The 21st century brings significant challenges and along with them ample opportunities for statisticians working in the pharmaceutical industry. The public is expecting the industry to develop breakthrough life-saving medicines. On the other hand, public’s trust in pharmaceutical industry has eroded significantly in recent years. Cutting edge technology has helped fuel information explosion. Efforts to transform information to useful knowledge have led quantitative scientists to look for new operating models. While tradition and convention continue to have their role, the new environment demands innovations and adaptations in order to stay agile in responding to the fast-growing body of knowledge. In this presentation, we will examine the core competencies of statisticians in the 21st century and how statisticians can help further shape drug development during the next millennium. The latter includes moving towards a highly quantitative drug development process, better articulation of the benefit and risk balance, closer industry-academia-government collaborations, and a new business model. We need to promote statistical excellence and champion statistical influence. Most importantly, we need to advocate transparent decisions to help bring integrity and trust back to an industry that had made substantial contributions to the medical evolutions in the 20th century.

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