostatectomy

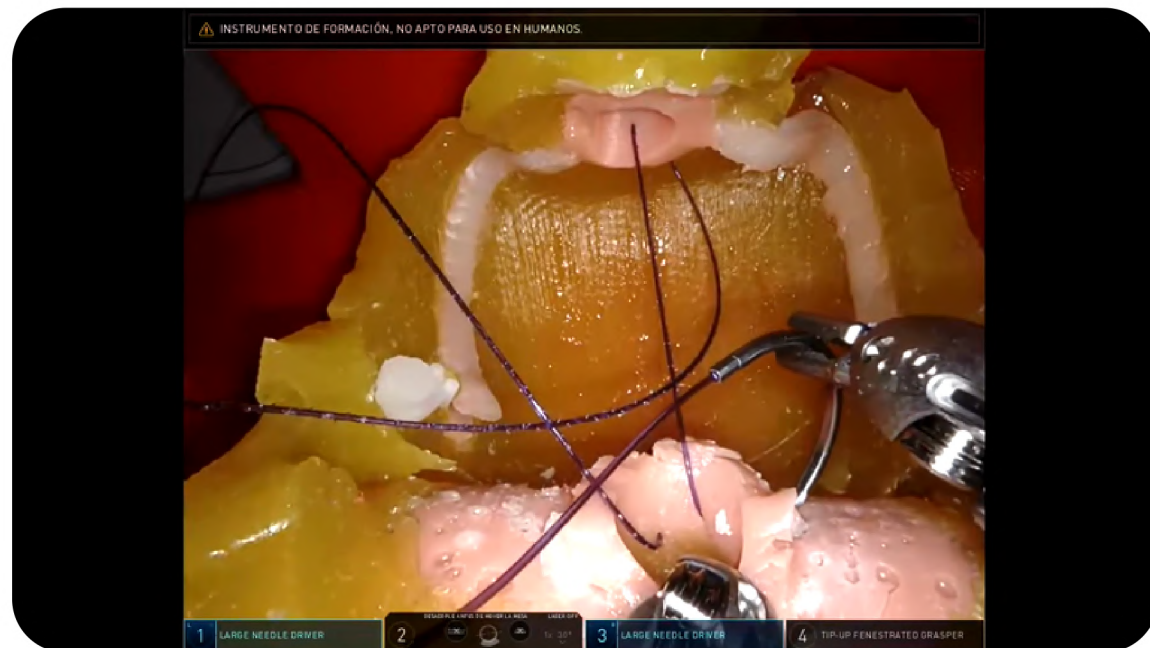
www.urotrainer.com



Simulation for uro-oncology

Urotrainer is the new standard to practice **partial nephrectomy** and **nerve-sparing radical prostatectomy**. It is a flexible solution focused on providing continuous, standardized, realistic, and ethical education.

Our simulators are high-fidelity phantoms developed to practice the step-by-step of these surgeries. We pursue excellence in minimally invasive surgery by offering **hands-on courses** and **individual training sets**, both for novice and experienced surgeons from all over the world.



Cadaver-free **realistic hands-on** training



Different levels of simulation scenarios



Continuous and standardized practice



Experts feedback and on-demand courses



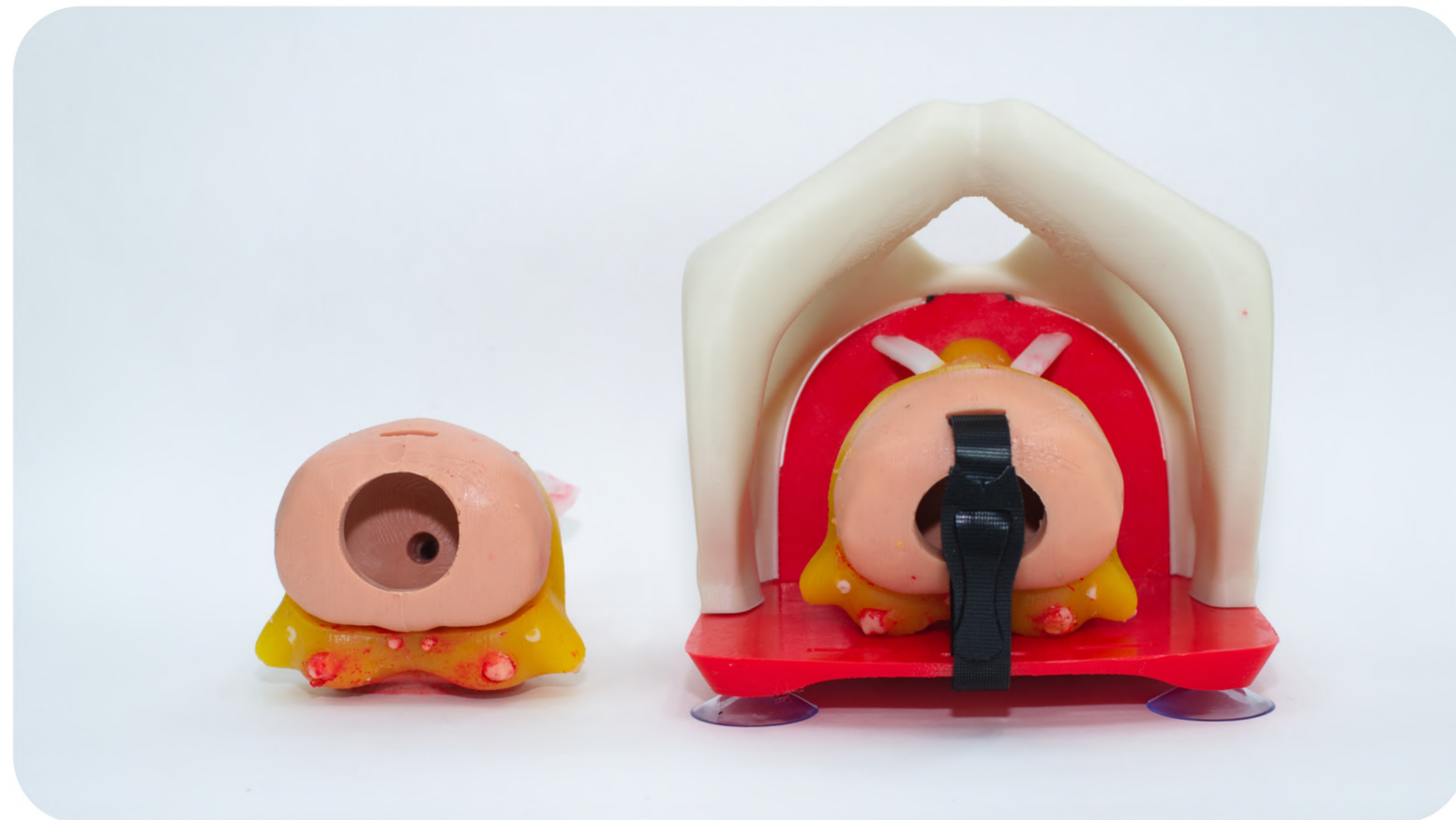
Global access with remote trainings by Zoom



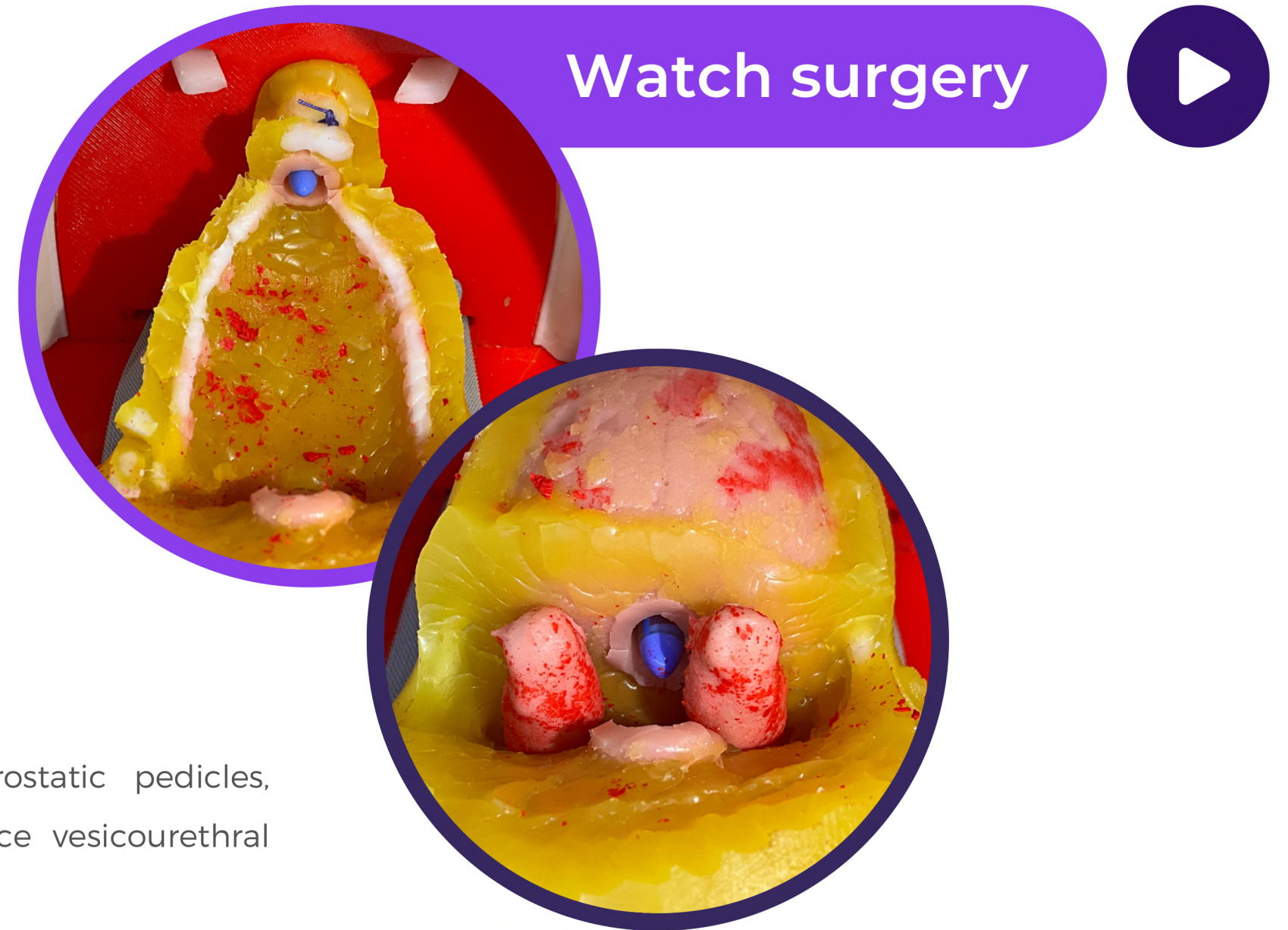
Scientific validation

Hands-on training models

Prostate phantom for nerve-sparing radical prostatectomy - 2023 optimized model

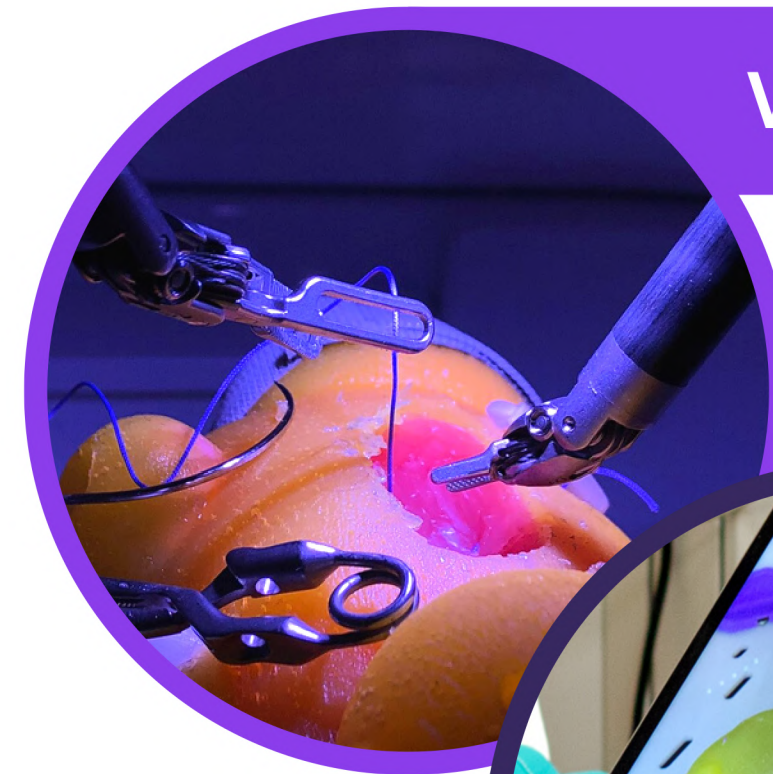


The model includes the bladder, neurovascular bundles, seminal vesicles, prostatic pedicles, puboprostatic ligaments, and dorsal venous complex. Modular section to practice vesicourethral anastomosis.



Hands-on training models

Kidney phantom for partial nephrectomy - 2023 optimized model

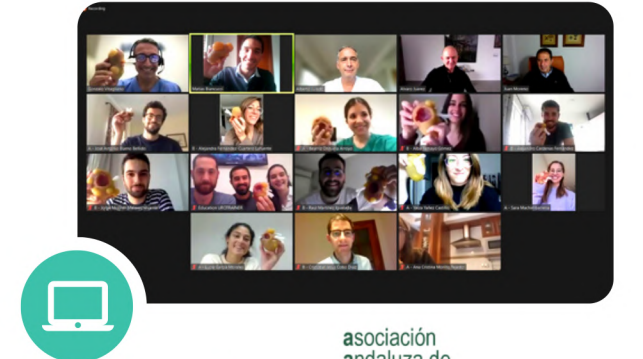
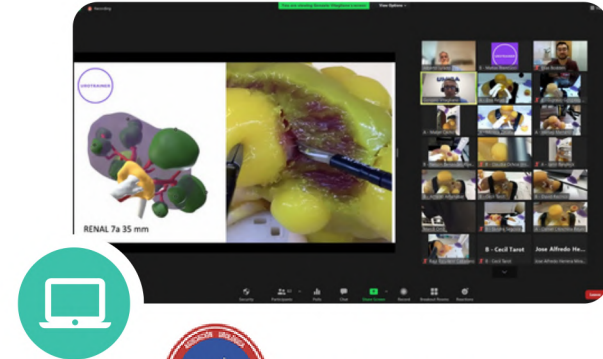
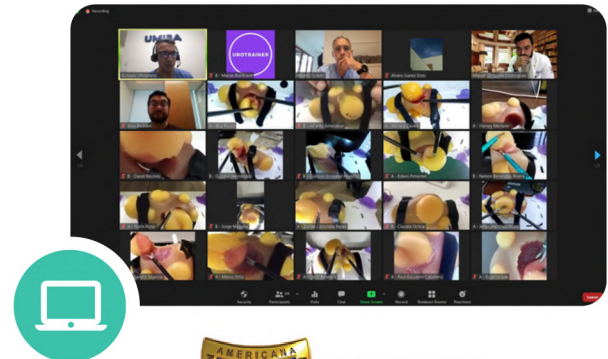


Watch surgery



Contains 11 tumors and 2 cysts. Tumors RENAL scores are as follows: 1) 15mm 4a 2) 20mm 10xh 3) 15mm 7xh 4) 15mm 4a 5) 35mm 7x 6) 35mm 7a 7) 15mm 9x 8) 15mm 4p 9) 15 mm 5p 10) 16mm 7p 11) 15mm 4p | Model is completely surrounded by a fat layer offering multiple surgical scenarios.

Urotrainer's Academy 2022



MARCH 21

JULY 21

SEPTEMBER 21

NOVEMBER 21

FEBRUARY 22

First Urotrainer Course
16 urologist training remotely

Course with CAU
41 urologist training remotely

doi.org/10.1097/JU.0000000000001966.02
AUA Scientific Validation

Course with AUCA
33 urologists training remotely

Course with AAU
20 urologists training remotely



THE JOURNAL OF UROLOGY



AUA-2022
New Orleans



MARCH 22

MAY 22

AUGUST 22

SEPTEMBER 22

OCTOBER 22

DECEMBER 22

Course with U. Salamanca
17 urologists training on-site

AUA22
UroResidency Challenge

Course with CMUN
50 urologists training on-site

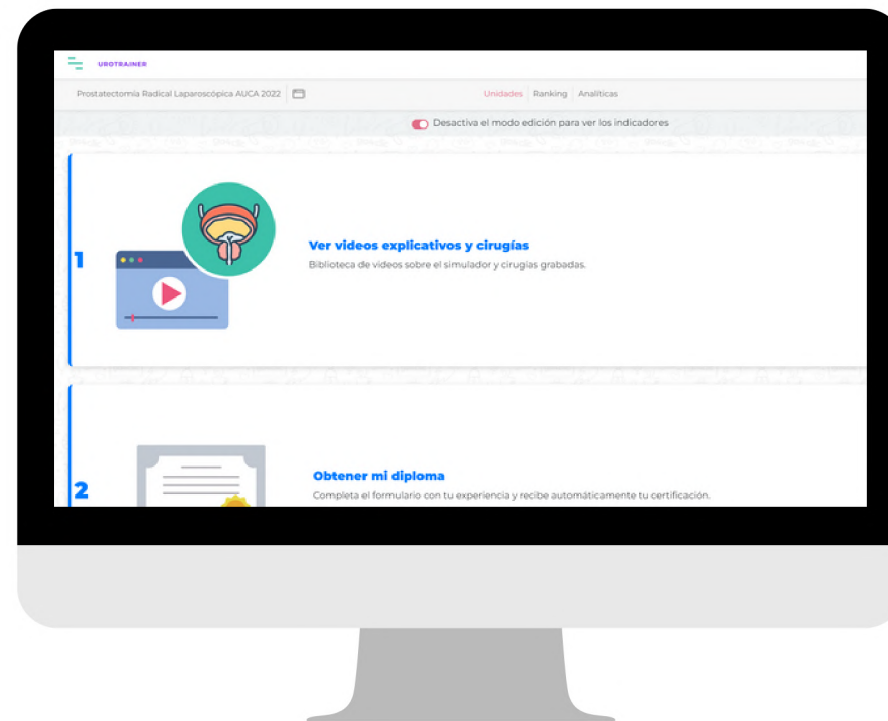
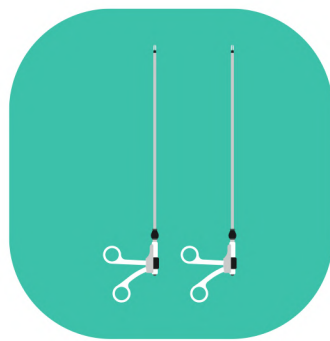
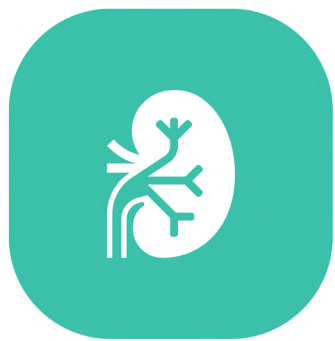
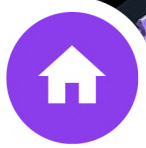
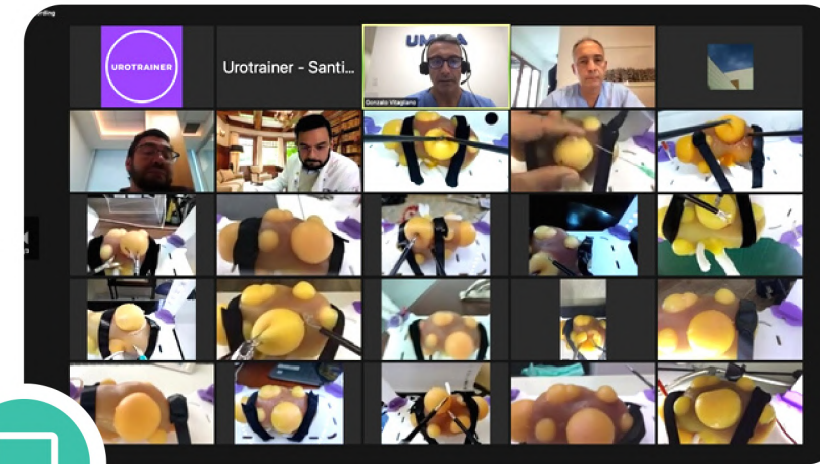
Course with AUCA
40 urologists training on-site

Course with CAU
40 urologists training on-site

Course with SDU
20 urologists training on-site

Organize a course - Urotrainer Experience

On-site or remote hands-on training with real-time proctorship



How do we support each course?

- Simulation models
- Laparoscopic training boxes (optional)
- Surgical instruments (optional)
- Urotrainer proctors (usually combined with local proctors)
- Online platform with classes and surgical videos
- Training certification
- Logistics

Suggested Academic Program

Partial Nephrectomy Training - 4hs

INITIAL - Basic skills and small masses

- PN 1 - Tumor #4 15mm RENAL 4a
- PN 2 - Tumor #9 15mm RENAL 5p
- PN 3 - Cyst + Tumor #10 16mm RENAL 7p

ADVANCED - Complex tumors (hilar and endophitic)

- PN 1 - Tumor #6 35mm RENAL 7a
- PN 2 - Tumor #7 15mm RENAL 9x
- PN 3 - Tumor #2 20mm RENAL 10xh

90% hands-on activity. Each participant will complete at least 3 partial nephrectomies, training resection, vascular management, and suturing.

NS Radical Prostatectomy Training - 4hs

STEP 1: Theory + Hands-On

- Puboprostatic ligaments and dorsal venous complex management.

STEP 2: Theory + Hands-On

- Bladder neck.

STEP 3: Theory + Hands-On

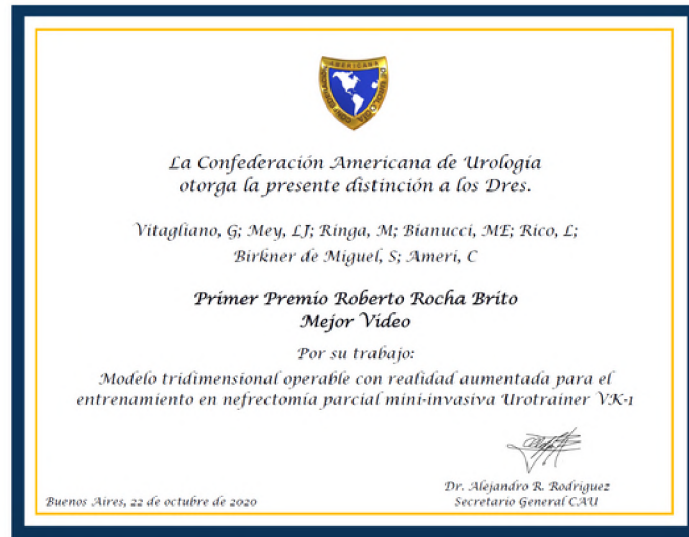
- Prostatic pedicles and neurovascular bundles.

STEP 4: Theory + Hands-On

- Vesicourethral anastomosis.

90% hands-on activity. Each participant will have the chance to practice vesicourethral anastomosis twice.

International & Scientific Validation



American Urological Association
THE JOURNAL of UROLOGY
 Official Journal of the American Urological Association | auajournals.org/urology

PD02-02 MULTI INSTITUTIONAL VALIDATION OF A NEW KIDNEY MODEL FOR LAPAROSCOPIC NEPHRON SPARING SURGICAL TRAINING

CONCLUSIONS:
 We have demonstrated face, reliability, content and construct validation for this novel model. This is a valuable educational tool that may serve to improve surgical skills which are essential for safe and successful laparoscopic partial nephrectomies.

Figure 1 - Artificial model based on 10 real CT scans with 11 tumors and 2 cysts

Variable	Expert	Novice	P value
TME median (s)	28.1 (25-35)	47.1 (25-85)	<.001**
Total time (s)	31.3 (28-36)	50.4 (28-85)	<.001**
GOALS median (s)	4.2 (3.5-5)	5.1 (4.5-6)	<.05**
Dissection	2.1 (1.8-2.5)	2.1 (1.8-2.5)	<.05**
Dissection	4.2 (3.5-5)	5.1 (4.5-6)	<.05**
Clipping	3.7 (3.1-4.3)	2.7 (2.1-3.3)	<.05**
Tumor handling	1.8 (1.5-2.1)	2.2 (1.8-2.6)	<.05**
Time GOALS	18.5 (16-21)	15.2 (13-18)	<.05**
*Stat. non sig. **1 student test			

Table 1 - Results

Figure 6 - Renography that simulates the real feeling of the tissue

CURRENT UROLOGY REPORTS
 doi.org/10.1007/s11934-021-01060-y

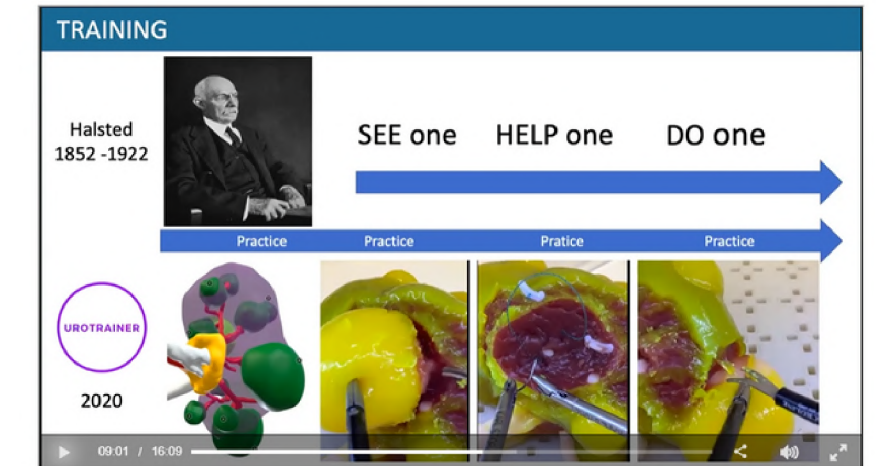
CONSTRUCTION OF A 3D SURGICAL MODEL FOR MINIMALLY INVASIVE PARTIAL NEPHRECTOMY: THE UROTRAINER VK-1

Table 1 Tumor classification according to the RENAL score and the tumor size

Renal score	Tumor size	
1	4a	15 mm
2	10ch	20 mm
3	7xb	15 mm
4	4a	15 mm
5	7x	35 mm
6	7a	35 mm
7	9x	15 mm
8	4p	15 mm
9	5p	15 mm
10	7p	16 mm
11	4p	15 mm

Figure 5 - Vascular pedicles. Dissection and clip

Surgical Simulator for Laparoscopic Partial Nephrectomy for Renal Cell Carcinoma - Gonzalo Vitagliano



Clients & Partners



WHY Urotrainer ?

Superior training experience and flexibility



Multiple realistic scenarios with advanced levels for experienced surgeons. Suture pads or E-BLUS exercises are practical but not motivating.



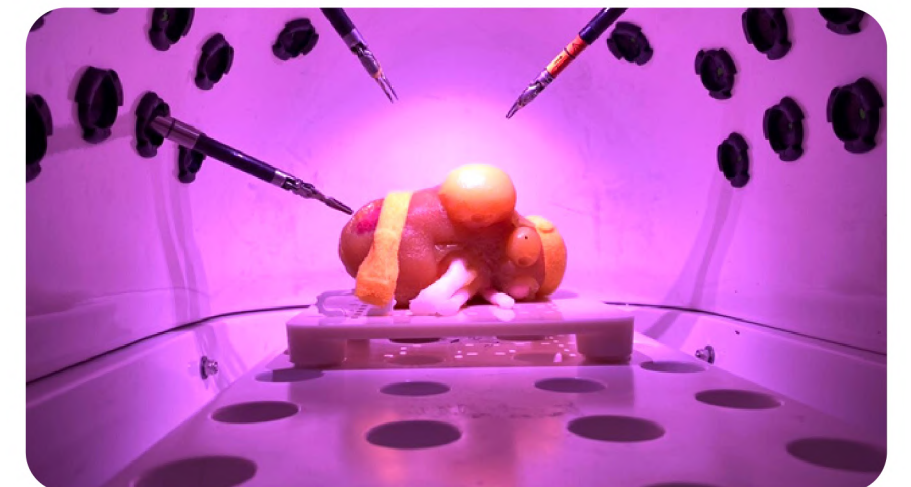
Easy to manipulate and to stock compared to hydrogel models. Long expiration date (+12 months). No refrigeration needed.



Cost-effective: The kidney model allows at least 15 procedures while the prostate has a modular design to repeat vesicourethral anastomosis training.



Best way to showcase surgical equipment. High-realism and non-organic waste. Ethical cadaver-free simulation.



Collaborators

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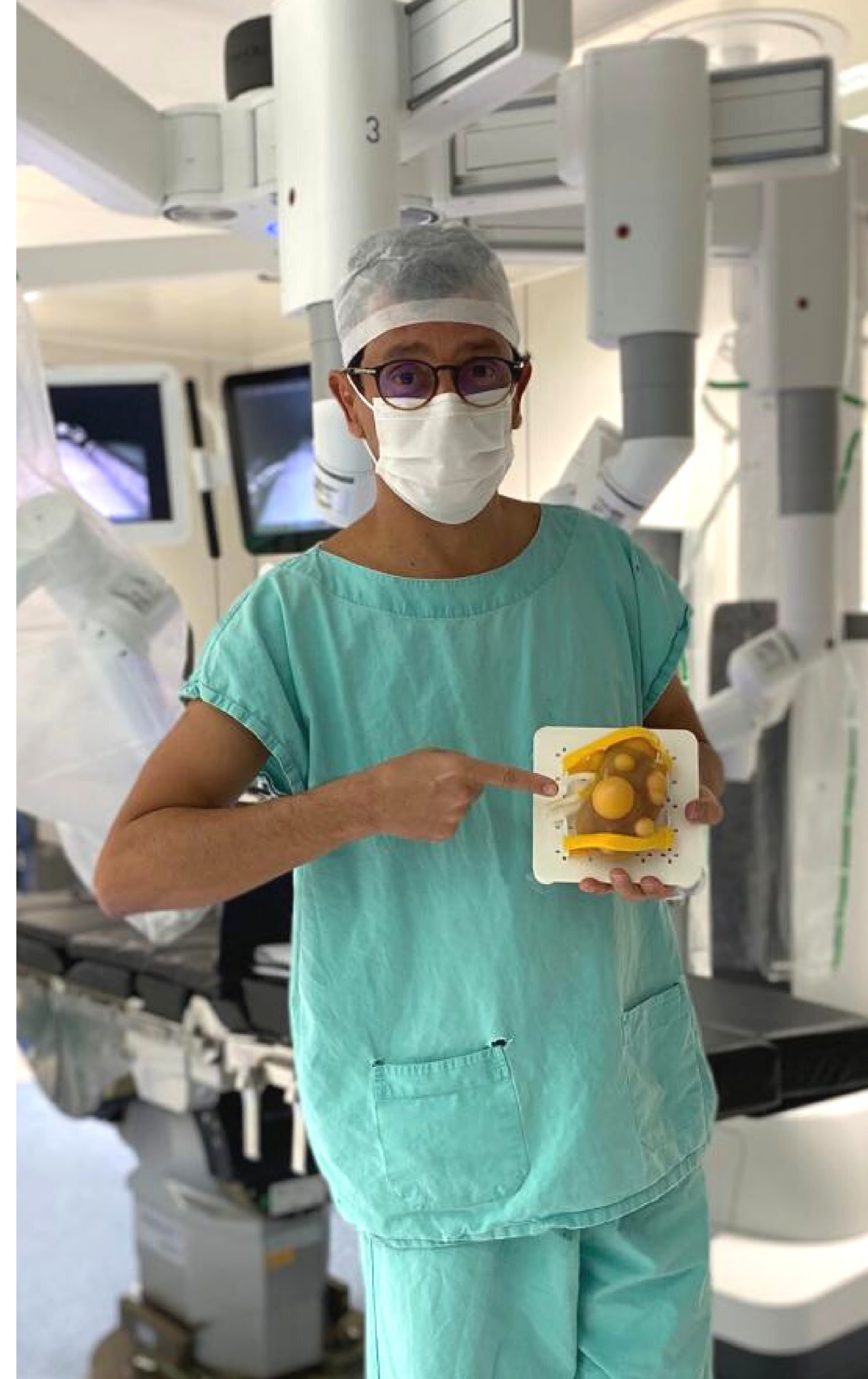


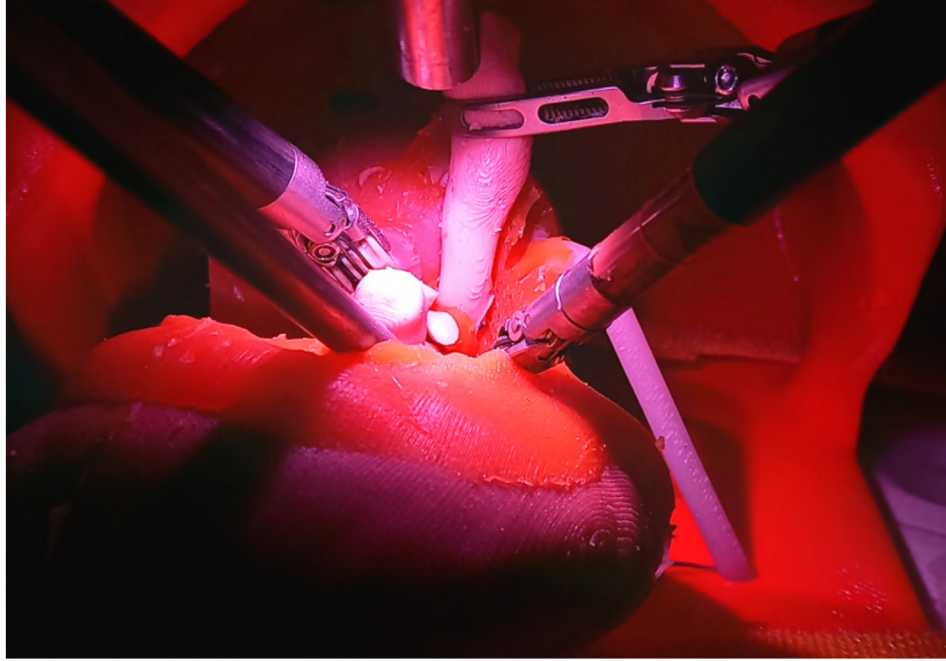
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Want to see Urotrainer in action?



[Watch RARP simulation](#)





UROTRAINER

Training is caring

