**To:** Dartmouth Health Providers who order oncology fluorescence *in situ* hybridization (FISH) testing

**From:** Wahab A. Khan, PhD, FACMG - Director: CGAT-Cytogenetics | Asst. Director: CGAT-Molecular

**Date:** September 22, 2023

**RE:** CD-138 Plasma cell enriched (PCE) multiple myeloma FISH

The CGAT-Cytogenetics section will be adding CD-138 PCE FISH to its test menu. This will be ordered and reported in the same way as previous oncology FISH panels. Additional information provided below.

**Test details:**

1. FISH for multiple myeloma targeting CDKN2C (1p loss)/CKS2B(1q gain or amplification), centromere probes targeting chromosome 7, 9, 15, IGH/MAF rearrangement, FGFR3/IGH rearrangement, deletion 13q, and TP53/CEP17 deletion will be performed as a panel on plasma enriched cells

2. Please indicate pertinent clinical diagnosis in the order request (e.g. MGUS, MM) as soon as it is known. If a compromised specimen or insufficient plasma cells are recovered, a limited study will be attempted; with high-risk FISH probe loci given priority (e.g. previous clone, TP53/CEP17, FGFR3/IGH)

3. Turnaround: 10-14 days

**Specimen details:**

* Type: Bone marrow
* Collection tube: Green top with sodium heparin preferred
  + purple top (EDTA) is acceptable for CD-138 PCE FISH only
* Volume: 3-4 mL (minimum acceptable = 1.5 mL)
* Storage: Ambient for transport within 24 hours to cytogenetics lab or kept at room temperature for ~48 hours (i.e. over weekend)
* **For questions or additional information, please contact:** [LABCYTOGEN@hitchcock.org](mailto:LABCYTOGEN@hitchcock.org) or 603-650-7761