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Thermo Fisher Scientific collaborates with Chan Zuckerberg Institute for Advanced Biological Imaging

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Aimed at enhancing some of the world's most innovative structural cell biology capabilities



Thermo Fisher Scientific has announced a Technology Alliance Agreement with the Chan Zuckerberg Institute for Advanced Biological Imaging (CZ Imaging Institute). This agreement aims to develop new technologies to enable researchers to better visualize human cells, significantly advancing scientific research and discovery.

Cryo-electron microscopy (cryo-EM) is an essential tool in disease research and creating lifesaving therapeutics, including vaccine development. As the technique continues to evolve, so does the demand for enhanced contrast and higher resolution to see cellular structures in their native environments and in more detail than ever before, including the ability to analyze the inner workings of human cells in 3D and at industry-leading nanoscale resolution.

To address this demand, the respective teams are building on existing collaborations with Professor Holger Müller and his team at the University of California, Berkeley, and Lawrence Berkeley National Laboratory (Berkeley Lab), where the continuous laser phase plate for electron microscopy was invented and continues to be developed.

Thermo Fisher will work alongside the CZ Imaging Institute to further develop laser phase plate technology for cryo-EM, enhancing cellular biology imaging at high resolution, while continuing the collaboration with Berkeley Lab.

This project is a building block toward the Chan Zuckerberg Initiative’s (CZI) work to solve grand scientific challenges, including developing state-of-the-art imaging systems to observe human cells in extraordinary detail. The collaboration will bring together scientists and cryo-EM experts across the two organizations to maximize the impact of this brand-new laser phase plate technology, enabling the broader scientific community to collect more information from their cryo-EM efforts, leading to a deeper comprehension of biology and the advancement of cutting-edge biological research.