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Innovation

New Thinking for a New Era



[Evolving Past the Innovation Status Quo](#)

by [Peter Miller](#)

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A decade ago, the accepted approach to innovation in the healthcare/ pharmaceutical sector was a (relatively) straightforward one: invest heavily in R&D, discover new molecules, shepherd them through years of testing and regulatory approvals, and cross your fingers that in the end all goes well and you have a product that can generate a positive ROI. Consider that a recent Tufts Center study pegged the average cost of bringing a drug to market at just under \$2.6 billion and the average success rate for a new molecule eventually receiving approval is approximately 0.01% -- significantly worse odds than succeeding as a restaurant entrepreneur, where just about everyone fails.

Now to be fair, this model has delivered thousands of life-saving and life-improving drugs that have done wonders for patients (and made many of the pharma companies of the “blockbuster” era a lot of money). And there will surely be other drug successes that follow the traditional route. But innovation isn’t static or one-size-fits all – and this is what we are seeing in the world of healthcare today.

Consider that Actavis, the tenth largest pharma company, with a market capitalization of more than \$70 billion, recently said they will no longer discover drugs. Instead, they will focus on buying them via acquisitions and deals with smaller organizations. Capital expenditures will prioritize distribution, operations and marketing, far above research and development. This type of approach would have been unthinkable in the past, and represents a true paradigm shift that is one example of redefining what innovation means in the space.

A different route to redefining medical innovation is being followed by our team at OptiNose. Our team is made up of executives with decades of experience driving innovation the traditional way at some of the largest pharma and healthcare companies in the world. But what attracted all of us to leave the big players behind and embrace the challenge and excitement of a small young company was the recognition that we could make an incredible difference by leveraging a unique device technology to innovate in a new and elegantly simple way: by making good drugs better.

Our unique nasal medicine delivery technology uses the natural power of a patient’s breath in a special way that dramatically improves the efficacy and efficiency of delivering medicines into

the nasal passages. We realized that by starting with carefully selected molecules that were already approved, we could develop new products based on our technology that could significantly improve the current standard of care for patients – and of course, by using existing molecules in new ways we would also be able to do it exponentially cheaper than by “starting from scratch” – reducing the risk and speeding up the time on each product and increasing the ROI for our partners and OptiNose. The idea is in many ways a throwback to the approach of focusing on medications that deliver tangible value to large populations of unmet need. To date, we have out-licensed a product for migraine treatment, are in the last stage of trials for a product to revolutionize the treatment of chronic sinusitis, and have therapies for autism and other neurology applications in development.

Healthcare has always had a unique relationship with innovation. After all, while the newest tech product or social media platform can of course be “life-changing,” healthcare products can be truly “life-saving” – or at least greatly improve the quality of life for patients. With the stakes so high, it’s not surprising that many people’s first reaction is to be wary of deviating from the traditional path of drug innovation. But we believe that the direction the sector is going – and what we are showing at OptiNose – is that there is room for creative solutions that can benefit investors, companies and patients alike. And this is a time in the history of healthcare where the power of change should be embraced wholeheartedly.

Peter Miller is CEO of OptiNose.