Table 1: Definition of $mapToReference()$

Inputs	$M_{raw} = \{m_i : m_i = (header, payload)\}$ where $m.payload = r = (s\_id, r\_id, b, q, f_p)$ as in.
Operation	$mapToReference(r, ref\_id)$
Outputs	$M_{aln} = \{m_i : m_i = (header, r)\}$ where $r = (s\_id, ref\_id, r\_id, b, q, f_p, rname, pos, mapq, cigar, flags)$
	$M_{unaln} = \{m_i : m_i = (header, r)\}$ where $r = (s\_id, r\_id, b, q, f_p, unmapped = true)$