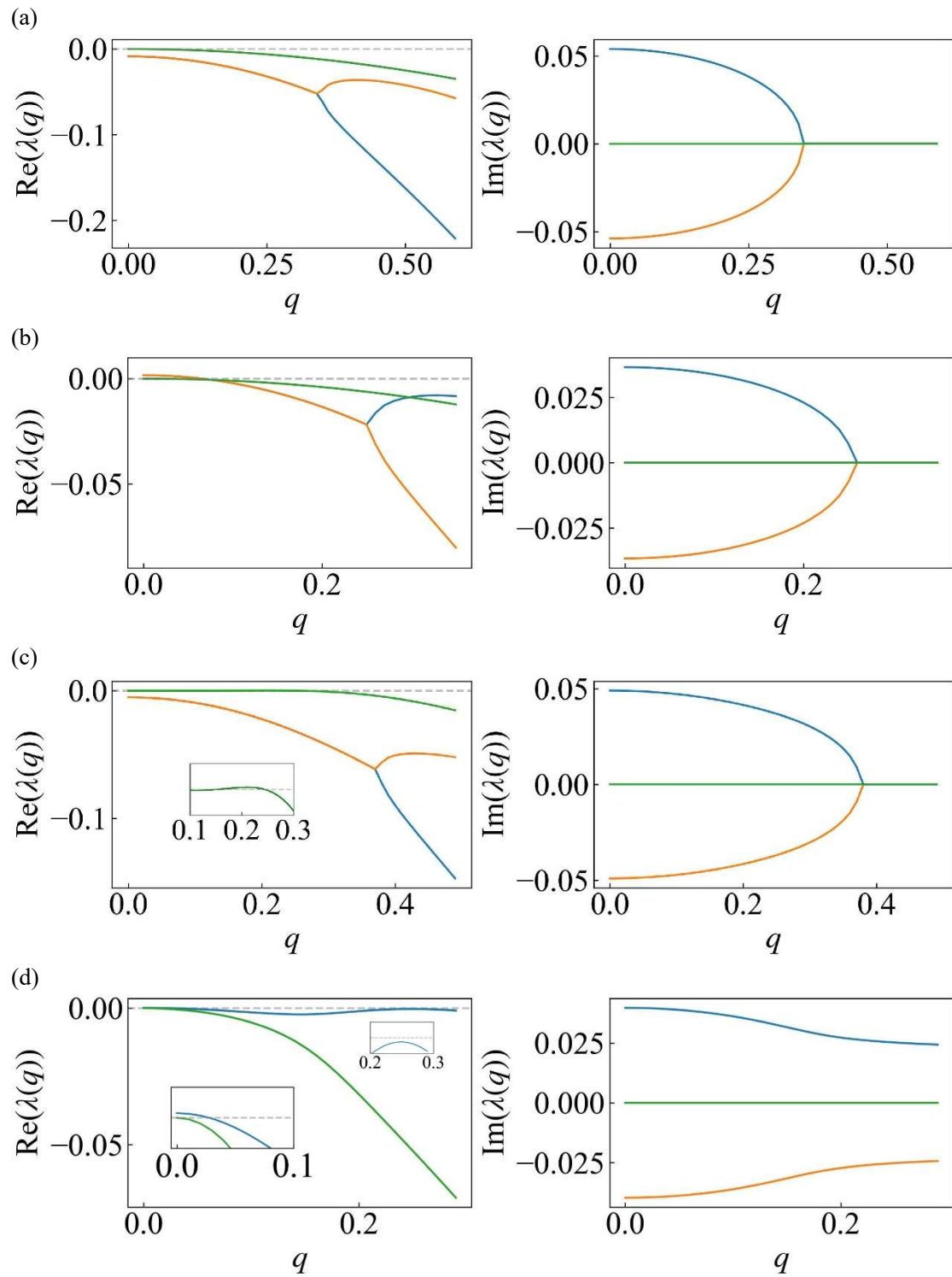


Supplementary Information for

**Nonlinear Chemical Reaction Induced Abnormal Pattern  
Formation of Chemotactic Particles**

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**Supplementary Figure 1** Real and imaginary part of the dispersion relation  $\lambda$ . Parameters are  $\alpha_u = 0.0, k_u = -0.01$ (a)  $\alpha_u = 0.0, k_u = -0.0175$ (b)  $\alpha_u = 5.0, k_u = -0.0071$ (c)  $\alpha_u = -5.0, k_u = -0.0175$ (d). Other parameters are the same as in the main article.