
## Multiplexed imaging of gene expression with a CELESTA light engine


MERFISH (multiplex error robust fluorescence in situ hybridization) is an imaging technique that profiles cell populations based on the identification of thousands of RNA transcripts per cell. The **CELESTA light engine** is an ideal and widely-adopted illumination source for this application. In a recent paper published in **Nature**[1], Wheeler and co-workers used MERFISH imaging with a CELESTA light engine to quantify the expression of nine specific astrocyte and T-cell markers. Five of the CELESTA light engine's seven laser lines were used in the highly multiplexed MERFISH imaging protocol. The overall objective of the research described in the paper was to characterize astrocyte populations that contribute to pathogenesis in a preclinical model of multiple sclerosis.

### Reference

[1] MA Wheeler, JR Moffitt, IC Clark, EC Tjon, Z Li, SE J Zandee, CP Couturier, BR Watson, G Scalisi, S Alkwai, V Rothhammer, A Rotem, JA Heyman, S Thaploo, LM Sanmarco, J Ragoussis, DA Weitz, K Petrecca, JR Moffitt, B Becher, JP Antel, A Prat, FJ Quintana, **Nature (2020) 578:593–599**


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