

## SUPPORTING INFORMATION

### A microscopic investigation on insulin uptake in the human hepatocellular carcinoma-derived HepG2 cells

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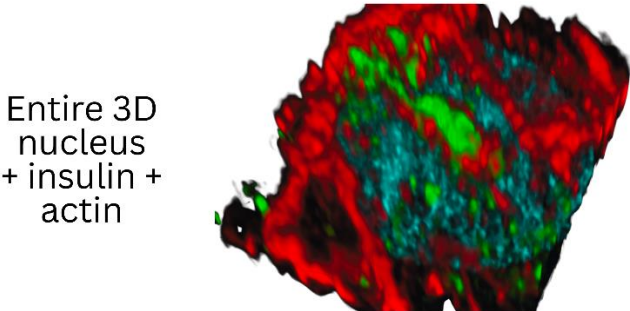
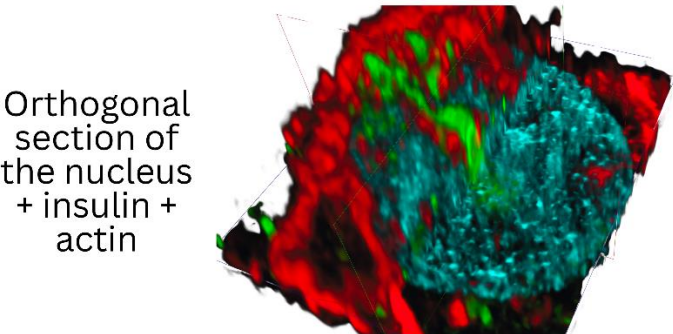
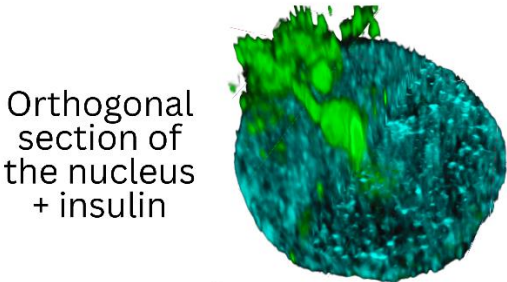
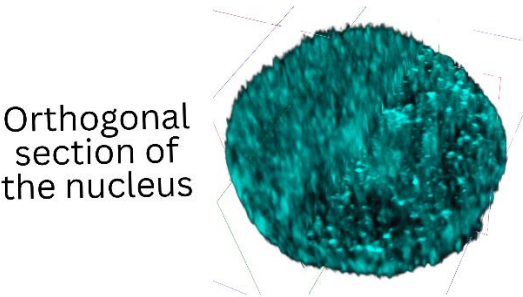
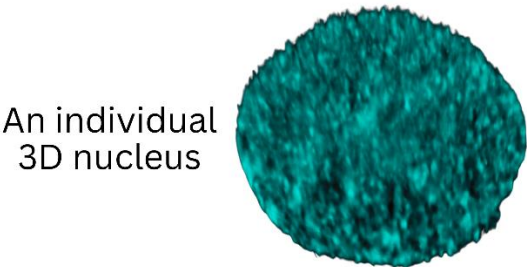
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**S1.** A step-by-step visualization from a 3D rendition of a Hoechst-stained HepG2 cell nucleus showing its internal texture along with intrusion by FITC-insulin. The Alexa Phalloidin 647-stained actin filaments did not demonstrate any interaction with the nucleus.



**S2.** Video file (marked as S1\_15 min) showing the 3D rendition of the HepG2 cells derived from the CLSM data after  $t = 15$  min exposure to FITC-insulin with the nuclei, internalized FITC-insulin, and the actin filaments stained with Hoechst ( $\lambda_{ex}=405$  nm,  $\lambda_{em}=415\text{--}485$  nm), FITC ( $\lambda_{ex}=491$  nm,  $\lambda_{em}=502\text{--}600$  nm), and Alexa Phalloidin 647 ( $\lambda_{ex}=649$  nm,  $\lambda_{em}=658\text{--}775$  nm), respectively.

**S3.** Multiple video files (marked as S2\_30 min\_1/2/3) showing the 3D rendition of the HepG2 cells derived from the CLSM data after  $t = 30$  min exposure to FITC-insulin with the nuclei, internalized FITC-insulin, and the actin filaments stained with Hoechst ( $\lambda_{ex}=405$  nm,  $\lambda_{em}=415\text{--}485$  nm), FITC ( $\lambda_{ex}=491$  nm,  $\lambda_{em}=502\text{--}600$  nm), and Alexa Phalloidin 647 ( $\lambda_{ex}=649$  nm,  $\lambda_{em}=658\text{--}775$  nm), respectively.