Proteins in harmony: Tuning selectivity in early drug discovery

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Proteins in Harmony
Tuning Selectivity in Early Drug Discovery

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About the title and cover page

Just like a school of fish swim in synchrony, the proteins in the human body behave comparably. Proteins do not act alone, but are directly and indirectly influenced by proteins in their environment. Sequentially, these surrounding proteins are also affected by their neighbors resulting in a beautiful synergy unlocking protein communication. This protein crosstalk is disrupted in disease and can be perceived as a fish swimming against the flow, distressing its shoal. In drug discovery we identify the afflicting fish and steer them into the right direction. Using medicines we can change the behavior of proteins; an undertaking that listens carefully as only the deviant proteins should be targeted. Therefore, this process calls for methods that allow us to tune the selectivity of medicines, enabling the proteins to be in harmony once again.

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