The WISEST (Women in Science and Engineering System Transformation) program at UIC has several mentoring programs. With support from an NSF ADVANCE grant, we ran a two year pilot program, developed collaboratively with the National Postdoc Association, for five underrepresented minority women in STEM with the goal of providing mentoring to prepare for the academic job search and for the challenges of being a beginning investigator. We matched the research interests of the postdocs with a multi-member mentoring team and provided monthly skill building seminars. We will describe this postdoc mentoring program, its assessment and the lessons learned. If time allows we will also discuss our mentoring program for assistant professors modeled on the monthly skill building seminars. (Received September 17, 2012)