

GALILEO WALKING AMONG THE STARS

Cast of Characters

Raphael, scientist, 58.

Jae, 26, Raphael's last student, currently a postdoctoral fellow running Raphael's lab.

Galileo, 60, also Professor 2

Walter, 60's Raphael's father

Kepler, 66. Astronomer and mathematician. (may be doubled with Walter), Professor 1

Thomas Harriot, 57. Oxford mathematician and astronomer

Gene Kelly

Professor Marks, 50's (may be doubled with Harriot)

The setting: a bedroom with a very large window. A hospital bed is center stage with the foot of the bed facing the audience. There are a few plants which are dying scattered about.

The set is dimly lit. Jae walks to center stage.

JAE

Before I begin, I'd like to thank the department and Professor Marks for inviting me to speak. Today I'll be talking about new kinds of materials to target cancer. My particular interest lies in targeting brain cancer or glioblastomas which is the most deadly of cancers.

Professor Marks enters.

PROFESSOR MARKS

Gentlemen, what do you think of this candidate?

Professor 1 enters.

PROFESSOR 1

Interesting. Certainly fills a quota.

JAE

This particular kind of cancer involves cells that migrate from the original tumor, so that removal by surgery of the entire cancer is not possible.

Professor 2 enters.

PROFESSOR 2

Ambitious project.

PROFESSOR 1

Ambitious? I'd call it naïve.

JAE

The key to this cancer's deadly behavior is also the key to targeting. Glioma cells migrate, and to do so, they must alter their environment. If we can target how they do this, we can target them.

PROFESSOR MARKS

Yes. A lot of people have claimed to target these cells, but as we all know, the targetting, if you can call it that, has resoundedly failed in every case.

JAE

Well, there is evidence...

PROFESSOR MARKS

If you're talking about James, we know it. Not very convincing.

JAE

I see. Well, our hope is that through a high throughput screening...

PROFESSOR 2

Everyone puts all their hopes in high throughput screening.

PROFESSOR 1

And everyone fails.

PROFESSOR 2

Every time.

JAE

The strength is that we apply known techniques...

PROFESSOR 1

Does she have the background for this sort of research?

PROFESSOR 2

Aren't you a chemist?

PROFESSOR 1

You should stick to what you know.

PROFESSOR 2

Not take on such far-fetched projects.

JAE

But these are the important ones.

PROFESSOR MARKS

It is important that you are able to do the work.

JAE

Of course.

PROFESSOR 1

Of course, indeed.

PROFESSOR MARKS

You are outside of your field. And unfunded. And your data is very... preliminary.

PROFESSOR 2

Unreproducible.

PROFESSOR 1

Unfounded.

PROFESSOR MARKS

And unfundable.

JAE

We have a grant.

PROFESSOR MARKS

Professor Seaverns has a grant.

PROFESSOR 1

And that's going to end.

PROFESSOR MARKS

And you'll need to renew.

JAE

I know.

PROFESSOR MARKS

So what will you do? You don't have the data, its not clear you even have the background, and your publications are modest at best. How do you plan to succeed?

JAE

I... I will.

Raphael enters.

RAPHAEL

Absolutely. Tell them.

PROFESSOR MARKS

Well, I think we've heard enough. Gentlemen.

The professors leave. Jae and Raphael look at each other. Jae leaves.

Raphael sits on her bed. She stands and addresses the audience.

RAPHAEL

Death is on my mind and in my bones. Quite literally, in fact. I wake every morning-- a miracle in its own right, I'm told-- and say, today I die. I try it on. It doesn't fit. It doesn't fit at all. There is so much still to do, to learn. I want to scream out, "It doesn't fit, you bastards. Take it back." But it seems there are no bastards. Death, it seems, is a dictator. But I don't think it's a person. The closest I've seen it so far is a look. This look people have when they see you dying. It's an expression of worry and pity... and the need for it to be done with. It's like adolescence: you can't wait 'till it's over, then it is and you don't know where it went. Except for when death's over... well, you probably don't look back, whatever you do.

Raphael stands, and comes to the front of the stage.

I have metastatic bone cancer. It started as breast cancer. Very vogue. It may very well be the first time I've been so trendy in my life. Scientists aren't exactly known for their trend-setting ways. I've donated my body to science, seems only fitting. I may still do my best work when I'm dead: a professor's dream. It's funny. When I was in med. school and we were working on Wilma, our 82 year old cadaver, she had bone cancer. We had to saw off her leg. Hemisect her from the mid section down with a bone saw. In the prestigious universities, they do it for you, but where I went we did it ourselves. I couldn't get leverage, so I crawled up on Wilma. Mind you, this was thirty eight years ago, now. There weren't a whole lot of women in med. schools, and they certainly weren't mounting cadavers. But, someone had to, and I think my colleagues were a bit squeamish. So there I was, on Wilma, sawing away. Then she cracked. And again. I pressed down on her hip and she gave way. There was nothing left. Her femur came apart in my hand. Metastatic bone cancer: it eats away 'till there's nothing left. Except when I dream. And then I dance. I have never once, not once, done science in my dreams, but I have danced with Gene Kelly almost every night of my life.

She goes back to her bed and climbs in.

Jae enters slowly and cautiously. She sees that Raphael's eyes are closed and turns to leave.

Come back. RAPHAEL

You were sleeping. JAE

I'm awake. RAPHAEL

I can come back later. JAE

Sit. RAPHAEL

(*unhappily*) JAE

Thanks. *She sits with hesitation, ready to spring.*

What brought you by? RAPHAEL

Just wanted to see how you're feeling. JAE

My health is not polite conversation. RAPHAEL

Sorry. I brought you this. JAE
Jae hands Raphael the little jack 'o' lantern.

I thought you might want a little festivity. JAE CONT.

Thank you. RAPHAEL

Do you need anything? JAE

RAPHAEL

Three years and funding.

JAE

Isn't that always the way?

RAPHAEL

What did you want to talk about?

JAE

Professor Marks wants to see me.

RAPHAEL

Dan? That's good. About the position.

JAE

He's a smarter guy than that.

RAPHAEL

Your talk wasn't that bad.

JAE

Are you kidding? It was horrible. I fell apart like a first year at quals.

RAPHAEL

They came after you.

JAE

Why?

RAPHAEL

They want to know if you're tough.

JAE

Obviously not. I don't even know why he wants to see me. He may need an extra lecturer next fall.

RAPHAEL

He needs a prof. He needs one who can design targeting systems for glioblastomas.

JAE

I can't do it without you.

RAPHAEL

You can. You're the best there is.

JAE

I'm not.

RAPHAEL

You will be.

Jae looks at Raphael and decides not to argue the point.

JAE

I'm not sure I want to have my life sucked away.

RAPHAEL

It's a job, not a vacuum.

JAE

It's a political minefield strewn with half-baked theories, arrogant fools, and neurotic egotists. And you can't do it part time. It's a vacuum and in goes your life.

RAPHAEL

Only if you let it.

JAE

Right.

RAPHAEL

You have to set boundaries. Decide where the job begins and ends.

JAE

Don't lie to me.

RAPHAEL

Then its harder than you can possibly imagine if you let it be.

Jae stops and smiles at Raphael. Pause.

JAE

Did... do you like being a prof?

RAPHAEL

(with great assurance)

Yes.

JAE

You're happy.

RAPHAEL

(with less confidence)

Yes.

JAE

And you feel like you made your mark? You can see your legacy? Your impact?

RAPHAEL

Absolutely.

JAE

I should go. I have to meet with Marks.

RAPHAEL

Knock his socks off.

JAE

Can I come back later?

RAPHAEL

Always. Please.

JAE

I hope you feel better.

RAPHAEL

Thanks.

JAE

Feel better. Bye.

RAPHAEL

Good bye.

Jae takes off. Raphael watches her go, then turns to sleep.

Galileo enters. He has one of his telescopes which he sets up in the window and points it to the moon. He looks for some time, then looks again.

RAPHAEL

Who are you and what do you think you're doing?

GALILEO

(without turning to her)

I am observing. I need my books and my paper and pens.

RAPHAEL

Excuse me?

GALILEO

I need my things.

RAPHAEL

What makes you think you can just come in here and observe at will?

GALILEO

It's a good window.

RAPHAEL

That's no excuse. What are you looking at?

GALILEO

The moon.

RAPHAEL

Let me see.

Raphael dives towards the telescope. Galileo pushes her back.

GALILEO

And just who do you think you are?

RAPHAEL

Raphael. And who are you?

GALILEO

Galileo Gallilei, professor of mathematics and astrology and member of the Lyncean academy.

RAPHAEL

Galileo. You cannot be him.

GALILEO

I am indeed, but you are most certainly not Raphael. He is a painter and a man.

RAPHAEL

And my namesake.

GALILEO

Did your parents know you were a girl?

RAPHAEL

I should think so.

GALILEO

Humph.

He returns to the telescope.

RAPHAEL

(leaning in)

Let me see.

GALILEO

(pushing her back)

Do not crowd me.

RAPHAEL

What's the magnification? Thirty times? Forty? I have seen planes of atoms.

GALILEO

Then why are you badgering me? Go look at your Adams. And your Eves. Go away.

RAPHAEL

Atoms. Atoms. The pieces of matter.

GALILEO

Yes, yes. You are still talking, and you have not gotten my paper or my pens or my books. That is the only matter at hand.

RAPHAEL

I'm not your servant.

GALILEO

No, my servant would be useful. Are you going to stand here and chatter incessantly? It's a shame, because this is an excellent window for viewing, and I'd hate to vacate it.

RAPHAEL

Give me a look.

GALILEO

And you'll get the paper?

RAPHAEL

Yes.

GALILEO

Go ahead. But don't touch anything.

Raphael sets to looking at the moon. She adjusts the telescope.

GALILEO CONT.

Ah! What did I tell you. Don't touch anything. Are you deaf?

RAPHAEL

I can't see.

GALILEO

That makes you blind, not deaf. Stop, stop, stop.

RAPHAEL

You're rather possessive.

GALILEO

Because it's mine. The only one like it in the world. And I have just made it. And now, I know the moon.

RAPHAEL

There are a few others, now. And with them, we've seen the expanses of the universe.

GALILEO

You've hardly seen the expanses of the universe.

RAPHAEL

More than this. Why am I arguing? You're not real.

GALILEO

I most certainly am.

RAPHAEL

You're dead.

GALILEO

But I am real. Dead and imaginary are quite different.

RAPHAEL

So you're a ghost?

GALILEO

Oh, no. Don't bring myth into this. Clouds the truth.

RAPHAEL

Then what are you?

I am here. GALILEO

Why did you come? RAPHAEL

To draw the moon. GALILEO

You drew it 400 years ago. RAPHAEL

Beautifully. GALILEO

You sketched well. RAPHAEL

GALILEO

(offended)

Sketched? Sketched! I do not now, nor have I ever sketched. I draw, as an artist draws.

RAPHAEL

Fine. You drew them. They've been drawn. They're in the past.

GALILEO

And in the present. Presently.

RAPHAEL

Are you having some sort of crisis?

GALILEO

(annoyed)

I may.

RAPHAEL

Why are you here?

GALILEO

I told you. The window has a good view. I'm not going to get any viewing done, am I?

RAPHAEL

I demand to know why you are here.

GALILEO

Raphael. Are you sure your parents knew you were a girl?

RAPHAEL

Yes.

GALILEO

But it's a poor choice of a name for a girl.

RAPHAEL

Hardly.

GALILEO

It's a boy's name.

RAPHAEL

My father loved his work.

GALILEO

That's all good and well, but to name a daughter? I loved wine, but I didn't name my girls Bacchus.

RAPHAEL

Because it's not a good name. Raphael, however, is.

GALILEO

Maybe for a boy.

RAPHAEL

For me.

GALILEO

(While speaking, Galileo wanders. He appears to be looking for something in the room. Raphael follows him)

Good painter. He painted for the people. He understood how to woo the intelligencia and intrigue the populace. You can't take your eyes off his work. It draws you in. Unobstructed perfection.

Galileo goes back to observing with his telescope.

RAPHAEL

You know you're dead.

GALILEO

Good Lord, you're still talking. We had a nice chat, and it's over. Quiet.

RAPHAEL

What was death like?

GALILEO

Long. Now, please let me work.

RAPHAEL

You already drew the moon. You know you did it. Why is it so important to do it again?

GALILEO

Because it was wonderful. I stood and saw the vastness, the detail, the shattering depth of creation. And I will again.

RAPHAEL

Why not draw something new?

GALILEO

There is nothing new. I have seen it all.

He goes back to sketching.

RAPHAEL

The moon is no big thing. You may have seen it, but others stepped on it. Touched it. Held it's pieces in their hands.

GALILEO

Others. The magnificent others that are always thrown about when the speaker has no great conquests of their own to share.

RAPHAEL

I have great conquests. I've seen atoms. Planes of atoms all lined up. Perfect crystals. Without theory or symbol or schematic. There. Real and there.

GALILEO

I think the poetry's gone out of science.

Galileo starts to pack up.

RAPHAEL

Where are you going?

GALILEO

I obviously won't get any work done. My time is precious.

RAPHAEL

But you're dead.

GALILEO

And time marches on nonetheless. Good day.

He leaves.

RAPHAEL

Come back! Come back! He was here. Come back!

Raphael starts to struggle breathing.

BLACKOUT.

Jae enters in interview attire. She is giving a lecture. Professor Marks enters and stands on the side.

JAE

Approximately 15,000 people will be diagnosed with metastatic brain tumors this year in the US. The five-year survival rates have been improving, but the tools at hand to treat brain tumors, particularly metastatic brain tumors are thoroughly inadequate. The tumors are associated with hallucinations, paralysis, seizures....

Lights up on the room. Jae exits. Raphael is sitting on the bed, with her knees tucked under her chin, listening. Her bed now contains a mannequin which looks like her. Tubes abound.

RAPHAEL

All I can think of is Arnold Schwarzenegger saying "It's not a tumor".

Raphael looks at the body in the bed.

JAE

The cells migrate widely. There is one system that allows us to reach them, no matter where they go. The circulatory system.

PROFESSOR MARKS

You'd do I.V. administration? What about the side effects?

JAE

Good question. We target the vessels of the brain, which, thanks to the blood-brain-barrier, are different than all the other vessels in the body.

PROFESSOR MARKS

Ok. So you get there. How about across the barrier. It's called that for a reason.

JAE

We have built synthetic blood-brain-barriers, and we have identified fourteen compounds that can cross them.

RAPHAEL

Good. Don't back down.

PROFESSOR MARKS

Synthetic barriers?

JAE

As a first test.

PROFESSOR MARKS

So you have no in vivo data?

JAE

Not yet.

RAPHAEL

Don't take it personally. Stand your ground.

JAE

But we will.

PROFESSOR MARKS

I see. Well, I'll leave you here at Prof. Layard's office. He'll take you to youe next meeting.

JAE

Thank you.

Professor Marks leaves.

JAE CONT.

But the synthetic barrier has shown similar results with drugs tested in vivo previously as well as drugs already in the clinic.

RAPHAEL

What are you doing? Tell him when he can hear you. Good Lord. You need to get it together, Jae. You're better than this. So much better.

The lights dim on Jae and she exits.

RAPHAEL CONT.

(Looking at the body) So this is me. And yet, here I am. I think I might retch. I'd like back in. I'm not done. Hello? I want the bastards. I AM NOT DONE.

GENE enters in an overcoat and umbrella, dancing to “Singing in the Rain”.

Gene.

He dances once more around. The SOUND of RAIN is heard. He stops in front of her and offers his hand. Raphael dances with him. As she becomes more upset, they dance faster and with more forcefulness.

I need to understand something. You have to tell me what’s going on. Talk to me. Gene? Galileo was here. Well, of course not... I guess I don’t have to explain that to you. Galileo. I was going to be him, Gene. And you. I was going to do something, something of weight and substance and impact and good. Something good. I should still do something. I still should. This shouldn’t be. Don’t you see? There’s still so much more!

Galileo enters with his telescope and a bottle of wine.

GALILEO

And just what is going on here! This is treachery!

Gene, startled, drops Raphael. He exits.

RAPHAEL

Treachery? Good Lord, get a grip. Why are you back?

GALILEO

I came to make amends but you’ve already thrown yourself at another man.

RAPHAEL

There was no throwing involved. He threw himself at me.

GALILEO

Ah HA! So there was throwing. Terrible, terrible!

RAPHAEL

And you didn’t throw yourself at women?

GALILEO

I was unabashedly delightful. No one could resist. I exuded charm.

RAPHAEL

Really? What charms are those?

GALILEO

I have work to do.

RAPHAEL

Fine. I have dancing to do.

GALILEO

You don't want to see the stars?

RAPHAEL

Seen them. I'm going to dance. Dance into my grave. Gene!

GALILEO

Good. Because I have a great deal of work to do.

RAPHAEL

Fine. Just stay out of my way.

Gene returns. The music starts and they dance. Galileo keeps trying to get by them to look around, but they block his way. Gene dips Raphael.

GALILEO

This is very distracting!

Gene drops Raphael. She hits the floor with a thump.

RAPHAEL

What is wrong with you?

Gene exits. Raphael remains on the floor, annoyed.

GALILEO

(pouring a glass)

Would you like some wine?

RAPHAEL

That's mine.

GALILEO

It was in the closet.

RAPHAEL

You were in the closet?

GALILEO

I got lost. Would you like some?

RAPHAEL

You're offering me my own wine.

It's quite good. Try it. GALILEO

I don't drink. RAPHAEL

At all? GALILEO

Very little. At weddings and wakes... RAPHAEL

Then here's to the bride. GALILEO

(taking the offered glass)
The bride. *(She takes a sip)* And the groom. *(She takes another sip)* RAPHAEL

Cheers. To weddings. GALILEO

And wakes. RAPHAEL

And all that lies between. GALILEO

And to the wine. RAPHAEL

The wine. GALILEO

The tonic for the soul. RAPHAEL

Liquid music. GALILEO

Oh, I like that. Liquid music. RAPHAEL

Thank you. GALILEO

RAPHAEL

Then let us drink a symphony.

GALILEO

Salute.

They drink.

RAPHAEL

Why'd you come back?

GALILEO

There might be something to see.

RAPHAEL

You just wander around looking at what you've already seen? Reliving the good old days?

GALILEO

No. Of course not.

RAPHAEL

Have you seen anything new?

GALILEO

Recently?

RAPHAEL

Yes.

GALILEO

Tell me about the atoms.

RAPHAEL

The atoms? You mean my Adams and Eves?

GALILEO

The atoms, if you've really seen them.

RAPHAEL

I prepared samples for microscopy. The first took two weeks. It needed to be wafer thin, but the material was so fragile that as soon as I polished it nearly enough it turned to dust. Finally, I got one and we went to the microscope—and nothing.

GALILEO

What do you mean nothing?

RAPHAEL

Nothing. As in nada.

GALILEO

But there must have been something.

RAPHAEL

We were looking for the interface between a glass and crystals but there was no glass, so I kept making samples.

GALILEO

There was no glass, but were there crystals?

RAPHAEL

Yes.

GALILEO

So there was not nothing. There was something. You must be accurate.

RAPHAEL

And you must be quiet.

GALILEO

I am only seeking the truth in the matter.

RAPHAEL

You are seeking semantics over substance. The story is finished.

GALILEO

Again with the inaccuracy. There is more. Much more.

RAPHAEL

That you will not hear because I will not tell it.

GALILEO

Of course you will.

Silence.

GALILEO CONT.

Come, now...

Silence.

GALILEO CONT.

Finish the story.

Raphael goes to her desk and begins writing.

GALILEO CONT.

This is ridiculously childish. What are you doing?

RAPHAEL

Making notes.

GALILEO

About the story.

RAPHAEL

No.

GALILEO

Then what?

RAPHAEL

Experiments. Watering schedules for my roses. Although those aren't faring well now.

Raphael gets up and looks out the window.

GALILEO

(Following her)

They need fertilizer.

RAPHAEL

And pruning.

GALILEO

I've never seen a purple rose.

RAPHAEL

It's a hybrid. Homemade.

GALILEO

You grafted it?

RAPHAEL

(with great pride)

I did.

GALILEO

What of the atoms?

RAPHAEL

You're back to that.

GALILEO

I have this funny curiosity. Always wanting to know. *(with intensity)* Tell me.

RAPHAEL

Without interruptions?

GALILEO

You have my word.

RAPHAEL

The annual meeting was approaching and we knew our competitors would have something. The night before the prof's talk, we had another sample. It was two am. The grad. student who ran the TEM-- the transmission electron microscope-- had stayed. He gave up his evening and waited into the night, just in case. We went down to the scope, loaded the sample, and as he focused in, there was the glass.

An images of dots is projected on the stage. As she describes the crystal forming, the dots move into a regular pattern.

You could see the planes of atoms of the crystals, and then the disorder... but as we watched, the disorder changed. The atoms came into lines-- they joined the planes. I watched crystals form. I saw the atoms, and I saw them move.

GALILEO

Intriguing.

RAPHAEL

Intriguing? Intriguing! We saw nature become... we learned its secrets.

GALILEO

The nature of stuff?

RAPHAEL

Yes.

GALILEO

I learned the nature of God.

RAPHAEL

Please.

GALILEO

The nature of the universe, the principles by which it exists. The nature of God.

RAPHAEL

God? So many do so little or even undo so much in the name of God.

GALILEO

Careful.

RAPHAEL

I have seen God used as an excuse for the darkest parts of humanity too many times. If history has taught us nothing else, it has taught us that God is not a reason for anything.

GALILEO

It is the reason for everything.

RAPHAEL

Then God is deaf.

Raphael pauses, struck by the words, then looks at the body in the bed.

GALILEO

The atoms moved into order.

RAPHAEL

They danced.

GALILEO

Danced. What is it with dancing?

RAPHAEL

Dance with me.

GALILEO

I do not dance.

RAPHAEL

Pity. I have danced since the day I was born, and I will dance until the day I die. So, I had better dance today.

Raphael stops, shaken at the realization. Walter enters.

WALTER

You're late.

RAPHAEL

Dad?

WALTER

We have to enter between 2 and 2:30. It was the only tickets I could get. Who's your friend? Walter Seaverns. Pleasure to meet you.

RAPHAEL

He's not really....

GALILEO

Call me Cosmos.

WALTER

Walter.

RAPHAEL

What are you doing here?

WALTER

I work here.

RAPHAEL

Where?

WALTER

Are you all right? The museum. Here. We've got tickets for the Expressionists.

RAPHAEL

I remember.

WALTER

You work too much. All right then, we'll need a ticket for Cosmos. Are you also a professor at U of C?

GALILEO

U of C?

WALTER

Chicago. Raphael's there. And up for tenure in six months.

GALILEO

What I would give for tenure.

WALTER

You sound just like her.

RAPHAEL

Dad, aren't we late for the exhibition?

WALTER

I have to get another ticket.

RAPHAEL

They're impossible. *(to Galileo)* You have to go away.

WALTER

(embarrassed)

My daughter. I can get one. One of the benefits of being the number one volunteer guide. I'll be right back.

Walter exits.

GALILEO

He passed on?

RAPHAEL

Yes.

GALILEO

When?

RAPHAEL

Right before I got tenure. But he thinks this is then, not now. We went to the exhibit. Why is this happening? I'm reliving it.

WALTER

(returning)

All right. We're set.

GALILEO

I really should go.

WALTER

Nonsense. We've got the ticket. Come on.

Walter grabs Galileo's arm and drags him along.

Raphael follows.

WALTER CONT.

This exhibit's a real coup for us. They were thinking of keeping it on the East Coast, but we fought long and hard to bring it here. Of course, the Art Institute has so many wonderful paintings... I am so glad you convinced me to come here...

RAPHAEL

I didn't do anything, Dad.

WALTER

Has she told you about her conjugation technique?

GALILEO

Conjugation technique?

WALTER

She puts on these polymers and proteins onto drugs so that they don't get metabolized before they're effective. She's a biochemist extraordinaire. *(to Raphael)* I've been practicing my scientific vocabulary.

GALILEO

She's only told me about the atoms. Polymers and proteins...

RAPHAEL

Alright, Dad. Enough.

WALTER

Here, then.

RAPHAEL

Starry Night.

An image of Van Gogh's "Starry Night" is projected on the stage.

GALILEO

And the heavens opened.

WALTER

Expressionism at its finest. The spiel I'm supposed to give is along the lines of you will notice the bold, strong brush strokes. The swooping curvature to the stars. The way the trees reach and undulate to the heavens.

GALILEO

We reach to the stars in our quest for God.

RAPHAEL

It is more extraordinary than I even remembered.

GALILEO

It's our hope. You must forgive me... I must be going.

WALTER

Now?

GALILEO

I'm afraid, yes. But.... thank you. Thank you. Captivating.

Galileo hugs Walter.

WALTER

Any time.

Galileo exits.

WALTER

He's got spunk.

RAPHAEL

Dad...

She hugs him.

WALTER

Oh! I love you, too. Are you all right?

RAPHAEL

I've missed you.

WALTER

I'm here.

RAPHAEL

Don't leave me Dad. Please.

WALTER

They have you under too much pressure. You need to stand up for yourself.

RAPHAEL

I do, Dad, I do. Like a tiger.

WALTER

Good. *(Beat)* I like him.

RAPHAEL

He likes you.

WALTER

Then he has good taste. It's nice to see you're seeing someone.

RAPHAEL

I'm not seeing him.

Pity.

WALTER

God, Dad...

RAPHAEL

That one just seems smarter than the others.

WALTER

He is.

RAPHAEL

The smart ones age well.

WALTER

Perhaps. The problem is you've set the bar too high.

RAPHAEL

I admit it's a challenge to meet the level of the Institute's greatest tour guide of all time, but that one... has promise.

WALTER

I'm glad you approve. Dad, I need to know about dying.

RAPHAEL

Good Lord, why?

WALTER

I'm not ready to.

RAPHAEL

I should hope not.

WALTER

How do I stop it?

RAPHAEL

Dying? I don't know. Vegetables? Eat lots of greens?

WALTER

I need more time.

RAPHAEL

Raphael, are you sick?

WALTER

No. I'm fine.

RAPHAEL

WALTER

You're sure? What's wrong?

RAPHAEL

Nothing. I'm fine.

Walter looks almost stricken.

RAPHAEL CONT.

It's hypothetical. I've been thinking about it. I have this colleague...

WALTER

You're all right? You're sure?

RAPHAEL

Yes.

WALTER

Don't you ever do that to me again.

RAPHAEL

I'm sorry.

WALTER

What is this all about? Are you worried about tenure?

RAPHAEL

In a sense, I guess.

WALTER

What do you care? If you don't get it, they're fools and you go somewhere else.

RAPHAEL

That's easy enough for you to say.

WALTER

It's easy enough for anyone to say. To believe it is the tough part. You are smart. And creative. And you've done well.

RAPHAEL

A smattering of ideas. How different would anything be without me? I haven't changed anything.

WALTER

For someone who hates change, you want to instigate it a lot. What do you want?

RAPHAEL

Earth shattering something. If I could end one disease, end one person's suffering, that would be enough.

WALTER

Just one? There are so many.

RAPHAEL

I'm a failure. Everything has been to succeed at this, and now I won't.

WALTER

No one can say you're not driven.

RAPHAEL

What do I do?

WALTER

I don't know, honey. Keep working. Work with brilliant people. You know better than I. Try not to worry so much. I have to give my tour.

RAPHAEL

Stay a little while longer.

WALTER

I can't. Come to dinner tonight. I'm making roast chicken.

RAPHAEL

Sounds wonderful. I love you so much, Dad.

WALTER

I love you, too.

Walter exits.

Galileo returns.

GALILEO

This cannot wait any longer.

RAPHAEL

What cannot?

GALILEO

You must tell me your secret.

RAPHAEL

My secret?

GALILEO

You know.

RAPHAEL

What?

GALILEO

You know. You must.

RAPHAEL

What? What? I know no secrets.

GALILEO

I have searched every corner, every window of every room in every place, and I know this is the one. You are the one. You must tell me.

RAPHAEL

I don't know what to tell you. I don't know what you're talking about.

GALILEO

Please.

RAPHAEL

Stop it!

Galileo pauses. Raphael goes to the window.

GALILEO

I was many things, but I was never perfect.

RAPHAEL

That's for sure.

GALILEO

(annoyed, then he halts and changes his tone)

I have spent four hundred years trying to leave. I have been looking and searching and periodically even hopping about...

RAPHAEL

But never dancing...

GALILEO

Most certainly never dancing, and all I ask is that you help me. I want to walk among the stars. It is my destiny.

RAPHAEL

I don't know how to help you.

Galileo looks at her pleadingly.

RAPHAEL CONT.

I don't.

GALILEO

Your Van Gogh touched them with his brush. I wonder if he touches them even now. I should touch them.

RAPHAEL

Here. I have a copy. Take it. *(beat)* It's the best I can do.

Raphael pulls a book from the shelf. Papers fall out with it.

GALILEO

(picking up the papers)

This! This is it!

RAPHAEL

It's nothing.

She tries to take them back but Galileo holds them away.

GALILEO

Again you seem to exhibit a very confused understanding of nothing. These are hardly nothing. I was right.

RAPHAEL

Give that back. For god's sake.... I was 8.

GALILEO

Age 8? Really?

Galileo stands up on a chair, blocking Raphael and looking at the drawings. During the following, Galileo is moving about the furniture, alighting on tables and chairs et al., with the drawings as Raphael shadows him. They should move as if dancing.

GALILEO CONT.

You do have a secret.

RAPHAEL

That I made sketches as a child? It is hardly a secret.

GALILEO

This is no sketch.

RAPHAEL

Sure it is.

GALILEO

How long did this take you? A month? Two?

RAPHAEL

Four. A summer and a bit. I'm slow.

GALILEO

You're meticulous. This is to scale.

RAPHAEL

Theoretically.

GALILEO

But you don't build ships.

RAPHAEL

Of course not. I do what matters.

GALILEO

And knowing what lies beyond the eye doesn't matter?

RAPHAEL

When knowing will cure a disease it does. When it feeds a child's dream...

GALILEO

It is a miracle.

RAPHAEL

But it doesn't change a single life.

GALILEO

A child's dream?

RAPHAEL

I'd like them back.

GALILEO

You never sought to fly to space?

RAPHAEL

I get airsick in elevators.

GALILEO

Pity. *(beat)* What it would be to fly. The propulsion system seems lacking but with some adjustments...

RAPHAEL

It's a sketch by an eight year old. Even if it would work, it would be completely unsafe.

GALILEO

One of the great benefits of being dead is that I have little concern for my safety. It simplifies things greatly. I want to build it... with modifications.

RAPHAEL

You?

GALILEO

Yes. With modifications.

RAPHAEL

You're dead.

GALILEO

Must you harp on this yet again?

RAPHAEL

Can't you just fly into space?

GALILEO

Fly? Do you fly?

RAPHAEL

No.

GALILEO

And have you seen me fly?

RAPHAEL

No.

GALILEO

And do I appear to have the trapping of flight? For instance, wings?

RAPHAEL

Don't patronize me.

GALILEO

If I could fly, I can assure you I would, but I cannot, and I have seen everything I can from the ground. I don't want to just look any more. It

is to gaze at the surface of the ocean and imagine it's depths. I want to swim, to sail, to walk among the stars.

RAPHAEL

How?

GALILEO

I am working that out. I expect it to be quite simple in principle.

RAPHAEL

And in practice?

GALILEO

(passionately)

Quite the challenge.

RAPHAEL

There are a few more papers. Just little things. Do you understand that I'm a biochemist, not an aerospace engineer?

GALILEO

So?

RAPHAEL

I look at proteins. Polymers. Cellular interactions.

GALILEO

You've seen cells, too?

RAPHAEL

That's where the real fun lies. Here.

She hands him a pile of papers.

Good luck to you. I am leaving.

Raphael goes to the door. She can't go through.

RAPHAEL CONT.

What is going on here?

GALILEO

You weren't gone long.

RAPHAEL

Why can't I go through?

GALILEO

Doors are funny that way.

RAPHAEL

Doors are not funny, they are doors. Why am I stuck?

Galileo gestures to the bed.

KEPLER

(entering in a flurry and almost running over Raphael)

Finally! Galileo! Galileo! I thought I'd never find you.

RAPHAEL

(as Galileo puts her down)

And you are?

GALILEO

Johannes Kepler. One of the best friends a man could have.

KEPLER

It's nice to hear you say that. I worried when the telescope didn't arrive.

GALILEO

But it did.

KEPLER

To the Emperor.

GALILEO

Politics. We all must play politics.

KEPLER

Even with our friends?

GALILEO

You need some wine.

KEPLER

I am a little tired. Italy's not what I expected.

GALILEO

Pardon?

KEPLER

I went to see your Cathedral. It no longer has a dome.

GALILEO

In Florence? It most certainly still does.

KEPLER

No. Come and see. Here. Look out the window. That's it, is it not?

GALILEO

Do you think you're in Florence?

KEPLER

Where else would I be? You're here. I'm here. Now let's see the telescope. Magnificent.

He goes to the telescope and looks through.

KEPLER CONT.

This is so much better than I imagined. I worried with the church business and all, you might be too busy. Things might not work out. This is a funny material.

GALILEO

It's plastic.

KEPLER

Plastic?

GALILEO

What have you been doing?

KEPLER

Looking for you, of course.

GALILEO

And before that?

KEPLER

Did you not get my letter? I lost my appointment. We had to sell and borrow. My mother and the witch trial. I was coming to you to see if there is something here. There's nothing left for me up North.

RAPHAEL

Dr. Kepler.

KEPLER

Johannes. Please.

RAPHAEL

Johannes, we're not in Florence.

KEPLER

Then I really am lost. But you're here. Where is here if not Florence?

RAPHAEL

Chicago.

KEPLER

I am not familiar with it.

RAPHAEL

It's a nice place.

KEPLER

How did I get here?

GALILEO

Same as I, I should think. My dear friend, might I freshen your drink?
(He pours more wine.) Have you noticed strange things occurring?

KEPLER

I'm not sure.

GALILEO

Places changing. Loved ones disappearing?

KEPLER

My wife...

GALILEO

And your children?

KEPLER

They're fine.

GALILEO

When did you last see them?

KEPLER

It was... it was just a bit ago. It's been so busy. Mother was before the church. I wrote you.

GALILEO

Yes.

KEPLER

It has been a while.

GALILEO

Yes.

KEPLER

What has happened, dear friend?

GALILEO

We died.

KEPLER

Died? Died? But I'm not dead.

GALILEO

For some time now.

KEPLER

How long?

GALILEO

350 years, approximately.

KEPLER

You're quite sure?

GALILEO

Yes.

Kepler drinks much of his wine.

KEPLER

Lovely wine. I always learn something new with you, don't I?

GALILEO

Are you all right?

KEPLER

What a theoretician I am. So involved in the abstract, I don't even notice a change in reality.

GALILEO

Would you like to help with my ship?

KEPLER

Your ship?

GALILEO

To sail into space. I want to walk on the moon and touch the sun and go far, far beyond.

KEPLER
We only die once?

GALILEO
Near as I can tell.

KEPLER
Touch the sun?

GALILEO
And go where we've never even seen.

KEPLER
I thought I would never travel further than I have to find you. It seems I will.

GALILEO
Excellent!

KEPLER
Where's the ship?

GALILEO
Here's what I have so far.
Kepler looks over Galileo's shoulder at the design. Raphael looks over Kepler's shoulder.

KEPLER
I like the sails.

GALILEO
They'll extend once we're out of the atmosphere.

KEPLER
And how do they work?

RAPHAEL
Lots and lots of photons. You ride the light as a sea.

KEPLER
(to Raphael)
This is your design?

RAPHAEL
Yes.

KEPLER

Fascinating.

RAPHAEL

Thank you.

KEPLER

We have some serious points to work out. It won't be easy to take off. And where are we going to get everything?

GALILEO

We'll have to gather it. We'll need metal, and a blacksmith, and....

RAPHAEL

I have a shop in my garage. There's some tools, and a welding set up. And there's my car... that should give you plenty of metal and parts to get started.

GALILEO

Your car?

RAPHAEL

My horseless cart. It's a wheeled vehicle with a motor—a thing with pistons which...

GALILEO

I do know what a car is. I've been dead, not dumb.

KEPLER

A horseless cart? You mean an ox plow?

GALILEO

Theoreticians...

RAPHAEL

You know cars. Excellent. Use it for parts. I won't need it anymore.

GALILEO

Your children might.

RAPHAEL

I have no children.

GALILEO

Why not?

RAPHAEL

Take the car. It'll make a great looking space ship.

GALILEO

It's rather generous.

RAPHAEL

You're welcome.

GALILEO

Kepler, come with me. We should get started on the sails.

KEPLER

All right.

GALILEO

And bring the foil.

They begin to head out. Kepler stops and turns.

KEPLER

It was lovely to meet you.

They exit. Raphael goes to follow. As she approaches the door she shivers. She sits down at her desk and makes calculations.

Jae enters with Professor Marks.

JAE

...and then, through a conformational change, we expose the protein that, when cleaved by glioma cells and only by glioma cells, creates a toxin.

PROFESSOR MARKS

This is all old news.

JAE

What's new is we have a dynamic molecular targeting vehicle. Just like a cell it can expose several receptors and respond to binding events.

PROFESSOR MARKS

Listen, it all sounds great on paper. No one's arguing that. But it just isn't developed. You have no plan for what to do when you'll fail. And you most certainly will fail.

JAE

At this one thing, we might fail. With one molecule, and one experiment. But at some point, we're not going to fail. Not because I'm smart or the people I work with are smart, but because nature already knows how to make this work. We're really copying what's been done. You can stand there and you can tell me I'm going to fail until you're

blue in the face, and that's going to help absolutely no one. Meanwhile, I've got a high throughput screening system, so I will find what actually works. And I've got a characterization project to get the structure. So, have a little faith for two seconds and see that just because things fail doesn't mean this will.

PROFESSOR MARKS

Science is not a business of faith.

JAE

Science is the greatest act of faith there is.

PROFESSOR MARKS

Yes, well... here, we're at Professor Talleson's office.

Professor Marks gestures for her to enter, then exits. Jae heaves a huge sigh.

JAE

Who was that woman? I kind of like her.

Jae exits.

RAPHAEL

I love that person. I was that person. I should have done so much. *(looking down at the body)* I was gorgeous once, wasn't I? In the right light, the right setting. I never thought I cared, but I guess I always hoped one day I'd be beautiful.

Raphael takes the pumpkin up.

RAPHAEL CONT.

Hello, fairy godmother. I have the pumpkin. I'm ready for the ball!

Gene enters in a lab coat. He taps. She taps. They shadow each other. She stumbles.

GALILEO

What an odd pastime.

RAPHAEL

Will the car do?

GALILEO

It is more than satisfactory.

RAPHAEL

You really think you can make this fly?

GALILEO

I believe it will fly. All it needs is off the ground. You keep the—mustang, is it—rather well.

RAPHAEL

I walk everywhere. But when I'm feeling wild, I drive.

GALILEO

You don't have many people visiting.

RAPHAEL

No. They already came.

GALILEO

Your family?

RAPHAEL

All dead and gone. Except my cousin. But she's got three kids. She can't afford to come and watch me die. I didn't mean to do this alone.

GALILEO

Hardly seems that you are. People in and out and in...

Walter enters in a hurry. He struggles to breathe.

WALTER

I was afraid you weren't coming.

RAPHAEL

Dad.

GALILEO

...and in.

WALTER

(running over to Galileo)

You've brought your friend again.

GALILEO

Exceptional to see you again.

WALTER

It's all my pleasure. We're seeing something a bit different today, though.

GALILEO

Brilliant. I'm most ready.

WALTER

Excellent, excellent. This way. Close your eyes.

RAPHAEL

Both of us?

WALTER

Please.

Raphael and Galileo do as they're told.

WALTER CONT.

All right, this way. Stand here, and you here.... Before you open your eyes... well, just open them.

They do. As they do, a painting of Raphael standing among the planets with the sun in her hand is projected on the wall.

RAPHAEL

Oh, dear God.

WALTER

Do you like it?

RAPHAEL

I never....

WALTER

I wanted it in the museum, proper, but beyond the political issues, that's the graveyard. This is the life of the place. Look at its brothers.

Walter gestures and the painting is surrounded by illuminations of Manet's "Bar at the Follies-Bergère", others.

RAPHAEL

Dad, you painted this? But when...

WALTER

(gesturing for her to be quiet)

We're not really supposed to be in here, so you have to be quiet. This is all going up tomorrow. Except you, of course.

GALILEO

This is your work?

WALTER

Yes.

GALILEO
Quite the subject.

WALTER
My masterpiece. My only masterpiece.

RAPHAEL
Dad...

GALILEO
And this?

WALTER
The Orion nebula. *(to Raphael)* It's from one of your books.

RAPHAEL
But you didn't paint this.

WALTER
Do you not see what's in front of you?

Raphael begins to speak, stops, starts, then hugs him.

GALILEO
What it would be to touch the sun.

WALTER
Have you ever been to Italy?

GALILEO
I have.

WALTER
You haven't seen Raphael's painting of the Madonna in the Vatican?

GALILEO
I have, indeed.

WALTER
Painting a noble subject helps the work.

GALILEO
Being a great painter never hurts.

WALTER
Of that, I would know little.

RAPHAEL

That's not true.

WALTER

The Madonna was his last painting. He died shortly after. Is there a box? Or a chair.

Galileo pulls one out for Walter to sit on.

WALTER CONT.

Thank you. *(to Raphael)* We need to talk.

RAPHAEL

About what?

WALTER

I've made arrangements.

RAPHAEL

For?

Walter produces a trowel, and a potted sunflower.

RAPHAEL

You want me to plant this?

WALTER

And me.

RAPHAEL

What?

WALTER

I've made arrangements with a hospice. They'll see that I go to the crematorium. I don't want a funeral. But I want you to place me under the flower out near where we fished.

RAPHAEL

You have to be kidding.

WALTER

I am absolutely serious.

RAPHAEL

I'm not even sure it's legal.

WALTER

I'm not asking you to cremate me on a long boat with full honors. I just want a plant.

RAPHAEL

You wanted a long boat?

WALTER

It occurred to me. We need to go through papers.

RAPHAEL

This is.... Tell me about the painting.

WALTER

It will be here for a while. I won't. We have to take care of things.

RAPHAEL

I will.

WALTER

You don't have the first idea what you're doing.

RAPHAEL

And you do?

WALTER

I've looked into it. Here.

He hands over the flower and trowel.

RAPHAEL

Doesn't this bother you?

WALTER

I don't see I have much choice. It will be all right.

RAPHAEL

How do you know?

WALTER

So many things die, and it is all right. Why should I be different?

RAPHAEL

How can you be so calm?

WALTER

As long as you don't cry, I can do anything.

RAPHAEL

I don't know what to do.

Walter kisses her.

WALTER

You will. Don't forget the flower.

Walter leaves.

RAPHAEL

(with the flower and pumpkin)

What do you think of a pumpkin on my grave?

GALILEO

I never liked them.

RAPHAEL

You don't like pumpkins? What's not to like?

GALILEO

They are complacent gourds. Content to sit and rot.

Raphael puts the pumpkin down.

RAPHAEL

Do you regret anything?

GALILEO

Little late for that now.

RAPHAEL

But do you?

GALILEO

I lived well.

RAPHAEL

What was your greatest accomplishment?

GALILEO

Depends on who you ask.

RAPHAEL

I'm asking you. Your children?

GALILEO

No one remembers my children, but they remember my work.

RAPHAEL

Is that how we should rate our accomplishments?

GALILEO

If we're remembered because what we did shook people's beliefs. Torn up the old foundations, and laid new ones... made it possible to discover whole new worlds, then perhaps.

RAPHAEL

You are an arrogant old man.

GALILEO

I am not arrogant, I am right.

Thomas Harriot enters behind Galileo.

HARRIOT

I am seeking Master Galileo.

GALILEO

(Turning to the voice)

Then you have sought well. I am he.

HARRIOT

Thomas Harriot at your service.

They bow to each other, then shake hands like old friends.

RAPHAEL

Who?

HARRIOT

Thomas Harriot. Where should I hang my coat?

RAPHAEL

The coat rack.

HARRIOT

Brilliant. And you are?

RAPHAEL

Raphael Seaverns.

HARRIOT

Mrs. Seaverns.

GALILEO

Doctor Seaverns. A fellow scientist.

HARRIOT

Things do change. Excellent to make your acquaintance, Dr. Seaverns.

RAPHAEL

Raphael.

HARRIOT

Raphael. And what's your specialty?

RAPHAEL

The conjugation of peptides with synthetic materials to stabilize drugs and target them to specific sites for cancer therapy.

HARRIOT

So your not an astronomer or mathematician?

RAPHAEL

No. Sorry.

HARRIOT

Hardly. Gets dull with all the same old stiffs.

GALILEO

Good God, Harriot, have some propriety.

HARRIOT

Still buttoned up, aren't you?

GALILEO

I most certainly am not.

RAPHAEL

He won't dance.

HARRIOT

Still the old pea in your perfect little pod?

GALILEO

What brings you here?

HARRIOT

Rumors have it you are building a ship to sail into space.

GALILEO

Perhaps.

HARRIOT

Perhaps. Is it your design?

GALILEO

Actually, it's Dr. Seaverns.

HARRIOT

Really? The old goat had to come to you? Splendid.

RAPHAEL

They're only childhood sketches.

HARRIOT

Nothing like the precocious to be a burr in one's butt, but if it flies, you'll more than have redeemed yourself. So, where's the great Kepler? I hear he's on board.

GALILEO

In the garage working on the sails.

HARRIOT

Sails? Then the rumors are true. You're going forward.

GALILEO

Yes.

HARRIOT

Splendid. You'll need help and help is here.

GALILEO

Splendid.

HARRIOT

You will need help.

GALILEO

We will.

HARRIOT

Don't leave me hanging. Let me work.

GALILEO

And I suppose you'll want to go with us?

HARRIOT

You understand completely. Fantastic. Where do I begin?

GALILEO

I'm not sure we have room.

HARRIOT

Don't tease, old man. Who saw the moon's craters first?

GALILEO

By accident.

HARRIOT

By brains and brawn and a keen understanding of optics.

GALILEO

You never published.

RAPHAEL

Good grief, why not?

HARRIOT

I would have.

GALILEO

Pity.

HARRIOT

Will you let me join you? Come, now.

GALILEO

Ask Kepler.

HARRIOT

Where's the garage?

RAPHAEL

Out the door, down the stairs and to your left. You can't miss it.

HARRIOT

Right, then. It was a pleasure to meet you... Raphael, is it?

RAPHAEL

Yes.

HARRIOT

Like the painter?

RAPHAEL

Yes.

HARRIOT

Splendid. Good name. Nice to meet you. Out the door, down the stairs, and to the left.

Harriot dashes off.

GALILEO

Exhausting man. Pity about the publishing. I had better go check on them. Can't leave two mathematicians alone too long without a good experimentalist. They're bound to blow themselves up or have a duel.

RAPHAEL

I can't follow you.

GALILEO

Strange experience, isn't it?

RAPHAEL

It's despicable.

GALILEO

Death has rarely been called kind.

RAPHAEL

I'm not ready.

GALILEO

I should like to have met you just as you first saw your atoms and knew that greatness that would come.

RAPHAEL

But it hasn't.

Galileo smiles. Pause.

GALILEO

It's about time for Saturn to be coming into view. If you'd like me to point the telescope...

RAPHAEL

I'll find it.

GALILEO

As you wish.

Galileo exits. Raphael is left behind. She goes to the telescope and looks for Saturn.

Lights down. END OF ACT 1

Lights up. ACT 2. Raphael is still looking through the telescope. Kepler enters. Raphael assumes it's Galileo.

RAPHAEL

Saturn is in good form tonight.

KEPLER

That's nice.

RAPHAEL

Oh. I thought you were someone else.

KEPLER

I've been banned from the proceedings.

RAPHAEL

Banned? Why?

KEPLER

I'm not very good at this sort of thing.

RAPHAEL

What? And they're geniuses? Of course. What happened?

KEPLER

We didn't have welding torches in my day. Not like that.

RAPHAEL

You found my oxyacetylene torch?

KEPLER

Galileo was most impressed. Do I still have eyebrows?

RAPHAEL

Yes.

KEPLER

Thank God.

RAPHAEL

I take it there's a few kinks in the plan?

KEPLER

It is not a trivial thing to break free of the Earth's gravitational pull.

RAPHAEL

No, it's not.

KEPLER

Would it be all right if I sit?

RAPHAEL

That would be fine.

KEPLER

I apologize for being dead in your quarters. It must be quite rude.

RAPHAEL

I don't imagine you can help it.

KEPLER

Perhaps I should stand.

RAPHAEL

Please sit. Can I get you anything?

KEPLER

No. I should think I'm fine. Shocked, perhaps. Although I guess I should have known. How can I be so...so naïve. So dead.

RAPHAEL

What is it like?

KEPLER

Death? I'm not sure I have the faintest idea.

RAPHAEL

Do you believe in the soul?

KEPLER

Of course.

RAPHAEL

How?

KEPLER

How what?

RAPHAEL

How can it be?

KEPLER

How can we be, but here we are.

RAPHAEL

All that we think is ourselves... out thoughts, our feelings, our beliefs. We are finding their maps in matter. The connections of our mind are complex but they are there. There is no amorphous ether. There's matter. When we see the matter become damaged, our nature is

damaged... changed too. And then that matter crumbles. And so with our being?

KEPLER

I suspect my matter crumbled long ago, and yet...

RAPHAEL

You could well be a figment of my dreams.

KEPLER

Then dream me well. And, if you would, dream me to be useful. I would like to do something.

RAPHAEL

The sketches are just that. Without substance. And yet we are foolish enough to try to put scraps together to touch the stars. Do you realize how arrogant this whole business is?

KEPLER

How is it arrogant?

RAPHAEL

People spend their lives, millions of dollars, all of their energy to do something far less than this, and what do we do? We throw together a child's sketch and a couple of car parts and off we go.

KEPLER

We haven't gone yet.

RAPHAEL

And what's to say we will?

KEPLER

Nothing that I've heard.

RAPHAEL

So?

KEPLER

Pardon?

RAPHAEL

So why?

KEPLER

What exactly would you have us do, otherwise?

RAPHAEL

What do you normally do?

KEPLER

I have been searching for my friend for as long as I can remember. And apparently that's longer than I knew. I've found him, so I don't plan to go on searching, at least in the short term.

RAPHAEL

What else do you do?

KEPLER

I'm not sure. That's what I've done.

RAPHAEL

Aren't you bored?

KEPLER

No, but it is nice to talk to someone again. Forgive me. Galileo says you're a scientist, too.

RAPHAEL

Yes.

KEPLER

And that you've seen atoms?

RAPHAEL

Yes.

KEPLER

Do they pack?

RAPHAEL

In crystals? Yes.

KEPLER

Like cannon balls?

RAPHAEL

Exactly like them. Depending on the size of the various atoms involved.

KEPLER

I will have to tell Harriot we were right. There is so much to learn. You study atoms?

RAPHAEL

Not really. I used to. Crystal formation from glasses.

KEPLER

Oh, the things you must have seen.

RAPHAEL

There have been moments.

KEPLER

How do you see them?

RAPHAEL

The atoms?

KEPLER

Yes.

RAPHAEL

With a transmission electron microscope.

KEPLER

An electron microscope.

RAPHAEL

We shoot electrons at the material and they diffract through it, if it is thin enough.

KEPLER

So much has happened. Crystals.

RAPHAEL

And proteins and DNA... we know... that's not right... were learning how we become us. Can you just imagine? We understanding ourselves on the molecular level.

KEPLER

You have learned so much.

RAPHAEL

And understood so little.

Kepler smiles.

KEPLER

That is the difference between Galileo and you.

RAPHAEL

What is?

KEPLER

He sees universes in a moment. Or he thinks he does. You're afraid to?

RAPHAEL

No, of course not.

KEPLER

I was sometimes. We can see so little of what is really there at any moment.

RAPHAEL

Especially when we look at atoms.

KEPLER

Still, I should like to see them as their individual selves.

Raphael goes to a shelf. She plugs in a neon lamp that reads "Prof".

RAPHAEL

Atoms.

KEPLER

In what manner?

RAPHAEL

Neon gas. Individual atoms ionized by these two electrodes. It glows a beautiful color, although I will always be partial to the purple haze of argon.

KEPLER

Not bad. Well done, professor.

RAPHAEL

A few hundred years help.

KEPLER

Yes. But a good mind is always the greatest help.

RAPHAEL

I didn't think this up.

KEPLER

Then what do you think up?

RAPHAEL

Targeting tumors using synthetic analogs for biological structures.

And how does it go?

KEPLER

It's very promising.

RAPHAEL

Promising.

KEPLER

And frustrating.

RAPHAEL

Then the study of science hasn't changed much.

KEPLER

Like gazing into the darkness and hoping to find new light. That stupid, bright, warm, ridiculous light.

RAPHAEL

Raphael sits, lost, by her form in the bed.

Are you dying?

KEPLER

So it would seem.

RAPHAEL

How do you know?

KEPLER

A few days ago, I had a seizure. It ran from my ankles up my legs. It reached my chest. I reached out to a chair but it gave way to air and I fell. I broke my leg. When I came to, I realized I will never stand again. And now it comes faster and faster...

RAPHAEL

Kepler hums. He holds his hand out. Raphael takes it, and they begin to dance.

Raphael trips over the chair. (Kepler runs her into it)

I'm so sorry. Are you all right?

KEPLER

Yes. Thank you.

RAPHAEL

KEPLER

Do I really still have eyebrows?

RAPHAEL

Looks like it.

KEPLER

Good. I'm fond of them. Eyebrows say a lot about a person. I should go see if Galileo and Harriot are still in two distinct pieces and get working on the calculations—it might be wise to have some sense of what we're doing before we go much further. I'm still not clear on how we take off.

RAPHAEL

Here. *(She hands him the drawings)* Good luck.

Kepler exits with the drawings.

Galileo comes rushing in.

GALILEO

You have got to see the sails. They're fantastic.

Galileo guides Raphael to the window.

RAPHAEL

It's really becoming something.

GALILEO

And it will take us to the stars.

RAPHAEL

A space ship. We're going to the ends of the universe.

GALILEO

Just to start.

RAPHAEL

Do you really think we can walk among the stars?

GALILEO

I'm willing to try.

They stop and look at each other. Pause.

RAPHAEL

I've been thinking about the take off. That's the real challenge. We should go with solid fuel rockets. Once ignited, there's no turning them off and no throttle, but they've got kick.

GALILEO

Then that's a good start. (*Looking at some papers on a desk*) Are these them?

RAPHAEL

These are what the space shuttle uses. It's an 11 point star configuration with an aluminum/ammonium perchlorate mixture and a little iron oxide.

GALILEO

You have plenty of that in the garage. You should oil your tools better.

RAPHAEL

I've been a little distracted. Aluminum.

GALILEO

Also in the garage in spades, literally.

RAPHAEL

Ammonium perchlorate... I have no idea where to find ammonium perchlorate.

GALILEO

Can we find a substitute?

RAPHAEL

Not really. We'd have to experiment with formulations. That could take years. There are other methods... liquid oxygen would be a big help.

GALILEO

Then where do we find it?

RAPHAEL

I don't know. It's in rockets. You have some. Lots. Get it all... from somewhere.

GALILEO

You want me to commit a felony?

RAPHAEL

Exactly.

GALILEO

Kepler! Harriot! Come! We have business at hand!

Kepler and Harriot enter. Kepler has the sketches and several calculations.

HARRIOT

The sails look fantastic.

KEPLER

It turns out I have good hands for metalization.

GALILEO

Come with me.

KEPLER

Where?

GALILEO

We need to find ammonium perchlorate.

HARRIOT

Pardon?

GALILEO

You do know ammonium perchlorate.

HARRIOT

The question is do you?

KEPLER

What about the rockets next door?

GALILEO

Next door?

KEPLER

You seem to have some young neighbors with a deep love of pyrotechnics.

RAPHAEL

Yes. Perfect.

GALILEO

My thoughts exactly. Let's go.

They exit, on the way, Kepler drops the drawings on Raphael's desk. Raphael crawls into bed with the body and lies down beside it. Gene enters in the classic rain coat and umbrella. The sound of rain begins. He starts to dance. Raphael sits up and watches him. She gets up and they dance together. She mirrors his steps. He takes her hand and they continue to dance. He goes to the side in a quick series of movements. She goes to imitate one of his steps and she stumbles. He comes back to her

and dances around her while she sits on the floor. He takes her hand. Their motions are the same as the steps before but she is on the ground. Gene keeps dancing. He dances with a coat stand. He dances off stage.

RAPHAEL

Gene?

HARRIOT rushes in.

HARRIOT

Good Lord, it's a killer.

RAPHAEL

Where are the others?

HARRIOT

Still on their mission. I was deterred by that beast.

RAPHAEL

Who?

HARRIOT

A huge, viscous hound. Of the canine variety. With big ears.

RAPHAEL

Muffin?

HARRIOT

I'm not really hungry.

RAPHAEL

That's the dog's name. Muffin.

HARRIOT

That beast is named for a baked good?

RAPHAEL

She likes it when you rub her butt.

HARRIOT

She chased me clear across the yard and would have chased me down to hell. She took a piece out of me.

RAPHAEL

And the others?

HARRIOT

They made it. But it was close.

RAPHAEL

Did she have anything in her mouth?

HARRIOT

Some sort of kill she's made. It's innards were coming out.

RAPHAEL

That's Wart, her stuffed bunny.

HARRIOT

She has a stuffed bunny named Wart?

RAPHAEL

She just wanted to play.

HARRIOT

She nearly killed me.

RAPHAEL

You're dead. She couldn't do much.

HARRIOT

Observe my trousers!

RAPHAEL

Lovely.

HARRIOT

And this hole?

RAPHAEL

I think you'll live. Or remain dead.

HARRIOT

You could have some sympathy.

RAPHAEL

Not a dog person?

HARRIOT

If your definition of a dog is a creature who makes mush of one's only decent suit, I am most certainly not a dog person. Are you otherwise engaged at the moment?

RAPHAEL

I suppose not.

HARRIOT

Assuming they make it out again, we should have the rest of the ship ready. We need to hang the sails, and I cannot do that alone. Would you help?

RAPHAEL

Can you do it here?

HARRIOT

I think so.

RAPHAEL

Fine, then.

Harriot exits. Raphael takes the pumpkin and looks at it. She sits down to write.

Harriot enters with a large umbrella like contraption and mylar to be extended across it.

HARRIOT

Right. Here's what we've got. Are you writing?

RAPHAEL

To my student, former student, while I still have time.

HARRIOT

Oh, my dear lady—you have time.

RAPHAEL

Not enough of it.

HARRIOT

But enough, still. Please, I beg of you, you must do something for me.

RAPHAEL

I'll hang the sails.

HARRIOT

No, not that.

RAPHAEL

I don't mind.

HARRIOT

(stopping her)

Please... I need you to write for me.

RAPHAEL

Can't you?

HARRIOT

It is the worst curse of all. I entrusted it to my friends, but they could not.

RAPHAEL

Why didn't you publish?

HARRIOT

Call me the fool and let it be.

RAPHAEL

No. You knew so much. You saw so much. You needed only write it down.

HARRIOT

My words brought reprisals and I was a fearful man. Never be afraid.

RAPHAEL

I never have been.

She pauses.

RAPHAEL CONT.

Almost never.

Harriot takes her hand.

HARRIOT

Write for me as I hang the sails.

Raphael nods and sits at the desk.

RAPHAEL

What would you have me write?

HARRIOT

Let's begin with Jupiter.

RAPHAEL

Seems fair to start with something so substantial. What about it?

HARRIOT

The storms. Can you imagine what they'll be like when we touch them? But here's the thing, this electromagnetic hurrah is not from Jupiter proper—this atmosphere comes rather from its moon, Io.

RAPHAEL

That's one of the Galileo moons.

Harriot looks annoyed.

HARRIOT

If you must call it that.

RAPHAEL

One of the big ones.

HARRIOT

Yes. That it is, and full of volcanoes spouting forth toxic gases. No wonder they are identified with him. But this is not the point. The point is that the very atmosphere of the largest planet in our solar system isn't even its own. It has stolen it from the moon. Are you writing?

RAPHAEL

Yes. Stolen from moon. So?

HARRIOT

So? It begs us to reexamine our very definitions of the planets and their moons. We are still confounded by the nature of the core of Jupiter, and yet we grow more sure that Ganymede—another of Galileo's moons has a molten core and is larger than Mercury and Pluto.

RAPHAEL

What do you suggest?

HARRIOT

That we rethink our titles and with them our boundaries. What if the moon—or any moon—might break off and become a planet. Or, in turn, what if a planet might one day become a moon?

RAPHAEL

It would save a lot of travel to the moon if we were to become one.

HARRIOT

I am quite serious. Pluto orbits tightly with Neptune. What changed it?

Pause.

RAPHAEL

Are you asking me? A comet?

HARRIOT

Yes. A comet! It could have. Depending on the comet. Something. We need to map the universe.

RAPHAEL

I'd better get more paper.

HARRIOT

Do you jest?

RAPHAEL

No, but I don't have much to offer.

HARRIOT

As a scientist?

RAPHAEL

I know more about atoms and molecules than orbits.

HARRIOT

Then molecules it is. Isn't curious how we have such an obsession with spheres. And yet, as luck would have it atoms are spheres.

RAPHAEL

No they're not.

HARRIOT

Of course, but they pack as spheres.

RAPHAEL

They're not spheres.

HARRIOT

Yes, but it's such a useful approximation.

RAPHAEL

Until it falls apart. The obsession with making atoms—and subatomic particles while we're at it—into things we can touch and see and imagine is ridiculous. We limit the possibilities into a framework we already know. The key is to look beyond what we are used to seeing and simply see what's there.

HARRIOT

(pause, smile)

Exactly, then. Write it down.

RAPHAEL

Not that.

HARRIOT

That's the crux of it. I'll take credit if you're concerned.

RAPHAEL

Don't even dream of it.

Raphael scribbles quickly.

HARRIOT

So good to know I've still got it. Yes, indeed. We don't need a moon or moons, we've got the noggin. Although a small moon, planet, God, even an asteroid wouldn't have been undo.

RAPHAEL

What did you do if you weren't writing?

HARRIOT

I went to America and surveyed Virginia with Raleigh.

RAPHAEL

Virginia's a nice place.

HARRIOT

It was wild and rough. A test of the soul. While I was there, I spent time visiting the natives. Fascinating. As intricate a culture as I have ever seen and totally without most of what I knew. Oh, and how we smoked.

RAPHAEL

Smoked?

HARRIOT

I can still taste it. One should never smoke. But, oh, the pleasure.

RAPHAEL

Do you still smoke?

HARRIOT

It seems I can't. The disfiguration... but if you were to smoke, I might stand close.

RAPHAEL

I'm afraid I don't.

HARRIOT

Pity. Pity, indeed.

RAPHAEL

What happened? You just surveyed.

HARRIOT

I wrote a history of the place. One of the few things I managed to published.

RAPHAEL

So you did publish.

HARRIOT

And blankets were covered in small pox and handed out. My great contribution. *(beat)* Now, let me see if I'm clear. Once we're through the atmosphere, this extends and we rely on the reflection from the sun to propel us?

RAPHAEL

Yes.

HARRIOT

And when we go far enough, what's to keep us from getting stuck?

RAPHAEL

Once we get enough momentum, we'll surf the skies. Hopefully.

HARRIOT

Surf?

RAPHAEL

Surf the light just like the waves.

HARRIOT

From galaxy to galaxy?

RAPHAEL

Sure.

HARRIOT

It seems rather... unlikely.

RAPHAEL

It may not be fast, but it should go.

HARRIOT

I just don't see how we can possibly get enough momentum.

RAPHAEL

Light has momentum.

HARRIOT

Yes, I gather that's the point.

RAPHAEL

So with a good mirror, the light is reflected. The particles... you do understand that light is particles?

HARRIOT

I gathered that.

RAPHAEL

Right. The particles change direction. For that to happen, there must be momentum transfer to us.

HARRIOT

This seems to ignore the fact that these mirrors are hardly perfect and the mass of the light particles is particularly small, whereas we are not.

RAPHAEL

I didn't say it would be fast. Just functional.

HARRIOT

Much depends on whether or not we have mass.

RAPHAEL

Do you?

HARRIOT

I have no idea. I've always assumed so. Do you have a scale?

RAPHAEL

In the bathroom. It's that way.

Harriot goes to get the scale.

RAPHAEL

(calling to him)

I'm very disappointed to hear one can't fly once one's dead.

HARRIOT

(returning)

That was a disappointment. I had thought I would understand everything. See the nature of stuff.

RAPHAEL

You didn't?

HARRIOT

There was a distinct lack of epiphanies. But I must say, I was grateful for the release.

RAPHAEL

Were you?

HARRIOT

I had tumors in my nose. Horrific. They couldn't grow out so they grew in. My lip turned up. I became the monster my enemies believed of me. I couldn't think or breathe. The rest was so helpless. My legs worked but I couldn't run away. Here, this goes there.

Raphael secures another piece. Kepler returns, followed by Galileo.

RAPHAEL

The tumors press against my bones 'till they crack, and my legs are ceasing to work.

HARRIOT

Oh, my dear lady.

RAPHAEL

I fractured my pelvis-- that's how they found it. An old woman's injury.

HARRIOT

You are most certainly not old.

RAPHAEL

Thank you. God, it's nice to hear that.

HARRIOT

I have very little mass.

GALILEO

You've lost weight?

HARRIOT

Several stones. I'm about five pounds. Here, get on.

GALILEO

I am not getting on.

HARRIOT

You are forever the child.

GALILEO

I am not.

KEPLER

I'll get on. Hold these.

Kepler hands his supplies to Galileo and climbs on the scale with Harriot.

RAPHAEL

You found propellant?

GALILEO

Rather. Wonderful boys next door. Enough explosives to send the garage to the next galaxy.

HARRIOT

Then we should do very well. You've lost weight, too.

KEPLER

You were five? Then I'm only three.

HARRIOT

Odd, isn't it?

KEPLER

I don't feel three pounds.

HARRIOT

You are rather slight.

KEPLER

I was thin in life, I suppose it fits I'd be thin in death.

HARRIOT

Maybe that's why you didn't notice.

GALILEO

This is utter nonsense. We have mass. I have mass.

HARRIOT

You have a mouth. That's quite a different thing.

GALILEO

You will find your fault momentarily. Out of my way. And you can see I weigh four and a half pounds. There is something wrong with this scale. It's not calibrated. I need something with known mass.

KEPLER
This can of epoxy is two pounds.

HARRIOT
Excellent. What's it read?

KEPLER
(placing it on the scale)

Two pounds.

GALILEO
Fine. Now let's try it.

HARRIOT
Still four and a half pounds.

GALILEO
Impossible.

HARRIOT
You're the great experimentalist. See for yourself.

GALILEO
I cannot be four and a half pounds.

KEPLER
Two cans of epoxy.

GALILEO
And you are not helping!

HARRIOT
Two and a quarter cans of epoxy.

KEPLER
I stand corrected.

GALILEO
It's impossible. Impossible.

HARRIOT
What does it matter?

GALILEO
I have mass.

HARRIOT

Yes. Four and a half pounds.

GALILEO

More than that. Much more than that.

HARRIOT

Be grateful. It'll be far easier to get to space.

GALILEO

How can your weight be greater than mine?

HARRIOT

So that's it then? Dear, dear. The Master, Galileo worries about his mass for fear it might be the weight of his soul.

GALILEO

You should not speak so brilliantly of the weight of one's soul. You always mumble that yours is still in question.

HARRIOT

Whether I go to heaven or hell does not diminish my soul, only the pleasantness of the outcome.

RAPHAEL

Regarding heaven and hell...

KEPLER

If it is the weight of our souls, why should yours be the weightiest?

GALILEO

It's not the weight of our souls. Be reasonable, Kepler.

KEPLER

If it is, then why is it so, and if it's not, than what is it?

GALILEO

You are all muddled.

HARRIOT

What are you afraid of?

GALILEO

I am not afraid.

HARRIOT

You're shaking.

GALILEO

I am not. It's the breeze.

HARRIOT

Do you fear the lack of yourself?

GALILEO

Most certainly not.

RAPHAEL

Why not?

GALILEO

Pardon?

RAPHAEL

Why not fear it? All we know is our self. To not have that...

KEPLER

But we have something.

HARRIOT

What?

KEPLER

This moment here.

RAPHAEL

You could be figments of my deluded and dying imagination.

KEPLER

Perhaps. But right now I'm here... with you old dolts. So, Galileo, get over yourself. Your weight is not in your frame, it's in your legend. It always was. Although you carry a bit about the middle.

GALILEO

It's for the winter.

HARRIOT

You must spend it in Siberia.

GALILEO

Don't you have sails to finish?

HARRIOT

We're done.

RAPHAEL

That's not true.

HARRIOT

We are done.

RAPHAEL

The legacy. The legend. What weight is in that?

KEPLER

It's what we have left.

RAPHAEL

It's stories. Fantasy. Nothing.

GALILEO

Glory and respect are hardly nothing.

RAPHAEL

Do they cure cancer or map the heavens? Or even bring contentment? We die all the same and nothing is different. I do not have time for this.

Raphael clears her desk and begins writing.

GALILEO

What are you doing?

RAPHAEL

I'm not dead yet and there is still much to do. There has got to be a way to make these work.

She writes voraciously.

GALILEO

There is nothing more you can do.

RAPHAEL

The hell there is.

GALILEO

It's over.

RAPHAEL

(throwing her papers down)

Do not go gentle into that good night. Rage, rage against the dying of the light. I will RAGE.

GALILEO

It will do no good.

RAPHAEL

You're dead. Gone. You have no mass, no soul, and no say. I still do and I will not waste what time I have bickering with a dead old man. I will not die with nothing being done.

GALILEO

You will die.

RAPHAEL

And until then, I will live. Rage against the dying of the light. *(yelling at her body in the bed)* Rage! Damn you, rage!

GALILEO

We should make the rocket boosters.

KEPLER

I'd like to do the welding this time.

GALILEO

I did not get your eyebrows.

HARRIOT

Shall we retire to the garage?

Raphael goes to the window.

GALILEO

What are you doing?

RAPHAEL

Looking at something.

GALILEO

What?

RAPHAEL

The top hinge on the sails.

GALILEO

For God's sake, be careful.

Raphael tries to climb higher using the chair and falls towards Galileo. He catches her.

GALILEO CONT.

(grunting)

You obviously still have significant mass.

He puts her down gently.

RAPHAEL

I think it's cantilevered the wrong way.

GALILEO

It will open once we're out there.

RAPHAEL

But we're going to have a heck of a time getting it open. If it's the other way, it'll open on it's own as soon as we're free of the atmosphere.

GALILEO

I think it's fine.

RAPHAEL

It isn't. Look at it yourself.

JAE (OFF STAGE)

Hello? Raphael!

RAPHAEL

Jae! Get all this out of here.

GALILEO

Grab the other stuff.

KEPLER

(heavily burdened)

Where is the door?

HARRIOT

Left. Your other left.

KEPLER

The drawings.

RAPHAEL

Here.

She thrusts them at Kepler who takes them.

JAE (OFF STAGE)

Raphael? Is that you?

RAPHAEL

Go! And weld it the other way. I promise: it's going to work.

GALILEO

We'll see.

They exit with everything. Jae enters in business attire with her shoes in hand. She pulls up a chair to the bed where Raphael's body lies. Raphael stands opposite her.

JAE

Raphael. Raphael, can you hear me? I thought I heard you on my way up here. Raphael?

RAPHAEL

I'm right here.

JAE

I talked to everyone and then some. They don't buy the EPR effect. Robbins kept saying, "but why does it collect in the leaky areas?" Then Morris pointed out that the leaky areas are so vastly different, but that's not it. I told them they're missing the point. It's not a protein interaction at all. I told them they had to be mistaken. I mean the evidence just doesn't support that.

RAPHAEL

Yes.

JAE

So I blew it. You should have seen their faces. I made a mess of it. I'm sorry.

RAPHAEL

Don't be. That's ridiculous. They're just old cows out to graze. Ignore them. Unless it has to do with tagging sugars. Morris is good at that.

JAE

I proposed something far too simple. It was ludicrous, but... I don't know. It makes sense. At least I don't know it's not true. God, doesn't this field drive you nuts? I always thought science would be so simple and elegant-- it would all be about the perfect experiment. Instead it's a heaping mess of possibilities and ideas and crazy people struggling for insight.

HARRIOT (OFF STAGE)

Watch where you point that thing! I like my eyebrows, too, I'll have you know.

Jae gets up. She goes to the door.

KEPLER (OFF STAGE)

How do I turn it down?

GALILEO (OFF STAGE)

The other way! The other way!

HARRIOT (OFF STAGE)

Oh dear God, dive! Dive!

KEPLER (OFF STAGE)

Sorry.

JAE

Hello? Is someone there?

RAPHAEL

Come back. Sit. I want to hear all about what happened.

JAE

I must be all wired. I think I'm hearing things.

RAPHAEL

Then hear me. Tell me what your idea is. Please.

JAE

I wonder if you can hear me.

RAPHAEL

Oh, for God's sake, we don't have time for musings. What's your theory? Do you change the sequence? Add a second tag?

JAE

It was quite a day talking with everyone, pretending to know what I was doing. And then I had this moment. It's sketchy.

RAPHAEL

A lot can happen with something that's sketchy.

Galileo returns quietly followed by Harriot and Kepler. They stand behind Raphael.

GALILEO

Raphael, everything's ready.

RAPHAEL

Already?

HARRIOT

Kepler's a little wild with the blow torch, but he's quick.

KEPLER

And you will note I've maintained my stunning eyebrows.

HARRIOT

And I'm absent mine.

KEPLER

Only in part.

GALILEO

We reversed the hinging mechanism.

RAPHAEL

Good.

GALILEO

Your student?

RAPHAEL

Yes.

As Jae describes the science, an image is projected of a molecule that looks like an umbrella that, when one part of it attaches to another molecule at a surface, changes so the umbrella opens and releases a smaller molecule.

JAE

What if the targeting molecules were on longer chains with hard and soft segments, and what if their conformations were receptor dependent? I mean, biology's been doing stuff like that for 4 billion years, and God knows, there's been a lot of experimental success along the way. You could use the targeting part to shield the protein, avoid enzymatic cleavage or non specific interactions, and maybe cross the blood-brain-barrier. Why not? Once it gets through and the receptor binds it, it'll pop open. It would be cool if it works.

RAPHAEL

Very cool.

GALILEO

The ship's all set.

RAPHAEL

Then let's go.

HARRIOT

Fantastic.

KEPLER

May I light the rockets?

HARRIOT

Oh, good Lord...

GALILEO

Light the rockets, old friend and let us touch the stars.

They go to leave. Raphael still can't get through the door.

RAPHAEL

I'm still stuck.

GALILEO

We'll drop in a ladder through the window.

HARRIOT

I'll get the ladder.

KEPLER

I'll get the torch.

GALILEO

Then we're almost away.

Kepler and Harriot exit.

RAPHAEL

Shouldn't you go?

GALILEO

I'll take the ladder, too. I'd rather not be near Kepler when he's got that torch.

RAPHAEL

Of course.

Professor Marks enters.

JAE

Professor Marks.

PROFESSOR MARKS

Jae. I've been looking for you.

JAE

Oh.

PROFESSOR MARKS

How is she doing?

JAE

The nurse said it won't be long.

PROFESSOR MARKS

I see.

JAE

(slightly choked)

It happens so quickly.

RAPHAEL

Oh, my dear, don't cry. Never cry.

KEPLER (OFF STAGE)

Ready Harriot?

HARRIOT (OFF STAGE)

Ready!

The ladder comes in through the window.

KEPLER (OFF STAGE)

Begin the countdown.

Kepler lights the fuse to the rockets. The walls of the room become translucent and one can see the ship as the fuse is lit.

HARRIOT (OFF STAGE)

Ten... nine... eight... Raphael, Galileo, come! Climb.

Galileo takes his first step up the ladder. Kepler climbs in with Harriot.

PROFESSOR MARKS

We can talk later.

JAE

I'm fine. Sit. *(beat)* Please.

PROFESSOR MARKS

I have sat down with the committee.

RAPHAEL

Already?

GALILEO

Raphael! We have to go.

PROFESSOR MARKS

As you know, we're going to need someone to teach the physical chemistry course and upper level biochemistry course next year, and we'd like to offer it to you.

Raphael stops and turns.

RAPHAEL

What?

GALILEO

Raphael! Take my hand.

KEPLER (OFF STAGE)

Hurry! The rockets have been lit.

JAE

I don't understand. Is this a professorship?

PROFESSOR MARKS

It's a lectureship. A one year position. While we work things out.

RAPHAEL

You despicable bastard. Give her the job. The real job.

GALILEO

Raphael!

RAPHAEL

Go on. Go.

Galileo begins up the ladder but waits.

JAE

I'm sorry, I thought I was interviewing for a tenure track position.

PROFESSOR MARKS

Yes, well, we're really obligated to do a national search. We'll certainly consider your application but there's protocol involved.

RAPHAEL

Like hell there is. She's the best, you squid. Give it to her.

JAE

Protocol.

KEPLER (OFF STAGE)

Galileo! We cannot wait! Hurry!

JAE

An interim position. Two courses.

PROFESSOR MARKS

And a few recitations.

JAE

A few?

PROFESSOR MARKS

Two a term.

JAE

On top of my courses. How am I going to do research?

PROFESSOR MARKS

It's not a research position.

KEPLER (OFF STAGE)

Galileo! Raphael!

GALILEO

Pull the fuse! Give us more time. We're coming!

JAE

Will I even get lab space?

PROFESSOR MARKS

We don't have any.

JAE

What about Raphael's?

RAPHAEL

Yes, what about it?

KEPLER

We're lifting off. Climb!

GALILEO

Come. Come with me.

RAPHAEL

No. Go on. Fly!

GALILEO

Go! Go! Go!

KEPLER (OFF STAGE)

We'll meet again, old friend!

There is a brilliant burst of light and the rocket takes off.

Raphael's body shakes.

PROFESSOR MARKS

I'll get the nurse.

JAE

Wait.

PROFESSOR MARKS

Someone should see to her.

JAE

I am.

PROFESSOR MARKS

Yes, well.... you don't have to tell me about your decision regarding the lectureship position. Think it over. Get back to me in a few days. It's no rush.

Marks turns to go.

RAPHAEL

She deserves my job! Give it to her. Don't go!

Raphael falls. Galileo trips Marks. Jae helps him up.

PROFESSOR MARKS

Let me be frank. You're just not ready to be a professor.

RAPHAEL

I've had just about enough of this.

Raphael grabs Marks.

RAPHAEL CONT.

Listen to me, whether you can hear me or not. She's better than I am. She works harder, she thinks clearer and she had me to teach her, so

she's the best. And she's going to make you all famous. So don't blow this. Don't lose her.

Professor Marks pushes her to the side. Galileo catches her.

JAE

Thank you for the offer. I'm funded through the spring. I'll be out by then.

Raphael puts her hand on Jae's shoulder.

MARKS

You won't consider the position?

JAE

No, but thank you.

Raphael's body shudders. Galileo takes Raphael's hand.

PROFESSOR MARKS

Shall I get the nurse?

JAE

I'll call him.

PROFESSOR MARKS

Yes, well. If you need anything, please call the department.

JAE

Thank you.

Professor Marks exits. Jae sits with Raphael's body.

RAPHAEL

(To Jae) I'm so sorry. *(To Galileo)* And I'm sorry to you, too.

GALILEO

For what?

RAPHAEL

You missed the ship.

GALILEO

Unfortunate.

RAPHAEL

You should have gone on.

GALILEO

I chose to stay. There are still things to see.

JAE

I wanted to tell you, I made some calls today. I've put in an application to a couple of other departments, and m going to interview at a couple. Turns out you have some good friends who like what you've done and want to see it continue, even with me. *(with a certain degree of pride)* Which shows you how wise they are.

It's funny today. All this sniping from everyone. I thought about what you'd do, and I knew. And I know what I'm going to do. Thank you. Thank you for showing me how to do this.

RAPHAEL

You'll be brilliant.

JAE

I know.

Jae gets up and puts on music. She sits back with Raphael's body.

JAE

Thank you. Thank you so much.

GALILEO

How do you feel?

RAPHAEL

Even in death my health is going to be a topic of conversation?

Galileo offers his hand.

GALILEO

Dance with me.

RAPHAEL

But you don't dance.

GALILEO

Just because we're dead doesn't mean we can't try new things.

They dance. He dips her, but doesn't drop her. The set is lit with stars.

RAPHAEL

Are you sure we can't fly? Can't a little?

GALILEO

I haven't figured it out yet.

Galileo lifts her. The lights begin to dim.

KEPLER (OFF STAGE)

Go left! Left!

HARRIOT (OFF STAGE)

I'm going left!

KEPLER (OFF STAGE)

Then right! Go right!

HARRIOT (OFF STAGE)

Which way!

KEPLER (OFF STAGE)

Hold! Hold!

A ladder is dropped from the top of the stage.

KEPLER (OFF STAGE, CONT.)

Galileo! Climb!

RAPHAEL

Oh, dear God!

GALILEO

Old friend! Ha ha! Well done! Well done!

Galileo starts to climb. He turns to Raphael

GALILEO CONT.

Shall we?

Raphael climbs. There is a flash of light and the stage goes dark.