

Focal laser Ablation Localized Prostate Cancer

Stefano Regusci Martina Martins Favre



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SIPC

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- Multidisciplinary group
- Prostate cancer management
- From AS to Radical Prostatectomy
- mpMRI and Biopsy (fusion, TP, in-bore...)
- Multi-Source Focal Therapy equipment
- Robotic surgical Techniques

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Uroradconcept

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- Prostate Cancer second opinion (patient/Prof)
- Perform Precise Dx and help ttt decision
- Help local team or relocate our
- Develop Prostate Cancer center (Dx/ttt)

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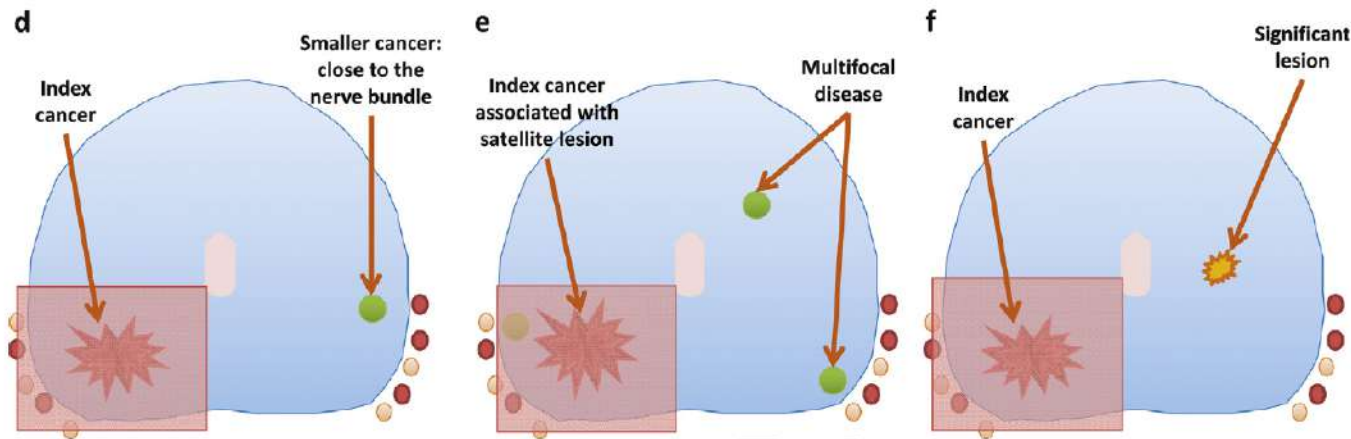
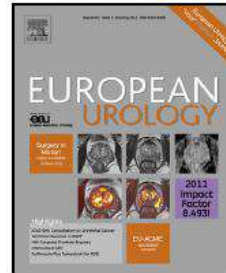
Focal Therapy

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Review – Prostate Cancer

The Role of Focal Therapy in the Management of Localised Prostate Cancer: A Systematic Review

Massimo Valerio^{a,b,c,†,*}, Hashim U. Ahmed^{a,b,†}, Mark Emberton^{a,b}, Nathan Lawrentschuk^d, Massimo Lazzeri^e, Rodolfo Montironi^f, Paul L. Nguyen^g, John Trachtenberg^h, Thomas J. Polascikⁱ



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The 3 pillars of Focal Therapy

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- **Target Identification (imaging)**

(Precise Correlation between Biopsy and mpMRI)

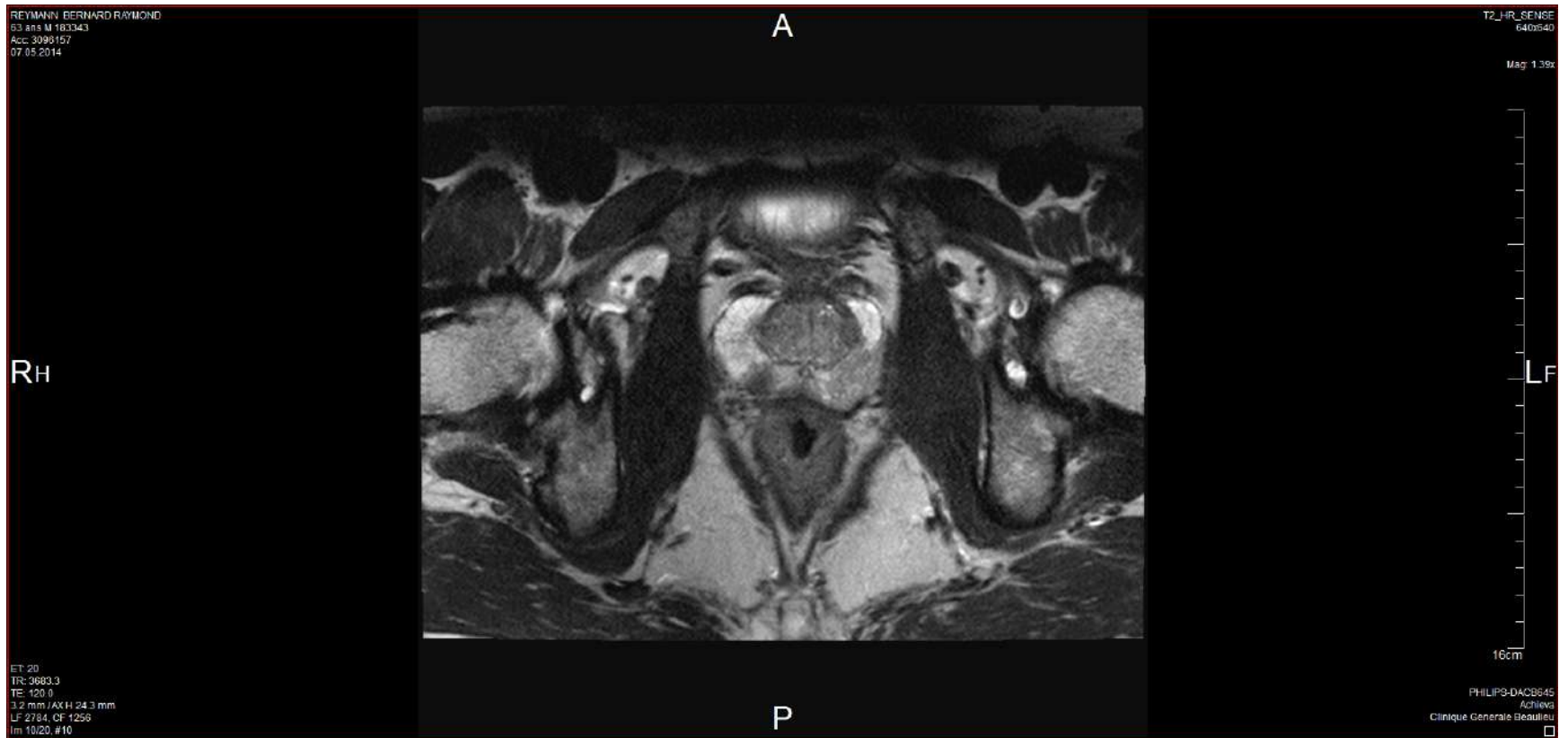
- Treatment

- Control

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MRI

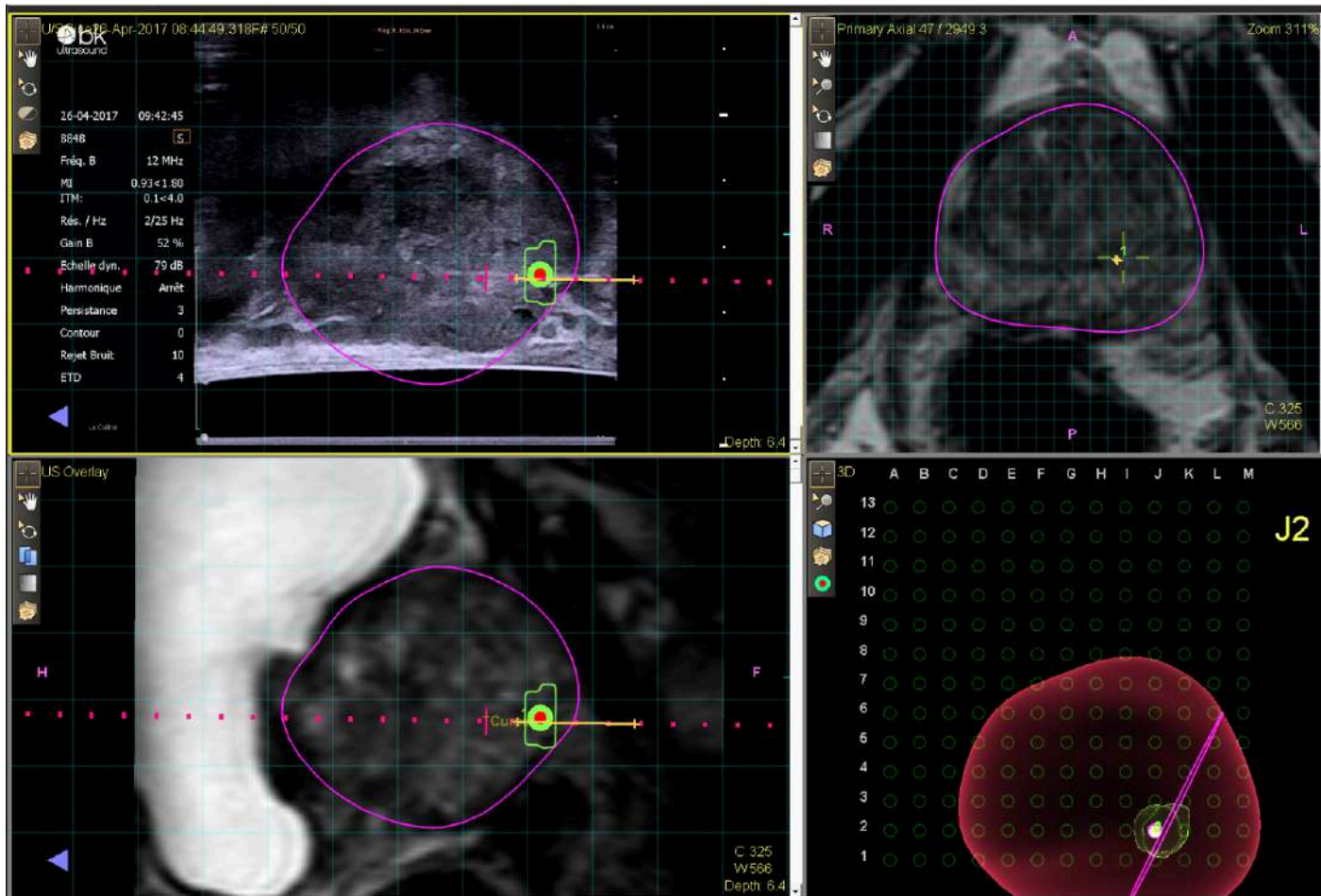
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LA TP

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Fusion Focal Therapy

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**Laser (SoracteLite)
Elesta**



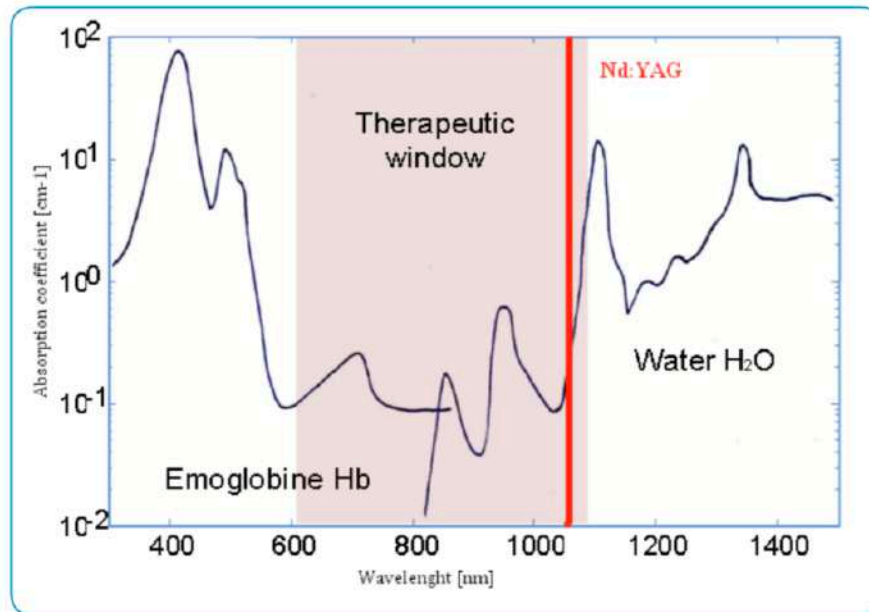
Uronav Philips



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Target

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- The “Therapeutic window” is the wavelength range (λ), where light has good penetration into the tissues.
- In the therapeutic window, tissues show a low radiation absorption and consequently excellent light penetration.
- The therapeutic window is limited at a lower wavelength due to haemoglobin absorption (oxygenated HbO₂ and not oxygenated Hb) and at a upper wavelength due to water absorption.

1064 nm Nd:YAG has an excellent tissue interaction, with low radiation absorption and high light penetration.

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Laser

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Laser-tissue interactions

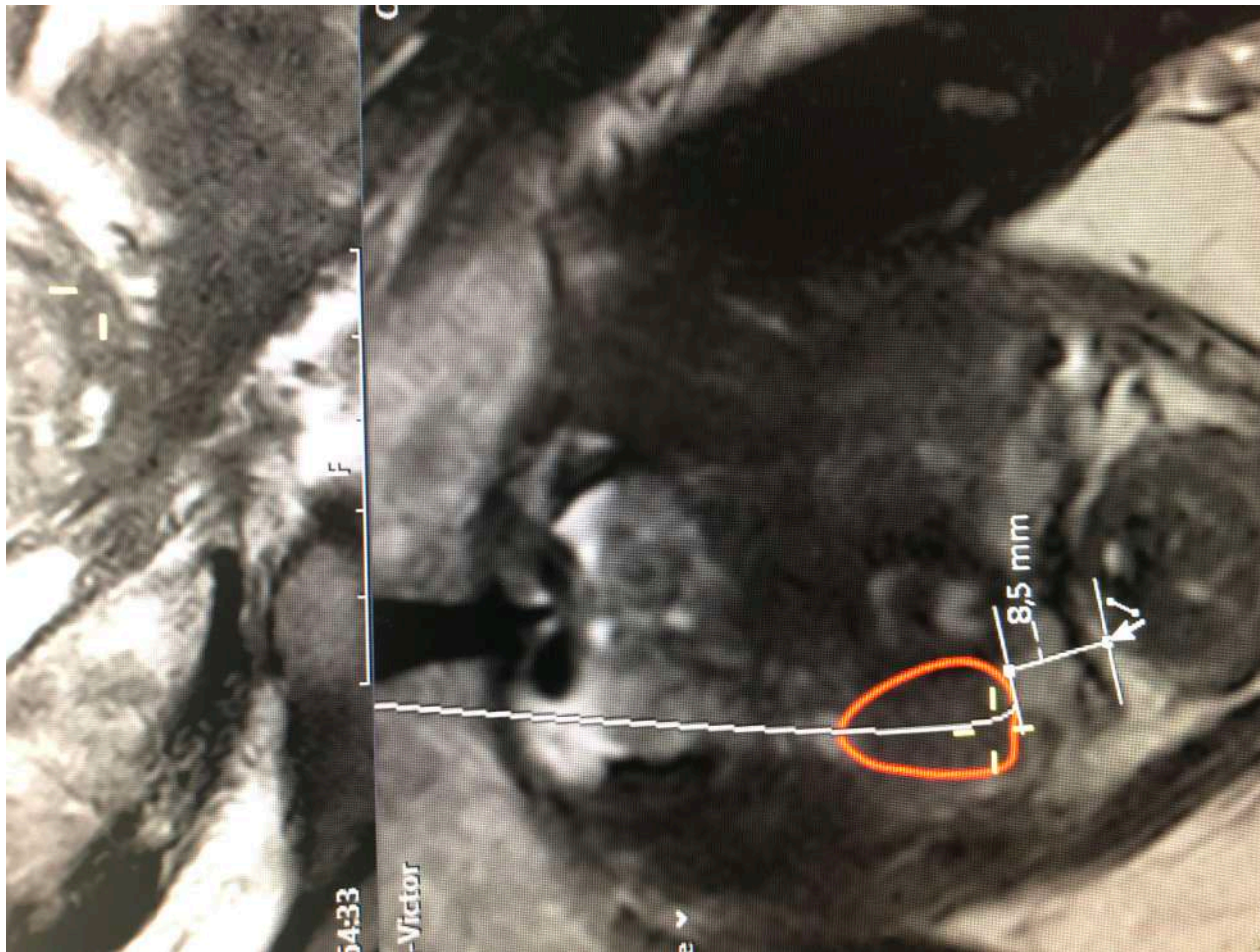
thermal damage evaluation (area/volume) related to output-power and heat dose

("ex vivo" Porcine liver at 20°C temperature – Laser Nd:YAG – single source; plane-cut fiber)

Joules	power 4W	power 5W	power 6W
energy 600	 area 0.7 cm ² volume 0,3 cm ³	 area 1.3 cm ² Volume 0.7 cm ³	 area: 1.4 cm ² volume 0.8 cm ³
energy 1200	 area: 1.2 cm ² volume 0.8 cm ³	 area 2.1 cm ² volume 1.6 cm ³	 area 2.4 cm ² volume 2.1 cm ³
energy 1800	 area 2.0 cm ² volume 1.8 cm ³	 area 2.6 cm ² Volume 2.4 cm ³	 area 2.7 cm ² volume 2.5 cm ³
energy 2400	 area 2.2 cm ² Volume 2 cm ³	 area 2.7 cm ² Volume: 2.6 cm ³	 area 3.0 cm ² volume 3.0 cm ³

Planning

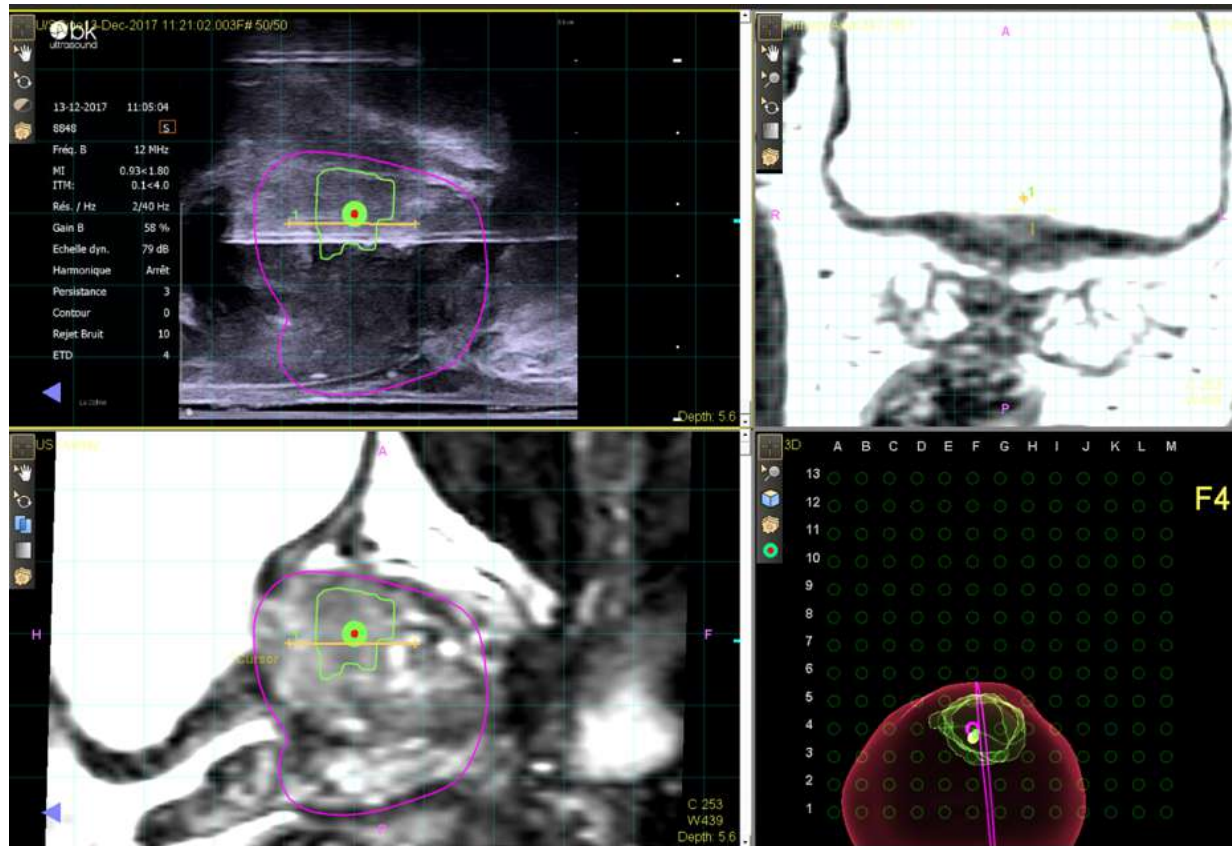
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MRI/US Fusion

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Procedure

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Procedure

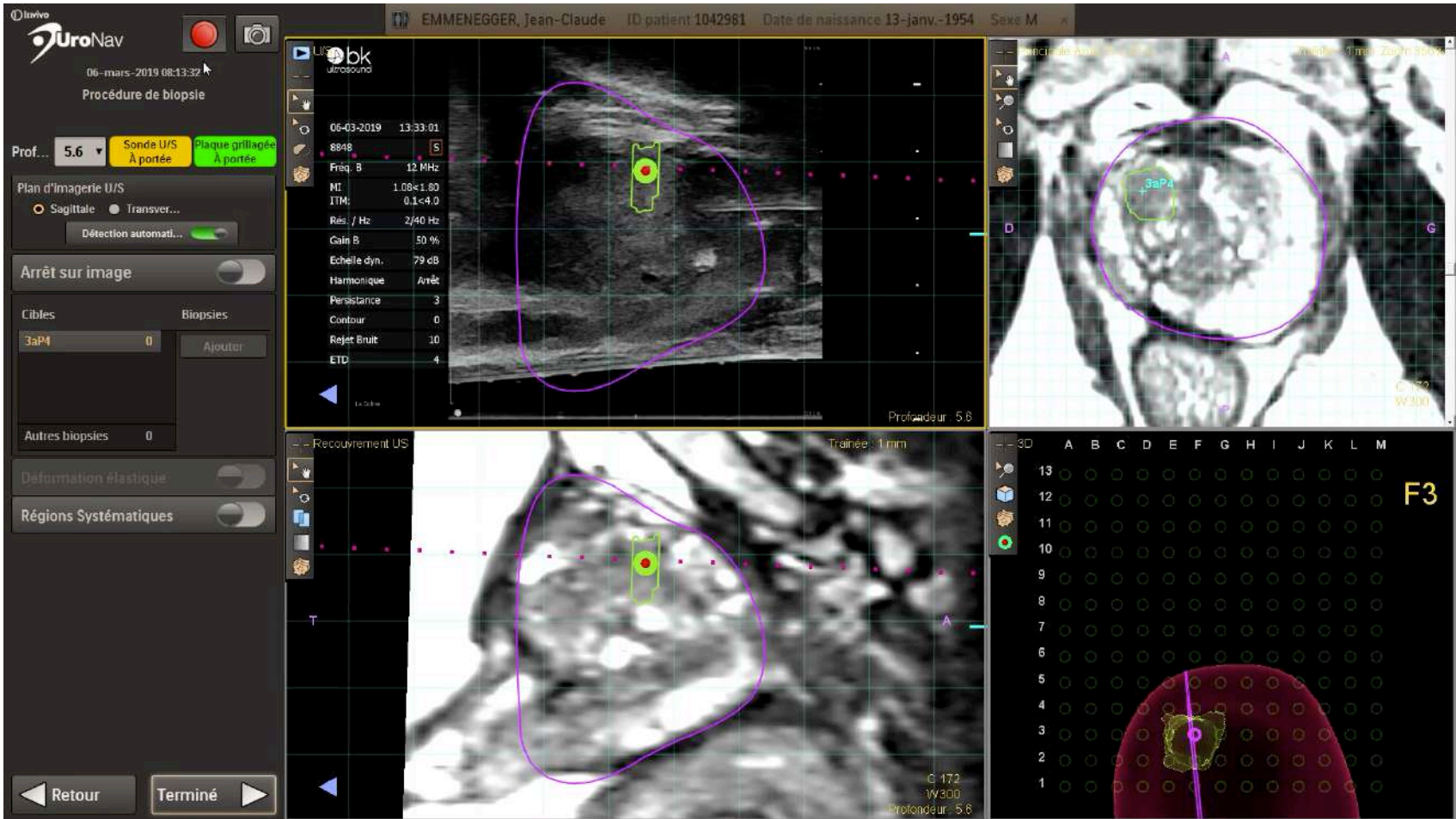
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Procedure

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Control

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Geneva SIPC protocol

Months	1w	3	6	12	18	24	30	36
PSA		x	x	x	x	x	x	x
mpMRI	x			x		x		
Targeted biopsy (treated area)				x		X(if susp. orTP clin/PSA)		
Standard biopsy (untreated area)				x				
PROMs		x	x	x	x	x	x	x

PROMs used: IPSS, IIEF-5, EORTC QLQ-C30 and QLQ-PR25

Registry



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FLA Prostate

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Registry/Registro

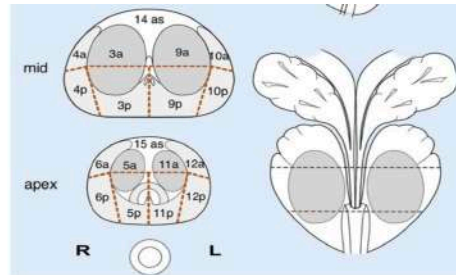
Scientific Director
[Prof. GUGLIELMO MANENTI](#)

Scientific Advisors
[Prof. Leonardo Palombi](#)
[Dr. Stefano Regusci](#)

Scientific P.O.C
[Colleen P. Ryan, MD](#)

STAFF

- [Dr. Tommaso Perretta](#)
- [Dr. Andrea Malizia](#)
- [Dr. Martina Martins](#)
- [Dr. Emanuele Caredda](#)
- [Prof. Nicola Toschi](#)
- [Dr. Andrea Duggento](#)



Insert Dickinson sectors according to the image above

QoL-IPSS-IIEF

QoL (Quality of Life)

0 1 2 3 4 5 6

IPSS (PC)

YES/SI NO

IIEF (PC)

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Conclusions

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Efficient

Flexible (TP, MRI)

LA/GA

Repeat ttt/ Salvage

Urinary and sexual function preservation

Conclusions

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Offer flexible Dx/ttt Prostatic cancer

Personalized approach

Help in planning ttt/energy, software...

Help in monitoring ttt

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