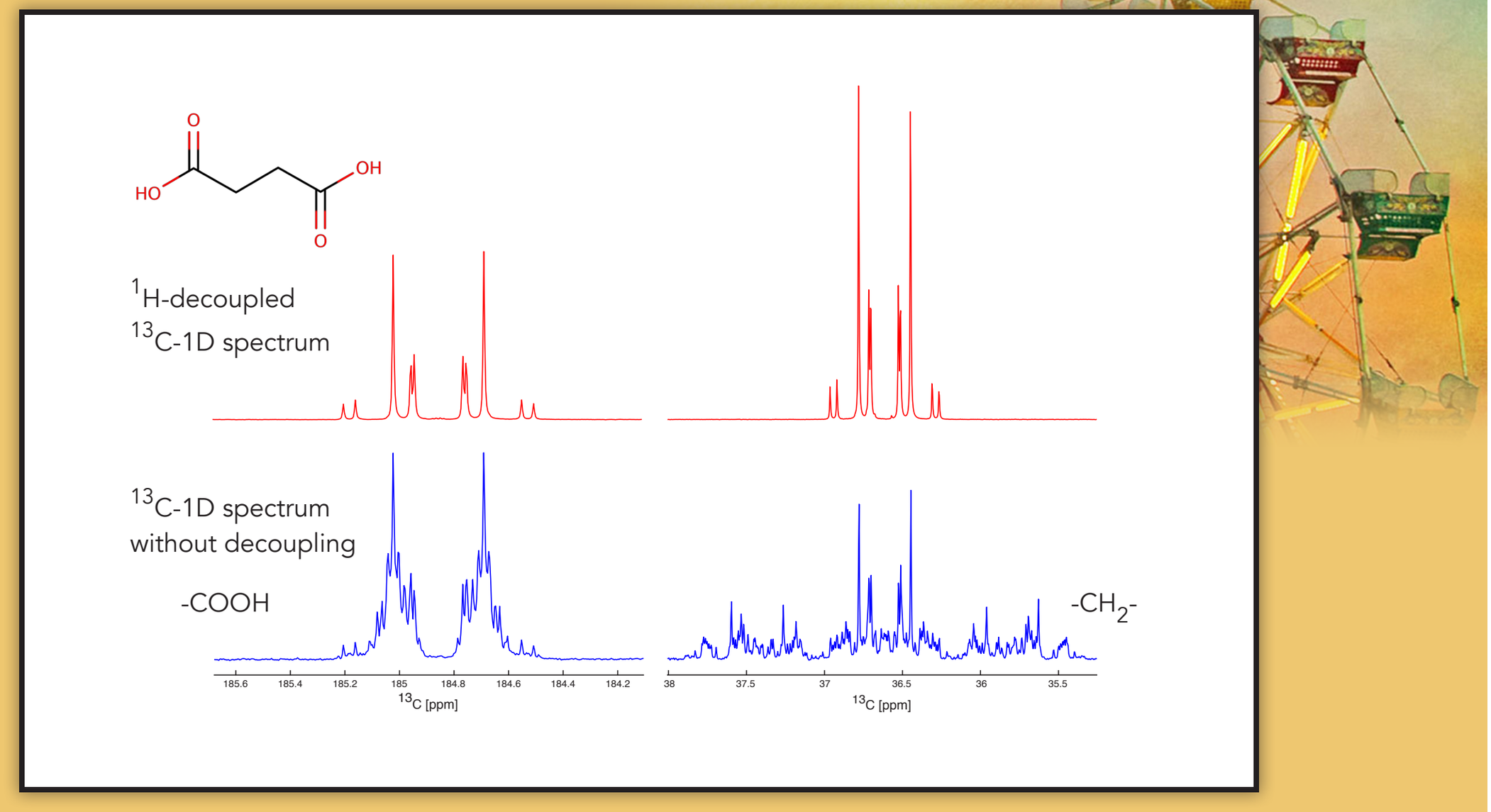


*[U-$^{13}$C] succinate*

# Christian Ludwig, PhD, 2015

Institute of Metabolism and Systems Research | University of Birmingham

**Field strength:** 14.1 T

**Why is this your favorite spectrum?**
Succinate is a very innocent-looking simple molecule. Despite this, uniformly labelled succinate results in quite complex $^{13}$C NMR spectra. Strong coupling between the two central carbon nuclei leads to $^{1}$H decoupled spectra (shown in red) of the COOH and the CH2 carbon nuclei which are, apart from the different intensity due to the $^{1}$H decoupling, very similar. This similarity is not observable in the fully coupled spectra (shown in blue). I think this is a fantastic example showing the wealth of information contained in NMR spectra.