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Shaohua Chen* (george_chen@cbu.ca), 1250 Grand Lake Road, Cape Breton University, Sydney, Nova Scoti B1P6L2, Canada. *A Singular Gierer-Meinhardt System with General Source Terms.*

In this talk I will present theoretical results on the existence of the steady state solutions to the generalized Gierer-Meinhardt system with zero Dirichlet boundary conditions. I introduce a new functional method to obtain an a priori estimates for the linearized system and then use Schauder's fixed point theorem to prove the existence theorem. (Received July 23, 2014)