

FISH and CHIPS

Oops! FISH and CRISPR

The sequence specificity of the CRISPR-Cas9 technology has inspired its exploitation to reveal specific sequences by coupling the CRISPR machinery with a fluorochrome. Several papers have been published on this topic since 2013. The technology has proved to be problematic, but the continued improvements in the system were promising. The paper by [Chaudhary et al. \(2020\)](#) focuses mainly on suppression of the background fluorescence and claims that the technique can be used with a conventional fluorescence microscope (the one familiar to cytogeneticists).

The procedure still faces some limitations: the requirement for [PAM sequences](#) and the need for a minimum number of repeats. This means that unique sequences are not in its range for now. On the other hand near-PAMless engineered CRISPR-Cas9 variants, for instance, have already been reported last April in [Science](#). The technology, anyway, deserves attention because of its great potential advantages: it requires neither DNA denaturation, nor a hybridization (usually long) step, nor a large DNA clone to be used as a probe.