# Article information:

Discrimination of oligonucleotides of different lengths with a wild-type aerolysin nanopore | Nature Nanotechnology  
<https://www.nature.com/articles/nnano.2016.66>

# Article summary:

1. Researchers have investigated the sensing ability of various membrane proteins to obtain sufficient current and temporal resolution for oligonucleotide analysis.

2. Wild-type aerolysin is a suitable candidate for single-molecule analysis of biomolecules due to its spontaneous assembly, diameter, and β-barrel length.

3. Aerolysin was used to discriminate polydeoxyadenines (dAn) based on high current resolution and sufficient temporal sensitivity, detecting oligonucleotides as short as two nucleotides without any extra chemicals or modifications.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Discrimination of oligonucleotides of different lengths with a wild-type aerolysin nanopore” published in Nature Nanotechnology provides an overview of the use of wild-type aerolysin as a biological nanopore sensor for the discrimination of polydeoxyadenines (dAn). The article is well written and provides detailed information about the advantages of using wild-type aerolysin over other membrane proteins for this purpose. The authors provide evidence from previous studies that support their claims and present data from their own experiments to demonstrate the efficacy of wild-type aerolysin in discriminating dAn.

The article does not appear to be biased or one-sided, as it presents both sides equally and acknowledges potential risks associated with using wild-type aerolysin as a biological nanopore sensor. However, there are some missing points that should be considered when evaluating the trustworthiness and reliability of this article. For example, while the authors provide evidence from previous studies that support their claims, they do not explore any counterarguments or alternative explanations for their findings. Additionally, while they present data from their own experiments to demonstrate the efficacy of wild-type aerolysin in discriminating dAn, they do not provide any evidence for the claims made in other parts of the article such as when discussing potential risks associated with using wild-type aerolysin as a biological nanopore sensor. Furthermore, there is no discussion about possible limitations or drawbacks associated with using wild-type aerolysin as a biological nanopore sensor which could be explored further in future research.

In conclusion, while this article provides an overview of the use of wild-type aerolysin as a biological nanopore sensor for the discrimination of polydeoxyadenines (dAn), there are some missing points that should be considered when evaluating its trustworthiness and reliability such as lack of exploration into counterarguments or alternative explanations for findings presented in this article and lack of evidence provided for certain claims made throughout it.

# Topics for further research:

* Wild-type aerolysin nanopore risks
* Alternative explanations for wild-type aerolysin nanopore discrimination
* Limitations of wild-type aerolysin nanopore
* Advantages of wild-type aerolysin nanopore
* Evidence for wild-type aerolysin nanopore discrimination
* Counterarguments to wild-type aerolysin nanopore discrimination

# Report location:

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