

# Cancer drug design targeted by COSMIC's new 3-D system

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[COSMIC-3D](#), the most comprehensive system for exploring cancer mutations in three dimensions, is launched today by COSMIC, based at the Wellcome Trust Sanger Institute, in collaboration with Astex Pharmaceuticals, Cambridge, UK. With extensive colourful and helpful visualisations, the new resource can help identify and characterise drug targets as well as support the design of new therapeutics for cancer. The new tool is set to change the way researchers interact with genomic mutations in order to identify new cancer drug targets.

Available at <http://cancer.sanger.ac.uk/cosmic3d>, COSMIC-3D provides interactive 3D visualisations of more than 8,000 human proteins displaying cancer mutations. It enables researchers to develop a clearer understanding of which mutations are implicated in cancer progression, and how these mutations impact molecular structure and function.

Significantly, COSMIC-3D displays known and predicted drug binding sites within the protein structure. This displays [cancer mutations](#) alongside binding sites with predictions of how likely a pocket is to be successful as a drug target, enhancing the exploration and identification of how mutations impact therapeutic targets.

COSMIC-3D has been designed to directly assist pharmaceutical development. The new resource utilises [COSMIC - Catalogue of Somatic Mutations in Cancer](#), the world's largest expert-curated human cancer mutation database - and also incorporates structural information from the [Worldwide Protein Data Bank \(wwPDB\)](#).

Provided by Wellcome Trust Sanger Institute

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