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Identifying and characterizing regulators of histone acylation and replication stress

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1. Acylation antibodies are notoriously promiscuous (this thesis).
2. To fully grasp the function of each histone acylation, separation-of-function mutants of readers, writers and erasers of histone acylations will need to be developed (this thesis).
3. The non-enzymatic reactivity of succinyl-CoA with lysines suggests that succinylation is mainly a non-enzymatically driven modification (this thesis).
4. The tightly regulated origin firing in budding yeast makes this model organism perfectly suitable for DNA replication studies (this thesis).
5. Part of the reproducibility crisis in science is due to poorly characterized antibodies (adapted from Baker, M. 2015 Nature)
6. The complexity and transient state of various post-translational modifications on histone residues suggest the existence of a 'histone code' is unlikely.
7. Chromatin can function as a metabolic thermostat of the cell.
8. Genome-wide screens, especially in budding yeast, reveal a wealth of data, but further validation and comparisons could solidify their worth and provide more mechanistic insight.
9. "Wit beyond measure is man's greatest treasure" (Ravenclaw motto): Humanity's scientific curiosity and drive is one of our greatest assets.
10. "To know that we know what we know, and that we do not know what we do not know, that is true knowledge" (Confucius): Especially in the era of fake news, claiming ignorance on something is a scientific feat.
11. "We step out of our solar system into the universe seeking only peace and friendship, to teach if we are called upon, to be taught if we are fortunate." (Kurt Waldheim in a message from the United Nations to the universe, recorded onto the Voyager spacecrafts): Scientists have a duty to educate and teach others, but also to remain open in order to keep learning.