

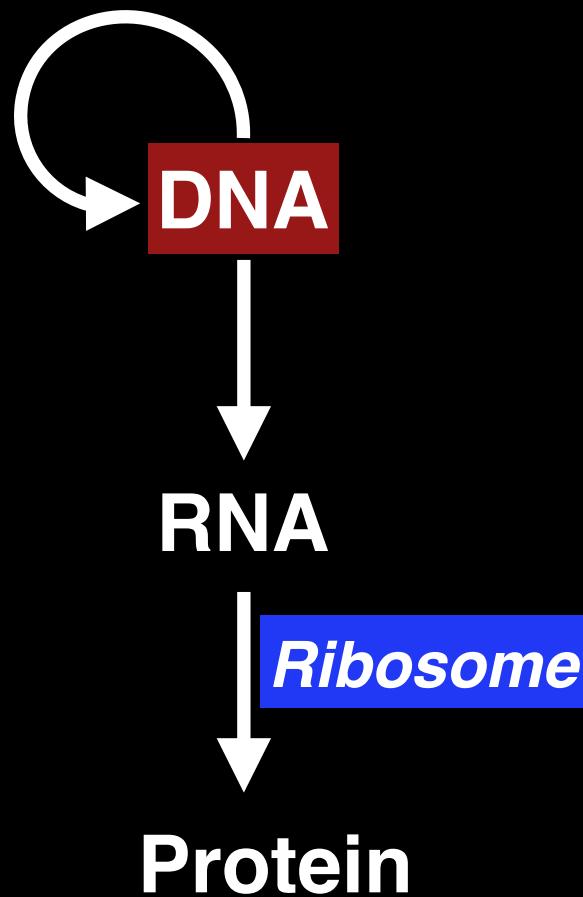
Central Dogma

Chris Kempes

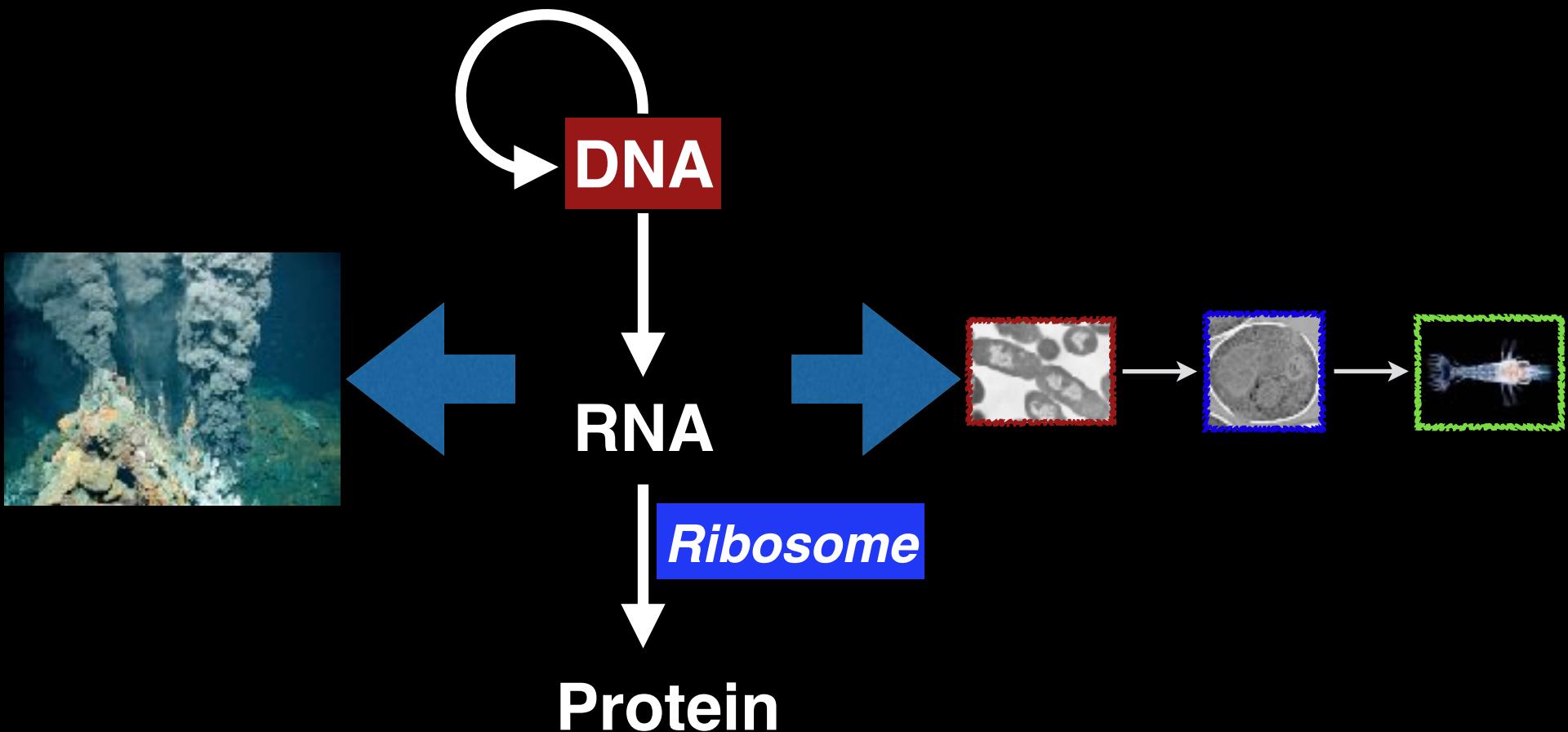


- What does the composition, structure, and function of modern life tell us about the origin?

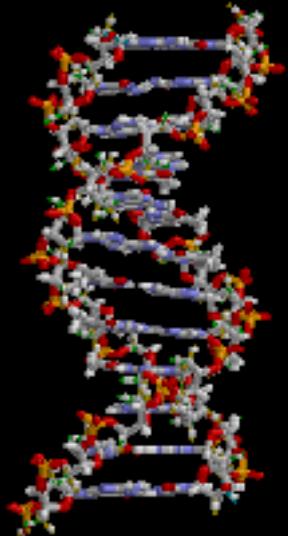
The Central Dogma of Biology



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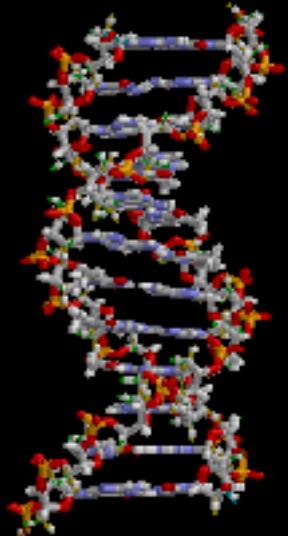


DNA

...CGG...

...GCC...

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DNA

...CGG...

...GCC...

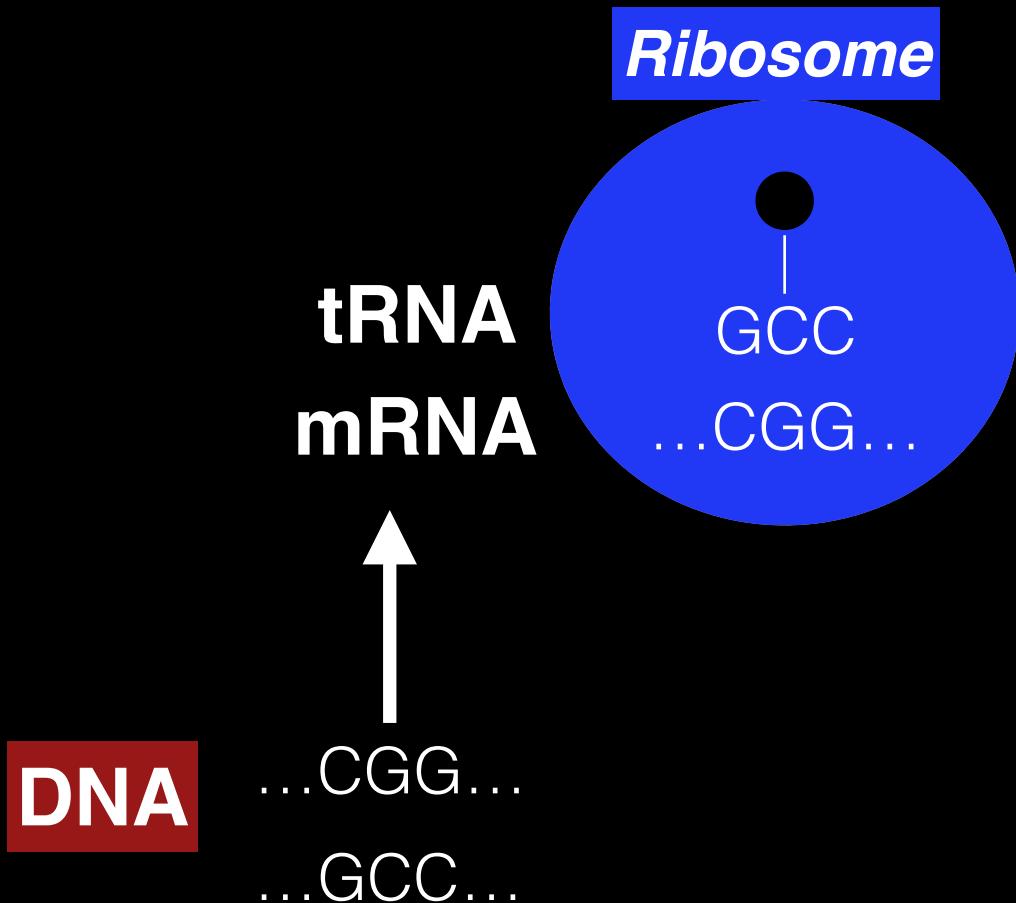
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mRNA ...CGG...

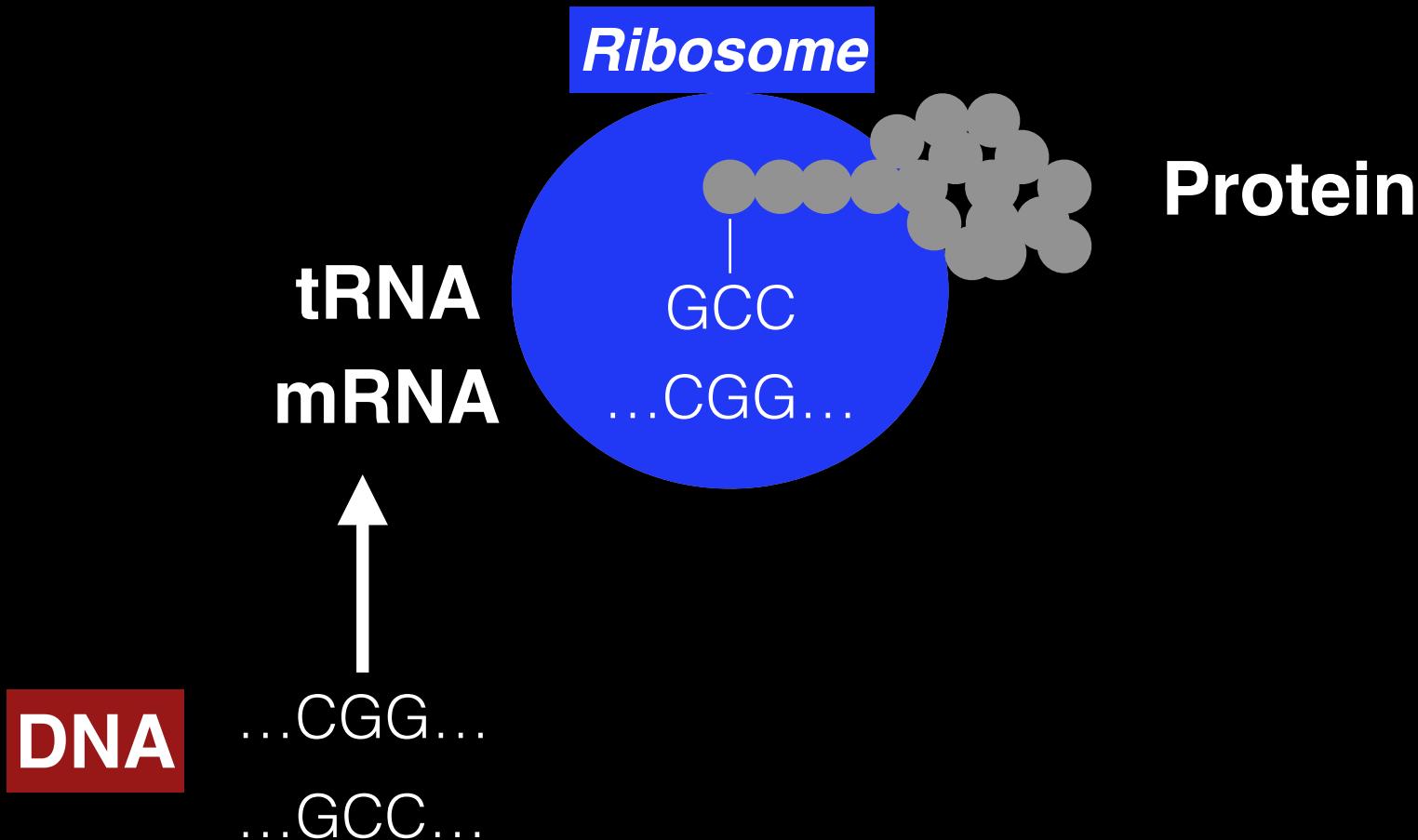


DNA ...CGG...
 ...GCC...

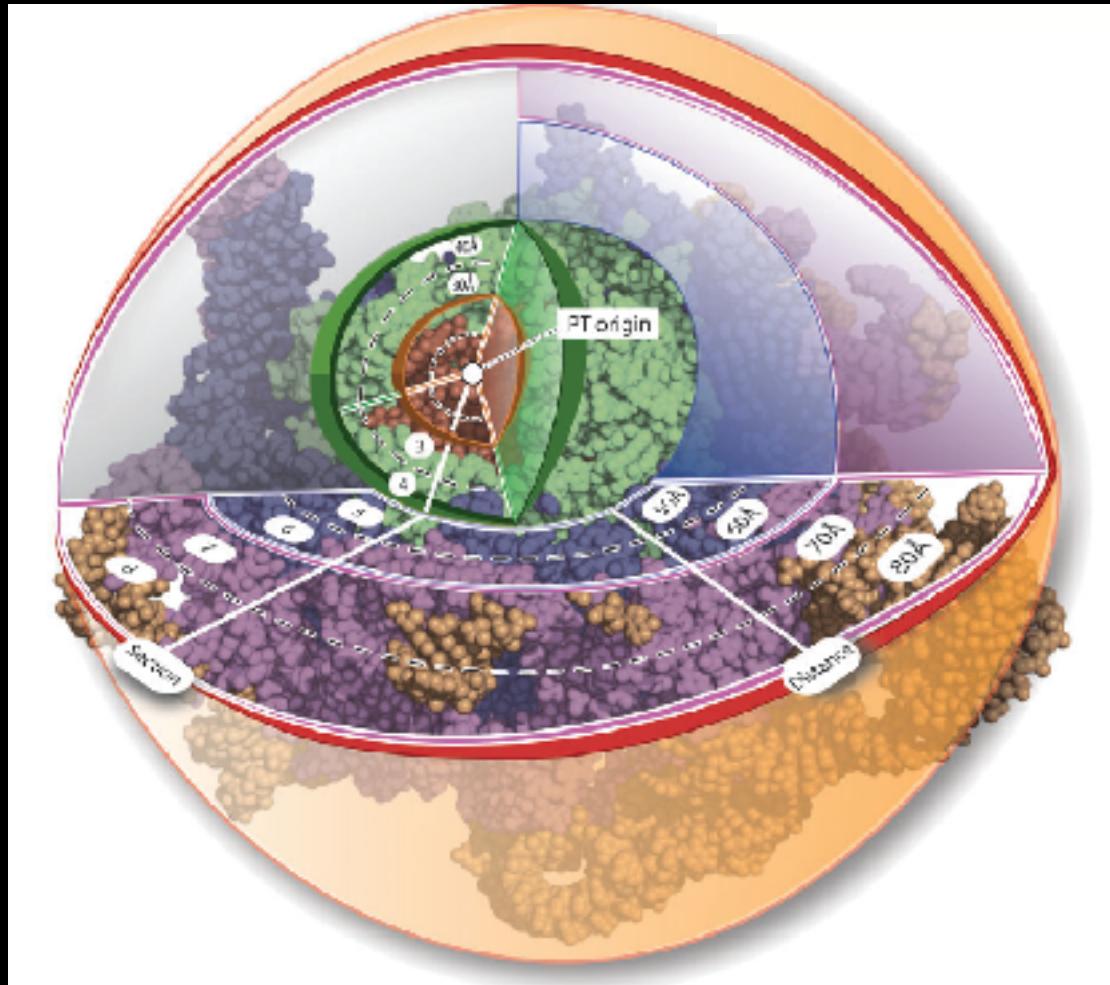
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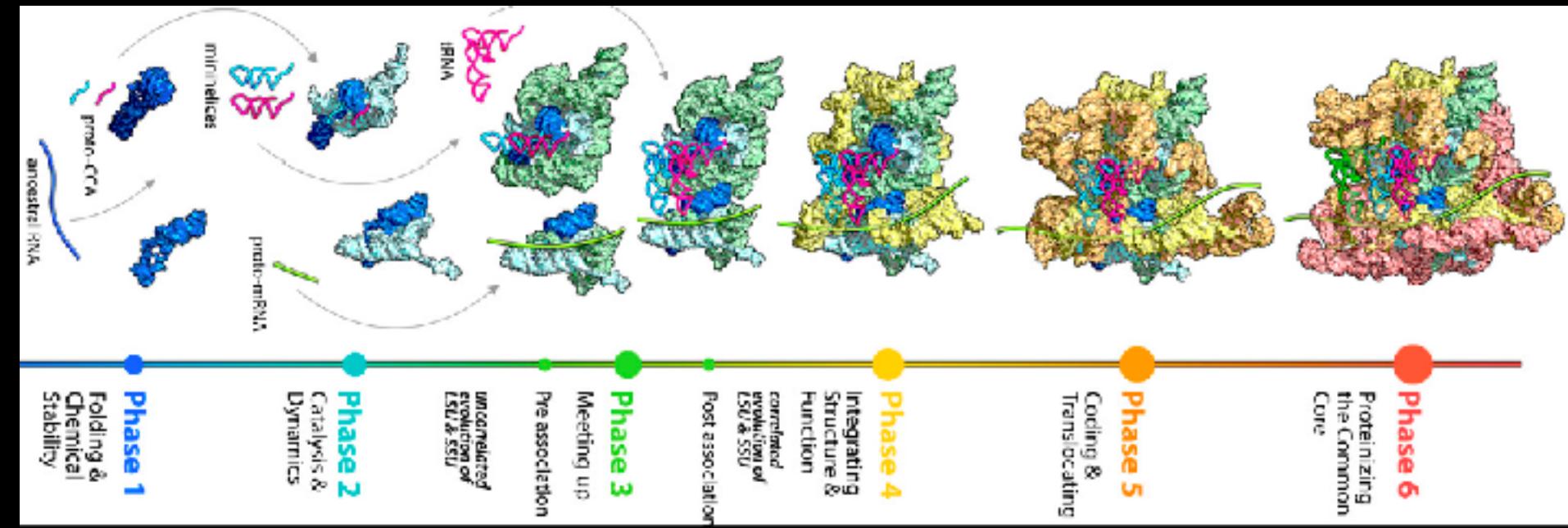
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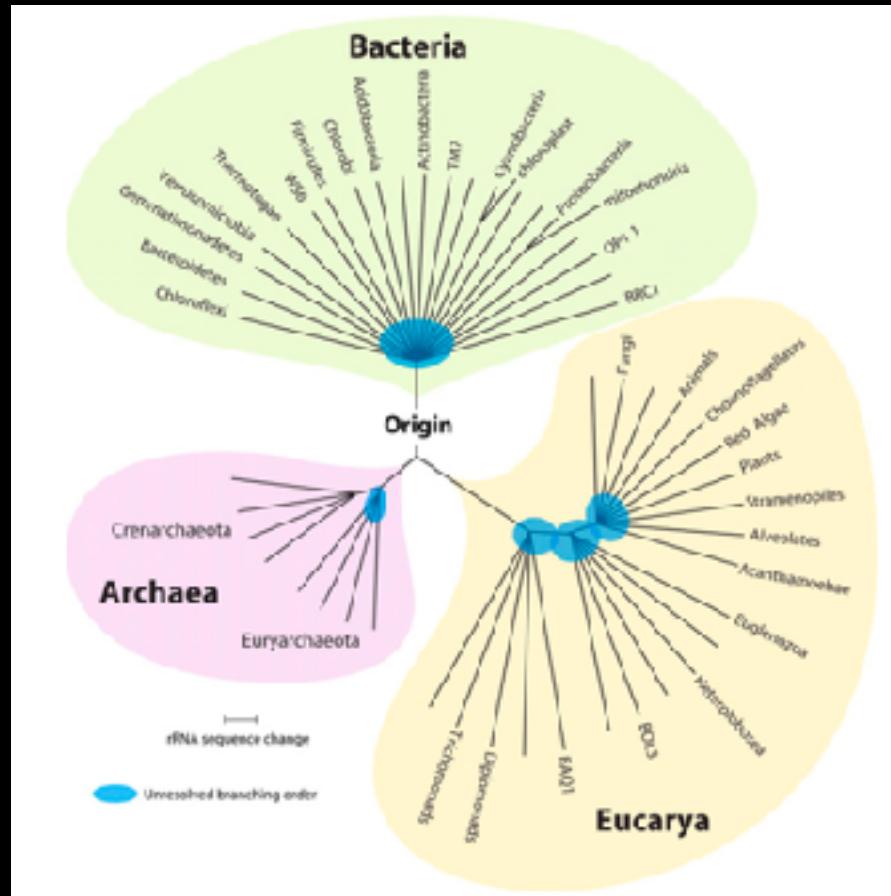
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References

- Hsiao, Chiaolong, Srividya Mohan, Benson K. Kalahar, and Loren Dean Williams. 2009. “Peeling the Onion: Ribosomes Are Ancient Molecular Fossils.” *Molecular Biology and Evolution* 26 (11): 2415–25. <https://doi.org/10.1093/molbev/msp163>.
- Nair, P. 2012. “Woese and Fox: Life, Rearranged.” *Proceedings of the National Academy of Sciences* 109 (4): 1019–21. <https://doi.org/10.1073/pnas.1120749109>.
- Petrov, Anton S., Burak Gulen, Ashlyn M. Norris, Nicholas A. Kovacs, Chad R. Bernier, Kathryn A. Lanier, George E. Fox, et al. 2015. “History of the Ribosome and the Origin of Translation.” *Proceedings of the National Academy of Sciences* 112 (50): 15396–401. <https://doi.org/10.1073/pnas.1509761112>.