Let me add that focusing on these four areas doesn’t mean other areas of research will be forgotten. Far from it. The fact is that NCI plays a vital leadership role for research and progress that spans the entire research continuum and we will—and must—remain committed to that mission. As I see it, these are areas of opportunity and where we need to intensify our efforts.

**How does NCI plan to encourage young, talented scientists to pursue careers in cancer research?**

Although we are looking at ways to help cancer researchers at all career stages, we appreciate that there are particular issues for early-stage investigators and we will provide funding to increase R01 support for that group. But it’s more than just providing funding. It’s also focusing on developing the right skills for today’s cancer researcher. Training in immunology, expertise in data science, competency in population studies and community-engaged research methodologies, for example, are skill areas we are investing in to ensure scientists can meet the challenges of today’s research landscape. We must also look at enhancing the research environment, including reducing the administrative burden, to ensure that young scientists don’t get discouraged and leave for other careers.

**How will Big Data advance cancer research and care?**

By aggregating different types of data from large samples of patients—for example, linking genomic, pathology, radiology, and clinical data mined by machine learning—significant relationships between cancer type and treatment that otherwise would not emerge from traditional analyses may become obvious. It will help us with difficult-to-treat and rare cancers where our understanding needs to develop so we can offer better options to patients.

**How do you envision supporting innovative clinical trial design?**

Simply put, I recommend we bring new thinking to the way we conduct clinical trials and support a more efficient system. For example, making the right kind of trials available in community settings where patients live will encourage more patients to participate and take advantage of state-of-the-art therapies—and will boost enrollment. Eliminating unnecessary exclusion criteria and confusing consent forms will also increase trial accrual rates. Prioritizing trials to avoid diluting the participant pool, and designing trials to be faster at finding ineffective agents, will enable investigators to concentrate on testing only the most effective drugs.