

0000 00:00:00:00 00:00:00:08

0001 10:00:01:00 10:00:04:15

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

0002 10:00:04:17 10:00:07:04

That's very good.

0003 10:00:12:17 10:00:15:17

Paolo Macchiarini had created headlines  
all over the world-

0004 10:00:15:19 10:00:20:17

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

0005 10:00:20:19 10:00:23:02

Seems like the plot  
from a science-fiction novel.

0006 10:00:23:04 10:00:27:16

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

0007 10:00:27:18 10:00:30:14

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

0008 10:00:30:16 10:00:33:16

-one of the great mysteries  
of the medical world.

0009 10:00:36:11 10:00:38:13

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.

0019 10:01:23:02 10:01:29:08

I have realised that this story is about  
so much more than just Paolo Macchiarini.

0020 10:01:29:10 10:01:36:19

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

0021 10:02:28:22 10:02:35:09

## THE EXPERIMENTS

0022 10:02:39:22 10:02:44:04

### PART 3: THE LABYRINTH OF TRUTH

0023 10:02:57:13 10:03:00:18

I had been following Paolo for almost a year.

0024 10:03:00:20 10:03:04:21

And still so many questions  
remained unanswered.

0025 10:03:09:14 10:03:16:02

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

0026 10:03:16:04 10:03:22:09

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

0027 10:03:23:23 10:03:30:00

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

0028 10:03:30:02 10:03:34:22

On one of his journeys,  
he met an old friend and fellow surgeon.

0029 10:03:38:15 10:03:45:15

I was contemplating the criticism against Paolo,  
that the risks he'd taken had been too big-

0030 10:03:45:17 10:03:50:19

-and that he hadn't been sufficiently prepared-

0031 10:03:50:21 10:03:57:08

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

0032 10:03:57:10 10:04:04:00

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

0033 10:04:04:17 10:04:09:23

The best surgeon knows when not to operate.

0034 10:04:10:00 10:04:13:20

But this requires a big experience.

0035 10:04:13:22 10:04:16:16

Because the opening is very easy.

0036 10:04:16:18 10:04:20:10

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

0037 10:04:20:12 10:04:23:11

But this is not the way  
to treat your patients.

0038 10:04:23:13 10:04:28:03

If you're taking a decision not to operate,  
that means you're taking too much risk.

0039 10:04:28:05 10:04:33:23

The best surgeon knows when not to operate.  
You shouldn't get a surprise.

0040 10:04:34:00 10:04:38:07

It may be 5%...  
You think?

0041 10:04:38:09 10:04:44:13

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

0042 10:04:44:15 10:04:47:21

10%?

0043 10:04:47:23 10:04:50:11

As little as possible.

0044 10:04:57:24 10:05:02:06

A good surgeon makes  
careful preparations in advance-

0045 10:05:02:08 10:05:07:19

-leaving as few unforeseen problems as possible.

0046 10:05:08:13 10:05:13:15

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

0047 10:05:13:17 10:05:16:21

Most of them were dead.

0048 10:05:21:22 10:05:28:02

It was at Karolinska Institute, KI, where Paolo's  
plastic trachea method had been created.

0049 10:05:28:04 10:05:34:06

I found it very exciting.  
I didn't quite understand how it worked-

0050 10:05:34:08 10:05:40:11

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

0051 10:05:40:13 10:05:44:23

It was talked about throughout the institute  
and the hospital-

0052 10:05:45:00 10:05:50:18

-as something huge,  
something of a world sensation.

0053 10:05:51:23 10:05:58:01

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

0054 10:05:58:03 10:06:04:06

Both had made contributions  
to Macchiarini's scientific studies.

0055 10:06:06:18 10:06:12:20

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

0056 10:06:12:22 10:06:19:18

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

0057 10:06:19:20 10:06:24:22

-realised that Paolo's patients  
were not in a good condition.

0058 10:06:27:06 10:06:30:05

Grinnemo and three of his colleagues  
became convinced-

0059 10:06:30:07 10:06:33:14

-that there were serious issues  
with the plastic trachea.

0060 10:06:37:20 10:06:46:08

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

0061 10:06:46:10 10:06:51:05

But Paolo portrayed his method as successful.

0062 10:06:51:07 10:06:56:12

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

0063 10:06:56:14 10:07:02:24

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

0064 10:07:03:01 10:07:06:10

Paolo was reported for scientific falsification.

0065 10:07:06:12 10:07:12:16

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

0066 10:07:13:05 10:07:17:24

I was attacked brutally and vehemently-

0067 10:07:18:01 10:07:22:13

-with unfounded allegations.

0068 10:07:22:15 10:07:26:17

That involved them and myself-

0069 10:07:26:19 10:07:31:21

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

0070 10:07:31:23 10:07:36:15

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

0071 10:07:36:17 10:07:41:04

The doctors were questioned  
and threatened with an official warning.

0072 10:07:41:06 10:07:43:14

Karolinska responded with silence-

0073 10:07:43:16 10:07:46:22

-but eventually they appointed  
an impartial investigator.

0074 10:07:46:24 10:07:53:02

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

0075 10:07:53:04 10:07:59:07

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

0076 10:07:59:09 10:08:03:19

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

0077 10:08:03:21 10:08:05:23

This was the main question.

0078 10:08:06:00 10:08:11:11

Gerdin compared Macchiarini's  
scientific papers-

0079 10:08:11:13 10:08:18:20

-with Karolinska's patient records.  
In May, 2015, Gerdin's work was completed.

0080 10:08:21:08 10:08:24:22

What were your conclusions?

0081 10:08:26:10 10:08:33:18

That what is described in the papers  
does not correspond to the reality of the records.

0082 10:08:33:20 10:08:39:23

So the person who reads the papers,  
is not reading the truth, but something different.

0083 10:08:40:00 10:08:47:11

Gerdin concluded that Macchiarini  
ought to be convicted of scientific falsification.

0084 10:08:47:13 10:08:53:21

The Swedish Research Council  
is stopping all payments to Macchiarini.

0085 10:08:53:23 10:08:56:24

He is under investigation  
for falsifying research results.

0086 10:08:57:01 10:09:02:03

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

0087 10:09:03:14 10:09:09:16

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

0088 10:09:09:18 10:09:13:04

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

0089 10:09:14:10 10:09:20:13

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

0090 10:09:20:15 10:09:23:19

-as a criminal, as someone that doesn't care  
about anything, and so forth-

0091 10:09:23:21 10:09:28:02

-which is totally untrue,  
not according to me, but according to the facts.

0092 10:09:28:04 10:09:32:21

And... people have this perception of me.

0093 10:09:38:04 10:09:44:06

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

0094 10:09:44:08 10:09:49:20

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

0095 10:09:49:22 10:09:57:05

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

0096 10:10:00:00 10:10:05:08

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

0097 10:10:09:21 10:10:12:16

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

0098 10:10:12:18 10:10:16:08

My conversations with patients  
have been recorded.

0099 10:10:16:10 10:10:23:02

My finances have been investigated.  
My animal log books have been scrutinised-

0100 10:10:23:04 10:10:28:01

-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.

0108 10:11:20:20 10:11:23:22

In view of the results of the investigation-

0109 10:11:23:24 10:11:29:01

-we now have a much clearer picture  
of what has been going on.

0110 10:11:29:03 10:11:36:00

Though Karolinska Institute  
finds faults with Macchiarini's research work-

0111 10:11:36:02 10:11:41:22

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

0112 10:11:41:24 10:11:47:02

-is guilty of misconduct in his research-

0113 10:11:47:04 10:11:52:10

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

0114 10:11:55:16 10:11:58:18

I couldn't quite believe what I heard.

0115 10:11:58:20 10:12:03:23

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

0116 10:12:04:00 10:12:10:07

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

0117 10:12:10:09 10:12:13:14

-of misconduct in his research.

0118 10:12:13:16 10:12:19:24

This means he has  
the trust of Karolinska Institute.

0119 10:12:20:01 10:12:26:05

The decision was based on new additions  
from Paolo and his collaborators.

0120 10:12:26:07 10:12:31:13

But these additions had only been assessed internally, by Karolinska's management.

0121 10:12:31:15 10:12:37:09

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

0122 10:12:38:10 10:12:45:04

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

0123 10:12:47:05 10:12:52:03

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

0124 10:12:52:05 10:12:57:02

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

0125 10:12:59:06 10:13:04:12

Dmitri Onogda's plastic trachea never functioned.

0126 10:13:04:14 10:13:08:05

It was removed, and he survived.

0127 10:13:08:07 10:13:13:20

Yesim Çetir had been close to dying many times.

0128 10:13:13:22 10:13:18:20

In order to survive, she now needed constant intensive care.

0129 10:13:18:22 10:13:24:00

The other patients had died:  
Andemariam Beyene...

0130 10:13:24:02 10:13:30:00

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

0131 10:13:30:02 10:13:34:16

...Hannah Warren, and Julia Tuulik.

0132 10:13:37:07 10:13:43:16

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

0133 10:13:43:24 10:13:48:00

I very much enjoy the fact that now...

0134 10:13:48:02 10:13:54:02

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

0135 10:13:54:04 10:13:58:22

-and not lawyer stuff, and so forth.

0136 10:13:58:24 10:14:03:18

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

0137 10:14:03:20 10:14:09:01

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

0138 10:14:09:03 10:14:15:08

The timeline is  
that we would like to wait the six months...

0139 10:14:15:10 10:14:22:18

...the rat follow-up time.  
Probably in March, if everything goes well.

0140 10:14:22:20 10:14:27:15

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.

0145 10:14:48:07 10:14:53:12

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

0146 10:14:53:14 10:14:58:17

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?

0149 10:15:09:11 10:15:11:17

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.

0151 10:15:16:22 10:15:21:15

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

0152 10:15:23:11 10:15:29:16

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-

0155 10:15:46:14 10:15:49:15

-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.

0160 10:16:13:09 10:16:17:13

Philipp explained  
how their thoughts went, initially.

0161 10:16:17:15 10:16:22:01

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

0162 10:16:22:03 10:16:26:12

Of course, the system cannot be perfect-

0163 10:16:26:14 10:16:30:19

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

0164 10:16:30:21 10:16:36:01

And you can just learn it in the clinic.

0165 10:16:36:03 10:16:38:11

Some parts of it at least.

0166 10:16:38:13 10:16:44:15

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

0167 10:16:44:17 10:16:47:19

-instead of testing the method-

0168 10:16:47:21 10:16:53:21

-as thoroughly as one normally would  
with new, dangerous methods of treatment.

0169 10:16:53:23 10:16:58:22

The first plastic trachea  
was a step into the unknown.

0170 10:16:58:24 10:17:06:16

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

0171 10:17:06:18 10:17:14:02

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

0172 10:17:15:18 10:17:18:22

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

0173 10:17:18:24 10:17:22:19

-before testing it  
on the first human being.

0174 10:17:22:21 10:17:29:03

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

0175 10:17:29:05 10:17:35:10

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

0176 10:17:35:12 10:17:41:03

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

0177 10:17:41:11 10:17:47:03

There were a couple of tests of plastic tracheas  
on rats here at KI.

0178 10:17:47:05 10:17:51:19

That was started sometime in August, 2012,  
or something like that.

0179 10:17:51:21 10:17:56:02

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

0180 10:17:56:04 10:17:58:23

We did animal studies  
pre-clinically on rats-

0181 10:17:59:00 10:18:02:08

-with bioartificial scaffolds  
that are not published yet.

0182 10:18:02:10 10:18:05:13

And we started before.

0183 10:18:06:22 10:18:11:07

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

0184 10:18:11:09 10:18:17:00

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

0185 10:18:17:17 10:18:24:19

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

0186 10:18:25:16 10:18:31:08

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

0187 10:18:31:10 10:18:37:06

-it's only those two rat experiments.

0188 10:18:37:08 10:18:39:18

OK, so what... what do you want to say?

0189 10:18:39:20 10:18:47:03

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

0190 10:18:47:05 10:18:51:21

And I... To me that seems extraordinary.

0191 10:18:51:23 10:18:56:05

Before the rats, I put...

0192 10:18:56:07 10:19:00:08

That's a wrong statement.

0193 10:19:00:10 10:19:05:18

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

0194 10:19:05:20 10:19:13:22

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

0195 10:19:13:24 10:19:20:18

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

0196 10:19:20:20 10:19:26:18

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

0197 10:19:26:20 10:19:32:11

When confronting Paolo,  
he simply changed his story.

0198 10:19:32:13 10:19:40:08

It was no longer in Sweden, where he had done  
the animal studies, but in Russia.

0199 10:19:40:10 10:19:46:16

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

0200 10:19:46:18 10:19:51:06

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

0201 10:19:51:08 10:19:55:03

In a document from 2013 they write-

0202 10:19:55:05 10:20:02:13

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

0203 10:20:02:15 10:20:08:19

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

0204 10:20:09:18 10:20:13:22

I don't want to comment on that question.

0205 10:20:15:05 10:20:18:07

But there are doctors here who vouch for-

0206 10:20:18:09 10:20:23:12

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

0207 10:20:23:14 10:20:30:00

I was probably... I don't want to discuss  
that type of detailed question.

0208 10:20:30:02 10:20:37:22

As you're aware, there's an ongoing  
police investigation surrounding these surgeries.

0209 10:20:39:04 10:20:45:10

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

0210 10:20:45:12 10:20:48:24

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

0211 10:20:49:01 10:20:53:22

I have been scouring the published field for...

0212 10:20:53:24 10:21:00:15

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

0213 10:21:00:17 10:21:03:21

But the material was proven,  
the material was studied.

0214 10:21:03:23 10:21:08:14

We used fibres that were approved by the FDA.

0215 10:21:08:16 10:21:12:04

And now all the studies are coming.

0216 10:21:17:17 10:21:24:07

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

0217 10:21:24:09 10:21:29:24

-then you take it,

if you see any chance of helping the patient.

0218 10:21:30:01 10:21:35:03

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

0219 10:21:35:05 10:21:41:07

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

0220 10:21:41:09 10:21:46:10

Three patients have in isolated instances  
been operated on-

0221 10:21:46:12 10:21:50:22

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

0222 10:21:50:24 10:21:56:00

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

0223 10:21:56:02 10:22:02:05

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

0224 10:22:02:07 10:22:08:16

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

0225 10:22:08:18 10:22:13:02

The hospital and the institute  
claimed the same thing-

0226 10:22:13:04 10:22:20:16

-that Macchiarini's plastic tracheas saved  
the lives of those who were acutely ill and dying.

0227 10:22:21:09 10:22:24:12

But how short a time should you have left-

0228 10:22:24:14 10:22:30:03

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

0229 10:22:30:05 10:22:35:23

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

0230 10:22:36:00 10:22:39:23

How ill was he when he underwent surgery?

0231 10:22:44:23 10:22:51:02

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

0232 10:22:51:04 10:22:57:08

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

0233 10:22:57:10 10:23:03:12

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

0234 10:23:03:14 10:23:07:01

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

0235 10:23:07:03 10:23:10:14

-and began to look for specialist help.

0236 10:23:10:16 10:23:15:19

Karolinska Hospital

suggested Paolo Macchiarini.

0237 10:23:15:21 10:23:18:24

And from this point the stories begin to differ.

0238 10:23:19:13 10:23:26:14

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

0239 10:23:26:16 10:23:29:16

We decided that there was a risk of suffocation.

0240 10:23:29:18 10:23:34:05

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

0241 10:23:34:07 10:23:39:23

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

0242 10:23:40:00 10:23:43:04

...two or three breaths.

0243 10:23:43:06 10:23:47:01

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

0244 10:23:47:03 10:23:53:17

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

0245 10:23:53:19 10:23:58:20

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

0246 10:23:58:22 10:24:04:08

When he wasn't busy with examinations,

he often left the hospital.

0247 10:24:04:10 10:24:09:13

He met friends and went for long walks.

0248 10:24:09:15 10:24:12:23

They went to cafés and restaurants.

0249 10:24:13:00 10:24:19:03

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

0250 10:24:20:18 10:24:23:22

And when he spoke to Icelandic Television-

0251 10:24:23:24 10:24:28:07

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

0252 10:24:28:09 10:24:33:24

When I was going from Iceland to Sweden-

0253 10:24:34:01 10:24:38:09

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

0254 10:24:38:11 10:24:44:21

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

0255 10:24:48:05 10:24:54:01

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

0256 10:24:56:05 10:25:02:20

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.

0261 10:25:22:04 10:25:26:21

"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."

0265 10:25:37:11 10:25:43:14

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

0266 10:25:43:16 10:25:48:08

The first one of its kind in the world.

And yet he agreed to it.

0267 10:25:48:10 10:25:52:23

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

0268 10:25:53:00 10:26:00:00

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

0269 10:26:03:09 10:26:10:23

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

0270 10:26:11:00 10:26:16:00

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

0271 10:26:17:01 10:26:21:13

"This is the best option there is."

0272 10:26:21:15 10:26:25:24

"It has been tested on pigs."

0273 10:26:27:04 10:26:32:21

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

0274 10:26:32:23 10:26:40:07

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

0275 10:26:43:01 10:26:48:03

Paolo had given Andemariam  
a certificate to sign.

0276 10:26:48:05 10:26:53:08

It said that the surgery  
was his only chance of survival.

0277 10:26:56:00 10:26:59:15

He was very confident-

0278 10:26:59:17 10:27:04:08

-enough to persuade me,  
to make me believe in this.

0279 10:27:04:10 10:27:11:00

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

0280 10:27:11:02 10:27:15:22

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

0281 10:27:15:24 10:27:23:22

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

0282 10:27:27:20 10:27:32:22

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

0283 10:27:32:24 10:27:37:20

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

0284 10:27:37:22 10:27:44:06

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

0285 10:27:49:05 10:27:54:07

I don't see that there was a clear-cut acute...

0286 10:27:54:09 10:28:00:23

You're insinuating that we took a decision,  
we doctors, or whoever-

0287 10:28:01:00 10:28:05:06

-that was not necessary. Above the line.

0288 10:28:05:08 10:28:08:23

Well, that's a huge accusation.

0289 10:28:09:00 10:28:15:05

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

0290 10:28:15:07 10:28:20:14

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

0291 10:28:20:16 10:28:25:02

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

0292 10:28:25:04 10:28:29:03

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

0293 10:28:29:05 10:28:33:19

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

0294 10:28:33:21 10:28:38:10

-a human being that makes mistakes all the time.

0295 10:28:43:15 10:28:49:08

-But do you see why I ask you?  
-No, I don't see it.

0296 10:28:51:00 10:28:54:19

That's a facet from you that I didn't expect.

0297 10:28:55:16 10:29:00:04

Andemariam's operation  
was Paolo's most important.

0298 10:29:00:06 10:29:03:18

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

0299 10:29:03:20 10:29:08:00

The first successful transplantation  
of a synthetic trachea

0300 10:29:08:02 10:29:11:04

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

0301 10:29:11:06 10:29:16:08

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

0302 10:29:16:10 10:29:24:05

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

0303 10:29:24:07 10:29:29:23

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

0304 10:29:30:00 10:29:37:18

Could something that had ended so badly  
really be as positive as Paolo had depicted it?

0305 10:29:37:20 10:29:43:14

Or did Paolo not describe  
the whole truth in his articles?

0306 10:29:46:00 10:29:52:02

In August, 2011,  
Andemariam was examined in Iceland.

0307 10:29:53:06 10:29:59:19

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

0308 10:29:59:21 10:30:02:24

This is two months after the operation-

0309 10:30:03:01 10:30:09:03

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

0310 10:30:09:05 10:30:12:03

The white bits we see now...

0311 10:30:12:05 10:30:16:14

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

0312 10:30:17:04 10:30:23:21

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

0313 10:30:23:23 10:30:28:15

OK? Give him the rest.

0314 10:30:28:17 10:30:32:11

-25 mg?  
-Give him 50.

0315 10:30:32:13 10:30:35:22

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.

0324 10:31:11:11 10:31:15:22

-Have we got anything?  
-Not much.

0325 10:31:18:19 10:31:25:03

When the pieces were analysed,

the odd cells were found.

0326 10:31:25:05 10:31:31:15

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

0327 10:31:33:04 10:31:39:04

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

0328 10:31:40:04 10:31:46:11

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

0329 10:31:46:13 10:31:53:00

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

0330 10:31:53:02 10:31:59:23

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

0331 10:32:01:11 10:32:09:01

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

0332 10:32:09:03 10:32:15:06

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

0333 10:32:15:08 10:32:21:11

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

0334 10:32:21:13 10:32:27:16

In the article, it says that the samples  
showed no sign of bacteria or fungus.

0335 10:32:27:18 10:32:34:07

But in fact, two out of three biopsies  
show fungal and bacterial contamination.

0336 10:32:37:00 10:32:42:03

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

0337 10:32:42:05 10:32:48:08

But this is  
the most important statement in the article.

0338 10:32:48:10 10:32:54:11

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

0339 10:32:56:00 10:33:03:19

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

0340 10:33:04:09 10:33:10:13

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

0341 10:33:10:15 10:33:16:05

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

0342 10:33:16:07 10:33:23:15

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

0343 10:33:23:17 10:33:30:21

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

0344 10:33:30:23 10:33:35:19

-following the operation.

0345 10:33:39:05 10:33:44:16

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

0346 10:33:46:00 10:33:52:01

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

0347 10:33:52:03 10:33:56:15

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

0348 10:33:56:17 10:33:58:23

Because Andemariam  
never felt well during this time.

0349 10:33:59:13 10:34:01:13

Never...

0350 10:34:02:21 10:34:08:01

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

0351 10:34:11:10 10:34:18:07

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

0352 10:34:18:09 10:34:25:00

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

0353 10:34:25:02 10:34:27:24

In the article, Macchiarini claims  
that his patient had-

0354 10:34:28:01 10:34:32:05

-an "almost normal airway."

0355 10:34:34:15 10:34:38:16

This is how a normal airway should look.

0356 10:34:39:23 10:34:45:24

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

0357 10:34:46:01 10:34:50:18

Everything is covered  
by a fine, pinkish membrane.

0358 10:34:50:20 10:34:55:23

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

0359 10:34:56:00 10:35:02:00

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

0360 10:35:02:23 10:35:07:24

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

0361 10:35:09:00 10:35:15:21

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

0362 10:35:18:08 10:35:25:05

Down in the plastic part, you can see mucus  
which Andemariam is unable to cough up.

0363 10:35:28:14 10:35:35:18

And to the left, where the plastic meets  
the natural trachea, it's bleeding and pulsating.

0364 10:35:35:20 10:35:41:20

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

0365 10:35:43:13 10:35:47:03

This is what a healthy airway looks like.

0366 10:35:49:18 10:35:55:20

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

0367 10:35:55:22 10:36:02:01

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

0368 10:36:03:18 10:36:08:02

The rest is clogged up by granulation tissue.

0369 10:36:08:04 10:36:12:13

The right lung is more or less cut off.

0370 10:36:12:15 10:36:19:02

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

0371 10:36:19:04 10:36:25:09

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

0372 10:36:28:23 10:36:36:05

There is nothing about this in Paolo's article.  
The only thing it says is-

0373 10:36:36:07 10:36:42:13

-that the airway is almost normal,  
and that his breathing has improved.

0374 10:36:42:15 10:36:49:19

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

0375 10:36:49:21 10:36:54:03

And the biopsies, the bronchoscopies,  
everything-

0376 10:36:54:05 10:37:00:02

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

0377 10:37:00:04 10:37:04:22

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

0378 10:37:04:24 10:37:09:18

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

0379 10:37:09:20 10:37:13:05

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

0380 10:37:13:07 10:37:17:07

-compelling evidence that contrasts  
what you are saying.

0381 10:37:17:09 10:37:24:18

So I don't need to restate this very bad episode  
of my life, please. I hope you understand this.

0382 10:37:24:20 10:37:32:19

In your statement I don't see that you're actually refuting the actual quotes from the records.

0383 10:37:32:21 10:37:36:19

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

0384 10:37:36:21 10:37:40:23

-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.

0387 10:37:55:13 10:37:58:15

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...

0391 10:38:14:21 10:38:18:18

He has the trust of Karolinska Institute.

0392 10:38:18:20 10:38:24:06

Hence, they support Macchiarini's claims

that Andemariam's plastic trachea-

0393 10:38:24:08 10:38:28:13

-is about to develop into a normal airway.

0394 10:38:28:15 10:38:34:17

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

0395 10:38:34:19 10:38:40:21

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

0396 10:38:40:23 10:38:47:01

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

0397 10:38:47:03 10:38:50:20

But at that point...

0398 10:38:50:22 10:38:56:22

...there was a substantially  
normal breathing function.

0399 10:38:56:24 10:39:00:11

But the film from the examination  
had clearly shown-

0400 10:39:00:13 10:39:05:23

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

0401 10:39:06:00 10:39:12:15

And they'd had to remove granulation tissue,  
and insert a metal net, a stent.

0402 10:39:12:17 10:39:18:21

Is it good science to call the trachea  
"an almost normal airway"-

0403 10:39:18:23 10:39:21:24

-and not to mention the fistula-

0404 10:39:22:01 10:39:27:08

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

0405 10:39:27:10 10:39:32:23

I agree that one might have expressed oneself...

0406 10:39:33:00 10:39:38:01

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

0407 10:39:38:03 10:39:45:15

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

0408 10:39:45:17 10:39:51:03

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

0409 10:39:51:05 10:39:56:11

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

0410 10:39:56:13 10:40:01:16

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

0411 10:40:01:18 10:40:06:07

As we looked below the surface,  
we just found more and more things.

0412 10:40:06:09 10:40:11:09

It was an awakening for us as well.  
You instinctively want to believe that it's true.

0413 10:40:11:11 10:40:14:15

We couldn't even imagine-

0414 10:40:14:17 10:40:20:03

-just how many lies  
were buried in these articles.

0415 10:40:20:05 10:40:25:08

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

0416 10:40:26:06 10:40:32:08

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

0417 10:40:33:20 10:40:40:16

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

0418 10:40:40:18 10:40:45:20

And still today,  
Hamsten praises the work of Macchiarini.

0419 10:40:45:22 10:40:52:02

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

0420 10:40:52:04 10:41:00:01

And therefore, the follow-up examinations  
of these patients have been extra rigorous-

0421 10:41:00:03 10:41:06:07

-wherever the condition of the patients  
has made it possible.

0422 10:41:06:09 10:41:12:15

And these experiences  
have been published in a stringent way-

0423 10:41:12:17 10:41:16:16

-in scientific journals.

0424 10:41:16:18 10:41:22:20

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

0425 10:41:22:22 10:41:26:00

The articles which made the method  
known around the world.

0426 10:41:26:02 10:41:28:14

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

0427 10:41:28:16 10:41:32:02

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

0428 10:41:32:04 10:41:39:16

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

0429 10:41:39:18 10:41:44:00

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

0430 10:41:45:07 10:41:51:14

The events at Karolinska  
had repercussions outside of Sweden-

0431 10:41:51:16 10:41:58:01

-for patients who were almost completely healthy,  
patients like Julia.

0432 10:42:00:11 10:42:04:08

Just the kind of hat I wanted!

0433 10:42:05:00 10:42:08:18

She might have had a long life ahead of her.

0434 10:42:08:20 10:42:14:06

And still she agreed to  
a potentially fatal operation.

0435 10:42:14:08 10:42:19:20

She was hoping Paolo  
would conjure up her old self.

0436 10:42:19:22 10:42:25:02

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

0437 10:42:25:04 10:42:29:24

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

0438 10:42:30:01 10:42:33:23

We know this material is very safe.

0439 10:42:34:00 10:42:40:13

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

0440 10:42:40:15 10:42:43:16

-and that there was a risk she might die.

0441 10:42:43:18 10:42:50:11

-Paolo is the best surgeon in the world.  
-I know.

0442 10:42:56:22 10:43:04:06

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

0443 10:43:04:08 10:43:11:02

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

0444 10:43:13:14 10:43:18:08

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

0445 10:43:18:10 10:43:22:07

We believed it,  
because we wanted to believe it.

0446 10:43:25:20 10:43:30:17

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

0447 10:43:30:19 10:43:37:02

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

0448 10:43:37:04 10:43:41:21

-What can be done about it?  
-Nothing.

0449 10:43:42:11 10:43:46:17

But in various interviews, he is quick to point  
out how successful it all was.

0450 10:43:46:19 10:43:53:09

I still do not believe that a few days ago  
she couldn't breathe and talk normally.

0451 10:43:53:11 10:44:00:13

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

0452 10:44:05:13 10:44:11:24

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

0453 10:44:13:11 10:44:17:06

Slowly, her condition worsened.

0454 10:44:17:08 10:44:20:11

The plastic trachea didn't work.

0455 10:44:21:17 10:44:25:24

And Macchiarini implanted  
a new plastic trachea in Julia.

0456 10:44:26:01 10:44:31:23

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

0457 10:44:33:10 10:44:36:08

...when everything was fine.

0458 10:44:36:10 10:44:40:22

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

0459 10:44:40:24 10:44:47:00

When Julia had only months to live,  
Paolo appeared on German television.

0460 10:44:47:02 10:44:51:17

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-

0470 10:45:42:14 10:45:45:14

-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...

0474 10:46:04:22 10:46:09:15

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?

0479 10:46:33:04 10:46:37:21

You don't feel regret,  
or... "Maybe I shouldn't have done this"?

0480 10:46:37:23 10:46:40:05

Of course I have doubts,  
all the time I have doubts.

0481 10:46:40:07 10:46:45:01

I doubt I should have done  
this interview or not.

0482 10:46:45:03 10:46:49:21

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

0483 10:46:49:23 10:46:54:00

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

0484 10:46:54:02 10:46:59:01

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

0485 10:46:59:03 10:47:03:21

Do you really think that we are beasts?

0486 10:47:04:16 10:47:08:13

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

0487 10:47:08:15 10:47:13:09

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

0488 10:47:13:11 10:47:19:11

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

0489 10:47:19:13 10:47:22:15

I mostly got counter questions.

0490 10:47:22:17 10:47:26:17

-I have seen all...  
-Did you... Sorry to insist.

0491 10:47:26:19 10:47:29:07

Now I am the journalist.  
Did you see that?

0492 10:47:29:09 10:47:31:11

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

0493 10:47:31:13 10:47:36:14

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

0494 10:47:37:02 10:47:43:04

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

0495 10:47:43:06 10:47:47:19

-without first having tested it on animals.

0496 10:47:47:21 10:47:50:23

Your profession is?

0497 10:47:51:00 10:47:55:12

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

0498 10:47:55:14 10:48:01:09

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

0499 10:48:01:11 10:48:06:07

How can you possibly understand

all the details of a medical evaluation?

0500 10:48:06:09 10:48:11:13

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

0501 10:48:11:15 10:48:17:07

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

0502 10:48:17:09 10:48:22:00

-that this was the most appropriate treatment for her-

0503 10:48:22:02 10:48:26:05

-than I believe we can trust them.

0504 10:48:31:22 10:48:36:24

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

0505 10:48:37:01 10:48:42:05

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

0506 10:48:42:07 10:48:48:09

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

0507 10:48:50:23 10:48:58:06

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

0508 10:48:58:08 10:49:02:09

-that the synthetic scaffolds don't really work at the moment.

0509 10:49:02:11 10:49:06:01

Of course, that's why we stopped  
the clinical trial,-

0510 10:49:06:03 10:49:09:03

-and we are on hold for a better scaffold.

0511 10:49:16:23 10:49:23:18

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

0512 10:49:23:20 10:49:29:13

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

0513 10:49:29:15 10:49:34:16

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

0514 10:49:34:18 10:49:38:15

-will have such conclusions. Right?

0515 10:49:38:17 10:49:45:15

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

0516 10:49:45:17 10:49:50:23

So, of course, we experienced complications-

0517 10:49:51:00 10:49:54:12

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

0518 10:49:54:14 10:50:00:10

So that possibly for the next patients,  
everything will be better - much better.

0519 10:50:11:06 10:50:18:07

So, Paolo has learnt that the plastic tracheas don't work, and to him it's been worth it.

0520 10:50:18:09 10:50:24:18

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

0521 10:50:27:03 10:50:33:06

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

0522 10:50:33:08 10:50:38:17

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

0523 10:50:38:19 10:50:41:23

Sometimes we make big leaps, and sometimes small ones.

0524 10:50:42:00 10:50:48:01

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

0525 10:50:48:03 10:50:51:07

They will probably now perfect the technique.

0526 10:50:51:09 10:50:57:23

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

0527 10:50:58:00 10:51:04:07

In about five to ten years' time, I expect these operations to be fairly common.

0528 10:51:09:04 10:51:14:23

In Russia, they were also initially enthusiastic about the plastic tracheas.

0529 10:51:15:00 10:51:21:16

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

0530 10:51:22:00 10:51:27:03

Igor Polyakov operated on Julia together with Macchiarini.

0531 10:51:27:05 10:51:30:09

He really believed that it would work-

0532 10:51:30:11 10:51:36:09

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

0533 10:51:36:11 10:51:39:18

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

0534 10:51:40:06 10:51:44:03

Karolinska was important for the research grant.

0535 10:51:44:05 10:51:51:01

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

0536 10:51:52:07 10:51:59:04

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

0537 10:52:00:05 10:52:05:20

In Russia, they now know that everything went wrong, not least in Julia's case.

0538 10:52:05:22 10:52:07:20

And they dare to admit it.

0539 10:52:08:16 10:52:15:07

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

0540 10:52:17:08 10:52:22:23

I wouldn't have used the first two tracheas.

0541 10:52:23:00 10:52:29:22

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

0542 10:52:34:20 10:52:39:22

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

0543 10:52:39:24 10:52:43:04

Perhaps because the hospital  
still hasn't fully investigated-

0544 10:52:43:06 10:52:46:11

-how they could put patients  
through treatment methods-

0545 10:52:46:13 10:52:49:13

-that hadn't even been tested on animals.

0546 10:52:49:15 10:52:57:01

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

0547 10:52:57:03 10:53:00:23

You don't feel that KI is responsible-

0548 10:53:01:00 10:53:08:08

-despite having assisted in choosing the patients,  
testing the material, and training the staff?

0549 10:53:08:10 10:53:13:21

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

0550 10:53:14:24 10:53:21:04

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

0551 10:53:21:06 10:53:27:07

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

0552 10:53:27:09 10:53:32:13

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

0553 10:53:32:15 10:53:35:18

-who took part in the clinical studies in Russia.

0554 10:53:35:20 10:53:41:22

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

0555 10:53:41:24 10:53:47:02

-and they have trained staff.  
This has happened.

0556 10:53:47:04 10:53:50:13

Well, it.... it...

0557 10:53:50:15 10:53:55:18

I trust that it has happened, if you say so.

0558 10:53:55:20 10:54:00:18

But they haven't done so  
within their employment at KI.

0559 10:54:00:20 10:54:06:00

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

0560 10:54:07:07 10:54:10:08

Well, that... that...

0561 10:54:11:09 10:54:18:00

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

0562 10:54:22:09 10:54:28:21

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

0563 10:54:30:05 10:54:36:12

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

0564 10:54:36:14 10:54:41:17

But he maintained that Karolinska  
was not responsible-

0565 10:54:41:19 10:54:45:11

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

0566 10:54:47:20 10:54:51:06

You are insinuating  
that everybody in the group has lied.

0567 10:54:51:08 10:54:56:09

Which is very bad.

I didn't expect that from you. Wow!

0568 10:54:56:11 10:55:01:21

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

0569 10:55:01:23 10:55:08:07

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

0570 10:55:08:09 10:55:15:23

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

0571 10:55:16:00 10:55:21:23

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

0572 10:55:22:00 10:55:24:18

So please, let's stop here now.

0573 10:55:26:00 10:55:31:15

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

0574 10:55:31:17 10:55:35:15

That's the last interview that I gave you.

0575 10:55:35:17 10:55:40:00

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

0576 10:55:40:02 10:55:44:17

-The way you asked is very, very harsh.  
-But it's the only way.

0577 10:55:44:19 10:55:48:14

No, it's not,  
there are more gentle ways to ask things.

0578 10:55:48:16 10:55:54:07

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

0579 10:56:10:09 10:56:15:22

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

0580 10:56:15:24 10:56:23:01

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

0581 10:56:24:13 10:56:27:04

Welcome to this session.

0582 10:56:30:03 10:56:35:08

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

0583 10:56:35:10 10:56:40:13

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

0584 10:56:40:15 10:56:42:13

We have to put an end to this.

0585 10:56:42:15 10:56:45:18

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

0586 10:56:45:20 10:56:50:24

It's enough. It's time to stop this method.

0587 10:56:51:01 10:56:55:03

None of the four doctors  
who reported the misconduct-

0588 10:56:55:05 10:56:59:11

-ever received the official warning  
Karolinska threatened them with.

0589 10:56:59:13 10:57:05:19

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

0590 10:57:05:21 10:57:12:00

Paolo Macchiarini has had his contract extended  
by Karolinska Institute-

0591 10:57:12:02 10:57:17:04

-despite the fact  
that his plastic tracheas obviously don't work-

0592 10:57:17:06 10:57:23:06

-and that his scientific articles  
do not truthfully represent reality.

0593 10:57:24:24 10:57:30:04

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

0594 10:57:30:06 10:57:32:07

As if nothing's happened.

0595 10:57:32:09 10:57:37:21

This means that perhaps the most important  
question of all remains unanswered:

0596 10:57:37:23 10:57:43:01

How can Karolinska continue to defend  
everything that has happened?

0597 10:57:43:03 10:57:50:19

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

0598 10:57:52:00 10:57:58:03

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

0599 10:57:58:05 10:58:01:18

It's about that, and nothing else.

0600 10:58:01:20 10:58:08:15

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

0601 10:58:11:03 10:58:14:05

I can't help wondering...

0602 10:58:14:07 10:58:19:07

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