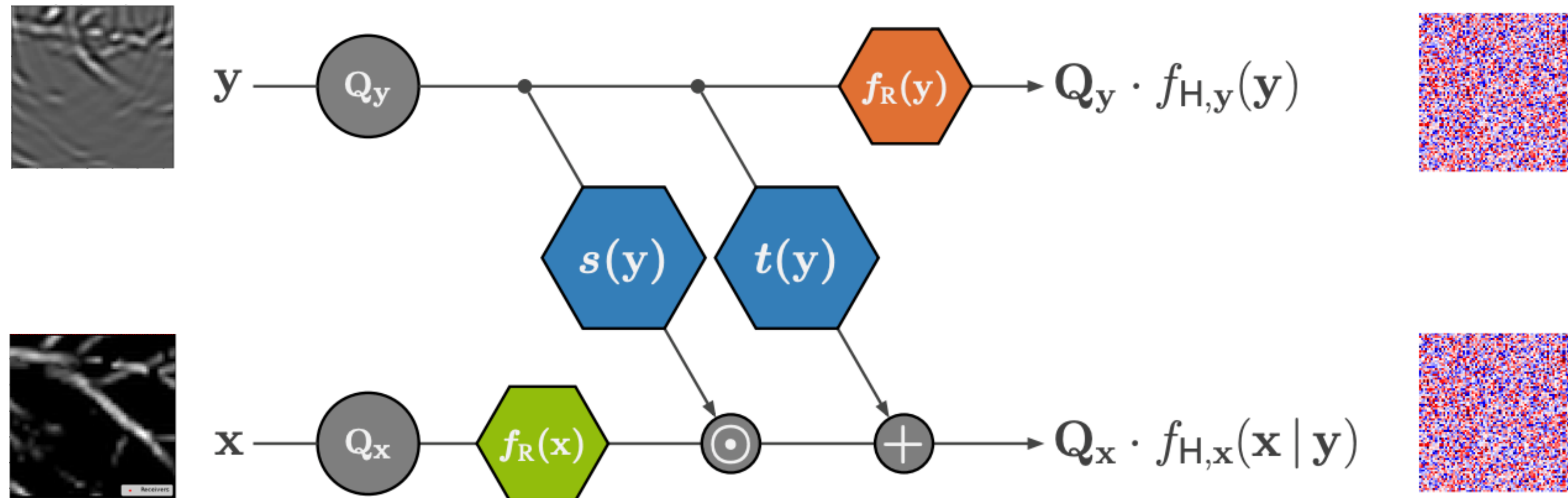Conditional HINT explicitly makes the transport map on both y and x

$$T_\theta(\mathbf{y}, \mathbf{x}) = \begin{bmatrix} T_{\theta_y}(\mathbf{y}) \\ T_{\theta_x}(\mathbf{y}, \mathbf{x}) \end{bmatrix} = \begin{bmatrix} \mathbf{z_y} \\ \mathbf{z_x} \end{bmatrix}$$

Kruse, Jakob, et al. "HINT: Hierarchical invertible neural transport for density estimation and Bayesian inference." arXiv preprint arXiv:1905.10687 (2019).

$(\mathbf{y}, \_) \xrightarrow{T_{\theta_y}(\mathbf{y})} (\mathbf{z_y}, \_)$

$\mathbf{z_x} \sim N(0, I)$

$(\mathbf{y}, \mathbf{x}_{post}) \xleftarrow{G_{\theta_x}(\mathbf{z_x}) = T_{\theta_x}^{-1}(\mathbf{z_y}, \mathbf{z_x})} (\mathbf{z_y}, \mathbf{z_x})$

 Kruse, Jakob, et al. "HINT: Hierarchical invertible neural transport for density estimation and Bayesian inference." arXiv preprint arXiv:1905.10687 (2019).