Universities are great settings for discovery but have very weak infrastructures for further therapy development. There is no real university-industry integrated model that has been successful in the translation of science into disease therapy. Instead, the process seems dependent on chance relationships and, often, the fortuitous presence of “champions.” A new strategic plan is needed to promote successful translational research and to effectively apply science to novel disease therapy.

Traditional licensing of intellectual property to “big pharma,” venture capital or to angel investor-funded commercialization strategies has strengths and weaknesses, but, overall, has been less effective than expected. What is typically missing in a university is the incubator that catalyzes translation from discovery to development and finally to application; but there are no outstanding examples of such a university-industry partnership. Further, university-based education programs that are designed to accelerate these goals for students and trainees are, in general, very much underdeveloped.

Beyond these considerations, an essential ingredient for university programs in ophthalmology that aspire to attain translation from science to application is the creation of an environment for cross-fertilization of ideas and knowledge. Isolated ophthalmology programs cannot encompass all that is going on in science. Therefore, ideal environments should involve a vibrant interdisciplinary research program involving ophthalmology and other university scientific programs, not only in the school of medicine, but also in other schools and disciplines in the greater university.