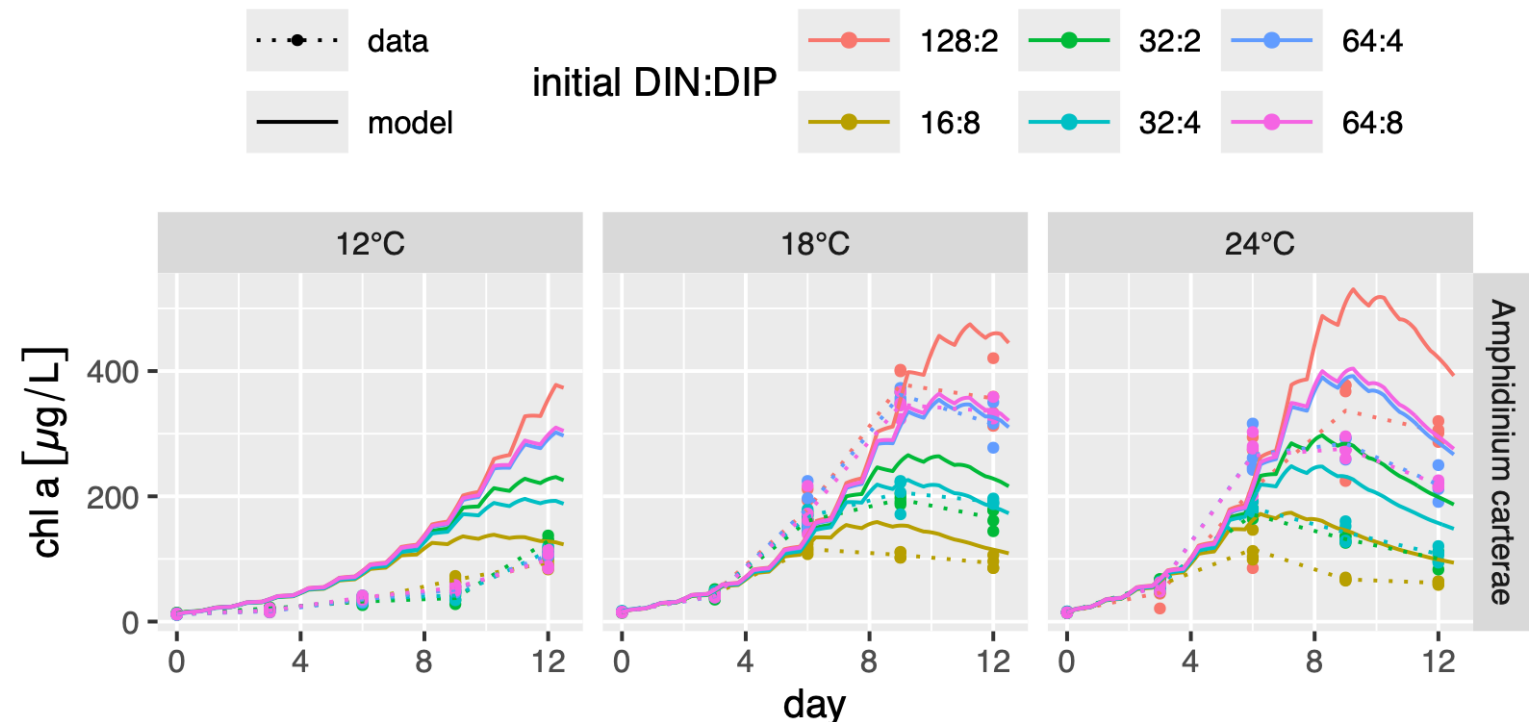# WP4. Aim 2. Investigate biogeochemical & ecosystem changes under future climate scenarios

How do plankton ecosystems adapt to climate change?

- Phytoplankton laboratory data from A. Ryabov and S. Moorthi
- Upscaling (small to regional scales): temperature effects on primary production and export

David Moncayo Guzman

WP4. Aim 2. Investigate biogeochemical & ecosystem changes under future climate scenarios

Aim 2.1 Collect data from moorings/ships for improving plankton-ecosystem models
- collect and synthesise data from EMS FORE: cruise M197, moorings
- collect EMS data from other sources (e.g., BGCArgo, PANGAEA, GLODAP, etc.)

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Aim 2.2 Implement and calibrate trait dynamics to allow for adaptation of plankton ecosystems to climate change
- temperature dependence of model parameters
- missing processes: dark carbon fixation, DOP utilisation, etc.
- implement trait dynamics (adaptation)
- upscaling from local/annual to regional/multi-decadal scales