

KOELIS Trinity[®]

Advanced MRI/US 3D Fusion Technology

Improved Prostate Biopsy Accuracy¹





A Compact, 3D Ultrasound System

Designed for MRI/US Fusion Biopsy, and Capable of Supporting a Range of Urologic Procedures

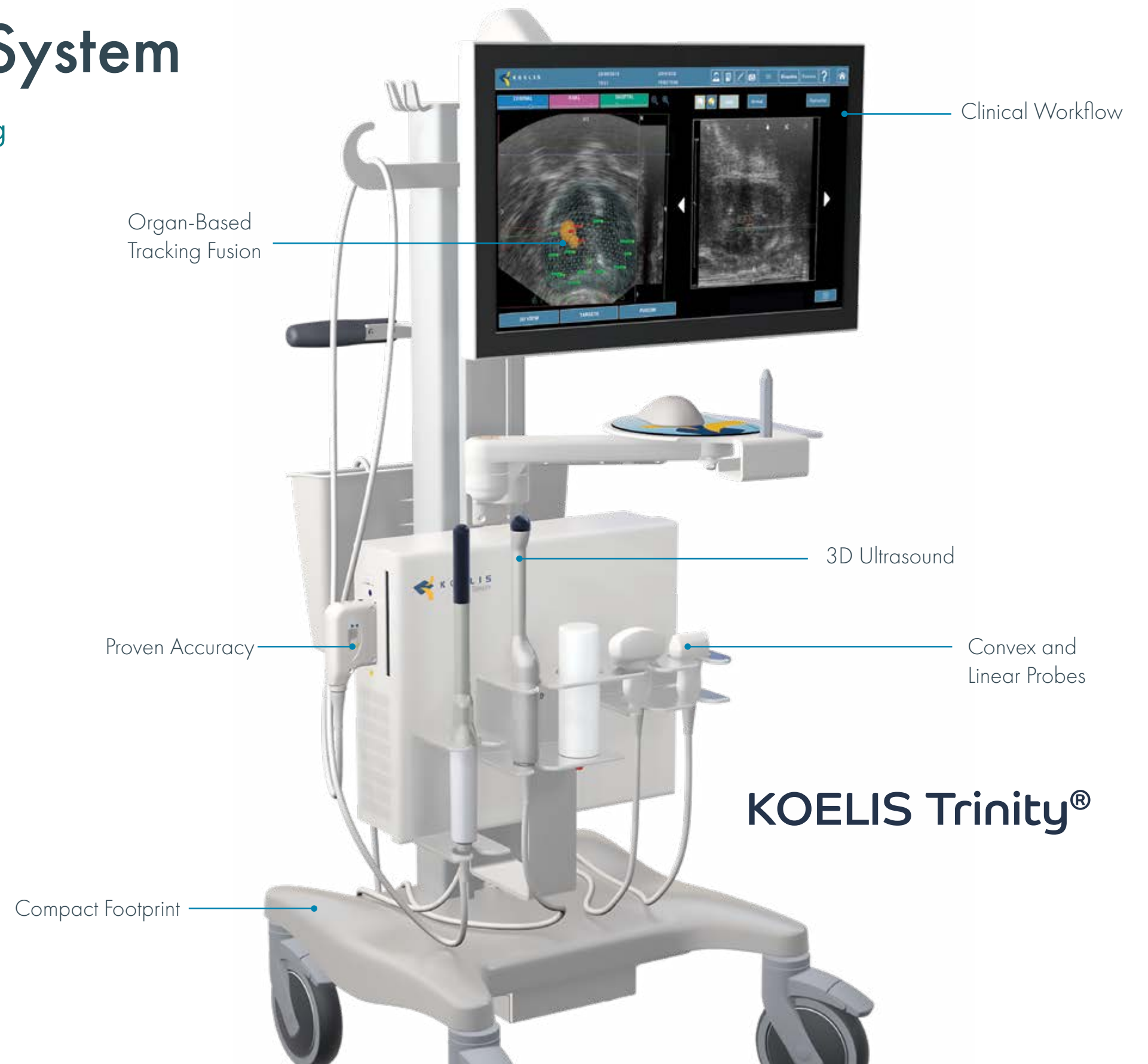
KOELIS is an international leader in MRI/Ultrasound Prostate Fusion Biopsy. Equipped with 3D ultrasound and patented OBT Fusion[®] technology, KOELIS Trinity[®] brings exceptional accuracy in delineating and targeting prostate lesions.

The versatile system is capable of:

- **MRI/US fusion prostate biopsy**
- **PET/US fusion prostate biopsy**
- **Ultrasound guided prostate biopsy**
- **Rectal spacer placement**
- **Fiducial marker insertion**
- **Ablative therapy planning and guidance for prostate cancer**
- **Diagnostic transrectal, abdominal, and small parts ultrasound**

Our system is:

- **Used in more than 300 hospitals worldwide**
- **Validated in 80+ clinical publications**
- **Utilized in 350,000+ biopsy procedures**

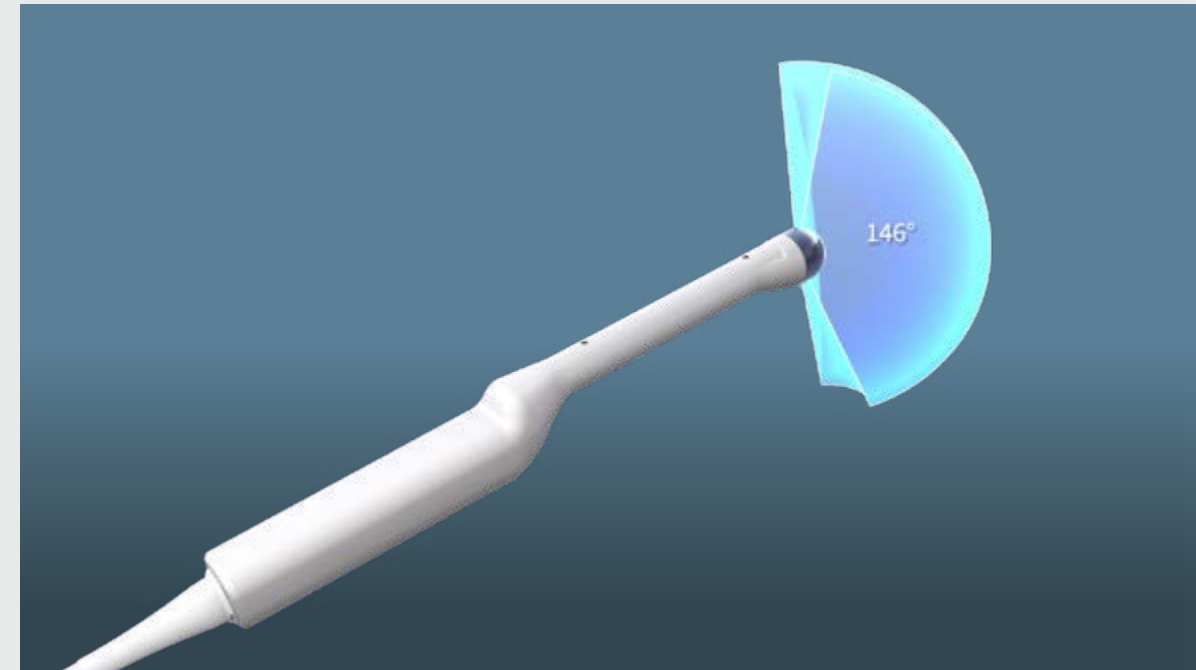


KOELIS Trinity[®]

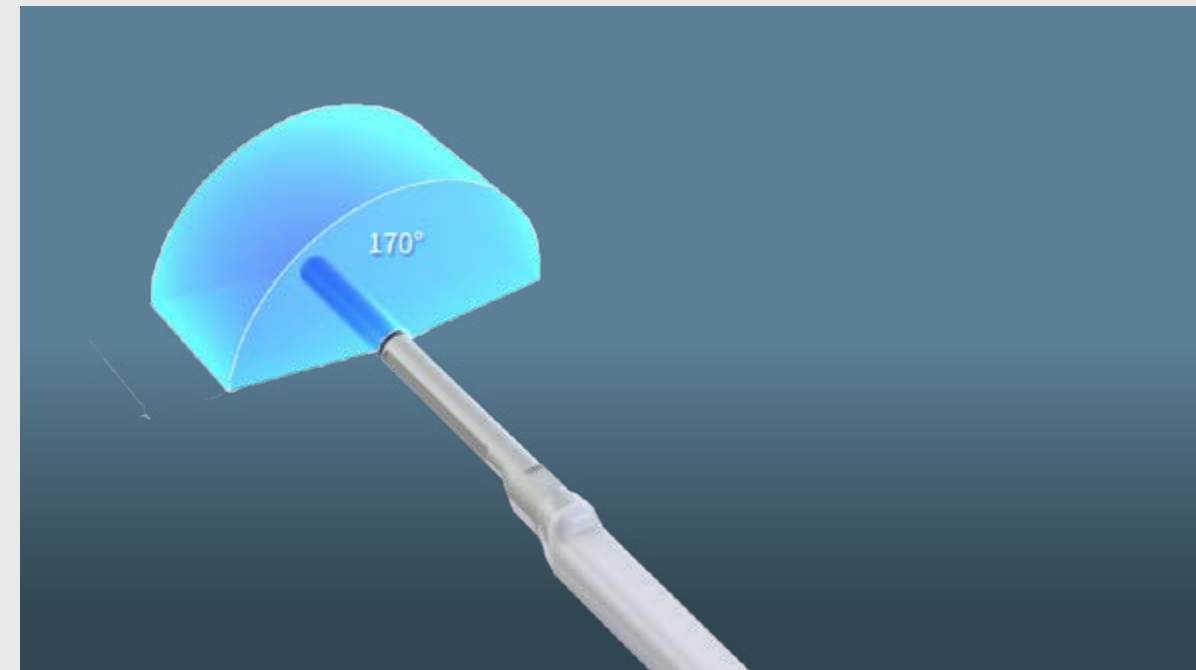


Dynamic All-In-One System With Integrated 3D Ultrasound

KOELIS Trinity[®] incorporates a novel ultrasound technology to generate high resolution three-dimensional renderings of the prostate. These 3D models can be used to document the precise size and shape of the prostate as well as allow for real time fusion with other imaging technologies such as MRI.



3D End-Fire Probe for
Transrectal Procedures



3D Side-fire Probe for
Transperineal Procedures



3D Ultrasound is at the Heart of our Unique Fusion Technology



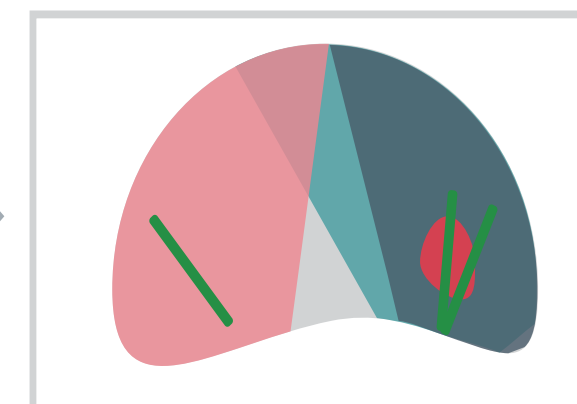
After acquiring an initial 3D ultrasound of the prostate, a reference volume of the gland is created. This 3D representation of the prostate can then be fused to segmented MRI images. Once fused, the locations of any MRI-visible lesions can be transferred to the 3D reference volume. With each pass of the biopsy needle, an updated 3D ultrasound is obtained and automatically fused back to the reference volume. By doing this, the precise location of each biopsy core can be visualized along with the locations of MRI targets. The real time fusion of each 3D ultrasound acquisition with the reference volume eliminates registration errors introduced by movement of the prostate. This process is known as OBT Fusion[®] and is key to the unparalleled accuracy afforded by KOELIS Trintiy[®].

3D REFERENCE VOLUME

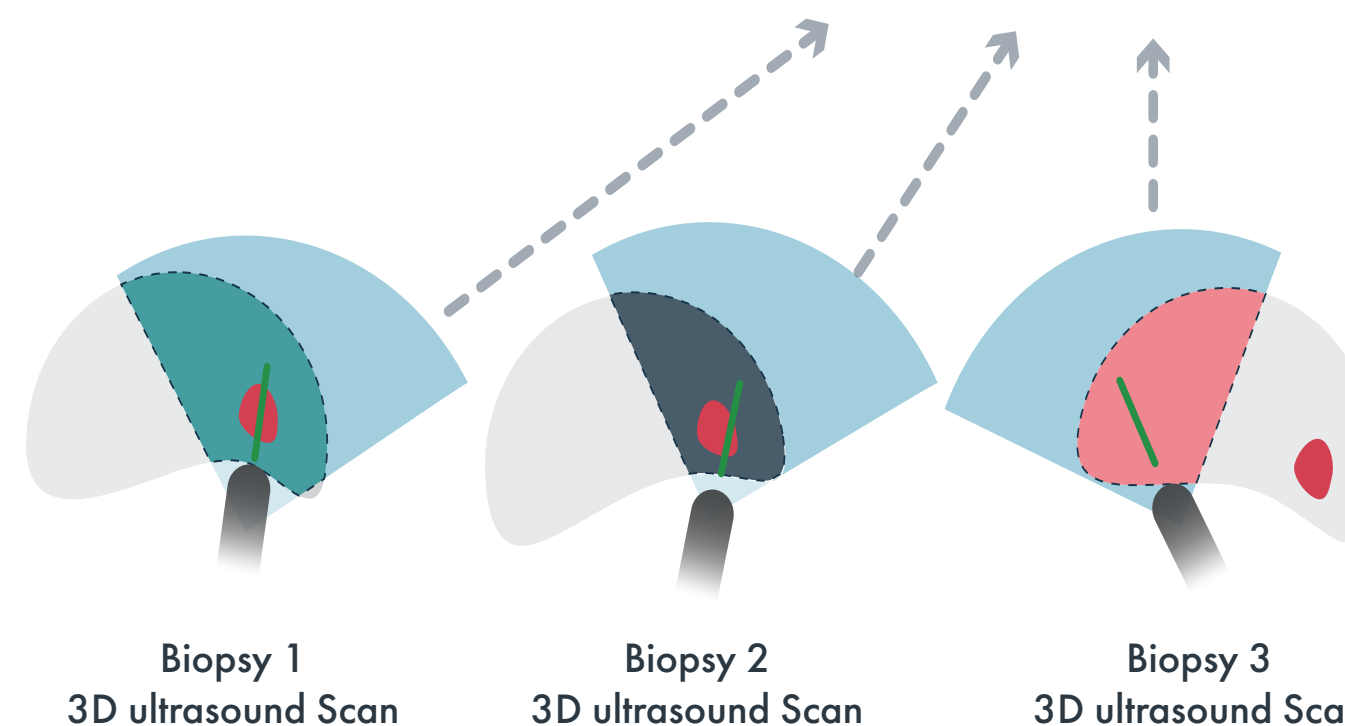


A 3D scan of the prostate is taken at the beginning of the procedure to create a 3D reference volume of the prostate.

3D CARTOGRAPHY



A 3D scan is taken with each puncture and fused with the reference rendering to indicate biopsy positioning.



OBT Fusion[®] software automatically tracks and compensates for prostate and patient movement.²



No need for tracking sensors or for the user to manually realign MRI or ultrasound images during the procedure.

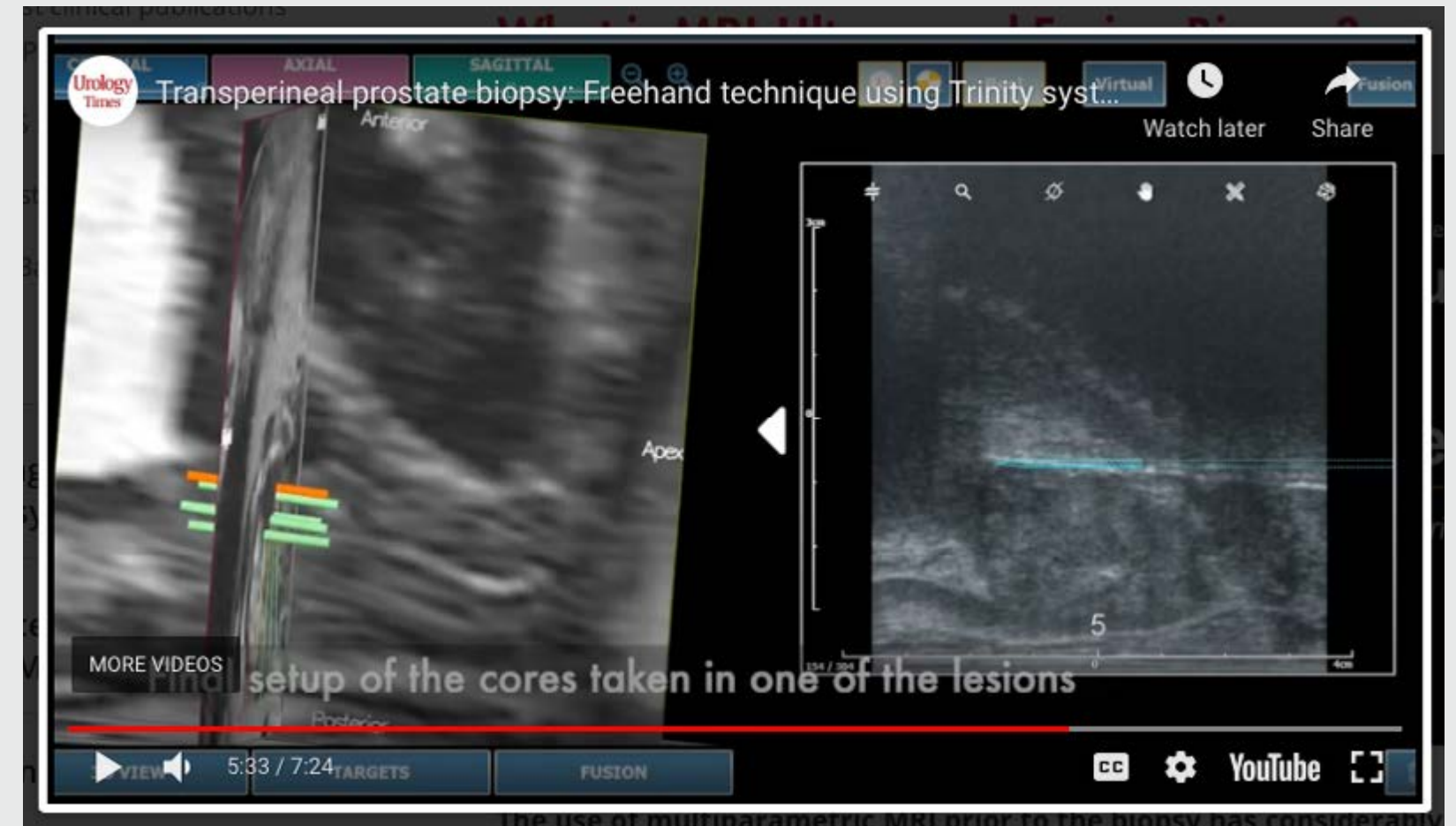


Supports both transrectal and transperineal biopsy approaches with no changes to clinical workflow.



Proven Accuracy — Targeting as Precise as 2.3 mm¹

In a prospective clinical study, KOELIS Trinity[®] was found to have a targeting accuracy of 2.3 mm¹. Compared to cognitive targeting of MRI lesions, the KOELIS Trinity[®] achieved superior accuracy and cancer detection rates.



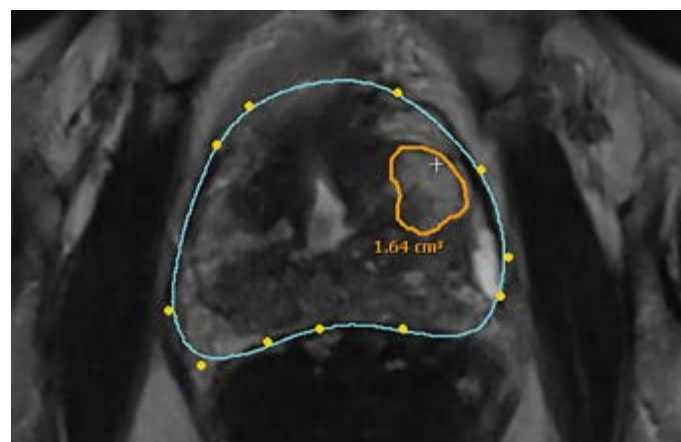
[▶ Watch the video](#)



Intuitive Clinical Workflow

KOELIS® facilitates a personalized care management with a simple workflow and unique features designed around you and your clinical needs.

PRE-BIOPSY PLANNING

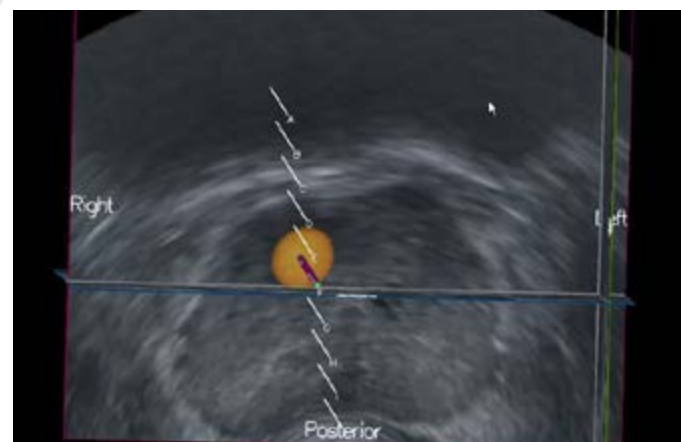


MRI PREPARATION

Suspicious lesions are defined and the prostate is contoured on the MRDraw™ workstation.

The prepared MRI images are transferred to the Trinity biopsy platform.

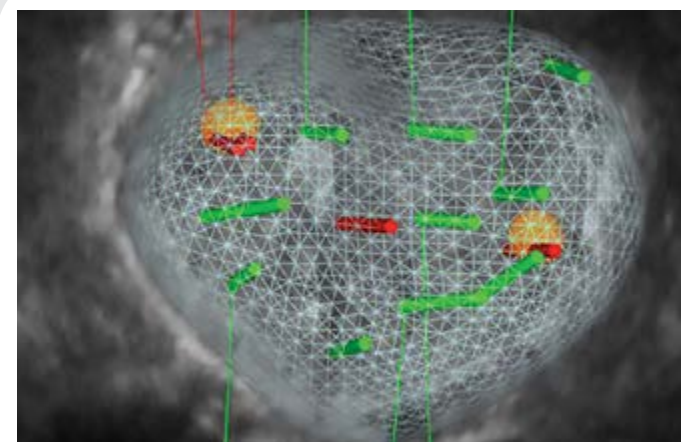
BIOPSY PROCEDURE



BIOPSY GUIDANCE

The prostate is scanned using our unique ultrasound technology and a 3D model of the prostate is created.

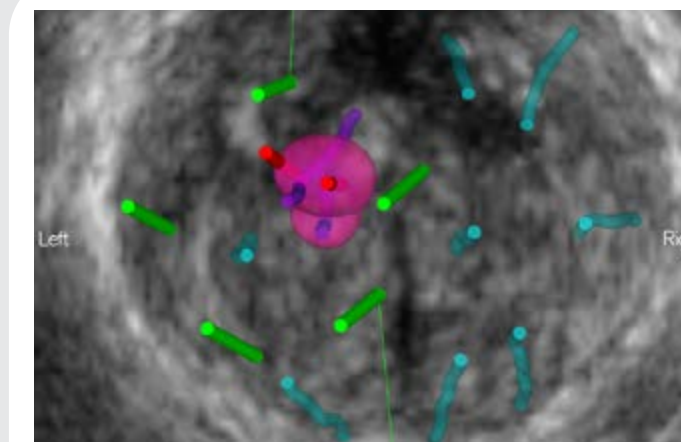
The segmented MRI is fused to ultrasound images. A reference volume of the prostate is displayed with the MRI targets.



3D CARTOGRAPHY

Biopsy of the prostate is performed and with each pass of the biopsy needle an updated 3D ultrasound is acquired, and the location of each biopsy core is transferred to the reference volume allowing for the construction of a precise three-dimensional map of the biopsy procedure.

POST-BIOPSY



POST-PROCEDURE REVIEW, RE-BIOPSY & TREATMENT

After the biopsy, the generated 3D map of the procedure can be reviewed on either the Trinity or MRDraw™ workstation.

The map of the procedure can then be used to guide subsequent biopsies or aid in the delivery of treatment such as prostate ablation.

Efficient, Simplified, Accurate



Remarkably Compact Footprint

Ideal for the Office, Ambulatory Surgical Center, and Operating Room.

We understand that medical space is at a premium, and every square inch must provide value – while allowing your team to work efficiently. KOELIS Trinity[®] provides unequalled performance with our mobile, all-in-one solution, and offers the benefit of the smallest footprint of all major competitive technologies.

All-in-one 3D ultrasound
and fusion platform

No external steppers or
sensors required

Mobile, efficient, and
compact footprint

Functional ultrasound for a
range of urologic applications





Supports a Full-range of Ultrasound Guided Urologic Procedures

The integrated KOELIS Trinity platform is efficiently designed to facilitate a range of procedures including:

- Rectal spacer placement
- Fiducial marker insertion
- Ablative therapy planning & guidance for prostate cancer
- Diagnostic transrectal, abdominal, and small parts ultrasound

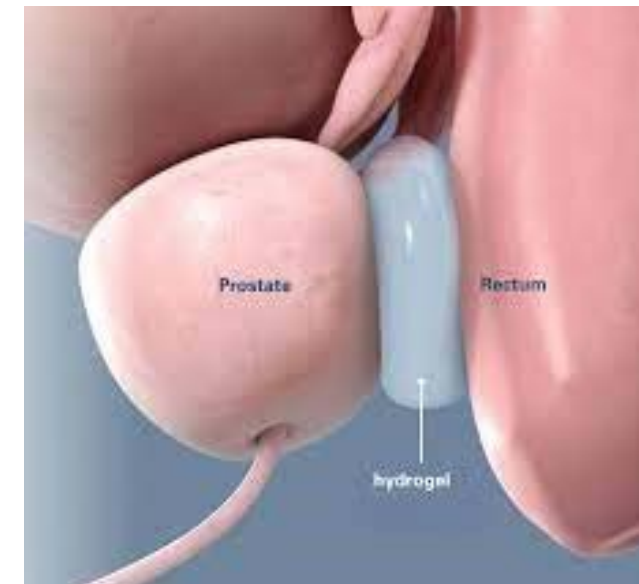


Watch a Transrectal Biopsy Procedure



Watch a Transperineal Biopsy Procedure

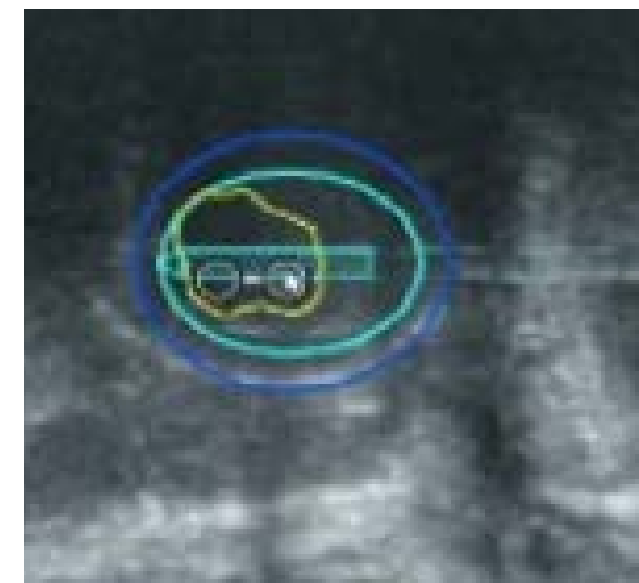
Rectal spacer placement



Fiducial Markers



Targeted Ablation image



Convex and Linear Probes



Footnotes

Footnote 1

Mean precision was 2.3 mm (95% confidence interval: 1.8 mm, 3.3 mm). Positive cores were closer to the center than were negative cores (dCC: 1.7 mm vs 3.1 mm, respectively; P = .025)

<https://pubmed.ncbi.nlm.nih.gov/29361246/>

Precision Matters in MR Imaging-targeted Prostate Biopsies: Evidence from a Prospective Study of Cognitive and Elastic Fusion Registration Transrectal Biopsies

François Cornud , Mathieu Roumigué, Nicolas Barry de Longchamps , Guillaume Ploussard , Eric Bruguère , Daniel Portalez, Bernard Malavaud

Footnote 2

KOELIS technology is validated by more than 80 publications. Over 350,000 men have received a better standard of prostate diagnosis thanks to leading physicians at more than 300 hospitals who routinely use our technologies.