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Cryo Soft X-ray Tomography of Cells

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In Structural Cell Biology detailed structural and functional descriptions of the different cellular components must be correlated with a topological map of these components at the whole cellular level. Cryo soft X-ray nanotomography (cryo-SXT) is a new complementary approach in this field that can provide information at 50 nm (full-pitch) 3D resolution of the organelle organization in whole, unstained, un-sectioned cells [1, 2]. An overview of the technique as well as examples of applications in the field of pathogen-host interaction will be presented [3, 4, 5].

- [1] Schneider G et al. Nature Methods 7, 985-987 (2010).
- [2] Carrascosa JL et al. J. Struct. Biol. 168, 234-239 (2009).
- [3] Chichón FJ et al. J. Struct. Biol. 177, 202-211 (2012).
- [4] Kapishnikov S et al. PNAS 109, no.28, 11188-11193 (2012).
- [5] Pérez-Berná AJ et al. ACS Nano 10, 6597-6611 (2016).

Keywords or phrases (comma separated)

Are you a student?

No

Do you wish to take part in the Student Poster Slam?

No

Are you an ECR? (<5 yrs since PhD/Masters)

No

What is your gender?

Female

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