

Non-invasive diagnosis to detect cancer with a new ultrasound technique

LOCATION: Granada

LENGTH: 1'34"

SUMMARY: Researchers from the University of Granada have designed a new ultrasound technique that would allow for the non-invasive diagnosis of diseases such as cancer. The European Society of Biomechanics awarded this work in 2017.

VTR:

To be able to diagnose diseases through a technique based in ultrasonic waves. It is the goal of these researchers from the University of Granada. This new technique could allow for a non-invasive diagnosis of diseases such as cancer.

Juan Manuel Melchor
University of Granada Researcher

"And we search for experimental ways of generating harmonics inside different materials, such as, for example, silicones and gels, and we check if this could be applied to the inside of tissues in order to allow for a diagnosis."

Guillermo Rus
University of Granada Researcher

"It is like a new connection between engineering and medicine that offers great opportunities."

Waves are applied over the tissues and the data obtained facilitates the diagnosis. In order to be able to apply this technique, these researchers are trying to find the ideal tool to use these waves on patients.

Guillermo Rus
University of Granada Researcher

"Medical equipment that generates and measures those waves, and that can be used with patients."

Despite there's still a lot of work to do until clinical trials begin, this innovative technique could be used, for example, to predict premature births and diagnose several types of cancer.

Juan Manuel Melchor
University of Granada Researcher

"As ultrasounds aren't invasive, it could be a good diagnosis method, without side effects."

Rubén Molina
University of Granada Researcher

"One of its applications is, for example, the detection of premature birth risk, in which we are currently working, and it is also very sensitive to, for example, consistency changes in the tissue that forms the organ, so it allows us to detect several types of tumour, and it also has aesthetic applications, such as skin rejuvenation."

The European Society of Biomechanics awarded this work in its European Congress, held in Seville in 2017.

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