

# The Synergy of Medicine, Science, and Public Benefit

MATTHEW J. NEAL



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AS FAR AS WE KNOW, we've never had the internet before, so this is the first time in human history that information can reach so many, so fast. In the fast-paced information economy of the 21st century, the MAPS Public Benefit Corporation (MPBC)—a wholly owned subsidiary of the Multidisciplinary Association for Psychedelic Studies (MAPS)—will need to consider the social responsibility of being a non-profit pharmaceutical company<sup>1</sup>. With education and healing as a mission, and the economic leverage that will come with making psychedelics and marijuana into legal medicines, we have an enormous opportunity with vast potential.

First, a little about how I arrived at this perspective: I have worked in the regulatory operations<sup>2</sup> and efficiency (not the scientific) departments of research and development (R&D) in the pharmaceutical industry for more than 20 years. It hurts to write that because that means I am getting old. I started around 1996, and since then have found an incredible career path which, ultimately, led me to MAPS. I cannot help but be grateful. I cannot even begin to mention the many brilliant people I have had the privilege to work with and get to know in the pharmaceutical industry—simply incredible. The mission, the science, and the drive are astounding, and make me very proud of my career.

There is a tremendous amount of work, careful consideration, broad experimentation, and fascinating science at work in the creation of legal therapeutic products that heal and cure. It takes years, millions of dollars, and uncountable hours to generate the amazing medical breakthroughs that we enjoy, and will enjoy. The companies that have created currently available medicines have put their reputations on the line and worked tirelessly to bring them into the world. The incentives to do so are multi-faceted. Certainly there are profits, salaries, and perks for salespeople and executives of those companies—private jets, company retreats, bonuses, etc.<sup>3</sup>—But the mission is always clear—*make medicines to help patients using rigorous science*.

Now let's try a thought experiment: What if when pharmaceutical companies found products that help people or cure diseases they made them as available as possible? What if they made them available to the whole world and not just a particular country? It would be like providing clean water, food, and access to information. Is it only a matter of time before basic needs are met everywhere and we can get to the business of being the best curators of the planet and its inhabitants that we can be? I'd certainly like to think so.

Right now, we are on the verge of a new paradigm in pharmaceutical development (at least for mental health treatments)

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<sup>1</sup>Maybe there will be more to come:

<http://www.rsc.org/chemistryworld/2013/09/pharma-medicinal-chemistry-non-profit-rare-disease>; <http://content.healthaffairs.org/content/24/4/1057.full>; <http://www.hcs.harvard.edu/hghr/print/features/medicines360/>

<sup>2</sup>This is the team that prepares the large volume of information about a pharmaceutical product into a consumable format for global health authorities.

<sup>3</sup>This is what we often see on the news, which gets talked about more often than the incredible healing and patient success stories, unfortunately. There are two sides to every story.

where *benefit corporations*<sup>4</sup> in addition to *for-profit corporations* have the ability to get these products out into the world. How MPBC manifests that will not only impact the people who suffer from posttraumatic stress disorder (PTSD), but will also have a ripple effect on the industry as a whole. The income generated from the training of therapists in MAPS' therapeutic protocol, along with income from the sales of MDMA after Food and Drug Administration (FDA) approval, will increase MAPS' ability to continue to fund more research. This is the case in for-profit pharmaceutical development as well—the recoup and re-investment into R&D (Research and Development). In the current paradigm, most companies across multiple industries re-invest a small percentage of their funds back into R&D; pharmaceutical companies are near the top in R&D reinvestment.<sup>5</sup> The MAPS Public Benefit Corporation will be putting 100% of its income back into research. That's an incredible shift.

In addition to the investment of funds, another huge difference between the for-profit and benefit corporation models is the transparency with which research is conducted. A zero-sum game exists in the current model: it's a race to maximize profit because of the short window of marketing exclusivity (five to seven years depending on the product) needed to recoup the millions or billions of dollars that went into R&D.<sup>6</sup> Once the exclusive sale period ends, the drugs become generic, the prices can change, and other companies can manufacture the drug. The original patent holder, while they can still sell their product, is no longer the only game in town. What if the pharmaceutical industry went “full Tesla”<sup>7</sup> and open-sourced everything<sup>8</sup> so we could get

more minds on the problem?

*“Technology leadership is not defined by patents, which history has repeatedly shown to be small protection indeed against a determined competitor, but rather by the ability of a company to attract and motivate the world's most talented engineers. We believe that applying the open source philosophy to our patents will strengthen rather than diminish Tesla's position in this regard.”*

—Elon Musk

Full transparency does not mean that suddenly hundreds of competitors would show up, but it does mean that barriers to information would go away. We've already seen what can happen when great minds come together on open source projects. For example, The Polymath Projects (**polymathprojects.org**) seek to solve math problems

through crowdsourcing the answer and bringing the mathematical minds of the world together, without international limits, creating realm of shared knowledge. Working together and merging our vast collective experience can lead to fascinating, unexpected, and (often) faster results.<sup>9</sup>

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Back to the thought experiment: I am proposing not that companies create things for free, but rather, they create them for a different reason; to create them because they need to be created, and put them into the world because the world needs them; not to recoup the investment, not to generate profits, but to create benefits for the human race. The question that I've wondered about since I found out about public benefit corporations is, shouldn't all pharmaceutical companies become pub-

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<sup>4</sup>A benefit corporation is a new class of corporation that voluntarily meets different standards of corporate purpose, accountability, and transparency. Benefit Corporations: 1) have a corporate purpose to create a material positive impact on society and the environment; 2) are required to consider the impact of their decisions not only on shareholders but also on workers, community, and the environment; and 3) are required to make available to the public, except in Delaware, an annual benefit report that assesses their overall social and environmental performance against a third party standard. Such report does not need to be certified or audited by a third party, but use the standard as an assessment tool. Becoming a benefit corporation gives entrepreneurs and investors an additional choice when determining which corporate form is most suitable to achieve their objectives. (<http://benefitcorp.net/faq>)

<sup>5</sup>See <http://www.economist.com/blogs/graphicdetail/2012/10/focus-7>.

<sup>6</sup>This short time window contributes to the pricing issues when it comes to pharmaceutical drugs, not to mention other broken systems such as insurance, healthcare, hospitals, etc.

<sup>7</sup>Tesla puts all of their patent information out on the internet—go ahead, you could build your own. <https://www.teslamotors.com/blog/all-our-patent-are-belong-you>

<sup>8</sup>While it is mandatory that clinical trial results are posted to a public website [clinicaltrials.gov](http://clinicaltrials.gov), this is just the final results, not study protocols or other data.

<sup>9</sup>One of my favorite examples involved a group of online gamers who “solved the structure of a retrovirus enzyme whose configuration had stumped scientists for more than a decade. The gamers achieved their discovery by playing Foldit, an online game that allows players to collaborate and compete in predicting the structure of protein molecules.” The most amazing part was that it only took the gamers three weeks.

lic benefit corporations?<sup>10</sup> Isn't that the right thing to do? The benefit corporation model both enables companies to recoup their investment, to continue to invest in R&D, and to find new and better treatments for improving patients' lives—but all while being held accountable to creating a better world.

Of course, for-profit companies also put good things into the world. They donate millions of dollars every year through philanthropic endeavors (for example, my company matches a significant number of employee donations to non-profits every year). For-profit companies participate in communities. They sponsor investigative research for rare and unique patient populations.<sup>11</sup> Yet ultimately, they have a fiduciary responsibility to the owners or shareholders. A pharmaceutical company can be considered a failure or even completely dissolve if their profits are not what they expected, or if a clinical trial result is less significant than they predicted, or if their R&D spending is too high compared to their operating costs. These financial checks and balances in for-profit corporations, unfortunately, are not primarily intended to create the most benefit for the most patients.

This thought experiment is simple and extremely aspirational. It applies across everything we do (not just drug development). Can we do things better? Can we do things differently? Can we do things for different reasons than we do under our inherited paradigm of how and why business works the way it does? We were born into this system, but we don't have to keep it if it no longer applies.

The MAPS Public Benefit Corporation will set a new precedent and continue the mission set forth in 1986 by

MAPS<sup>12</sup> to change the paradigm of how medicine gets studied, discovered, and distributed in our culture—these are collective funds in the hands of the global scientific community attempting to solve problems for the human species. 🌐

*The views expressed herein represent those of the author and do not necessarily represent the views or practices of the author's employer or any other party.*

*Matthew J. Neal has been with Amgen, Inc. since 2003 where he is a Director of Operations in Global Regulatory Affairs & Safety with a focus on Human Therapeutics to dramatically improve people's lives. Prior to that, he lived in Philadelphia where he was one of the pioneering members of the Regulatory Submissions Department for Glaxo-SmithKline. Matthew has been publishing and submitting electronic dossiers to the FDA since 1996, and submitted the very first fully electronic NDA for GSK in 1999. Matthew holds a Master's Degree in Communication from Temple University. He and his wife Beth spend most of their time entertaining their 9 year-old daughter, Claudia, their 5 year-old son, Tobias and their dog, Laverne. Matthew also performs stand-up comedy all over Los Angeles ([mattneal-comedy.com](http://mattneal-comedy.com)), writing and producing various projects, travel, surfing, running, playing golf, and playing the drums in the improv jazz duo Mister Driscoll and other studio projects ([marinernine.bandcamp.com](http://marinernine.bandcamp.com)). He is also a member of the Founders Circle for the non-profit music engine [weathervanemusic.org](http://weathervanemusic.org). He can be reached at [matt@mapsbcorp.com](mailto:matt@mapsbcorp.com).*

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<sup>10</sup>In April 2010, Maryland became the first U.S. state to pass benefit corporation legislation. As of September 2015, 30 states and Washington, D.C. have passed legislation allowing for the creation of benefit corporations: [https://en.m.wikipedia.org/wiki/Benefit\\_corporation#History](https://en.m.wikipedia.org/wiki/Benefit_corporation#History)

<sup>11</sup>These are called Orphan Drugs.

<sup>12</sup>Founded in 1986, the Multidisciplinary Association for Psychedelic Studies (MAPS) is a 501(c)(3) non-profit research and educational organization that develops medical, legal, and cultural contexts for people to benefit from the careful uses of psychedelics and marijuana.