



Andrew Lo is a Professor of finance at the MIT Sloan School of Management. He's also the director of MIT's Laboratory for Financial Engineering.

Most people on Wall Street know him as the leading mind in hedge funds and financial engineering.

Time Magazine recently named him to its list of the 100 most influential people in the world.

And it wouldn't be exaggerating to say that his latest project could change the world.

It involves using collateralized debt obligations to cure cancer. We wrote about this last year. But in case you missed it, the idea would be using "research based obligations" or RBO bonds, that you could divide into tranches with different risk levels based on stages of research into cancer drugs. Lower rated, higher yield notes would be available at the beginning of a drug trial, with progressively less riskier notes as the trial proceeds.

In other words, the principles that made the world's financial markets significantly more liquid, more efficient, and more accessible could cause financing and interest to explode in cancer research.

Lo believes this idea could have broad applications. If it works with cancer, than it could also be used to propel alternative energy and end climate change.

We recently spoke with Professor Lo about the state of the markets, why investing must now be treated like exercise, and what we can expect from his latest work.

**BI: What is the status of the cancer research financing project?**

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ANDREW  
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AL: That's a really interesting initiative that I never expected to be involved in personally. My focus and my expertise is in financial investments and financial engineers. So when my coauthors and I wrote the paper on how to apply methods like portfolio theory and securitization to raise money for cancer research, we really did it as an academic exercise with the hope that the stakeholders in the industry would take note and ultimately implement some of these ideas.

But the reception that we've gotten from all the various different stakeholders has been so positive that we are actually now engaged in more detailed research, with more data, about the impact of providing guarantees through the credit default swap markets, of engaging in various kinds of new business models to develop these megafunds, that we're quite excited that we think something could happen.

So in addition to that additional research that we're doing, we're also in the process of organizing a conference here at MIT in June, and this conference is going to take place over two days where we're going to be inviting all the major stakeholders: pharmaceutical companies, biotech entrepreneurs, investors, credit rating agencies, oncologists, and patient advocacy groups to come together and look very hard at this issue of whether it's possible to develop a truly sustainable private sector solution, a for-profit effort at raising resources to engage in biomedical innovations, particularly in cancer.

And so far we've gotten a fantastic reception to this, so we're expecting a conference of between 75 and 100 people to show up to try and study this problem and ultimately develop actionable items and solutions that will ultimately be implemented.

We were shocked because we thought it was just an academic exercise that we hoped would be of interest to some groups, we actually found it was of interest to every single group, including the pharmaceutical companies, who you might think would be threatened by having a disintermediation.

It's like the banks that were providing mortgages before securitization, why would banks welcome securitization, it would disintermediate the business that they do.

But it turns out that the pharmaceutical companies feel so challenged because there isn't enough funding at the early stages of clinical research that the pipeline of new molecular entities that will ultimately become drugs, the pipeline is becoming thinner and thinner because there's less and less venture capital money going into the industry. So they've actually been supportive in this effort and may very well be among the first investors if when and when these cancer megafunds get launched.

Among organizations who've provided support are the National Cancer Institute, which is part of NIH, and the American Cancer Society, both have lent their names to this conference and they're involved in organizing it.

It's a who's-who of both oncology and the investment industry. So really I'm trying to bring together the folks who have the money with those who need the money, and the hope is that given that there's so much opportunity here, — I'm talking about economic opportunity, I'm not talking about charity — I'm talking about the fact that you can earn a really decent rate of return for investors by putting together large portfolios of cancer drug projects, and I think this is a terrific opportunity for both parties to benefit.

**BI: Have you looked into applying this methodology to other social goods?**

AL: I've had conversations with the folks in the Energy Department about this kind of a model for alternative energy sources, and I think that our perspective is if you can create one megafund for one industry and demonstrate it in an industry as complicated as oncology, that it's possible to raise large amounts of money in the private sector with proper financial structures, then I think any number of industries will be able to figure it out and apply it to their own challenges.

I think climate change is a good example where there's so much opportunity for creating technology that will ultimately benefit the world. that as long as you can get the prop financial structure, it seems very likely that you'll be able to earn a decent rate of return. So our hope is that we'll start out with one proof of concept that the rest will follow pretty naturally

**BI: How does one react to being named one of the world's most influential people?**

AL: I'm not sure there is a way to digest that, I was very shocked and flattered to be included in such elite company, and such wide ranging company, from individuals that are highly accomplished academics to artists and comedians and politicians.

It's very humbling, and in fact I sort of view it as a responsibility now to be able to make use of that visibility, and one of the reasons why I've decided to push further with this cancer effort is precisely because I feel it's a way for me to use that visibility for the better and it allows me to convene this conference with a certain degree of credibility that I might not have had before, so im v grateful to time mag for this extraordinary honor, it gives me a platform now to do something even bigger.

The fellow from Time magazine said that never has it been easier to gain influence, but never has it been harder to maintain influence. That was a very interesting insight I took away from the evening.

Thanks to Professor Lo for taking the time to speak with us.