-How are you?
  -I am... fine.

That's very good.

Paolo Macchiarini had created headlines all over the world-

-when he implanted the first plastic trachea in a human being.

Seems like the plot from a science-fiction novel.

In just a few years, all organs will be built in a lab.

Karolinska's star surgeon seemed to be about to solve-

-one of the great mysteries of the medical world.
But something was wrong.

0010 10:00:38:15 10:00:41:04

It is not collapsing.

0011 10:00:41:06 10:00:44:13

The plastic tracheas were not working as intended.

0012 10:00:44:21 10:00:51:05

She was coughing up blue suture thread, along with pieces of flesh.

0013 10:00:52:06 10:00:58:02

When patient after patient died, other doctors began to wonder what was going on.

0014 10:00:58:04 10:01:01:23

There are chronic infections, the plastic trachea doesn't attach itself.

0015 10:01:02:00 10:01:06:19

The plastic trachea is eating its way into the oesophagus.

0016 10:01:08:20 10:01:13:03

Macchiarini's operations were now under investigation by the Police.

0017 10:01:13:05 10:01:17:07

And the management at Karolinska was handed reports about falsified scientific studies.

0018 10:01:17:09 10:01:23:00

We thought it would have a major impact, but nothing happened.
I have realised that this story is about so much more than just Paolo Macchiarini.

Who is really responsible? And who is lying, and who is telling the truth?

THE EXPERIMENTS

PART 3: THE LABYRINTH OF TRUTH

I had been following Paolo for almost a year.

And still so many questions remained unanswered.

It seemed Paolo had been performing deadly experiments on human beings.

But would he really intentionally have endangered his patients' lives?

During my year of filming him, I followed him all over the world.

On one of his journeys, he met an old friend and fellow surgeon.
I was contemplating the criticism against Paolo, that the risks he’d taken had been too big-

-and that he hadn't been sufficiently prepared-

-and that he hadn’t told the truth afterwards. Paolo remained quiet.

But his colleague, Gebitekin, shared his view of a good surgeon.

The best surgeon knows when not to operate.

But this requires a big experience.

Because the opening is very easy.

For a surgeon, that's just to open and look at what's inside.

But this is not the way to treat your patients.

If you're taking a decision not to operate, that means you're taking too much risk.
The best surgeon knows when not to operate.
You shouldn't get a surprise.

It may be 5%...
You think?

Getting a surprise during surgery,
that you hadn't assessed before surgery?

10%?

As little as possible.

A good surgeon makes
careful preparations in advance-
-leaving as few unforeseen problems as possible.

But was this the case
with Paolo's plastic trachea patients?

Most of them were dead.

It was at Karolinska Institute, KI, where Paolo's plastic trachea method had been created.
I found it very exciting.
I didn't quite understand how it worked-

-but I fully trusted
that what they were doing was correct.

It was talked about throughout the institute
and the hospital-

-as something huge,
something of a world sensation.

Grinnemo and Corbascio had been collaborating
with Macchiarini's team for years.

Both had made contributions
to Macchiarini's scientific studies.

But after a while a conflict arose
concerning applications and grants.

Hence, the collaboration ended.
During 2013, more and more people at the hospital-

-realised that Paolo's patients
were not in a good condition.
Grinnemo and three of his colleagues became convinced-

-that there were serious issues with the plastic trachea.

The mere thought of these plastic tracheas still being implanted in patients terrifies me.

But Paolo portrayed his method as successful.

There was a risk of it still being used around the world.

We deemed this to be extremely serious, and we chose to report it.

Paolo was reported for scientific falsification.

His entire credibility was at stake, and at worst, he could end up in prison.

I was attacked brutally and vehemently-

-with unfounded allegations.
That involved them and myself-

-so we need to clear the name of everybody.
    That's what I'm fighting for.

The hospital seemed to be taking Paolo's side.
    A police report was filed.

The doctors were questioned
    and threatened with an official warning.

Karolinska responded with silence-

-but eventually they appointed
    an impartial investigator.

Bengt Gerdin was commissioned to ascertain
    the truth in Paolo's scientific papers.

The validity of the facts were in question.
    What did the papers say? Was it wrong, yes or no?

Should something else have been included?
    Has something been omitted?

This was the main question.
Gerdin compared Macchiarini’s scientific papers-with Karolinska's patient records. In May, 2015, Gerdin's work was completed.

What were your conclusions?

That what is described in the papers does not correspond to the reality of the records. So the person who reads the papers, is not reading the truth, but something different.

Gerdin concluded that Macchiarini ought to be convicted of scientific falsification. The Swedish Research Council is stopping all payments to Macchiarini.
He is under investigation for falsifying research results.

...illegal operations, and may be charged with manslaughter.

If Paolo was found guilty, his research papers would probably be retracted.

It would then be the end of his research work around the world.

I have been depicted, from one angle, which is the angle of the media-

-as a criminal, as someone that doesn't care about anything, and so forth-
-which is totally untrue, not according to me, but according to the facts.

And... people have this perception of me.

But it hadn't been settled yet. KI still hadn't taken an official decision-

-as to whether or not they would heed Gerdin's investigation.

Paolo's only chance was to prove to the Vice-Chancellor that he hadn't falsified his results.

I don't have much time, so we need to hurry.

In the last year, I have been attacked so many times.

My conversations with patients have been recorded.

My finances have been investigated. My animal log books have been scrutinised-
-and my research data re-evaluated.

0101 10:10:28:03 10:10:34:20

It's difficult to be attacked
and to be on the front pages.

0102 10:10:34:22 10:10:40:12

At least if we had done something wrong,
then I would understand it-

0103 10:10:40:14 10:10:45:10

-but I believe we didn't,
so let's wait until tomorrow.

0104 10:10:51:00 10:10:58:02

The day for the decision had arrived in August,
2015. A lot was at stake.

0105 10:11:00:07 10:11:05:11

Karolinska Hospital
had approved his method of surgery.

0106 10:11:05:13 10:11:10:15

And Karolinska Institute
vouched scientifically for his research.

0107 10:11:10:17 10:11:15:18

If Paolo fell, the whole of Karolinska
was at risk of falling with him.


In view of the results of the investigation-


-we now have a much clearer picture
of what has been going on.
Though Karolinska Institute finds faults with Macchiarini's research work-

-we do NOT consider that he, in any of the examined papers-

-is guilty of misconduct in his research-

-in the way misconduct is defined by the Swedish Research Council.

I couldn't quite believe what I heard.

The Vice-Chancellor had freed Paolo of almost all the accusations.

I think it's important to point out that Paolo Macchiarini has not been found guilty-

-of misconduct in his research.

This means he has the trust of Karolinska Institute.

The decision was based on new additions from Paolo and his collaborators.
But these additions had only been assessed internally, by Karolinska's management.

The impartial investigator, Bengt Gerdin, had not been asked to examine them.

As I read through the documents, I found no real explanation to the Vice-Chancellor's decision.

I had followed Paolo over an extended period, and I had seen far too much.

Out of all of Paolo's plastic trachea patients, only two were still alive.

Dmitri Onogda's plastic trachea never functioned.

It was removed, and he survived.

Yesim Çetir had been close to dying many times.

In order to survive, she now needed constant intensive care.
The other patients had died:
Andemariam Beyene...

...Christopher Lyles,
Alexander Zozulya, Sadiq Kanaan...

...Hannah Warren, and Julia Tuulik.

It was as if nothing had been learnt
from their deaths, and Paolo continued.

I very much enjoy the fact that now...

...we are again back to science and to the clinic-

-and not lawyer stuff, and so forth.

-So that's a good thing.
-Interesting.

How fast do you think you could be moving,
for example with the tracheas now?

The timeline is
that we would like to wait the six months...
...the rat follow-up time.
Probably in March, if everything goes well.


And then immediately start with the primates.

0141 10:14:27:17 10:14:30:18

Probably by the end of next year-

0142 10:14:30:20 10:14:36:21

-it would be reasonable to think to restart
the feasibility, and then the clinical trial.

0143 10:14:38:17 10:14:42:01

Only a few weeks had passed since the acquittal-

0144 10:14:42:03 10:14:48:05

-and Paolo was already planning
for new experiments on humans.


When I began to film Paolo, nearly a year earlier,
he had made a demand.


-That I wouldn't ask about the accusations
until Karolinska had made a decision.

0147 10:14:58:19 10:15:01:19

Interesting. Something you can talk about?

0148 10:15:01:21 10:15:08:20

-No, because the deal was not to talk about it.
Remember that?
But the day had finally come.

0150 10:15:11:19 10:15:16:20

I had gone over everything I knew about Paolo and his operations.


-How are you?
-I am... fine.


I knew that this was likely to be the last interview I would ever get with Paolo.

0153 10:15:29:18 10:15:36:09

And I needed answers. Had Paolo intentionally risked the lives of his patients?

0154 10:15:41:00 10:15:46:12

A few months earlier, I had met the doctor who had prepared Paolo's tracheas-


-ahead of the operations.

0156 10:15:51:01 10:15:57:03

Philipp Jungebluth had had Paolo as his mentor during medical school.

0157 10:15:57:05 10:16:00:16

And he was now Paolo's closest colleague.

0158 10:16:01:07 10:16:06:03

Philipp Jungebluth is almost like a son to me.

0159 10:16:06:05 10:16:12:13
Probably he's right now the most hard-working man that I have. So, thank you, Philipp.

Philipp explained how their thoughts went, initially.

But it took some time before I really understood what he was saying.

Of course, the system cannot be perfect-

-in the early years, in the early moments of this new technology.

And you can just learn it in the clinic.

Some parts of it at least.

It seems as though they had decided, early on, to develop the method on the operating table-

-instead of testing the method-

-as thoroughly as one normally would with new, dangerous methods of treatment.
The first plastic trachea was a step into the unknown.

We did not test it prior to the first transplantation, because there was no time.

We had a patient who had this acute scenario, and we knew we couldn't wait for half a year.

The plastic trachea hadn't been implanted in animals,-

-before testing it on the first human being.

So it was a gamble when they put a plastic trachea into Andemariam Beyene.

And they would continue to gamble. At least three, probably four, more patients-

-would receive plastic tracheas before they had been tested on a single rat.

There were a couple of tests of plastic tracheas on rats here at KI.
That was started sometime in August, 2012, or something like that.

Is that the animal work on synthetic tracheas that you did?

We did animal studies pre-clinically on rats-

-with bioartificial scaffolds that are not published yet.

And we started before.

-So you have an unpublished study before that?  
  -Yeah.

-And that was at KI, or...?  
  -It was at KI, yeah.

But I can't find any such animal tests, nor can I find any approvals.

Because if you just look at what is published and what has been approved of for experimentation-

-it's only those two rat experiments.
OK, so what... what do you want to say?

Before the rats
you put the synthetic scaffold into five patients.

And I... To me that seems extraordinary.

Before the rats, I put...

That's a wrong statement.

But if I just look at the chronology,
I see five surgeries-

-no rats, no pigs, no animal experiments.
And then animal experiments.

Are you sure about this? Why don't you go to the
lab and look at the lab book?

Here or in Russia. How do you know
we didn't do animal studies in Russia?

When confronting Paolo,
he simply changed his story.
It was no longer in Sweden, where he had done the animal studies, but in Russia.

But despite not having tested the trachea on animals before implanting it in humans -

-the management at Karolinska still claimed this to be the case.

In a document from 2013 they write -

-that all surgeries were preceded by all the necessary lab and animals tests.

I don't want to comment on that. You're aware that we have a...

I don't want to comment on that question.

But there are doctors here who vouch for -

-that the method was thoroughly tested prior to the surgeries.

I was probably... I don't want to discuss that type of detailed question.
As you're aware, there's an ongoing police investigation surrounding these surgeries.

Johan Bratt doesn't want to explain why they had skipped over the animal tests.

And to Paolo, the question only seemed to provoke annoyance.

I have been scouring the published field for...

We didn't do animal studies that involved large animals, of course not, we didn't have the time.

But the material was proven, the material was studied.

We used fibres that were approved by the FDA.

And now all the studies are coming.

If you have a clinical situation were you are forced to take a risk-

-then you take it,
if you see any chance of helping the patient.

Paolo’s point seemed to be that he had been forced to take shortcuts-

-as his patients has been so seriously ill. And his employers agree.

Three patients have in isolated instances been operated on-

-at the University Hospital in order to save their lives.

At all times have we had the best interests of the patients in mind.

It was a collective assessment that this would be tested on the patients-

-as there were no other solution on offer, and they would otherwise die.

The hospital and the institute claimed the same thing-

-that Macchiarini’s plastic tracheas saved the lives of those who were acutely ill and dying.
But how short a time should you have left-

-for Karolinska
to get to use unknown and untried methods?

What was really the case with the first plastic trachea patient, Andemariam?

How ill was he when he underwent surgery?

Andemariam had previously had a slow-growing cancer in his trachea.

He'd been operated on and received radiotherapy, and at first, it had seemed successful.

But at a routine examination, his doctor had discovered a growth in Andemariam's throat.

The doctors felt they weren't able to handle his case,-

-and began to look for specialist help.

Karolinska Hospital
suggested Paolo Macchiarini.

And from this point the stories begin to differ.

One patient was referred from Iceland, that was given a life expectancy of six months.

We decided that there was a risk of suffocation.

He was very short of breath when he arrived in Stockholm.

He could not really speak one sentence without stopping and...

...two or three breaths.

We were in need of something now, and not tomorrow.

Jungebluth, Macchiarini, Hamsten, and Bratt describe the situation as acute.

But this wasn't Andemariam's view of it.

When he wasn't busy with examinations,
he often left the hospital.

He met friends and went for long walks.

They went to cafés and restaurants.

And Andemariam was well enough to travel to some friends up in Sundsvall.

And when he spoke to Icelandic Television-

-he didn't seem to believe the situation to be that urgent.

When I was going from Iceland to Sweden-

-I didn't know that it would be such a big operation.

But then when I met the Italian, Dr Paolo, then he said...

...it will be removed, cut and thrown, and they will put in another one, which will be synthetic.

At the press conference one year after the
operation, Paolo remembered their meeting.

0257 10:25:02:22 10:25:07:05

His first reaction was just to look at me and say, 
"You're crazy."

0258 10:25:07:07 10:25:10:18

And I said, "Yes, I am."

0259 10:25:10:20 10:25:15:05

I was very scared, very terrified.

0260 10:25:15:07 10:25:22:02

The other thing that made me a bit scared 
was that this was happening for the first time.


"How much is the success rate?"
And I said, "I don't know."

0262 10:25:26:23 10:25:30:06

"Why?"
"I never did it before."

0263 10:25:30:08 10:25:33:15

I said no.

0264 10:25:33:17 10:25:36:10

"But this is your only chance right now."


Andemariam had not seen the situation as acute, 
and he'd been terrified of the operation.


The first one of its kind in the world.
And yet he agreed to it.

He told me straight,
"We did not try this on human beings.

"We tried this on pigs and other animals."
Maybe it was working for animals, so...

Andemariam was under the wrong impression
that the tracheas had been tried on animals.

And this is also what his widow, Merhawit,
for a long time believed.

"This is the best option there is."

"It has been tested on pigs."

"We believe this to be
the safest and the best alternative."

He encouraged him and pressured him.
Dr Paolo, that is.

Paolo had given Andemariam
a certificate to sign.
It said that the surgery was his only chance of survival.

He was very confident—enough to persuade me, to make me believe in this.

He guaranteed that it would work for eight to ten years.

"If you want to see your children grow up, then you should do this," he said.

But it didn't work as promised. And it didn't live for eight or ten years.

With the plastic trachea Andemariam lived for two and a half years.

We know for sure that Andemariam's cancer was of a relatively slow-growing type.

No one knows how long he would have lived if he had declined the plastic trachea.

I don't see that there was a clear-cut acute...
You're insinuating that we took a decision, we doctors, or whoever-

-that was not necessary. Above the line.

Well, that's a huge accusation.

-And what will your reply be?  
-I don't reply to this accusation.

Why you don't ask all the health care providers here at KL?

You didn't.  
Not here, at Karolinska Hospital.

-I will, but you are...  
-I am, I am, I am...

I'm not God, I'm not above the line, I'm a man-

-a human being that makes mistakes all the time.

-But do you see why I ask you?  
-No, I don't see it.
That's a facet from you that I didn't expect.

Andemariam's operation was Paolo's most important.

It was through this surgery that his method became known to the world.

The first successful transplantation of a synthetic trachea

And in the articles from the first year's outcome-

-it says that the plastic trachea was functioning better and better.

But Andemariam's autopsy report had shown that the trachea was actually heavily inflamed-

-full of dead tissue, and that it had become almost completely loose.

Could something that had ended so badly really be as positive as Paolo had depicted it?
Or did Paolo not describe the whole truth in his articles?

In August, 2011, Andemariam was examined in Iceland.

This is a large part of the scientific base for the first article on his plastic trachea.

This is two months after the operation-

-and the Icelandic doctors were about to examine Andemariam's plastic trachea.

The white bits we see now...

-Maybe we could take some there.
  -Yes, I think so.

They would cut small fragments from the surface of the plastic, in a so-called biopsy.

OK? Give him the rest.
But it seems difficult
to get any tissue samples from the plastic.

0316 10:30:35:24 10:30:37:24
Open.

0317 10:30:38:21 10:30:40:22
And close.

0318 10:30:42:02 10:30:45:09
It keeps slipping. Let's see if we got something.

0319 10:30:45:11 10:30:50:14
-What do you think?
-No, there's nothing here.

0320 10:30:50:16 10:30:54:16
You just feel the tweezers gliding off.

0321 10:30:56:00 10:30:59:03
Let's try here.

0322 10:31:00:04 10:31:04:11
In the end,
they managed to cut a few pieces off.

0323 10:31:04:13 10:31:10:01
I can hardly get anything up.

-Have we got anything?
-Not much.

When the pieces where analysed,
the odd cells were found.

They were not healthy trachea cells, but could in theory become such.

Most of it was dead, infected, and covered in fungus.

It's inflamed where you took the sample, but it's a little red at the far end.

-Yes, there's something on the left side.
-It's a little bare in the carina area.

Yes, when you come up against it, it feels like plastic, you can't grip it.

But in his article, Paolo exaggerates the positives, claiming that large portions of tissue-

-seem to be well on their way to develop into a healthy trachea. He also lies-

-when he writes that the plastic trachea was completely free from fungus and bacteria.

In the article, it says that the samples showed no sign of bacteria or fungus.
But in fact, two out of three biopsies show fungal and bacterial contamination.

You're asking questions about details which I...

But this is the most important statement in the article.

-It's not some minor detail.
-No. But what I mean is...

...I couldn't possibly recall all the details in the material.

Since the Vice-Chancellor had freed Macchiarini from dishonesty in his reports-

-he ought to have been able to answer this. But Hamsten meant-

-that the discrepancies were mere details, as the surgery had been a success.

He lived in many ways a normal life during two of the two and a half years-
-following the operation.

But Andemariam’s wife, Merhawit, has a very different view.

She says that even if Andemariam had just gotten a few more months without the operation-

-it would still have been better than suffering for two and a half years.

Because Andemariam never felt well during this time.

Never...

He was not feeling OK, he was fighting to live.

But Merhawit’s side of the story isn't represented in Paolo's scientific works.

In one of his articles, he describes the state of Andemariam's plastic trachea after one year.

In the article, Macchiarini claims that his patient had-
-an "almost normal airway."

This is how a normal airway should look.

Here you see lots of small blood vessels. They are keeping the trachea alive.

Everything is covered by a fine, pinkish membrane.

When I see a film from Andemariam's examination shortly before the anniversary-

-I wonder how anyone could say that he had an "almost normal airway."

The camera is on its way down through a tube in Andemariam's throat.

Deep down you can see something white, the edge of the plastic trachea.

Down in the plastic part, you can see mucus which Andemariam is unable to cough up.
And to the left, where the plastic meets the natural trachea, it's bleeding and pulsating.

There is a hole directly into the rest of the body, a so-called fistula.

This is what a healthy airway looks like.

And this is the same way down towards Andemariam's lungs.

The little black dot is all that remains of Andemariam's airway.

The rest is clogged up by granulation tissue.

The right lung is more or less cut off.

The doctors are forced to pull off large bits of granulation tissue in order for it to open up.

They also need to insert a metal stent to keep the airway open.

There is nothing about this in Paolo's article. The only thing it says is-
-that the airway is almost normal, and that his breathing has improved.

I've gone through the article so many times about the first operation.

And the biopsies, the bronchoscopies, everything-

-and the article doesn't seem to reflect the real situation with the patient.

OK, then why don't you ask the commission that has evaluated all the documents?

But I have to ask you, because you are the main author.

I am the senior author, and I have provided written,-

-compelling evidence that contrasts what you are saying.

So I don't need to restate this very bad episode of my life, please. I hope you understand this.
In your statement I don't see that you're actually refuting the actual quotes from the records.


I don't see that you're showing the opposite-


- that, "Yes, it was vascularised, it was actually covered by epithelial..."

0385 10:37:41:00 10:37:46:06

Why don't you complain to the Ethics Commission, or to the KI?

0386 10:37:46:08 10:37:49:10

I don't know what you are arguing here.


In view of the results of the investigation...

0388 10:37:58:17 10:38:05:02

When Karolinska freed Macchiarini, they sent a message to the rest of the world:

0389 10:38:05:04 10:38:10:14

What has been written in Macchiarini's articles is substantially true.

0390 10:38:10:16 10:38:14:19

...not guilty of dishonesty in his research...


He has the trust of Karolinska Institute.


Hence, they support Macchiarini's claims
that Andemariam's plastic trachea-

- is about to develop into a normal airway.

At the examination close to 12 months after the surgery, the trachea was so constricted-

- that a stent had to be inserted. 
The trachea was leaking, there was a fistula...

-Is this a normal trachea? 
- No, it's not morphologically normal.

But at that point...

... there was a substantially normal breathing function.

But the film from the examination had clearly shown-

- that one of Andemariam's airways was almost completely closed off.

And they'd had to remove granulation tissue, and insert a metal net, a stent.
Is it good science to call the trachea "an almost normal airway"-

- and not to mention the fistula-

-or that the airway was so constricted that a stent was needed?

I agree that one might have expressed oneself...

...with greater precision. I agree with that.

Is it simply a lack of precision to call a halfway closed up airway normal?

These discrepancies in Macchiarini's articles are just two of many-

-that were discovered and reported to KI by the four doctors.

We were horrified. What we first thought was a minor fault...

As we looked below the surface, we just found more and more things.
It was an awakening for us as well. You instinctively want to believe that it's true.

We couldn't even imagine-

-just how many lies were buried in these articles.

I believe the power of denial is very strong...

...until you finally realise that... "It is this bad."

Karolinska Hospital and the Institute received several warnings, but failed to raise the alarm.

And still today, Hamsten praises the work of Macchiarini.

It's a report about the experience from a new surgical technique.

And therefore, the follow-up examinations of these patients have been extra rigorous-
-wherever the condition of the patients
has made it possible.

And these experiences
have been published in a stringent way-

-in scientific journals.

Karolinska is still a guarantor
for the articles about Andemariam's first year.

The articles which made the method
known around the world.

...gave a man back his trachea and his life.

In a few years, all the organs
will be built in a lab.

It is a major achievement for every other patient
that would need this type of transplantation.

We now have
clinical-trial authorisation in Russia...

The events at Karolinska
had repercussions outside of Sweden-
for patients who were almost completely healthy, patients like Julia.

Just the kind of hat I wanted!

She might have had a long life ahead of her.

And still she agreed to a potentially fatal operation.

She was hoping Paolo would conjure up her old self.

But she seemed unaware of the enormous risks the surgery posed to her.

It is the same plastic as this bottle is made from. This is medical grade.

We know this material is very safe.

Nor did Julia seem aware of how badly it had turned out for her predecessors-

-and that there was a risk she might die.
Paolo is the best surgeon in the world.
-I know.

They promised her the world.
Everyone hears what they want to hear.

Julia wanted to hear that she would be able to dance, jump, run, and have fun.

And of course that's... what we believed.

We believed it, because we wanted to believe it.

Paolo hasn't published hardly any facts from Julia’s operation.

-What is that fold?
-It has folded over and become completely...

-What can be done about it?
-Nothing.

But in various interviews, he is quick to point out how successful it all was.
I still do not believe that a few days ago she couldn't breathe and talk normally.

She no longer needs the reflex when she speaks, and she can lead a normal life.

After the surgery, Julia had a long struggle ahead of her, one that she couldn't win.

Slowly, her condition worsened.

The plastic trachea didn't work.

And Macchiarini implanted a new plastic trachea in Julia.

From the first day to the very last, there wasn't one single moment...

...when everything was fine.

Doctor Paolo Macchiarini is the patients' only hope...

When Julia had only months to live, Paolo appeared on German television.
And he gave an entirely different picture of Julia's condition.

0461 10:44:51:19 10:44:57:00

- Are you in contact? How is Julia?
  - She is fine.

0462 10:44:57:02 10:45:01:19

But we had to do a new transplantation-

0463 10:45:01:21 10:45:05:18

- about seven months ago.

0464 10:45:05:20 10:45:13:15

The length of the initial trachea wasn't optimal-

0465 10:45:13:17 10:45:17:02

- but now she's perfectly well.

0466 10:45:17:04 10:45:20:22

She is healthy now, as far as I know.

0467 10:45:24:16 10:45:28:03

Five months later, Julia died.

0468 10:45:31:01 10:45:36:19

Two months after her death, Macchiarini wrote to the journal Nature.

0469 10:45:36:21 10:45:42:12

He claimed that Julia's trachea had been examined weeks before her death-
-and that there
was nothing wrong with it then.

0471 10:45:47:16 10:45:51:22

You can live a long life with a tracheostomy.

0472 10:45:51:24 10:45:58:22

I wondered what Paolo's thoughts were on this?
Had he informed Julia of all the risks?

0473 10:46:01:06 10:46:04:20

The patient may say yes, that's fine,
but the responsibility...


Patients are not idiots, they are very
intelligent. You need to respect that.

0475 10:46:09:17 10:46:12:01

That's not nice what you are saying.

0476 10:46:12:03 10:46:20:01

Patients understand very well, because they
are taught what to do and what not to do.

0477 10:46:20:03 10:46:26:06

That you can stay with the hole.
That you might have a trachea that works, or not.

0478 10:46:26:08 10:46:33:02

-That there might be complications.
-Absolutely, but you personally feel no doubts?


You don't feel regret,
or... "Maybe I shouldn't have done this"?
Of course I have doubts, all the time I have doubts.

I doubt I should have done this interview or not.

Come on, we are doing such complex, innovative things.

I'm struggling, "Should we do it or not?"

"Is she or he the best candidate, or an appropriate candidate?"

Do you really think that we are beasts?

I began to realise that Paolo wasn't going to give me any more answers.

If you feel I was unsafe, then I accept your opinion.

-What's your opinion? -I've already said what my opinion is.

I mostly got counter questions.
- I have seen all...
  - Did you... Sorry to insist.

Now I am the journalist.
Did you see that?

Or perhaps he just didn't want to answer me.

- There's no reference...
  - Maybe it's stored elsewhere. Ask KI.

But I just couldn't understand how Paolo could implant a plastic trachea in Julia-

- without first having tested it on animals.

Your profession is?

- How do you mean?
  - What are you doing as a job?

- You have to explain what you mean.
  - You are a TV producer, right?

How can you possibly understand
all the details of a medical evaluation?

Do you know all the details of a medical evaluation? No, of course not.

If there were about ten to twenty professional heath care providers that decided-

-that this was the most appropriate treatment for her-

-than I believe we can trust them.

Perhaps Paolo actually believes he hasn't committed any mistakes-

-and that in order to progress you have to experiment on humans.

Jungebluth's view was that certain things could only be learnt on the operating table.

But if I understood you correctly, your assessment is also-

-that the synthetic scaffolds don't really work at the moment.
Of course, that's why we stopped the clinical trial,-

-and we are on hold for a better scaffold.

But you see no problems with the road to reaching that conclusion?

-What?
-You see no problems with...

Listen, if you don't do things, then you probably never-

-will have such conclusions. Right?

If you just do reporting without doing it, you will not report.

So, of course, we experienced complications-

-but we have learnt a lot from them as well.

So that possibly for the next patients, everything will be better - much better.
So, Paolo has learnt that the plastic tracheas don't work, and to him it's been worth it.

Because in the future he plans to try again, and then with better results.

And it seems as if representatives of Karolinska are of the same opinion.

Richard Kuylenstierna was one of those who authorised the first operation on Andemariam.

Sometimes we make big leaps, and sometimes small ones.

And certain steps have been taken here, and one has learnt from the experience.

They will probably now perfect the technique.

I'm convinced that this is a successful method, which will be utilised clinically.

In about five to ten years' time, I expect these operations to be fairly common.
In Russia, they were also initially enthusiastic about the plastic tracheas.

The first reaction was excitement, as if someone had been sent up in space.

Igor Polyakov operated on Julia together with Macchiarini.

He really believed that it would work-

-since Macchiarini had the stamp of approval from Karolinska Institute.

Without that, the Russian trials might never have taken place.

Karolinska was important for the research grant.

Paolo worked there, and they had a department for a regenerative medicine.

In this sense, Karolinska played a major part, as the doctors had practised their work there.

In Russia, they now know that everything went wrong, not least in Julia's case.
And they dare to admit it.

**Do you have any regrets?**
Would you have done anything differently today?

I wouldn't have used the first two tracheas.

I would never have agreed to transplanting them in that condition.

While at Karolinska, it's almost as if nothing's happened.

Perhaps because the hospital still hasn't fully investigated-

-how they could put patients through treatment methods-

-that hadn't even been tested on animals.

Perhaps because KI still is the guarantor for the truth in Macchiarini’s research work.

You don't feel that KI is responsible-
-despite having assisted in choosing the patients, testing the material, and training the staff?

-KI has no agreement...
-No, but you have been involved.

Not KI as a university, but individuals who are employed by KI-

-have within the constraint of their employment participated in this.

But still, your co-workers have assisted in choosing patients-

-who took part in the clinical studies in Russia.

Your co-workers have worked with these tracheas, and other related tests-

-and they have trained staff. This has happened.

Well, it... it...

I trust that it has happened, if you say so.
But they haven't done so within their employment at KI.

-It has not been part of their job.
-They've done it in their spare time?

Well, that... that...

I'm not aware that this should have....

...any kind of implication on the activities outside of the country.

After this interview, Hamsten would distance himself from Paolo's work in Russia.

But he maintained that Karolinska was not responsible-

-for the way Paolo's methods had spread to them.

You are insinuating that everybody in the group has lied.

Which is very bad.
I didn't expect that from you. Wow!

Even the president has lied, even the commission has lied. Everybody has lied!

Maybe something is wrong in your assumptions, or in your statements.

I'm just using my brain, Paolo, and I'm trying to find the facts that show...

Then maybe you should have looked and searched more before doing this interview.

So please, let's stop here now.

Can you switch off? OK, can you switch off this as well?

That's the last interview that I gave you.

I didn't expect or deserve this from you. It's very harsh.

-The way you asked is very, very harsh. -But it's the only way.
No, it's not, 
there are more gentle ways to ask things.

-But you're not replying. 
-I'm not? Good luck.

Ever since I first met Paolo, 
I've been curious about him.

Everything he described sounded so good... 
almost too good to be true.

Welcome to this session.

Paolo's operations are still 
under investigation of the Swedish Police.

The method should have been stopped long ago. 
It ought never have been approved.

We have to put an end to this.

Not one more patient 
in the world should have to go through this.

It's enough. It's time to stop this method.
None of the four doctors who reported the misconduct ever received the official warning Karolinska threatened them with.

Two of the doctors are leaving Karolinska to work at another hospital.

Paolo Macchiarini has had his contract extended by Karolinska Institute-despite the fact that his plastic tracheas obviously don't work-and that his scientific articles do not truthfully represent reality.

And yet, both the institute and the hospital seem to hope that it'll all soon be forgotten.

As if nothing's happened.

This means that perhaps the most important question of all remains unanswered:
How can Karolinska continue to defend everything that has happened?

Experimental surgery was used in order to try to save lives.

Our health care is first and foremost about the welfare of the patients.

It's about that, and nothing else.

People will look back at our time as a pioneering era for these methods.

I can't help wondering...

Is Karolinska's reputation worth more than a human life?