

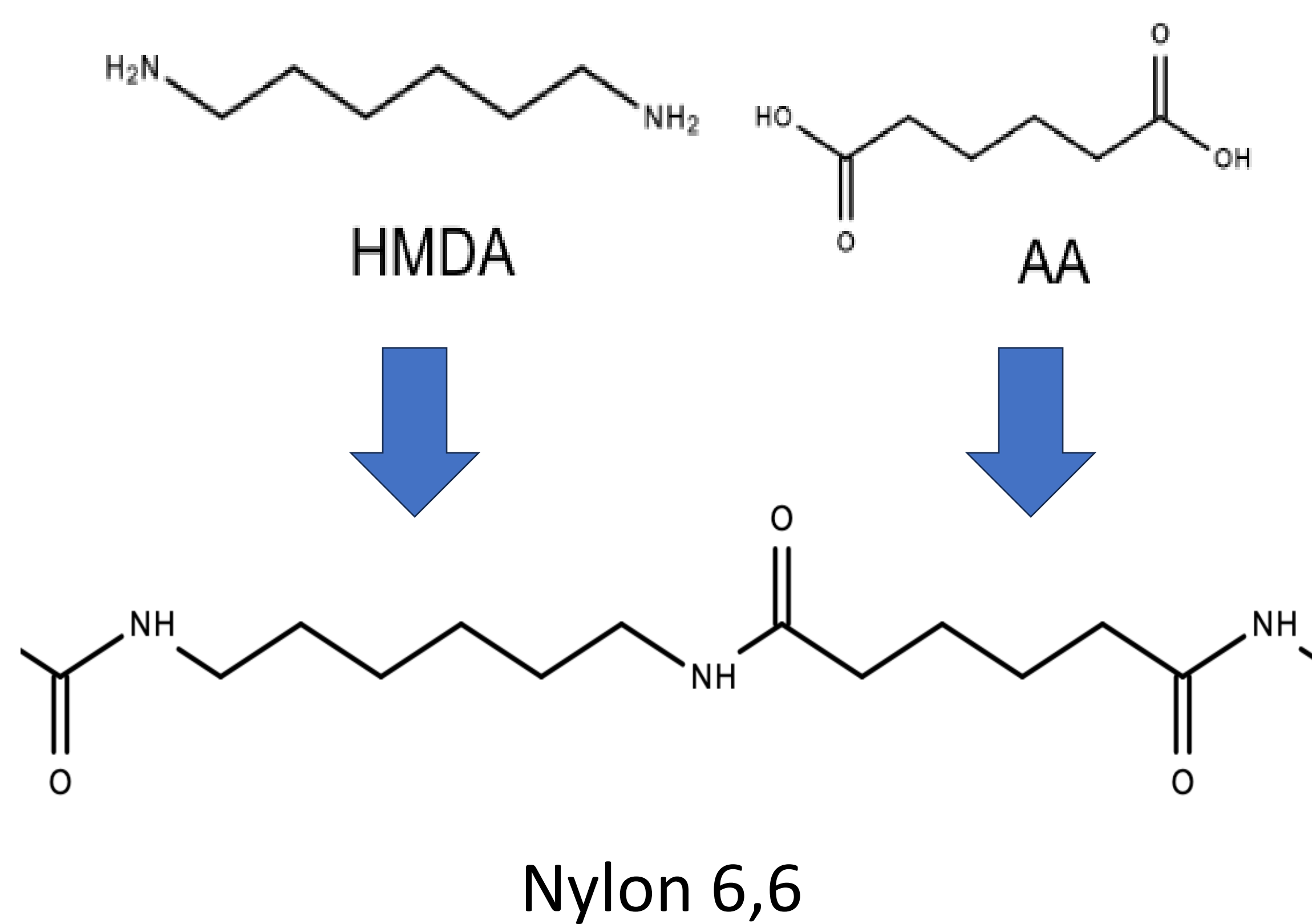
Introduction of Nitrogen into Woody Biomass

David Witdorich, Anthony Arduengo, Stefan France,
Jake Soper, Andreas Bommarius.

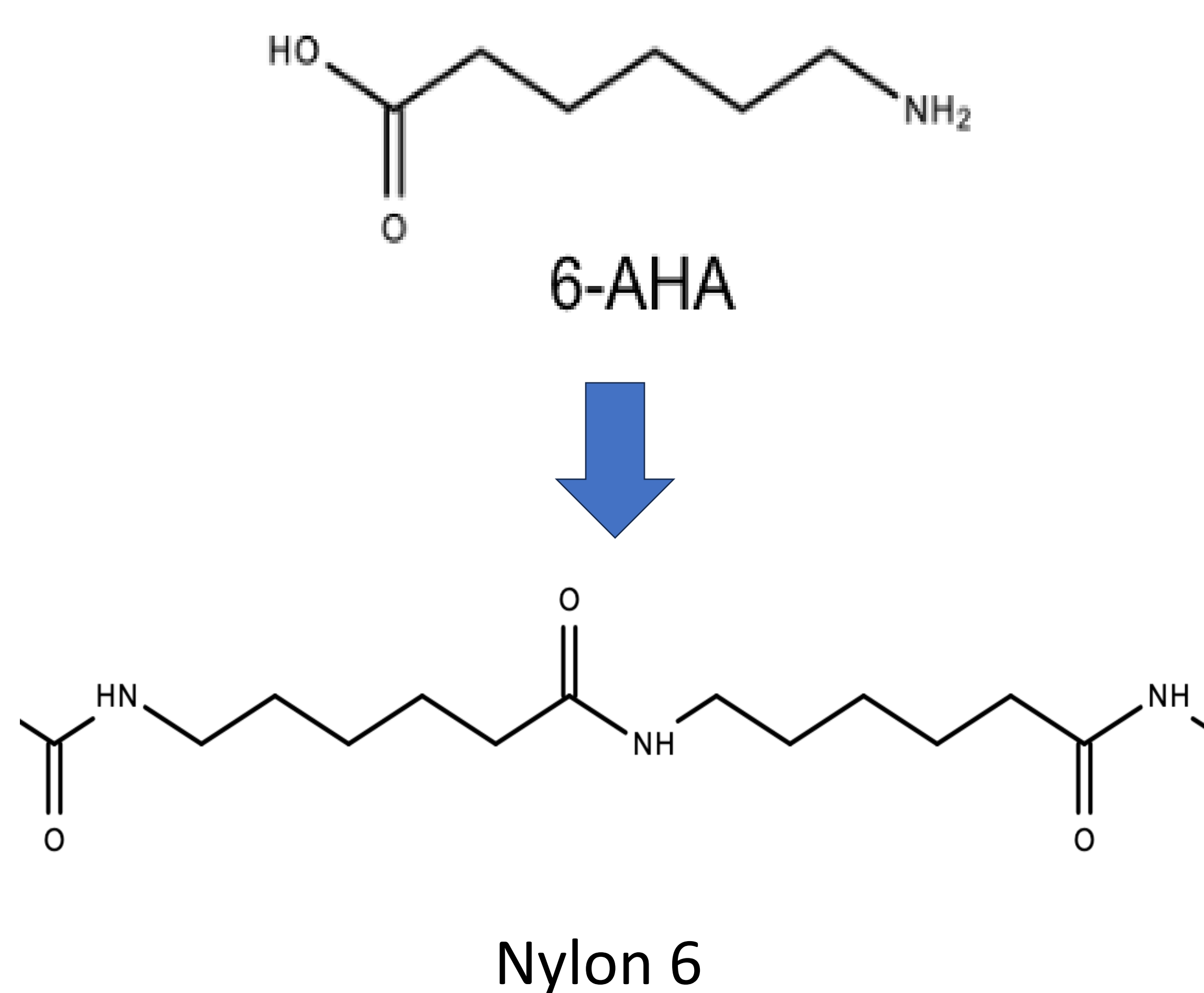
Motivation: Moving Away From an Oil Economy

- ❖ Oil produces most commercial chemicals and pharmaceuticals in the world in addition to fuels
- ❖ To move away from oil, switching fuels is not enough
- ❖ Building blocks for chemicals must be made available through renewable means
- ❖ Prime examples are monomers/co-monomers for Nylon

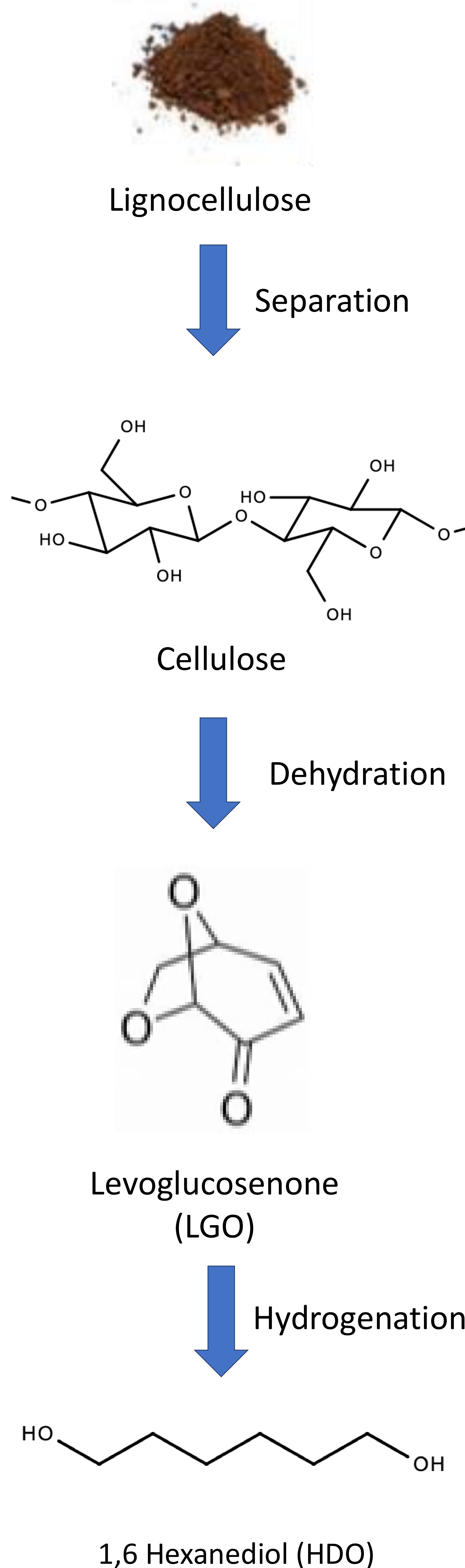
Synthesis of Nylon 6,6



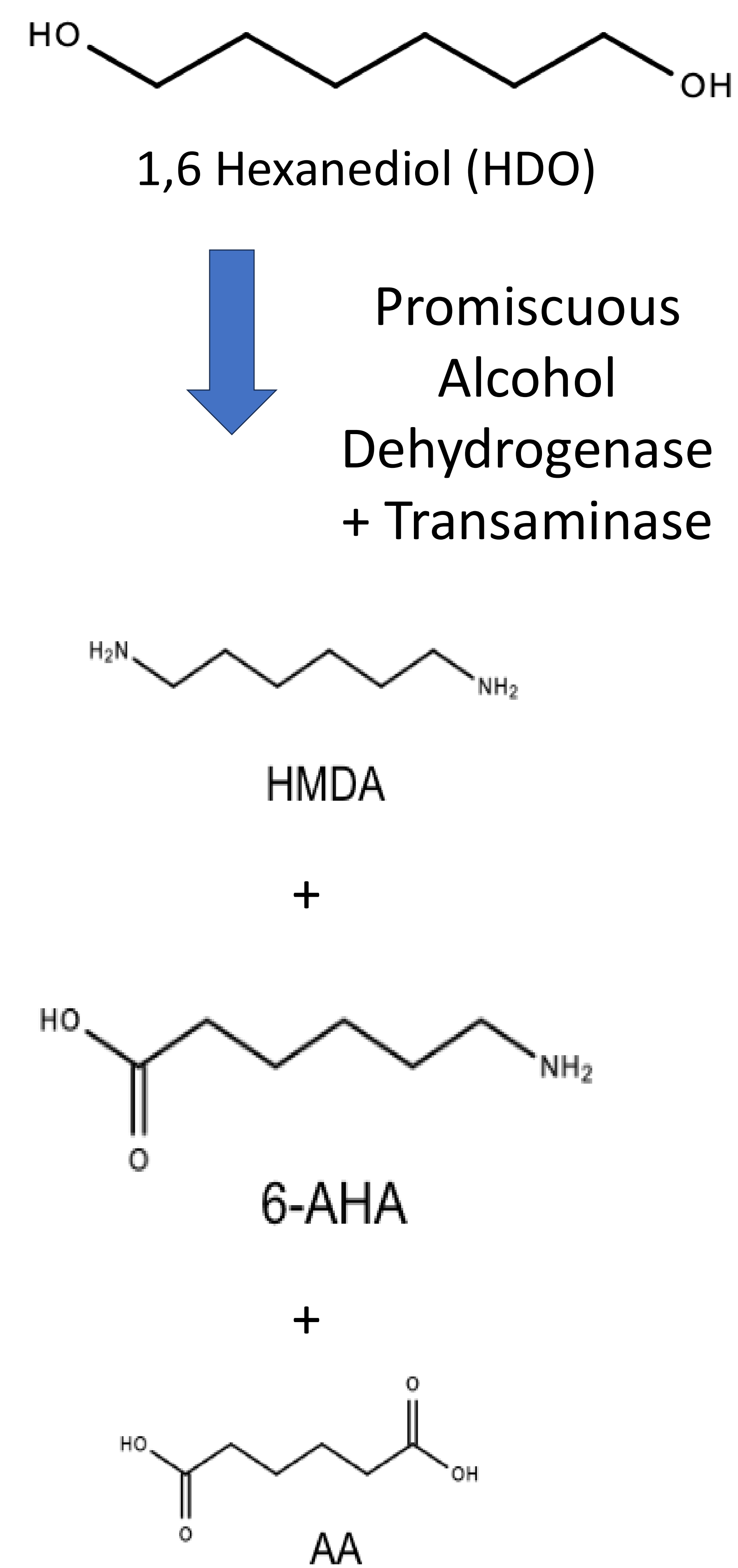
Synthesis of Nylon 6



Chemical Processing of Lignocellulose



Enzymatic Processing of HDO



Acknowledgements

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References

1. T. T. Kwok, J. R. Bright, S. R. Vora, N. J. Chrisandina, C. O. Luetgen, M. J. Realff, A. S. Bommarius, *ChemSusChem* **2020**, *13*, 267-273.
2. J. He, K. Huang, K. J. Barnett, S. H. Krishna, D. M. Alonso, Z. J. Brentzel, S. P. Burt, T. Walker, W. F. Banholzer, C. T. Maravelias, I. Hermans, J. A. Dumesic and G. W. Huber, *Faraday Discussions*, **2017**, *202*, 247-267.
3. Q. Li, Z. Zhang, J. Zhao, A. Li, *Green Chem.*, **2022**, *24*, 4270-4303.