

## **Introduction**

Nucleic acids are one of the four major classes of biomolecules,

led to improvements in diagnostics, personalized medicine, and gene therapy, offering hope for curing genetic diseases.

Furthermore, the field of CRISPR-Cas9 [10] gene editing has made it possible to modify the DNA of living organisms with high precision, potentially leading to cures for genetic disorders or improvements in agriculture.

### Conclusion

Nucleic acids, particularly DNA and RNA, are indispensable to life as we know it. Their roles in genetic information storage, protein synthesis, and cellular regulation are fundamental to all biological processes. Understanding the structure and function of nucleic acids has paved the way for numerous scientific advancements, including those in medicine and biotechnology. As we continue to explore the potential of nucleic acids in research and treatment, they will undoubtedly remain central to the future of biology and medicine, unlocking even greater possibilities for scientific discovery.

### References

- 1.