The $\mathcal{O}[(a/|\boldsymbol{x}|)^3]$-part in (5.18a) corresponds to the finite-size correction, and defining the Stokes tensor by

$$S_{ij} = G_{ij} + \frac{1}{24\pi\mu}\frac{a^2}{|\boldsymbol{x}|^3}\left(\delta_{ji} - 3\frac{x_j x_i}{|\boldsymbol{x}|^2}\right), \tag{5.21}$$

we may rewrite (5.18a) as[8]

$$u_i(t, \boldsymbol{x}) = S_{ij}F_j. \tag{5.22}$$