Structural biology response to biomedical threats

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Structural information is the quintessential prerequisite for structural-guided drug discovery[1]. However, accurate structural information is only a piece of information necessary to understand the big picture of medical disorders[2]. To provide a rapid response to emerging biomedical challenges and threats like COVID-19, we need to analyze medical data in the context of other in-vitro and in-vivo experimental results[3,4]. This approach may revolutionize drug discovery, albeit only when these data are combined and analyzed with effective data management framework like Advanced Information System proposed in 2017[4]. The recently published virusMED system is a blueprint for Advanced Information Systems[5,6].