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### Brief Summary

Shifts in climate affect the total planktonic community dynamics. Information about how these past climate-changes affected paleo-planktonic communities is scarce and mainly based on plankton fossils and biomarker studies. However the majority of planktonic taxa lack diagnostic features preserved upon fossilization. Therefore, paleontological-independent methods are required to include the majority of non-fossilizing planktonic and benthic taxa in paleoecological studies and to get a more complete picture of climate-driven paleoenvironmental reconstructions in oceanic settings. An analysis of genetic signatures preserved in geological samples, defined as the paleomes, have in recent years made use of an ability to include key paleoenvironmental indicator species without other diagnostic features in the sediment record. My study involves analysis of such paleomes using high throughput next generation sequencing (NGS) in different marine sediments along with geochemical proxies with which sediments were deposited. I am working on sediments obtained from North-eastern Arabian Sea (classical OMZ coring location off the Indus Canyon), The Black Sea (western basin of the Black Sea) and Red Sea.

**Education:** BSc from Solapur University; MSc Virology from National Institute of Virology, India.

**Research interests:** Paleogenomics, Paleoclimate.

**Thesis title:** Studying the effect of change in paleoclimate conditions on paleo-plankton community dynamics in different Oceanic settings.

**Supervisors:** A/Prof. Marco Coolen, Prof. Kliti Grice, A/Prof. Jennifer McIlwain

### Publications:

1. Orsi WD, Coolen MJL, Wuchter C, He LJ, **More KD**, Irigoien X, Chust G, Johnson C, Hemingway JD, Lee M, Galy V, Giosan L (2017b) Climate oscillations reflected within the microbiome of Arabian Sea sediments. *Sci Rep-Uk*, **7**.
2. Laber C, Hunter J, Carvalho F, Collins J, Hunter E, Schieler B, Boss E, **More KD**, Frada M, Thamatrakoln K, Brown C, Haramaty L, Ossolinski J, Fredricks H, Nissimov J, Gardella R, Sheyn U, Lehahn Y, Chant R, Martins A, Coolen MLJ, Vardi A, DiTullio G, Van Mooy B, Bidle K (2018) Coccolithovirus facilitation of carbon export in the North Atlantic. *Nature Microbiology* (Accepted).

**Links:** <https://www.linkedin.com/in/kuldeep-more-4b6350147/>