

A WALK WITH A FUNDER THROUGH THE  
VALLEY OF DEATH or;  
how I learned to stop worrying and love angel investors.

by Ken Weitzman (inspired by the work and experiences of Alexander Orlov)

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Characters:

A scientist.

An entrepreneurship consultant.

Place:

A graveyard.

/ denotes an interruption or overlap.

*(The two have just arrived...)*

CONSULTANT

A graveyard. I like it. When we tell participants to pick a meeting place outside their lab or office, most pick Starbucks. This... this is thinking outside the Star-box.

*(no reaction)*

Lesson number 1: if you're going to ask someone for money you should laugh at their jokes.

SCIENTIST

Yes. Sorry. *(laughs)*

CONSULTANT

So? You gonna offer me a 40-ounce like we're a couple of teenagers sneaking it at the cemetery?

SCIENTIST

I didn't bring beverages. I'm sorry, that was an oversight.

CONSULTANT

*(air horn)* Wrong answer. 1) I was joking.

SCIENTIST

Oh, *(starts obligatory laugh)* /

CONSULTANT

B) Don't apologize, it's weak. You're a scientist; everything you do is for a reason. You don't provide beverages, it's for a reason. 20% of alcohol-poisoning incidents occur in cemeteries on Tuesdays during full moons or whatever. Got it?

SCIENTIST

Except accuracy is quite/ important.

CONSULTANT

*(air horn)* Who's the Private Sector Emerging Technologies Entrepreneurial Consultant here? Huh? You or me? Here's a hint. Not you. You may teach at your fancy ivory tower university/

SCIENTIST

Underfunded state school / actually

CONSULTANT

but this week you are the student. And I am the teacher. The teacher with the six-word title. Here it comes again: Private Sector Emerging Technologies Entrepreneurial Consultant. Boom. Now, I want you to start again, because you actually piqued my interest with this place. Alrighty, this is your pitch meeting. Off you go. Pitch away.

SCIENTIST

Oh, ok. Well. Thank you for meeting with me here today.

CONSULTANT

Polite, good start.

SCIENTIST

I would like you to know that I work very hard to get federal funding for my research. 18-hour days, often with more hours devoted to grant proposals than the actual research. But compared to many of my colleagues I've been very successful.

CONSULTANT

Good. Always highlight success. Continue.

SCIENTIST

Thank you. But you see most federal funding comes in three-year cycles. After three years, that's it, your funding is over. And if I am working on a promising new technology, there is a large time gap between the three years of funding for basic research and the time it takes to produce a viable product. This gap we scientists call the "valley of death". Where new technologies go to die. So, you can think of these graves as where much promising research is buried.

*(Consultant plays the air horn sound)*

Research that was well funded initially but could not cross the valley of death.

*(Consultant plays the air horn sound)*

In this grave, for instance, was research about using nanotechnology to create bio sensors in fiber-optic textiles/

CONSULTANT

*(air horn)* Airhorn! Airhorn! Did you not hear it first time?

SCIENTIST

But I wasn't finished. I was going to explain/

CONSULTANT

About all your dead projects, yes, boo-hoo. Government funding falls short, private companies don't invest in basic research. Which is why on your questionnaire you requested to pitch, drum roll please... angel investors. Am I right?

*He is. Scientist nods.*

CONSULTANT

I'm way ahead of you, that's 1. B, never complain. Or talk about dead projects. 3. I'm disappointed. I thought this graveyard thing was going to be something more personal.

SCIENTIST

More personal than most of my life's work being dead and buried?

CONSULTANT

A story, a personal story. About a person. You were supposed to have one prepared. It's in the packet. I thought you'd have a story about someone buried here that means something to you.

SCIENTIST

Well, yes, there is that too.

CONSULTANT

Seriously? And you didn't start with that? I'll tell you what you buried here - the lede. Like how I did that? Well don't just stand there, tell me. Who died? Wait, I skimmed your questionnaire. I'm thinking Chernobyl, you're Russian, right?

SCIENTIST

Ukrainian. My family is from Ukraine.

CONSULTANT

Whatever. Just give me the nuclear disaster story, not the boo-hoo my project didn't get funded. Ok, here we go. Pitch attempt #1 failed, I gave it an F, but here comes #2. I'll even tee it up for you. *Kaplooeey*, the reactor explodes, I saw the HBO miniseries. Aaand... action.

SCIENTIST

Ok, yes, well, we lived in Kiev, which is only 100 kilometers / from Chernobyl

CONSULTANT

Use miles, you're an American.

SCIENTIST

60 miles, we were about 60 miles from Chernobyl.

CONSULTANT

Knew it!

SCIENTIST

But for two weeks after the explosion, we know nothing. Only whispers. Then when they finally admit what happened, most of the children in Kiev, including me, were evacuated to other parts of the country. But my mother, she was a doctor and the government decides to send her to the exclusion zone in Chernobyl. She is to treat firefighters who are dying because they are exposed to the reactor core.

CONSULTANT

Hero mom dies. You spend your last dime flying her to America so you can visit her grave.

SCIENTIST

She did not die. She is ok. She is classified as a 'liquidator of the Chernobyl disaster' which means she could retire ten years early. Which is around the time she finally tells me. Because growing up I always bug her that I want a little sister. And she promises me, promises me she would give me one. And only when I am adult does she tell me why she never fulfills that promise, why I am an only child. Because she was afraid. Afraid to have another child. She had always intended to, always wanted to, but after Chernobyl... And so, you could say that is also who is buried here - the little sister I never got to have.

(a beat)

CONSULTANT

Hmm. Not bad. Halfway decent story.

Be better, though, if she gave birth to the little girl and she was horribly deformed and died a painful death.

SCIENTIST

That would be better?

CONSULTANT

*Much.* Still, we might be able to work with this. Though you didn't finish correctly. Personal pitch, you finish by connecting it to your research. You did read the packet, didn't you?

SCIENTIST

I read the packet.

CONSULTANT

Well...?

SCIENTIST

All of these things show me the connection between energy and the environment. That all scientific discoveries have both positive and/

CONSULTANT

*Dude, the nano.* The nanotech. That's your sexy stuff, always finish with the sexy stuff. Page one in the packet. It's underlined.

SCIENTIST

Yes, sorry, ok, the radiation from Chernobyl, it is something we cannot see with the naked eye, yet causes great damage. This makes people very afraid. What they cannot see makes them more afraid than what they can. Nano particles, they are ten thousand times smaller than the width of a human hair. And so people fear it, that nanoparticles embedded in products, if they are released, could be toxic, just like radiation.

CONSULTANT

No.

SCIENTIST

No?

CONSULTANT

No, I'm going to have to give this the airhorn. (*air horn*) Strike two.

SCIENTIST

Why?

CONSULTANT

Because you can't tell a story that makes people afraid of nanotechnology, then ask for money so you can create things using nanotechnology. (*airhorn*)

SCIENTIST

I am not trying to make them afraid. Much of my work is about quantifying possible toxicity in order to create better, safer versions of nanomaterials.

CONSULTANT

No, no talking about fear at all.

SCIENTIST

*I can't avoid it.* Last time I give a report to Congress, it's all they ask about. "Tell us, is it really true self-replicating nanobots can destroy the world?"

CONSULTANT

Say what now?

SCIENTIST

Yes! Every question. It's all they ask. "Tell us about the 'gray goo' effect. We hear this technology can create sub-microscopic nanobots that self-replicate, exponentially, and within days achieve enough mass to consume all life on earth."

CONSULTANT

Holy mother of god.

SCIENTIST

No, no, this is not going to happen. This is not a valid concept. These politicians are just googling nanobot/

CONSULTANT

That's what I'm doing right the hell now. Huh. Looks like a tiny submarine.

SCIENTIST

Yes, a submarine shrunken to nano size then inserted into the body to fight disease.

CONSULTANT

Sounds pretty cool, actually. Except for that self-replication part where they consume everything on earth.

SCIENTIST

*It is not a valid concept.* You cannot take a submarine and shrink it to that size. At the nanoparticle size, the fundamental properties of an object change. And it has no source of energy. How would it self-replicate? And even if it could, for something that small to survive, it needs to change, evolve. Without it evolving, it would be easy to defend against.

CONSULTANT

All right, all right, good, this good. That's your pitch. "I'm the guy you want to fund because, believe me, you want me around to fight these nanobots when they start replicating." Scare the crap out of them.

SCIENTIST

I thought you said don't use fear.

CONSULTANT

You were using it stupidly. But with this, you use the fear to cast yourself as the potential savior of humanity.

SCIENTIST

No, I can't do that.

CONSULTANT

*(air horn).* Wrong answer.

SCIENTIST

Am I to believe you're encouraging me to propagate false information?

CONSULTANT

*(mocking)* "Am I to believe you're encouraging me to propagate false information?" Do you want money for your research or do you want to be just another loser in a labcoat?

SCIENTIST

Excuse me?

CONSULTANT

"Excuse me?" I was just about to fail you for your second pitch attempt. You understand me? That would be 2 strikes, another swing and miss, you're out.

SCIENTIST

I am confused by this analogy. If I am the one pitching, how can I also be the batter?

CONSULTANT

Listen smart guy, the foundation spends a lot of money on these workshops. Makes me wonder how your future funding proposals will be looked on, especially after my report on this failure of a pitch meeting.

SCIENTIST

Is this a threat?



CONSULTANT

Advice. I'm advising you to get off your high horse, your, "oh, I'm so high and mighty, I don't need to listen to this crass business guy no matter how successful and rich and handsome he is."

SCIENTIST

So you want me to lie? Exaggerate?

CONSULTANT

I want you to get funding you nitwit. Let me tell you something, when I visited NASA, me and a group of other Angel Investors, they were presenting on an asteroid defense program. A shield around earth. Know what they did for their presentation? They showed us a movie. Armageddon. The guy saves the earth from the asteroid. People ate it up, checkbooks came out on spot.

SCIENTIST

I see. So for my next pitch about nanotechnology perhaps I should get Bruce Willis to star in remake of Honey I Shrunk the Kids!

CONSULTANT

You know what, wiseguy? I'd fund that movie way before I'd fund your research.

SCIENTIST

You don't even know what my research is!

CONSULTANT

I don't need to. I know a loser in a labcoat when I see one.

SCIENTIST

I understand this program is necessary, helping scientists be entrepreneurial. But this method, what is it? A hazing ritual?

CONSULTANT

Oh please. This is nothing. Five years ago, we did it Celebrity Apprentice style. 'You're fired!' But that sort of fell out of favor, go figure.

SCIENTIST

And the pedagogy of this approach?

CONSULTANT

"And the pedagogy of this approach?" I'll tell you what the pedagogy is. And yes, I know what that word means. It's to toughen you up. There's your pedagogy. That's why the foundation hires guys like me. To toughen you namby-pamby scientists up for the business world. You want to compete in that world you need to come strong. And not waste my time. Make fun of Armageddon all you want but it worked. Because Angel Investors have a profile. Believe me, that's my crowd, I know.

SCIENTIST

“Angel investors are not looking to fund just anything; they want to be inspired.”

CONSULTANT

You did read the packet! Attaboy. Angel investors, they want to fund something that saves the world. And get filthy rich while doing it.

SCIENTIST

How about the air we breathe? Is that worthy enough for angel investors?

CONSULTANT

Ooh, look who’s up on his hind legs. All right, here you go. 3<sup>rd</sup> and final swing. Bring it nano man. Last chance.

SCIENTIST

In our lab we use particles of titanium dioxide at the nano level. And when activated by sunlight these particles serve as a catalyst to break down organic matter. Things like bacteria, or dirt, or grime. We embed these particles into a spray, that can be used to coat building materials. Making them essentially self-cleaning. And at the same time the coating does the same to air pollutants around it, speeding up the decomposition of things like volatile organic compounds in the air.

CONSULTANT

*(thinking)* Huh. Huh. And this could be used on existing buildings, not just new construction?

SCIENTIST

Yes.

CONSULTANT

Like over every building in an entire city?

SCIENTIST

Conceivably. Eventually. If many factors came together.

CONSULTANT

You’re telling me it’s possible to use these types of nanoparticles to create a city full of buildings that clean themselves and also the air around them?

SCIENTIST

Conceivably.

*(He waits a quick beat)*

What? No air horn?

CONSULTANT

Hang on nanoboy. This coating, when it’s added to new building materials, it’ll make them more expensive, right?

SCIENTIST

Yes, but/

CONSULTANT

And it would be costly to cover an entire existing building with this stuff.

SCIENTIST

Which is why / we need

CONSULTANT

Weigh these expenses against the how often and at what cost buildings are normally cleaned; it's pretty doubtful the return on investment would make it profitable.

SCIENTIST

And what about the improved air quality? In New York, the Department of Health estimates 3000 people a year die due air pollution related illnesses.

CONSULTANT

Are you saying you can guarantee your nano coating will save 3000 lives a year?

SCIENTIST

Demonstrating precise air quality improvement is very difficult, given complexities of air circulation and / atmospheric

CONSULTANT

Yeah, so that's a problem. To pitch this to Angel Investors, you need to know the exact number of lives you'd save.

SCIENTIST

But this could clearly benefit humanity which is what they / want.

CONSULTANT

You still have to figure out the cost benefit ratio.

SCIENTIST

The cost benefit ratio of human life?

CONSULTANT

Listen, Mr. former Soviet Union, you're in America now. Capitalism. There's a cost benefit for everything.

SCIENTIST

And how do you do that? Tell me, how do you calculate the cost of a person?

CONSULTANT

No, not cost, man. It's called VSL. Value of a statistical life. Whole bunch of ways to get it. Look at the life insurance, or at income times life expectancy. But that shit's boring. You want the cutting edge VSL calculations, then it's all about The Cliff.

SCIENTIST  
The Cliff?

CONSULTANT

We're at the cliff's edge man, and I offer you a million bucks to jump. And let's say you've got only a 5% chance of going splat. Those odds, a lot of people are choosing to jump. This varies, obviously. Currently, the U.S Office of Management and Budget puts the average value of a statistical life in the range of 7 to 9 million. It's how they decide on all sorts of things. A water filtration plant. Say the cost of building it is more than the VSLs of the lives it would save then, hey, they don't build it. Oh well.

SCIENTIST

And I imagine poorer people have lower VSLs, being more desperate for the money, more willing to take the risk for less compensation?

CONSULTANT

Naturally.

SCIENTIST

Thus the massive environmental injustice we have today.

CONSULTANT

Which can also be calculated.

SCIENTIST

Only by assholes such as yourself.

CONSULTANT

Did you... did you just call me an asshole?

SCIENTIST

I did.

CONSULTANT

Wow. Thank you. *Thank you.* That means I'm clearly doing my job well. Oh and by the way, you fail. That was strike 3. You definitely need more seasoning. You'll have to retake the course. I mean if they let you. Which I doubt they will. Alrighty then, we're done. Or more accurately, you are. Shall we head back?

*(Our scientist is silent)*

CONSULTANT

Hello? Earth to Vladimir.

SCIENTIST

My name's not Vladimir.

CONSULTANT

I know, I'm messing with you. Have you still not caught on?

SCIENTIST

You have something on your face. (*indicating on his own cheek*) Your face.

*Consultant brushes at his face.*

CONSULTANT

I get it?

*(Scientist nods)*

Score one for you. Good to have someone around to tell you when you have broccoli in your teeth. Ok, let's go.

SCIENTIST

You must write me a check first.

For a million dollars.

CONSULTANT

Oh yeah? And why would I do that?

SCIENTIST

To fund my research.

And because you value your life.

CONSULTANT

Wow, you are really bad at this. Yes, cleaner air, that's great. But I have to tell you, when push comes to shove, Angel Investors like myself, we've got enough money to build a damn bubble around ourselves. We'll be fine.

SCIENTIST

No, the check is not for future dangers. It is for now. You are in danger right now.

CONSULTANT

Vlad, this is a little pathetic, don't you think?

SCIENTIST

Danger from something you can't see.

CONSULTANT

Ok, ok, I'll play along. What's the danger I can't see? Is it the ghost of your deformed sister rising from the grave?

SCIENTIST

No, sexier than that. Nanoparticles. Embedded on my questionnaire. And now on your face when you touched it.

CONSULTANT

I see. Nanoparticles. On my face. Like the self-cleaning ones? Which means what? I'm in danger of having perpetually clean cheekbones?

SCIENTIST

No these nanoparticles are different. Instead of repelling airborne particles and pollutants, the ones I put on my questionnaire do the opposite. They *attract* particles. Particles like bacteria, germs... viruses.

CONSULTANT

You're full of it.

SCIENTIST

Do not worry. I calculated the cost-benefit of this action. I believe it's worth it.

CONSULTANT

I'll just wash my face when I get home.

SCIENTIST

Nanoparticles - small enough to penetrate the skin.

CONSULTANT

Next you're going to tell me you're the only one with the antidote?

SCIENTIST

I wouldn't wait for Bruce Willis if I were you.

CONSULTANT

Ok, you know what, this really isn't funny.

SCIENTIST

No, it is not.

CONSULTANT

So you threaten me and think I'll pay you?

SCIENTIST

I suppose that depends on how you see at the value of your statistical life. Excuse me, VSL.

A tense beat.

CONSULTANT

What if I call the cops?

SCIENTIST

"A mad scientist put submicroscopic particles on a piece of paper and now they're attracting invisible lethal microbes to my face. Arrest him."

CONSULTANT

I'm going to google this.

SCIENTIST

Google is a horror show.

CONSULTANT

*(googles)* Oh my god.

SCIENTIST

Told you.

CONSULTANT

This is a just practice pitch meeting, for pedagogical purposes!

SCIENTIST

Maybe I'll bury you here, among all my metaphorical babies.

CONSULTANT

A hundred-thousand. I'll write you a check for a hundred grand right now to tell me you're joking.

*(Scientist makes the airhorn sound. Or just says, "airhorn").*

CONSULTANT

Two hundred grand.

*(Scientist makes the airhorn sound. Or just says, "airhorn").*

CONSULTANT

Ok, ok, a million. Here. I'm writing it right now. One. Million. Dollars. There. *Take it!*

SCIENTIST

Thank you.

CONSULTANT

Well?

SCIENTIST

Well?

CONSULTANT

Tell me you were joking!

SCIENTIST

Of course I was joking, you nitwit.

CONSULTANT

I knew it. I knew it. Son of a... terrifying me like that. That was nasty. Nasty stuff. You really think I'm not going to cancel that check the second we're out of here?

SCIENTIST

I assume that you will.

CONSULTANT

*(small beat, then... air horn)* You kidding? Man 'o man, it took you a while to soak in my wisdom but I think you got it now. Nah. That money is all yours. You earned it.

SCIENTIST

Really?

CONSULTANT

Absolutely.

And by the way, I'm giving you an A in the course.

*(Scientist makes the airhorn sound. Or just says, "airhorn").*

CONSULTANT

You're right, you're right. A+

Now can we get out here already? This place is giving me the creeps.

SCIENTIST

Yes, thank you. *Thank you.* Please, you go, I'll be there in a moment.

*(The Consultant exits. The Scientist is alone. Looks around at the graveyard. Deep breath.)*

SCIENTIST

My dear little sister. Thank you. We did it.

Goodnight.

*(He exits. End of play.)*