While much attention is given to how senior faculty members and institutions can mentor young faculty members, it is our view that another significant factor in retention, particularly among minority groups and women, is the existence of a supportive peer group. In this talk we explore the concept of and provide a case study in informal peer mentorship. Through the self-guided formation of a peer network (which we called Girls Doing Research, GDR), a group of junior faculty members from various fields (all of whom were women) helped each other to maintain and develop research programs in their first years as faculty members. We present variations in our experiments (including successes and failures) and discuss how this model can be adopted by others. (See also the MAA FOCUS article by the same title.) (Received September 25, 2012)