

F.U.J.W.GIBBS

A Play in One Act

By

Benjamin A. Horwitz

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CAST

Dr. Larry Morgan, *Senior research chemist, age, mid 50's*

Dr. Herb Cohen, *Junior associate of Dr. Morgan , age, early 30's*

Billy, *College summer intern at Gibbs, delivering mail*

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SCENE: (TWO CHEMISTS WORKING IN FRONT OF AN ARRAY OF CHEMISTRY LAB EQUIPMENT, BUCHNER FUNNELS, TEST TUBES, ALL SET UP AND SUSPENDED IN A MATRIX/MAZE. PICKING UP AND OCCASIONALLY LOOKING AT TEST TUBES, POURING FROM BEAKERS ETC WHILE TALKING TO EACH OTHER. WEARING EYE PROTECTION AND LAB COATS. FIRST CHEMIST BEGINS TO TALK TO SECOND IN A TONE OF MILD FRUSTRATION.)

LARRY:

Hey Herb, do you suppose Einstein, in a fit of absolute frustration ever said something like 'e=mc cubed? e=mc to the 2.5? e=mc to the 4th? Oh fuck this goddamn relativity shit'. Do you think he ever talked like that to himself, you know, not to his peers or anything, but in the privacy of his study? Do you think he ever did?

HERB:

Ah, starting the day here at the famous Gibbs research labs on another high intellectual plain. Let's see. Did Albert Einstein ever talk like a stevedore entering a brothel - in a fit of frustration, of course? An interesting conundrum. Well first, Larry, Einstein was German, and he did all that relativity stuff in Switzerland, so if he did talk like that, he probably did it in German. What's the German word for "fuck", anyhow?

LARRY:

Studied German as my second language for my PhD., But they never taught us that. Probably would have been a good word to learn. "Fuck" is such a cathartic word in English. You know, it's probably the same in every language.

HERB:

Boy, you're sure right about that. I studied Russian for my PhD. Haven't got a clue how to say "fuck" in Russian. Don't even know why you need a second language to get a PhD. in chemistry, what an absolute waste of time. Should have gone into Chemical Engineering, no language requirements, and they make better money after undergraduate school.

LARRY:

I started undergraduate school as a Chemical Engineer.

HERB:

What made you transfer to chemistry?

LARRY:

I don't know. Chemical Engineering seemed so, you know, practical. Besides, I always wanted to be a research chemist. Ever since my first Gilbert Chemistry Set. Did you ever have one of those Gilbert sets when you were growing up?

HERB:

Oh sure. First I got the Gilbert Erector Set. Then my aunt got me the chemistry set a few years later. Back then they had all kinds of dangerous chemicals in the set. Shit, you could make gunpowder with those stupid sets.

LARRY:

You're exactly right. They had sulfur, sodium nitrate, and powdered charcoal. They also had powdered zinc, which when combined with sulfur made a great rocket fuel. Jesus, can you imagine what the government watch-dog agencies would do if Gilbert came out with those sets today?

HERB:

You probably couldn't find a jar of anything more dangerous than table salt.

LARRY:

Hell, with the high blood pressure possibility, you probably wouldn't even get that. Hey did you see the pH meter?

HERB:

It's right in front of you.

LARRY:

Yeah, thanks. Hey Herb, how long have you been working here at the Gibb's Research Labs now?

HERB:

I came here right from grad school, right after I got my Ph.D. It'll be seven years this June. You've been here a lot longer than that. When did you start at Gibbs?

LARRY:

Oh shit, I started back in '67. Got out of Berkeley when all those lunatics were causing hell on campus.

HERB:

You never took part in any of that anti-war protest I read about?

LARRY:

What, are you kidding me? Take part in student protests? When did I have the time? You go to graduate school at Berkeley and major in Physical Chemistry, and try to partake in any extra curricular activities. You could barely find time to sleep 4 hours a day. You went to Wisconsin, right?

HERB:

Yep, majored in Organic Chemistry. They had a great organic department when I was there.

LARRY: (sarcasm dripping from every word)

Hey Herb, don't take this the wrong way, but I never could understand the legitimacy of a Ph.D. in Organic Chemistry. There's no science or principles behind that stuff. You make most of your discoveries by accident, don't you? The famous Grignard Reagent, with magnesium, one big accident, wasn't it?

HERB:

Well, don't be offended by this Larry, but you Physical Chemistry majors always thought you were better and smarter than the other chemists. In fact you're really wannabe physicists. You don't do any real chemistry.

LARRY:

Well, I'll have you know, this famous research lab is named after a Physical Chemist, J. Willard Gibbs.

HERB:

Bullshit. J. Willard Gibbs got his Ph.D. from Yale University in Mechanical Engineering. Go look it up.

LARRY:

You're kidding, really? I didn't know that. He's still considered the father of modern thermodynamics, and a Physical Chemist, by practice, anyhow.

HERB:

Well there you have it. You've certainly made my point. A Mechanical Engineer developed your discipline. Need I say more.

LARRY:

C'mon Herb, you know organic chemistry is a bunch of bullshit. They try to make it sound like a real science, try to give it some kind of authenticity as being a pure scientific discipline, but you know as well as me, an awful lot of great so called organic chemistry was developed more by serendipity than anything else.

HERB:

Yeah, but you can easily make that claim for a lot of science.

LARRY:

True Herb, but answer me this, honestly. Shouldn't a true scientific discipline, have lofty goals, like improving the lot of mankind and all that shit.

HERB:

Sure, and I think you can easily make that claim for organic chemistry.

LARRY:

Right! Like yesterday in the cafeteria I happened to read the package of instant chicken soup I was pouring into my cup of hot water. It actually said "imitation chicken soup" Now tell me, Herb, what legitimate scientist would consider it a lofty goal to synthesize the chicken soup molecule. Huh?

HERB:

Very funny, boy you're on today Larry. Hey, by the way, have you noticed since we came back from the construction site, how salty our language has become.

LARRY:

What do you mean?

HERB:

Well, just look at this morning, every other word out of you mouth is either "fuck" or "shit", mine too. My wife noticed it this weekend. Seems to happen every time we come back from the construction site.

LARRY:

You know you're absolutely right. My wife made the same observation this weekend while I was working in the yard. These field engineers and construction workers have a unique way of expressing themselves. Unless you talk to them the same way, they don't seem to take you seriously.

HERB:

Well we're back in civilization let's make a conscious effort to clean up our act this week.

LARRY:

Sounds like a good "fucking" idea. Help me set up this filtration test.

HERB:

Sure. Hey Larry, just curious, but how did you avoid the draft back in the late 60's?

LARRY:

Actually it was pretty easy before 1970, when they instituted the lottery. I just kept getting technical deferments, first for graduate school, then here at Gibbs. It was never a problem. By the time the lottery was in effect, I was married with a kid on the way. QED

HERB:

Hey by the way I read that great post doc paper you wrote for the pharmaceutical industry back in the late 60's. You really got a lot of press for that, didn't you?

LARRY:

Sure did. That's why they hired me here at Gibb's Lab. They were doing a lot of contract research for the drug companies.

HERB:

Didn't you get some blurb in the New York Times too?

LARRY:

Yep. In fact they just contacted me last week. Seems like they're doing some high tech article on a subject that refers to my early research. In fact there was an article in the San Francisco Examiner last week. An old friend at Berkeley sent it to me. They mentioned my name and research work several times in the article. It was their Sunday Magazine section. Jeez, there isn't a prettier place in the world than the Bay area.

HERB:

Boy you got that right. Marcia and I went out there last year with the kids. What is it, Highway 1 that goes up the coast.

LARRY:

Is that an incredible ride or what? Especially north of Frisco.

HERB:

Unbelievable! Hey by the way did you run that mass spec on our last sample yesterday afternoon?

LARRY:

Yep, took it up to the analytical boys before I left last night. It should be ready. I'll go up before lunch and check the status. Sometimes those guys can be a real pain in the ass.

HERB:

Yeah, I know. You'd think they work for a competitor. They're so fucking difficult to communicate with at times.

LARRY:

Hey, hey, watch the language.

HERB:

Shit, I gotta get rid of this swearing before we go to the Synagogue tonight.

LARRY:

Hey, that's right, your kid's getting Bar Mitzvahed this Saturday. Isn't he?

HERB:

Yeah, are you coming to both the service and the reception.

LARRY:

Sure, my wife's Jewish. She said she hasn't been inside a temple since her mother died.

HERB:

Your wife's Jewish? I didn't know that.

LARRY:

Well, she converted to Catholicism after we got married. Actually it's really worked out well. We've been married for going on 30 years. You know, its funny, my parents always used to say she was a better Catholic than me.

HERB:

That's great Larry. Most of the time they say those mixed marriages don't work. Your wife was a chemist too, wasn't she?

LARRY:

What do you mean was? She hasn't practiced in years, but I'll tell you the truth, she's ten times the scientist I am. You know, she got her masters degree in mathematics from Chicago. And that was when Chicago probably had the finest math department in the country. Jesus, they had Herstein and Mac Lane and even Birkhoff was there for a while. They begged her to go on for her doctorate in mathematics.

HERB:

Why didn't she?

LARRY:

'Cause I convinced her to get married and come to Berkeley with me. She had a double major in undergraduate school. Chemistry and mathematics, I convinced her to get her PhD. in chemistry with me.

HERB:

You know Larry, mathematicians are the only true breed of pure scientist. The rest of us our fakes.

LARRY:

What the hell are you talking about?

HERB:

I don't know. I was always intimidated by mathematicians. Seems like they were always the smartest of the group, you know. A really smart mathematician could have degreed in any of the other scientific disciplines, chemistry physics, any of em. I don't think you could say the same for us. There's no way I could have gotten a PhD. in mathematics. Do you think you could have, honestly?

LARRY:

I don't really know. I think I could have muddled through a PhD. program in mathematics. Maybe not at Berkeley or Chicago, but I think I could have somewhere. Maybe not. The PhD. Math candidates at Berkeley seemed to take a lot longer than the rest of us. I had a good friend at Berkeley in the math program. He damn near had a nervous breakdown before he finally got his PhD. and finally passed his orals. Nicest guy, kinda shy, introverted. Some Algebraist kept on flunking him. What the hell was his name? Ted something, Polish sounding last name. God I hate when that happens.

HERB:

What's he doing now? Have you kept in contact with him?

LARRY:

Nope. He's probably teaching somewhere. He was kind of a strange dude, but really brilliant. I think he just took a real dislike to that Algebraist, and flunked on purpose, cause this guy was smart, Herb. He actually helped me on that paper I wrote that got me so much publicity. He did all the higher math that everyone likes to see in those kinds of publications.

HERB:

Yeah, why is it that everyone loves to see some type of higher mathematics in these papers we publish. We never really use that shit here, or in any real industrial or even practical environment. What's so sexy about all that higher math.

LARRY:

You know, I'll be honest. Without Ted's mathematical help, I never would have gotten that paper published. And yet the mathematics didn't have a goddamn thing to do with the results or conclusions of the paper.

HERB:

It seems everyone in academia feels the need to push mathematics in their work.

LARRY:

You know that expression Herb, about patriotism being the refuge of a scoundrel.

HERB:

Yeah

LARRY:

Well mathematics is the refuge of a scoundrel discipline. Every discipline at the university feels they elevate their importance in the academic community if they can somehow shove more mathematics into their curriculum, whether it makes sense or not, and its not just limited to the sciences or even engineering. Look at economics and sociology, even historians think they're sexier if they can incorporate some type of statistical rigor into their historical analysis. It's all pure bullshit.

HERB:

Boy, we can sure agree on that. I use more mathematics filling out my 1040 every year than I do here at work.

(ALARM RINGS ON PIECE OF EQUIPMENT)

LARRY: (Running over to piece of equipment)

Oh Shit! I forgot to get my sample out of the drying oven. Goddamnit! I screwed that whole experiment up.

HERB:

Ah, don't worry about it. See Larry, you Physical Chemists had too many theory courses and not enough practical laboratory course so you could get the proper techniques down.

LARRY: (Frustrated as hell)

Not now Herb!

HERB:

No, seriously Larry, I've noticed your technique since we've been working.....

LARRY: (More forcefully)

Not now Herb !! I'm in no mood!! I've got to get out of here early today. We're celebrating our 30th wedding anniversary tonight and I've got to have this fucking test finished by this afternoon. Now I've got to start the whole fucking thing over again.

HERB:

Hey, maybe we should start that no swearing pledge tomorrow.

LARRY:

Good fucking idea!

HERB:

Hey you really are pissed. Look I'm really finished with my work. Let me give you a hand on your part. Maybe the two of us can get it done this afternoon.

LARRY:

Thanks Herb. That would be a big help. I don't want to be in a bad mood at dinner tonight.

HERB:

No problem pal. Maybe if we really screw up this afternoon, we'll stumble upon a cure for impotence.

LARRY:

If I don't get these results in today, I just might need that cure before this day's over with.

(Mail boy enters the lab from darkness of stage)

MAIL BOY:

Well, have you guys cured cancer yet today? Here's your mail Doctors, looks like Dr. Larry got something real important. (Holds up a large manila envelope)

HERB:

Hold it down today Billy, were in a bit of a crisis here, and Larry isn't in the mood for flip comments.

LARRY:

No, no that's ok Billy, I'm alright, just put the mail on my desk. Where's that big envelope from?

BILLY:

Let's see, doesn't have a return address. The post mark is from, let me see, it's a little smudged, looks like its from Salt Lake City, Utah.

LARRY:

Salt Lake City? I don't know anybody up there, how bout you Herb, you doing anything in Salt Lake.

HERB:

Nope, probably one of those equipment vendors. I get that shit all the time. Might as well just throw it in the trash.

LARRY:

Put it on my desk, Billy, I'll look at it before I leave tonight. When you going back to school Billy?

BILLY:

We just went on semesters from the quarter system, so school starts real early like end of August. Even before Labor Day.

HERB:

What are you now, Billy, a senior?

BILLY:

Yep this is my last year. Then it's the real world for me.

LARRY:

Hey Billy, this is the real world for me and Herb. You'll see, in a few years you'll be back here working with your dad in analytical chemistry.

HERB:

I don't think so Larry, Billy isn't a chemistry major, I think he's a business major. Right Billy?

BILLY:

Computer science, but its offered in the business school.

LARRY:

Now that sure as hell makes perfect sense. Put computer science under those goofy business types. Jesus, the whole goddamn educational system is screwed up. Computer science under business. Give me a godamn break.

BILLY:

Boy Dr. Morgan's in a good mood today.

HERB:

Unfortunately Billy, the real world has clashed with Dr. Morgan's world today, and it hasn't been too kind.

BILLY:

Well you'll just have to cure cancer tomorrow, and put that Nobel Prize on hold a few days longer.

LARRY:

Billy, (pause) just leave the mail, and then, (longer pause) get the fuck out of here.

BILLY:

Wow, you really are in a bad mood.

(Billy leaves the mail, and disappears in darkness of the stage)

HERB:

Pretty harsh on the kid, Larry. God, you left the sample in the oven too long. No big deal. It's not the end of the world. Lighten up. You're celebrating your 30th wedding anniversary tonight. You're not going to be very good company for Marilyn tonight. Come on, man, snap out of it.

LARRY: (pensive)

Oh, it's not just the screwed up experiment Herb.

HERB:

Yeah, I know. You've been on edge right from the get-go this week.

LARRY:

Billy comes waltzing in this morning and jokes about winning the Nobel Prize, and curing cancer. But you know Herb, there was actually a time during graduate school and when I first came here to work, I entertained the thought of both those goals. Didn't you ever think like that in Graduate School?

HERB:

Sure Larry, I think every scientist dreams about winning the Nobel or curing some disease. Just like the minor leaguer thinks he's going to be the next Babe Ruth. It's natural to feel that way.

LARRY:

Well when did you realize those goals were impossible?

HERB:

What?

LARRY:

When did you realize you'd never win the Nobel or cure Cancer.

HERB:

What the hell are you talkin about?

LARRY:

I don't know what I'm talkin about. Just forget it Herb. I'm just in a lousy mood, and this experiment isn't helping the situation any.

HERB:

Would you just forget about the damn experiment. I promise you we'll get it done today before your anniversary dinner tonight. OK? Just quit worrying about it.

LARRY:

Actually it's not the experiment I'm worrying about. It's the dinner tonight with Marilyn.

HERB:

What? Now what are you talkin about?

LARRY:

I think Marilyn is gonna ask for a divorce.

HERB:

Divorce? Are you loosin it Larry? First you're talking about celebrating your 30th wedding anniversary, and now you're talking about divorce. You're not making much sense today. I think you may be using too much acetone in your experiments?

LARRY:

No, I'm serious Herb. We've discussed a trial separation.

HERB:

Divorce? Separation? We were just out to dinner with you and Marilyn last week. Everything seemed great. In fact Marcia has frequently commented what a great couple you guys are. She wondered if we'd be a couple in 30 years like you and Marilyn.

LARRY:

Well we're very good in public, Herb. Marilyn's not the type to discuss her problems or show her emotions, especially in public. But trust me, we're very close to a separation.

HERB:

Gee, I don't know what to say, Larry, I really....

LARRY:

There's nothing to say Herb. I'm just sounding off. Chalk it up to mid-life crisis. Let's just forget about it. C'mon I'll take you to lunch.

HERB:

No Larry, I'll take you to lunch. Screw the cafeteria. Let's go to Sardini's. C'mon we'll get that experiment set up before lunch.

LARRY:

You're on Dr. Cohen. Let me just check with the analytical mavens on that sample. I'll meet you in the lobby.

SCENE:(Lights go off on stage and several minutes pass in total darkness. Then lights come back on, Herb and Larry sitting at a table with a red checkered table cloth and an empty wine bottle with a candle in it. The candle isn't lit. A bottle of red wine, half-filled is on the table as the conversation begins.)

LARRY:

If we finish that wine I'll be useless this afternoon back at the lab.

HERB:

Let's take our time, we really only have to finish that one experiment, no sense in getting anything going before the weekend.

LARRY:

I think I'm coming in this weekend. Pfizer wants an interim report next week, and there's a few loose ends to tie up. Besides, I want to run some more simple filtration tests, and we have to titrate those samples.

HERB:

Jesus, Larry, I'll never understand you.

LARRY:

Why, cause I'm working again this weekend?

HERB:

No. Because you're the only goddamn senior research associate, who performs his own mundane tests, like pH and titrations and filter tests. Christ, we've got dozens of technicians to do all those things. They don't pay the PhD.'s around here to do that shit. That's why we hire those undergraduate chemists and technicians.

LARRY:

But Herb, I see you doing all those tests too.

HERB:

Yeah, but that's because I came to work for you seven years ago, and saw you doing them. I was intimidated.

LARRY:

Intimidated?

HERB:

Yeah. Intimidated. C'mon Larry, don't be so modest all the time. Your reputation for this type of physical organic synthesis is second to no one's in the country. That's why I came here to Gibbs to work with you. And this lab we work in. Jesus it's something Pasteur wouldn't even work in. It's the oldest goddamn lab in the complex, and the least sophisticated. You could have your choice of offices and labs here at Gibbs. Shit, with the research dollars you bring in here.

LARRY:

Hey Herb, hold it down, pal. Where did all this frustration come from so suddenly? I thought you liked working with me.

HERB:

I do Larry. If I didn't I would have quit a long time ago. But with all this introspective talk this morning and now at lunch. You're not the only frustrated person at Gibbs, and besides its always puzzled me why you work in that lab and perform all your own simple tests. Maybe the three glasses of wine are making me feel brave.

LARRY:

Ok,Ok. Well first, this Pasteur type lab we work in is where I started and did my best work here at Gibbs, so I guess you could say I stay there because, well because I'm superstitious. How's that for great science? As far as performing all those mundane types of laboratory procedures you're referring to. Did you ever read the "Periodic Table" by Primo Levy?

HERB:

No

LARRY:

Well you should. Primo Levi was an Italian PhD. chemist. Mostly an industrial chemist rather than a research chemist. Just before the end of the Second World War, he was captured by the Germans and sent to a concentration camp. He was liberated after about one year. He came back from the camp and gave up his career as a chemist for the most part and began to write about his experiences. The book the "Periodic Table" is about the chemicals on the Periodic Chart that effected his life in a major way. Very cleverly written. Anyway, in this book he talks about performing the most mundane types of chemical tests, distillation, filtration, titration etc. He talks about how he could think about the individual experiment or theory while he was performing these tests. He said how it helped him think and clear his mind, like when you're riding a bicycle. And that's exactly why I do them Herb, it just clears the mind and allows you to think and concentrate on the entire problem, all the chemistry involved, not just the test your doing. It connects you with the whole project and process in a fundamental way. And you know what else?

HERB:

What?

LARRY:

It relaxes me.

HERB:

Well, I've never looked at performing a titration in that way before. But perhaps now I will. How about some more wine?

(Herb pours wine in both his and Larry's glass)

HERB:

Can I ask you something personal, Larry? Something I've been curious about for a while.

LARRY:

Sure, go ahead.

HERB:

Did Gibbs once offer you the directorship of the labs a few years ago? All the labs, the entire complex?

LARRY:

Yes they did.

HERB:

And you turned it down?

LARRY:

Yeah, I did

HERB:

Why?

LARRY:

Hey, Herb, what is this. "This is your life Dr Larry Morgan?"

HERB:

No Larry, I'm just curious. That's all. I just heard everybody talking about it several years ago, and Gibbs is a pretty prestigious place, and running it would be a feather in anyone's resume - I'm just curious that's all, you don't have to answer. It must be the wine.

LARRY:

No I don't mind. It's just that after seven years of working together, well we never talked about stuff like this before, but that's ok, maybe we should have. No, I did in fact turn that job down and I've never regretted it. Herb, I like what I do. I like it a lot. I always have. Especially here at Gibbs. There's a practical aspect to the research here. Companies pay us a lot of money to help them develop chemicals and pharmaceuticals that will make money. It's just that simple. Pfizer would much rather have us develop a billion-dollar drug then win the Nobel Prize. Believe me.

HERB:

Yeah, but which would you rather do?

LARRY:

Look, what scientist wouldn't want a Nobel Prize? I know I got a little obnoxious about it this morning - and there was indeed a time I entertained the thought, maybe even obsessed with the idea, especially early on when I was getting so much attention with my research in Graduate School and then here at Gibbs. But I'm perfectly content with the last 20 years of my work. I've worked hard here at Gibbs, and I'm damn proud of the work I've done here.

HERB:

Worked hard? Jesus you spend your whole goddamn life in those labs, Larry. And as far as your work goes. Don't be so modest. You could go and work or teach anywhere in the country, in the world. God, how many patents do you hold here at Gibbs, 50, 100? Larry, if you lived and worked in Europe, you'd be a zillionaire, they'd have to give you 50% of all that money they've made off your work. It's amazing to me, because you have no ego, especially compared to some of the others around here at Gibbs.

LARRY:

Oh, don't worry Herb. I have an ego. Trust me. And when I want to throw my weight around, don't worry, I do. You just don't see it cause I pick and chose my moments.

HERB:

Oh c'mon Larry, when do you ever use your influence or throw you're weight around. When you want another piece of analytical equipment, or hire some new graduate.

LARRY:

Yeah, that's right.

HERB:

Larry, Jesus Christ, Gibbs would put a Cray Computer in your basement, and hire the entire MIT graduating class if you wanted them to. But you never ask for anything for yourself. I'll bet you never asked for or even questioned a raise in 20 years. Have you?

LARRY:

What the hell does that have to do with anything? I get paid damn well here? We live as well as we want to.

HERB:

That's not the point.

LARRY:

Well what is the point then? I'm no goddamn saint.

HERB:

How about asking for a sabbatical Dr. Larry Morgan. How about not spending your entire waking life in those laboratories. Weekends, late nights, early mornings. Christ, no wonder Marilyn feels the way she does. And its worse since both your kids are away at school now.

LARRY: (Starting to become agitated)

You better back off a little bit Herb. You're getting into territory that's none of your fucking business. You just better back off.

HERB:

You know Larry, I'm not gonna back off. Maybe it is the wine, I don't really give a shit. All you talked about during lunch was how you think your wife feels alone and a bit resentful of abandoning her profession 30 years ago. You said you thought there may be another man in her life. Larry, I wasn't gonna mention this, but maybe now is the time. You know your wife Marilyn, the one who keeps everything to herself, well she's talked to Marcia recently, and complained bitterly how she feels abandon, especially since the kids have left the nest. There's not another man in her life, Larry. You can throw that theory out the window. The problem is there's NO man in her life.

(Stunned silence as Larry tries to respond)

LARRY:

She actually complained to Marcia ?

HERB:

Yes she did.

LARRY:

About my lack of attention, and my long hours at the lab?

HERB:

Yes.

LARRY:

Did she talk about a separation to Marcia? Did she actually mention the separation?

HERB:

Yes she did, Larry.

LARRY:

And you've known about it all this time.

HERB:

Yes, for several weeks.

LARRY:

But you never mentioned it.

HERB:

What could I possibly say? How could I even broach the subject?

LARRY:

And this morning, what about this morning, with all that talk about hoping you and Marcia would wind up like me and Marilyn. What was all that about, Herb?

HERB:

Larry, when Marcia first mentioned her conversations with Marilyn, I didn't really take it that serious. You know, blowing off steam or whatever. It just didn't register until this morning when you began to talk about your difficulties.

(Larry with his forehead resting on one hand, looking down at the table, shaking his head. Deep breath)

LARRY:

You spend your whole life as a research scientist, trained to observe and perform experiments in a precise, analytical way. Careful, so careful not to overlook the obvious. Rigorous in every aspect of the way you evaluate data, recognizing that 9 times out of 10, it's those small seemingly simple unimportant occurrences that are the key to the solution, the key to the puzzle. All that training, all that rigor, all that insight, and then in your own personal life, you can't see the goddamn forest from the trees. Boy for a smart guy, I sure am dumb.

HERB:

I'm not gonna argue with that last statement, Larry

LARRY:

I guess I ought to thank you Herb. And look, I want to apologize for that smart-ass comment I made earlier this morning about the Nobel Prize. You're still a young guy, Herb and you're damn smart. Your best work is still ahead of you.

HERB:

Well, that's alright Larry. Besides, I'm gonna get my Nobel Prize Saturday morning.

LARRY:

How's that?

HERB:

This Saturday morning my son Philip, according to Jewish tradition, will become a man. Nine years ago, while still in graduate school, Marcia came home late one evening with our son who had just had a routine physical. She was in tears. Philip had been complaining about headaches for over a week, so just as a precaution she took him to the doctor. Philip had a tumor on his brain. The CAT Scan showed a massive tumor. She had to take him back the next day and leave him at the hospital for more tests. We were a wreck. He went in for surgery that week. We took him to the Mayo Clinic. The surgery was over 5 hours. It was cancer. The surgery was very difficult. I remember asking the surgeon when he came out to talk to us, what the odds were. He was a kind of a strange guy, no bedside manner at all, but he had one hell of a reputation as a surgeon. He was from Hungary, I think, had this thick Hungarian accent, sounded like a male Gabor sister. Anyway, he said to me "Mr. Morgan, I don't give odds, you want odds go to Las Vegas." I remember that

comment distinctly. The operation was very difficult. They removed all the tumor, now it was up to the treatment and God. Larry, that four year old kid went through a year of absolute Hell. And Marcia and me went right along with him. So tomorrow morning, when Philip Cohen receives the Rabbi's Blessing, and enters the Jewish religion as a man. I'll be receiving my Nobel Prize.

LARRY:

Jeez, Herb, I never knew that.

HERB:

Well it's not something you really want to talk about, Larry.

LARRY:

I trust everything has been normal since the treatments.

HERB:

Thank God, everything keeps checking out. But it's never completely out of your thoughts.

LARRY:

Well, you've certainly made your point, Herb. Thanks.

(Finishing the wine and looking at his watch.)

Jesus, it's almost 3. We've been talking so damn much we forgot to get back to those tests, now they're probably fucked up too. Shit!

HERB:

Larry, everything is taken care of. I got Al to take care of the tests, remove the samples, run the ultra-centrifuge test, the GC, and even the liquid chromatograph. Relax, pal. And would you do me a favor.

LARRY:

Sure, what do you want?

HERB:

Please quit swearing so much. We have to go back to Boulder next week to check on the new labs, and this foul language is just gonna start all over again.

LARRY:

Tell you what. The next cuss word uttered by either one of us, will cost the other guy a months lunches here at Sardini's. Deal?

HERB:

Deal.

LARRY:

You sure you told Al to run that Liquid Chromatograph?

HERB:

Would you quit worrying. Al is the most competent chemist in the section.

LARRY:

In the section? Have you ever talked with Al? Ever sat down and talked chemistry with that guy? Al could easily be the smartest guy at Gibbs. Period. I'm not kidding. Now there's a guy who could really win a Nobel. If Al had his PhD. he'd be a senior research scientist running his own lab. Have you ever read any of Al's publications? I'm telling you, the guy is brilliant. It's plain stupidity not to give that guy his own lab and let him do his own research.

HERB:

They follow the university dictum around here. If you don't have the PhD. well you must not be competent to do your own research. I agree with you, Al is unique. Too bad he works for that ego-maniacal schmuck Brosilow.

LARRY:

Hey, you owe me a month's lunches. You just swore.

HERB:

What did I say?

LARRY:

Schmuck, you just called Brosilow a schmuck.

HERB:

Larry, "schmuck" is not a swear word. Believe me, it's a Jewish word, and it definitely isn't a swear word.

LARRY:

I want a ruling on that.

HERB:

Ok, Saturday you can ask the Rabbi. Ok? But please do it after the service.

LARRY:

Well you're right, Brosilow is a schmuck. How the hell did you get Al to do our lab work without Brosilow throwing a fit?

HERB:

Brosilow doesn't know, and Al said he would be delighted to help out.

LARRY:

You know, in a lot of ways, Al reminds me a lot of my wife.

HERB:

What?

LARRY:

No,no,no. I mean intellectually. Intuitively. Marilyn has that same grasp of the basic principles and their application as AI does. That's what makes AI so capable.

HERB:

Whew. I didn't know where you were going with that.

LARRY:

Can I make a small confession to you Herb.

HERB:

Please Larry, haven't we done enough confessing today?

LARRY:

No, no, listen. Do you remember when I was up for the Priestly Medal? I think it was just before you came to Gibbs.

HERB:

Yeah, it was one of the reasons I applied at Gibbs, and wanted to work with you and your group.

LARRY:

Do you know why I was recommended for the Priestly?

HERB:

Sure, it was for your work on that special group of antibiotics.

LARRY:

That's right. I spent almost 4 years on that project. I was always so close to getting things to work right, but couldn't find that one last piece of the puzzle. It's really what makes science and research both so frustrating and rewarding. Remember back in college when you had those impossible word problems in Calculus?

HERB:

Yeah

LARRY:

You know, you'd spend half the night trying to figure it out, and then you'd see the trick to the puzzle, and then the solution was instantaneous, and you wondered why you spent all that time agonizing over the problem when if you just saw that simple trick, you could have solved it in minutes.

HERB:

Sure I remember those kinds of math problems.

LARRY:

Well that's exactly what happened with that antibiotic. Except I didn't see the trick, Marilyn saw it.

HERB:

Marilyn?

LARRY:

Yeah, Marilyn, over breakfast, over a cup of coffee. She saw it clear as a bell. I kept on forming these carbonates in solution. And they kept on interfering with the reaction I wanted to take place. A very small amount of carbonates, but I couldn't figure how to get rid of them, so I'm just mentioning this to Marilyn at breakfast, and she pauses for a minute and says: "Well why don't you just raise the temperature of the solution?" I thought she meant to really kick the temperature up, which would have killed the proteins and so I said that was impossible, and she said, no not that high just 10 or 15 degrees. I didn't know what the hell she was driving at so I said: "What good would that do?" And without missing a beat she says that carbonates have less solubility at higher temperatures so they just might plate out and crystallize. You know, like in your hot water heater at home.

It was so simple. It was brilliant. Someone in high school chemistry could have come up with it. It was the very first experiment I ran that morning, and it worked perfectly the very first time. The reaction went right to completion. No contaminants nothing.

HERB:

Are you saying Marilyn deserved the Priestly nomination?

LARRY:

Well she certainly deserved some of the recognition. It's like those math problems. I spend three years on it. Marilyn solves it over breakfast coffee. See what I mean?

HERB:

Well you did mention her in the paper you published. I remember reading her name in a footnote.

LARRY:

Yeah, a footnote. Gibbs gave me a 25 thousand-dollar bonus for that 'footnote'. I gave it to Marilyn. Well actually I bought her a new BMW.

HERB:

Well, you know what that story really proves.

LARRY:

What?

HERB:

It proves what my high school chemistry teacher always used to say.

LARRY:
What's that?

HERB:
Old Mr. Goodman always used to say: "If you want to be a good chemist, you've got to think like a molecule."

LARRY:
"Think like a molecule." I like that, Herb. I think we'll get the maintenance boys to make up a sign and hang it in the lab.

HERB: (looking at his watch)
Hey we better get going. I've had too much wine. I'm starting to think and feel like an alcohol molecule.

(Both get up from the table and begin to leave)

LARRY:
Let's stop by the flower shop on the way back. I want to pick up some roses for tonight.

(Stage lights off for a few minutes. Larry and Herb enter the lab. A ring clamp and burette are set up with some beakers. An actual titration will be performed in this scene, with weak acids and bases – so no actor gets hurt if an accident occurs – Larry and Herb are feeling the wine at lunch and it shows in their behavior, BUT THEY ARE NOT DRUNK, nor do they act drunk. Just feeling "good" from the wine at lunch. The lights on the lab scene go on and Larry and Herb enter, Larry has his arm around Herb in a fatherly manner.)

LARRY:
Herb, today is your lucky day.

HERB:
Why's that?

LARRY:
Cause we're gonna perform a simple titration this afternoon, just like we did in high school chemistry class. Besides (looking at his watch) it's already 4 and we don't really have time to do anything else.

HERB:
Sounds good to me, cause I've got to get out of here today before 5 to get to Temple Emanuel tonight.

LARRY:
Ok. Let's get this set up. You get the phenolphthalein solution.

(They set up the proper beakers and solutions, and discuss the following. They're wearing protective goggles and have rubber gloves on. They continue the dialogue.)

HERB:

Larry, did you ever take a course in the History of Chemistry?

LARRY:

Nope.

HERB:

We had to take one at Wisconsin – no credit of course. Actually took it the first year of graduate school. Fascinating. Really

LARRY:

It's interesting to read about the lives and careers of others in your profession, especially about their personal lives. I've done some reading of my own on the subject.

HERB:

All the talk today about the Nobel Prize. A lot of it is politics. Plain and simple. A lot of deserving chemists over the years, who've done incredible work, haven't even been considered for a Nobel.

LARRY:

That's quite true. Perhaps a little bit like the Academy Awards.

HERB:

Exactly. You know I was watching the History channel the other day about the Battle of Britain. Do you ever watch the History channel?

LARRY:

Yeah. It's always about the same subjects though. What would the History channel do without the Second World War? If the Second World War didn't happen, The History channel would have started it.

HERB: (slight laughter in his voice)

I think you're right. Anyhow, historians pretty much credit the air war over England in '39 and '40 as a decisive turning point. It really prevented the German's from invading England. And that would have been disastrous.

(Still setting up titration experiment)

LARRY:

That's for sure.

HERB:

That's when Churchill made his famous comment about. "Never have so many owed so much to so few." Referring to the RAF pilots beating back the Nazi pilots. But I don't think Churchill really knew that the "few" he could have been referring to were two obscure organic chemists by the names of Herman Pines, and Vladimir Ipatieff.

LARRY:

Somehow I knew they'd be organic chemists.

HERB:

No, seriously Larry. These guys did more to insure that air victory and prevent the invasion of the island than anybody. Ask the RAF pilots why they were so successful. Their invention of high octane aviation fuel allowed their planes and their supercharged engines to operate at peak performance. They just flew rings around their German counterparts. They worked for a company called Universal Oil Products. They did research on the chemistry of oil, and worked with the refining industry.

LARRY:

The refining industry? All those guys do is boil oil.

HERB:

Seriously, Larry, you could make a serious case that these guys should have won a Nobel for both Chemistry and Peace, way before Pauling won his two Nobel's.

LARRY:

I'm pulling your leg a little bit, Herb. I've heard of Pines and Ipatieff. I think they taught at Northwestern. And both did work that could have qualified for a Nobel. But very seldom will a Nobel be awarded to someone working in industry. Look at Carothers.

HERB:

Who, Wallace Carothers, the guy who invented Nylon at DuPont?

LARRY:

That's the guy. Look at his work in polymers, sometime. Absolutely brilliant. And that's before anyone really understood the polymer structure. And, He was a Physical Chemist. He taught at Harvard before DuPont scooped him up.

HERB:

Didn't he commit suicide?

LARRY:

Yep. He was a troubled soul, manic depressive. A fellow researcher at DuPont commented he carried around a ration of cyanide, and that he knew of all the famous chemists who committed suicide.

HERB:

Sounds like you know quite a bit about him.

LARRY:

Actually I did a paper on him in High School. And then later in graduate school I looked up some research of his when he was back teaching at Harvard. Interesting guy. Unassuming and modest. Came from the Midwest. Iowa I think. After undergraduate school at Tarkio College, in Missouri,. He began teaching accounting there. He went to the University of Illinois for his masters and Ph.D.

HERB:

Illinois? You'd think he would have gone to a more prestigious school than that.

LARRY:

That sounds pretty haughty, Herb. Sounds like something Brosilow would say.

HERB:(a little embarrassed)

I didn't mean it like that.

LARRY:

Yes you did. Until this morning, I was never even sure you graduated from Wisconsin.

HERB:

Oh, c'mon Larry. You interviewed me after graduation. You had my records.

LARRY:

Never looked at em. I never look at anyone's grades or records when I interview them. Could care less where they graduated from. Grades are meaningless. Look, they graduated and got a Ph.D. didn't they?

HERB:

I'm amazed. How do you make your selection from all the applicants you interview, what's your technique. I'm just curious.

LARRY:

Well it's pretty simple. You went through it. Don't you remember? I interview the applicant along with three other employees here at Gibb's. I choose the employees besides me that they'll interview. It's employees whose judgement I trust, sometimes better than my own. Al Pekar is one of the interviewers, along with Billy's dad up in Analytical. The third choice is always my wife. We had lunch with her, remember? After the applicant finishes with the interviews, it's a simple majority vote, and I always go with the majority, regardless of my own vote. If it's a tie, well then I pull rank and make the choice. It's just that simple.

HERB:

I gotta admit, I'm shocked. And what about me was I a unanimous choice.

LARRY:

As I recall it Herb, not quite, it was 3 to one in your favor.

HERB:

Now you've got my curiosity up. Who voted against, Billy's dad or Al?

(Very long pause)

HERB:

Oh no, don't tell me your wife?

(Another very long pause)

HERB:

Oh, c'mon. Not you, Larry!

LARRY:

You couldn't answer what I thought was an important simple question.

HERB:

What question couldn't I answer? I answered all your – Oh god, it was the carbonates question. I forgot which way the solubility of carbonates went.

Larry, you didn't even know that. It was your wife. That's not fair.

LARRY:

No, no. I knew about the solubility, I just didn't think of it. If you don't know it you can never think of it. Can you.

HERB:

That's small Larry Morgan.

LARRY:

You know what? I made a mistake. I admit it. OK? That's why I use three other people besides myself, and go with the majority. So my system works, and besides I don't use that carbonate question any more. I'm glad I hired you Herb Cohen. And after our conversations this afternoon – I couldn't be happier.

(Just then you hear the mail boy, Billy's voice from off stage.)

BILLY:

Hey doctors Morgan and Cohen, got anything for Federal Express this afternoon?

LARRY:

Get in here Billy, and watch the great researchers Morgan and Cohen perform a simple titration.

BILLY:

Haven't I taken enough abuse from you guys in one day?

HERB:

Billy, Billy, Billy. C'mon Billy. Where's your sense of adventure? Get in here and begin to think like a molecule.

BILLY:

Think like a molecule? Oh no. What the hell are you nuts doing in there?

LARRY: (Spoken like a carnival barker)

Get in here Billy. The scientific method and rigorous approach of the research scientist are about to be displayed. Come one come all. Billy get in here!

(Billy enters the lab)

HERB:

Now Billy, have you performed a titration before?

BILLY:

Sure in High School.

LARRY:

Yes, Billy, but did you realize you were performing a most sacred scientific ritual. Performed by some of the great scientific minds of the centuries.

HERB:

A seemingly simple procedure of neutralizing an acid with a base.

LARRY:

Or vice versa.

HERB:

Correct Doctor, or vice versa.

BILLY: (amused and amazed)

Have you guys been drinking this afternoon?

LARRY:

Have you guys been drinking. Billy, Billy, Billy. We're insulted. Billy would a man about ready to receive the Nobel Prize tomorrow morning, drink before such a sacred ritual.

HERB:

Well, maybe just a little.

LARRY:

Yes, maybe just a little, Billy. But nothing that would dare impair our ability to perform such a sacred and noble procedure.

HERB:

Billy, when you were in high school performing that titration, did you think like a molecule? Did you Billy?

BILLY:

Think like a molecule? Well No probably not.

LARRY:

Billy are you aware that millions of little Hydrogen ion molecules are dashing about in that beaker, desperately seeking out little hydroxyl ions?

HERB:

Desperately, frantically seeking each other out.

LARRY:

It's a virtual orgy in that beaker, or will be as soon as we start the titration.

BILLY:

Jesus, I gotta get out of here, you guys have gone crazy. (Gets up to leave)

HERB:

Sit your ass back down there Billy. (Looking at Larry) Is ass a swear word?

LARRY:

Is schmuck?

HERB:

No.

LARRY:

Then neither is ass.

BILLY:

Wow you guys have flipped out.

HERB:

Damnit Billy, we're trying to demonstrate to you the rigorous scientific method through the titration procedure. A method so tried and true through the ages it has become almost as irrefutable as the laws of nature themselves. In its basic form, it is almost mathematical in its preciseness.

LARRY:

In its pure application, it's, it's – almost poetic. (Larry brings the drama back down to earth) Wait a minute Herb. I don't think Billy is grasping the greatness of this moment.

BILLY:

I don't think so doctors. Can I go now? I've got a date tonight.

HERB:

But Billy, the scientific method can be applied to other situations besides just scientific experiments. It can be applied to life itself.

BILLY:

Can I use it to get laid tonight?

LARRY:

That's it Billy, reduce it all to some crass sexual expression. It's hopeless Herb. Billy will just leave here as ignorant as when he came in.

BILLY:

God I sure hope so. (Gets up to leave again)

HERB:

Wait a minute. Don't go yet Billy. I think I know how we can get Billy to appreciate the scientific method. Billy go get that large manila envelope you brought in this morning.

(Billy gets up from his chair and gets the envelope and sits back down.)

HERB:

Good.

LARRY:

Where are you going with this , Herb?

HERB:

Don't worry, I know. We're going to show Billy how the scientific method works. Now Billy, do you have any idea what may be in that envelope addressed to Dr. Morgan.

BILLY:

Not the slightest. So I'll just rip it open and we can find out.

HERB:

No No Billy. Absolutely not. Dr. Morgan and I are going to show you, through the use of our superior scientific minds, using only the scientific method, exactly what may be in that rather ordinary looking envelope, and even whether its worth opening it to find out. And how will we do that Billy?

BILLY:

Let me guess. By using the scientific method, per chance. (Billy's now playing along)

LARRY:

Exactamount! I'll take over from here Herb. I've got the plan now.

Ok Billy, what do you think could be in that envelope.

BILLY:

A 10 million dollar check from the Publishers Clearing House?

HERB:

C'mom Billy this is serious.

BILLY:

Oh Yeah, right serious. OK maybe it's a bomb.

LARRY:

Ok Billy we can start with that. You mean one of those letter bombs.

BILLY:

Right, like that idiot has been randomly mailing the past 20 years. You know, the kind like when you open them they blow up in your face.

LARRY:

You mean like that guy they call the Unibomber.

HERB:

Ok, that's a start. Now why would you come to that conclusion. What kind of scientific reasoning would make you draw that conclusion?

BILLY:

I don't know. It doesn't have any return address?

LARRY:

So then Billy, can I surmise your deductive powers then assume any piece of mail with no return address could be a mail bomb.

BILLY:

C'mon what are you guys doing. This is ridiculous.

HERB:

C'mon Billy play along with us. It's been a long day for Dr. Morgan and me.

BILLY:

No of course not. I get lots of mail with no return address.

LARRY:

Perhaps we might want to look at the envelope in the light or shake it up to see if we can hear anything.

(Billy hold it up to the light and shakes it.

BILLY:

Looks like there's another envelope in side, and some metal pieces.

HERB:

Can you tell what the metal objects are? Can you make them out in the light?

BILLY:

No. I can't seem them in the light. But they sound like nails or tacks or something like that.

LARRY:

How can you be so sure? Maybe the metal is packing for a gas chromatograph.

BILLY:

Well I wouldn't know that. I've never worked with a chromatograph. But sure it could be that.

LARRY:

And this is a chemical research facility, with hundreds of chromatographs around.

BILLY:

Yeah, but wouldn't a vendor have a return address of their company on the envelope.

HERB:

He's got a point there Larry.

LARRY:

That's true. But what if it's from another chemist, a colleague who just wants me to try some new chromatograph or distillation packing. They might not put any return address on the envelope, in their haste to get it out. You know how haphazard research people are. What about the handwriting on the address, Billy, is that significant?

BILLY:

Other than its pretty sloppy. No. Actually it looks like something my high school algebra teacher would write on the board.

HERB:

Now that's good Billy. Mathematicians have pretty sloppy handwriting.

LARRY:

Boy that's for sure. That guy back at Berkley, that helped with that paper. You could barely decipher that mathematics. I give you a point for that analysis Billy. Now what do you think is in the envelope?

BILLY:

I still think it's a mail bomb.

HERB:

Oh, c'mom Billy, get off that stupid tract.

LARRY:

Well, Billy, then you're saying someone wants to kill me. I must have some enemies somewhere willing to go to great lengths. So I should have some idea of who would like to do me in.

BILLY:

OK, look this is starting to get pretty ridiculous, let's just rip this thing open and go home already. (Looking at his watch) It's getting close to 5.

LARRY:

No no Billy. We're not gonna rip anything open just yet. So shouldn't I have some idea of who my enemies might be, if they're going to blow me up.

BILLY:

Not necessarily. That unbomber guy killed some forest service ranger, and than some executive from IBM. It was all pretty random.

LARRY:

Oh that's ridiculous Billy. You can do better than that.

HERB:

Wait a minute Larry, that's not so ridiculous.

LARRY:

So what, you think it's a mail bomb too?

HERB:

No of course not. But the kid's logic is ok, that's all I'm saying.

BILLY:

Hey Doctor Morgan, you've been asking me all this time what I think it is. You're the scientist with the scientific method. What do you think it is?

LARRY:

Well, ok, I think we've played this game long enough. So much for the power of the scientific method.

BILLY:

Wait a minute Dr. Morgan. What do you think is in the Envelope?

LARRY:

What do I think is in there. Well Billy, here's what I think. Anyone who would send me a package, with no return address, addressed as sloppy as that, himself couldn't much care what's in there so why should I. It can't be anything important, not sent in that slipshod manner, so I'm just going to throw it out. Throw it in the trash Billy.

BILLY:

Oh no. That's a cop out. C'mon let's open it. I'm just gonna rip it open right now. (Lifts up envelope and prepare to rip it open.

LARRY: (Very forcefully, almost shouting)

Don't you dare open that damn envelope, Billy! You just throw it back in that trash can before you leave. I don't care what's in that package. I've just applied the scientific method, and I don't care what's in there. C'mon we've all had enough fun for the day. Let's get out of here, I've got a 30th wedding anniversary to attend.

HERB:

That's a great idea Larry. Your best today. I've got to get to temple tonight.

(Billy gets up and throws the envelope in the trash, and begins to walk into the darkness of the stage as he speaks)

BILLY:

Goodbye good doctors. See you Monday. I'll be working on that scientific method tonight. After all the shit you just put me through it better work for me.

HERB:

Good luck, Billy. It'll work for you, don't worry. You were a good sport today.

LARRY:

See you tomorrow morning Herb. Looking forward to your Nobel ceremony. And remember I want to talk to the Rabbi, check out that word. You may owe me a months worth of lunches.

HERB:

Yeah, but do it after the service, ok. And good luck tonight, pal. Maybe you'll get that Nobel tonight before me.

LARRY:

Maybe. I'm thinking of asking for that sabbatical and going back to Berkeley for a year. Marilyn and I haven't been back there for a while. It would be fun to relive those years again, teach for a year. Thanks Herb. Thanks for everything.

HERB:

Now you're starting to apply that scientific method properly. Go for it. Gibbs can get along without you for a year. I might not be able to, but Gibbs will survive. See ya tomorrow morning.

(Herb leaves the lights for the darkness of the stage. Larry turns and looks at the envelope in the trash can. Walks over and takes it out, looks at it and holds it up to the light. Threatens to tear it open but stops, walks back over to the waste basket and drops the envelope back in. Then leaves the lab for the darkness of the stage. After a minute, lab still lit Billy wanders back into the lab and takes the envelope out of the waste basket. Just like Larry looks at it and hold it up to the light. Ponders what to do next and then just rips it open. Some metal packing falls out on the lab bench, Billy puts it back into the envelope and leaves it on the table, writes a note on the envelope and leaves the lab. Stage lights off.

THE END

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