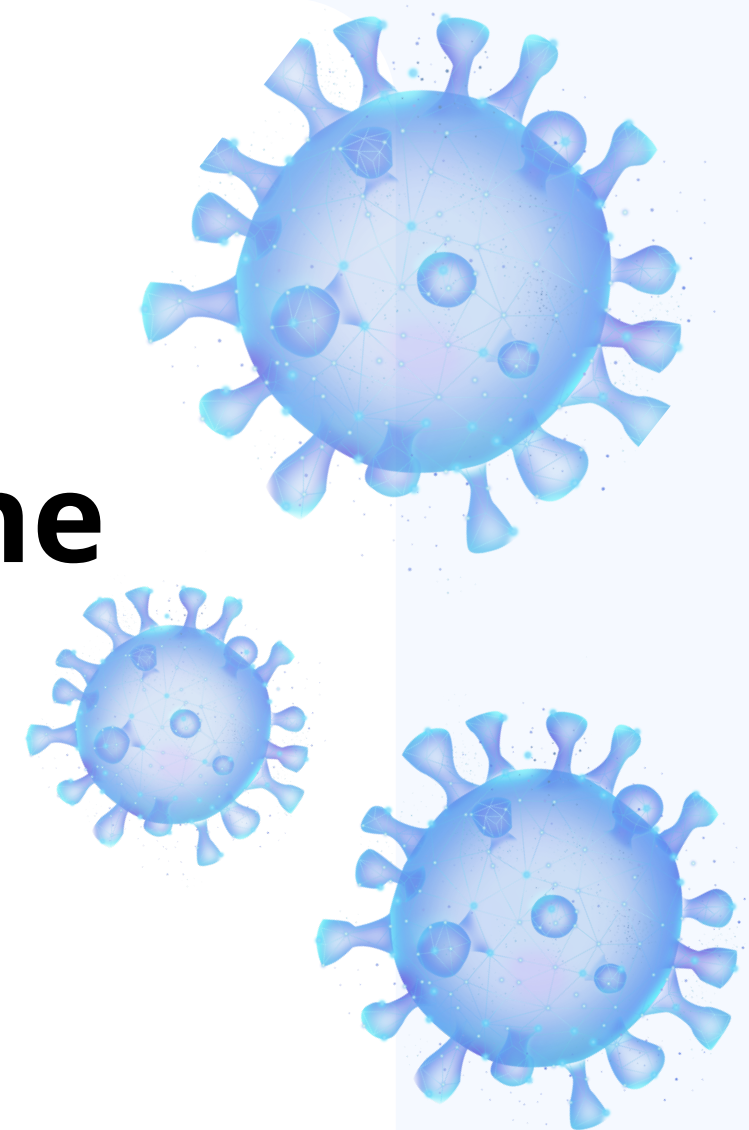




Mirror-image biomolecules: a double-edged sword?

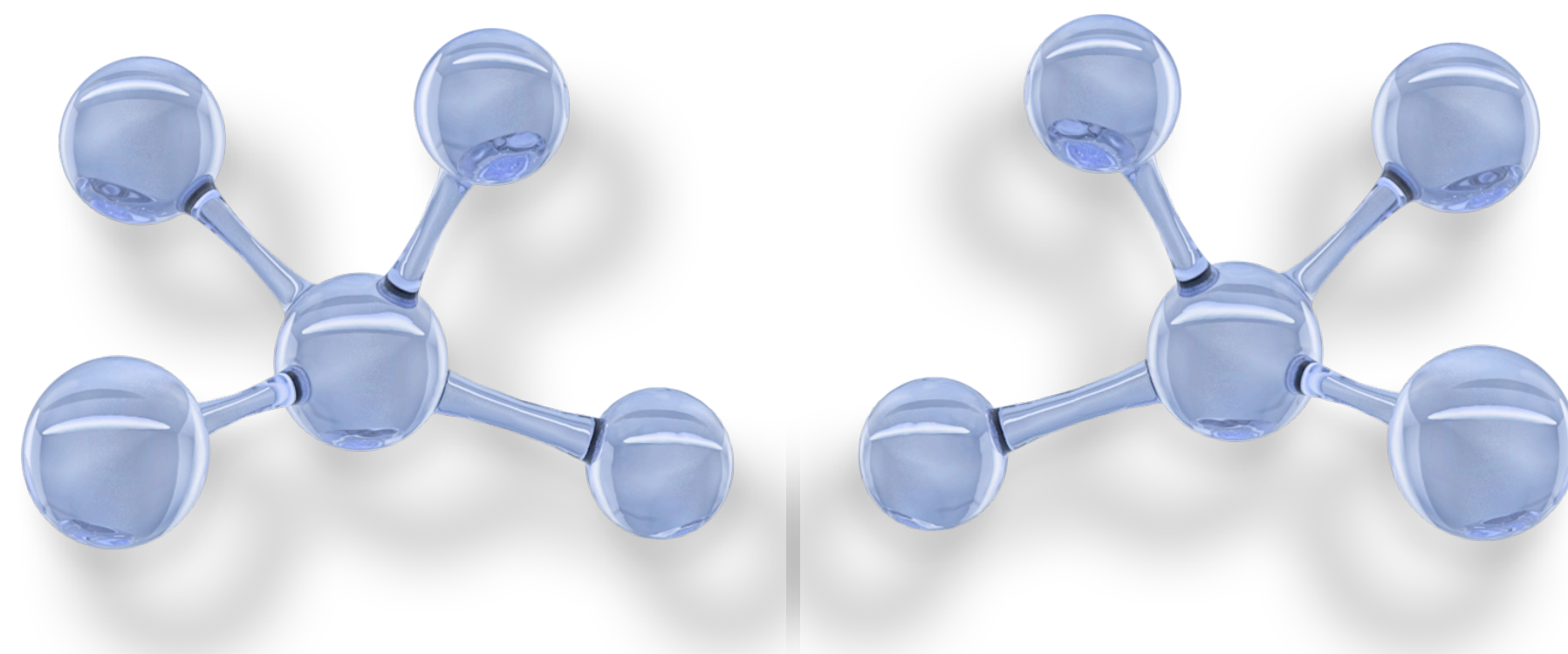
Therapeutic revolution or biological catastrophe

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What are mirror-image biomolecules?

Mirror biomolecules are chiral molecules that exist in two mirror-image forms; one being left-handed, the other right-handed. Most biomolecules only exist naturally in one form, for example DNA which exist in right-handed form.



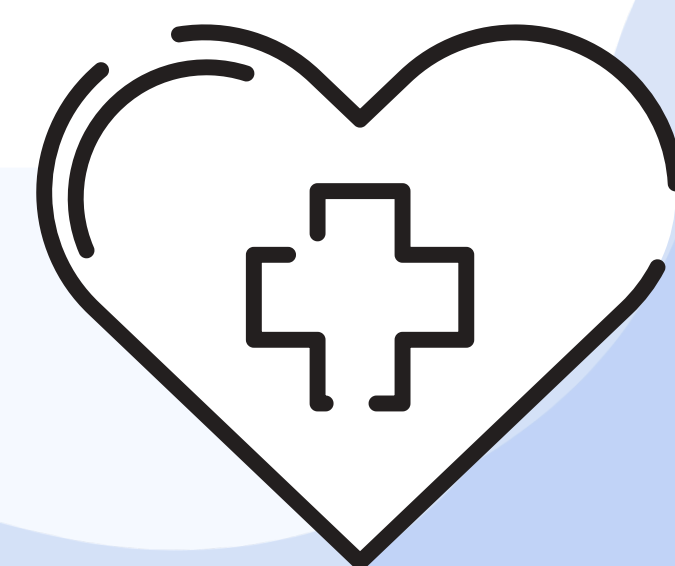
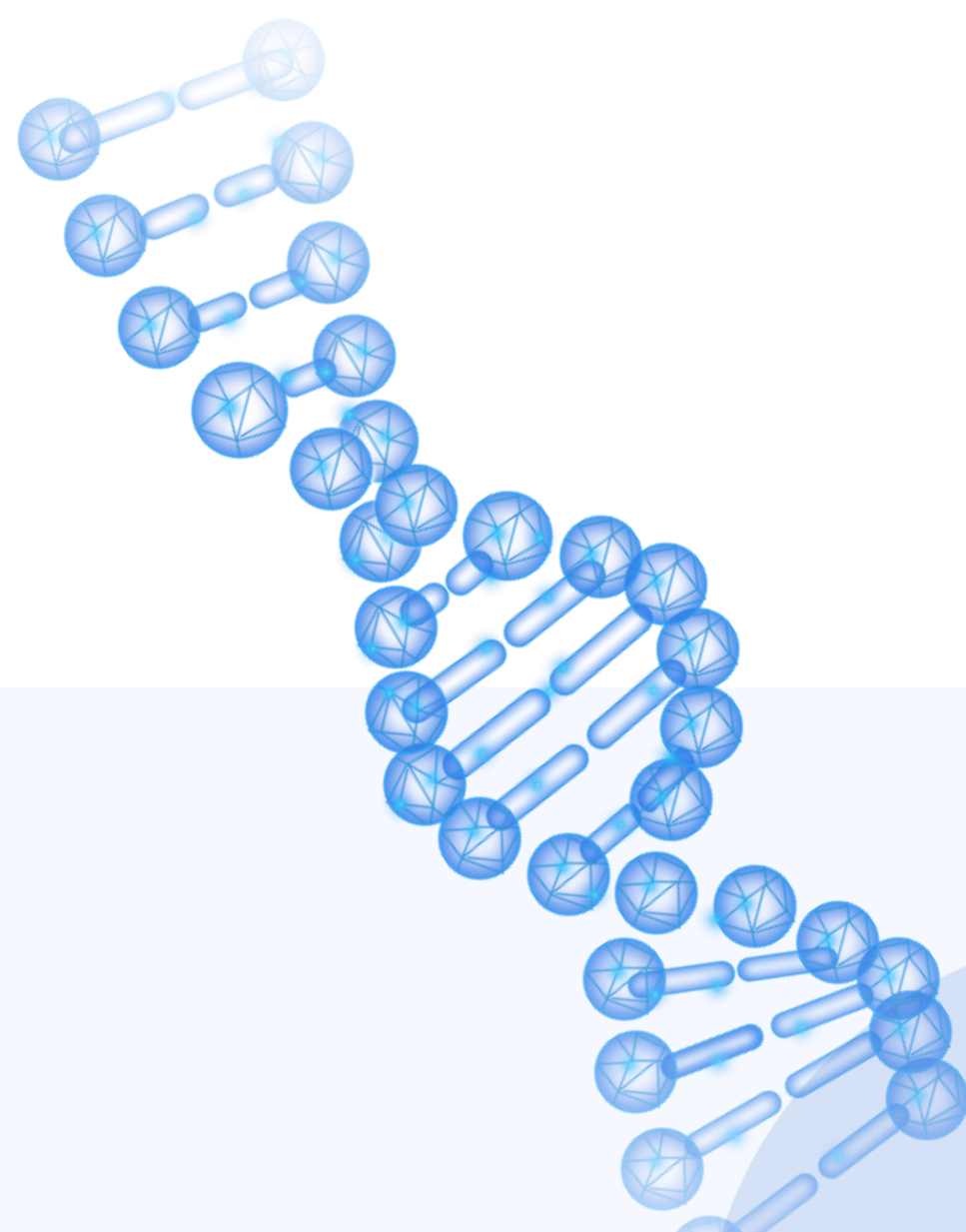
Why use mirror-image biomolecules in medicine?

Using mirror biomolecules can open up new ways in treating diseases. Our body does not recognize mirrored biomolecules, and given medicine being unrecognized by the body's defensive enzymes, the medicine can last longer, be more effective and decrease potential side-effects.

Ethical challenges

- Drug breakdown: how does the body break down the medicine?
- Unknown effects on the human body and the environment where it gets released.
- Mirror life: A hypothetical form of new life consisting of mirror-organisms

Kilder: <https://www.gov.uk/government/publications/mirror-life/mirror-life>
<https://news.utdallas.edu/health-medicine/mirror-molecules-2024/>



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