

LET THE DNA SPEAK

## FINAL REPORT

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## **1 Introduction**

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## References

- [1] A. Allison. “Protection afforded by sickle-cell trait against subtertian malarial infection”. In: *British Medical Journal* (1954), pp. 290–294.
- [2] S. Appelhoff et al. *LetTheDnaSpeak*. 2014. URL: <https://github.com/kpj/LetTheDnaSpeak>.
- [3] O. S. Platt et al. “Mortality in sickle cell disease: life expectancy and risk factors for early death”. In: *The New England Journal of Medicine* 330 (1994).