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Article

## Maintenance of Native-like Protein Dynamics May Not Be Required for Engineering Functional Proteins

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Enzyme Dynamics and Engineering: One Step at a Time

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## Highlights

- · Natural homologs conserve very limited millisecond dynamics
- · A laboratory-evolved chimera tolerates dynamic variation on the catalytic timescale
- · An underlying potential for flexibility may promote evolvability of function
- · Conservation of native-like dynamics is not essential when engineering enzymes