

Virtual Reality as a thinking tool for structural investigation

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Structural biology enables scientists to examine molecular structures in exceptional detail, including at the atomic level. This knowledge of molecular anatomy is crucial for understanding how molecules function and for guiding structure-based drug discovery.

Visualizing and manipulating molecular structures is an essential step in this process, and advances in technology are providing increasingly sophisticated methods for doing so. The very process of visual exploration can be a moment for creativity and lead to unexpected ideas. Nanome has developed a platform that utilizes virtual and mixed reality to enable scientists to brainstorm in front of 3D structures and use the platform as a sandbox for visually testing hypotheses. The intuitive interaction with molecules offered by the virtual reality environment makes it a powerful tool for promoting creativity and unlocking unforeseen inspirations. Research groups have used this virtual environment to freely explore structures and molecular designs in real-time, leading to the ideation of completely novel compounds and gaining new structural insights.