The introduction of vaccines ranks as one of the greatest healthcare achievements in modern history. Through the global efforts of the vaccine community, small pox has been eradicated worldwide, as has one of three wild type strains of polio. Other infectious diseases such as measles have been eliminated from large regions of the world. All of these advances have contributed to increases in health around the globe. However, continued success will depend on continued innovation. Recent technical advances include the introduction into clinical studies of new vaccine vectors such as mRNA, new methods to administer vaccine such as microneedle array patches, improvements in the thermostabilization of vaccines and the use of process intensification, continuous processing and modular facility design to improve vaccine manufacturing. Still, significant efforts are needed to see each of these advances through conceptualization and pilot studies into widespread adoption and implementation. In addition, additional investments are needed in novel designs for filling/packaging of vaccines, methods to reduce the number of injections each child must receive and improvements in the speed and reliability of vaccine manufacturing and release. The speaker will touch upon each of these topics during the presentation.