



$$\min_G \max_{D_1, D_2, D_3} \sum_{k=1,2,3} \ell_{GAN(G, D_k)}$$

$$\ell_{GAN(G, D_k)} = \mathbb{E}_{(phase, fluorescence)} [\log D(\text{phase,fluorescence})] + \mathbb{E}_{\text{phase}} [\log(1 - D(\text{phase}, G(\text{phase})))]$$