## Going Green.

In the spirit of the Class of 1968, I have been incrementally making my own small contributions to the green revolution. I stopped eating meat, I bought a hybrid car, and this year I started driving an all electric Smart Car. I updated my home with high efficiency heat and air conditioning and put in solar panels to produce all of my electricity. But, for all that, there was something missing. And then in 2012, the Peoples Republic of Massachusetts became the 18<sup>th</sup> state to permit Medical Marijuana as of January 1, 2013. And I knew that if I was going to go truly Green, I needed to join the Green Rush and apply for one of the 35 Medical Marijuana Dispensaries in the Commonwealth.

Now, as a brief summary of my life so far, this will be my 4<sup>th</sup> job. Not the 4<sup>th</sup> job in the my life, but the 4<sup>th</sup> job I am supposed to attend to in my daily life as a medical research scientist. I continue in my 33<sup>rd</sup> year on the staff at the Massachusetts General Hospital and I have 2 spin-off BioTech companies that I manage, but still, as I now qualify for full Social Security Benefits and a Senior Pass on the T, and a Golden Eagle Pass to the National Parks, when they are open, but I guess I still felt I had a greater purpose to fulfill. And, so in August of this year we joined 181 groups applying for those 35 Medical Marijuana Dispensary licenses.

Now, I should tell you that in Massachusetts all the dispensaries have to be operated as Non-profit corporations. So, not only do the Feds frown on the entire proposition, and make tax law extremely complicated,-- since they do not agree that we can be non-profit, --but you can't offer investors a piece of the action as shareholders, and you can't go to a bank and ask for a loan. It's an all cash proposition, and it is expensive. It will take at least \$2 Million to build out a facility that must grow and process everything it sells. You cannot "share" with other dispensaries without special dispensation from the Commonwealth, so you have to submit a plan that is totally self-sufficient, as it is said from "seed to sale." I would like to share with you a brief Harvard-anecdote, because, after all, we are here to celebrate our Harvard connections. I was talking with my son in law, who is not a Harvard grad, he went to Dartmouth, --another "Green" connection, but this is a Harvard story-- sort of.

So, anyway, my "Big Green" lawyer asks me, why I wanted to do this new risky business at this stage in my life, and after suitable mid-life rambling, I shared an introspective thought. "I want to do well by doing good." And, for my whole medical career I have had this belief that while I can prescribe opiates and even cocaine, no matter how much evidence there is that Cannabis has beneficial medical properties, and no matter how safe the drug is—there is literally no lethal dose from toxicity an almost unique property of any drug—Tylenol-acetaminophen kills more than 1300 people every year in this country, of which at least 300 are accidental ingestions—so keep your grand children out of your medicine cabinet---the calculated lethal dose of marijuana is 1500 pounds smoked in 15 minutes. In practice, this means the only way it can kill you is if you have that 1500 pound bale fall on your head. That will kill you. But, you cannot prescribe the products from the cannabis plant. Need some coke—no problem. How about a little opium enema—here you go---but you want to take some marijuana for your glaucoma sorry, that Federal compassionate care program ended under Bush the first.

But getting back to Harvard, I had a revelation, my "idea" of Doing Well by Doing Good was a sublibible message (a George W Bushism—he an esteemed Harvard Business School Grad—so much for rigorous admissions screening)—well that message came to me from a Tom Lehrer Song, "The Old Dope Peddler." Yes, "Every evening you will find him around our neighborhood, it's the old dope peddler, doing well by doing good." And Tom (A.B. 1946—a good year for many in this room) still lives here in Cambridge, and I thought, I should use that as our dispensary motto. So I wrote him a letter asking for permission to use the line from his song. And he wrote me back, and said that while he thought the line was original when he wrote the song, it turns out it has been used by many others before him, including Bostonnative Benjamin Franklin in Lession #5—Do Well By Doing Good. And, so Tom Lehrer said I did not need his permission to use the line, it wasn't his to protect. Fight Fiercely Harvard.

But to conclude on a more serious note, we have put together a truly medically sophisticated team that I head as a licensed physician. We have an analytical chemist who will purify the active ingredients and create smoke-free delivery systems, including vapor cartridges and oral sprays and sublingual tinctures, etc. We have a pharmacist and a farmer who does not even use the stuff—after all, we are going Green, and will be chaired by a women who has had a career in running non-profits. So, while we are non-profit we hope to generate positive cash flow to allow us to run trials of highly characterized medical products on patients with welldocumented diseases, such as MS, and AIDS, and Cancer and Inflammatory Bowel Disease, and Seizure disorders. And truly Do some good, any maybe even do well as a business.

Because, aside from all the snickering and wink-wink, nudge-nudge, cannabis really does have some remarkable positive medical properties. In addition to the psychoactive effects to THC,--which by the way you can get as a synthetic product called Marinol—since 1985-- the plant contains remarkable anti-inflammatory components like Cannabiol—CBD--that do not make you high, but help with inflammation, and with bowel disease, and MS and seizures, just to name a few of the many truly medical uses. And we are going to make real medicines, and we are going to deliver those medicines in healthier smoke-free systems. We have a team of Harvard-led clinicians who are going to help us evaluate the best uses of those medicines in evidence-based studies.

So, We are going Green, and hopefully we will do well by doing good. Thank you for sparing me this time to share.