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## Recent Research from FEMTO-ST Institute Highlight Findings in Skin Research and Technology (Intra- and inter-individual variability in the mechanical...

Recent Research from FEMTO-ST Institute Highlight Findings in Skin Research and Technology (Intra- and inter-individual variability in the mechanical properties of the human skin from in vivo measurements on 20 volunteers)

By a News Reporter-Staff News Editor at Health & Medicine Week -- Investigators discuss new findings in Research and Technology - Skin Research and Technology. According to news reporting from Besancon, France, by NewsRx journalists, research stated, "The mechanical properties and behavior of the human skin in vivo are of medical importance, particularly to surgeons who have to consider the skin extension capabilities in the preparation of surgical acts. Variable data can be found in literature that result from diverse kinds of tests (in vivo, ex vivo, and postmortem) performed with different instruments."

Financial support for this research came from Region de Franche-Comte, France (see also Research and Technology - Skin Research and Technology).

The news correspondents obtained a quote from the research from FEMTO-ST Institute, "This paper presents the results of in vivo measurements performed on a cohort of 20 healthy volun-

teers with an ultralight homemade uniaxial extensometer. Different anatomical zones were explored under different directions of solicitation in order to document inter- and intra-individual variability as well as skin anisotropy. The experimental data obtained are fitted with a phenomenological exponential model allowing the identification of three parameters characteristic of the tested skin behavior. These parameters can be related to the concept of skin extensibility used by surgeons. The inter- and intra-variability observed on that cohort confirms the need for a patient-specific approach based on the in vivo measurement of the mechanical behavior of the human skin of interest. Even the direction of higher skin stiffness is found to be individual-dependent."

According to the news reporters, the research concluded: "The capability of the extensometer used in this study to fulfill such measurement needs is also demonstrated."

For more information on this research see: Intra- and inter-individual variability in the mechanical properties of the human skin from in vivo measurements on 20 volunteers. *Skin Research and Technology*, 2017;23(4):491-499. *Skin Research and Technology* can be contacted at: Wiley, 111 River St, Hoboken

07030-5774, NJ, USA. (Wiley-Blackwell - [www.wiley.com/](http://www.wiley.com/); Skin Research and Technology - [onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1600-0846](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1600-0846))

Our news journalists report that additional information may be obtained by contacting E. Jacquet, Univ Bourgogne Franche Comte, CNRS UFC ENSMM **UTBM**, FEMTO ST Inst, Dept. of Appl Mech, Besancon, France. Additional authors for this research include J. Chamberbert, J. Pauchot and P. Sandoz.

The direct object identifier (DOI) for that additional information is: <https://doi.org/10.1111/srt.12361>. This DOI is a link to an online electronic document that is either free or for purchase, and can be your direct source for a journal article and its citation.

Keywords for this news article include: Besancon, France, Europe, Skin Research and Technology, Research and Technology, FEMTO-ST Institute.

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