In this talk I will review more than ten years of research in kidney allocation and how this research translates into a new allocation system. The following questions will be explored: 1) How should the performance of the kidney allocation system be measured? 2) What type of policies would maximize system performance? 3) Should these policies be implemented in a centralized or decentralized fashion? I will explain that the kidney allocation system has three goals: maximize clinical efficiency, minimize inequities, and respect patient autonomy. An analytical model will be used to demonstrate that the first two goals are conflicting but the third goal, respect of patient autonomy, can be instrumental in achieving the elusive balance between the first two, equity and efficiency, and it is, therefore, essential. A process for incorporating patient autonomy in the system will then be described. In the final part of the talk, I will review how our results are influencing a new policy now being developed by the United Network of Organ Sharing (the entity overseeing the kidney allocation system), and I will outline areas for future research.

Based on joint work with: Glenn Chertow, (MD & MPH), Polly Biyu He (TB PhD), Donald Lee (TB PhD), David Lowsky (TB PhD), Lainie Ross (MD & PhD), Xuanming Su (PhD), Richard Thistlethwaite (MD), and Larry Wein (PhD).