The star surgeon, Paolo Macchiarini, was the first to surgically implant a plastic trachea in a human being.

A groundbreaking surgery gave a man back his trachea and his life.

This is a synthetic organ.

He promised a future with more organs made of plastic, such as heart and lungs.

We're just a few years away from all organs being built in a lab.

But privately, Macchiarini started to discover faults with his tracheas.

When I felt the scaffolds, they were completely welded wrong.
So I think we'll have to redo everything again.

A surgeon at Karolinska Hospital, who is suspected of illegal surgeries-

-may be charged with manslaughter and causing bodily harm.

And patients were beginning to die.

If I had a choice between a transplantation of a synthetic trachea and the firing squad-

-I would certainly choose the last option, because this is the least painful form of execution.
I didn't do anything wrong,
I just did my job.

But despite the faults, Macchiarini made plans
for new operations with plastic organs.

If he succeeded,
he would be revolutionising the medical world.

If not... his experimental subjects
ran the risk of dying.

The atmosphere was tense
in Macchiarini's lab in Stockholm.

It was here he tried to solve the problem
with the plastic tracheas in 2012.
Paolo was now fighting to succeed. In his view, it wasn’t the plastic trachea-

which had caused the death of the patient, but the patient had simply been too ill.

For clearer results, he wanted to try his method on stronger, healthier subjects.

People who were not fatally ill.

Despite not having tested his method enough, he was granted permission-

-to start a clinical study on humans.

The first trials would take place in Russia.

For some time, they had searched for the right experimental subjects here.

Many candidates were pitted against each other.

And Karolinska assisted in making the final selection.
The trials were soon about to begin.

Julia Tuulik had been chosen to be the first experimental subject.

She was asked to record a video, explaining why she should be chosen for the operation.

My name is Julia Tuulik. In 2008, I was in a very serious road accident.

I underwent many difficult surgeries.

And I also had a tracheostomy.

Now I have a tube that constantly grinds on me.

It hurts a lot when I speak, breathe, lie down, and sleep - always.

As you can see, I'm a normal, nice, kind of pretty young girl-

-and I would like to live like other normal people.
I need the tracheal transplantation
developed by Professor Macchiarini.

Both Julia and Paolo were now heading
towards the same hospital in Southern Russia.

At this time, Paolo's international reputation
was at its peak.

A German TV crew was recording a documentary
about him and Julia's operation.

This footage is taken from their raw materials.

The recordings give a unique insight
into Paolo's medical experiments.

The more I saw,
the more questions I had for Paolo.

But I had to put them on hold-

-until his experiments were completed,
a long time later.

It all began four years earlier for Julia.
She and her husband at the time were travelling, when a truck crashed into them.

As if by a miracle, they survived.

Three medical teams patched her back up. Her arms, her legs, and her face...

Everything that could be saved was fixed at the same time.

First they worked on the teeth.

I had to feed her through a straw, as her teeth were so damaged.

For one and a half months she was fighting for her life in intensive care.

Julia was pregnant-

-and she would put up with just about anything to protect her child.

Julia refused to take any painkillers
in order not to hurt her child.

She was in terrible pain, yet she endured it all.

Yes, stand up.

It might be tricky to hold him. Or do you want to try?

They managed to save both Julia and the child.

And we had a healthy boy.

He was very lively.

There were small steps of progress.

The big thing for her was regaining her voice, helping her to interact with her child-

-and live a more independent and full life.

The tracheostomy was the hardest part for us.
There are people who are able
to live a normal life with tracheostomy.

But Julia wasn't happy with that.
She was prepared to take it further.

For our princess.

In order to speak,
Julia had to cover the hole in her throat.

Just the kind of hat I wanted!

You can live a long life with tracheostomy.

But the hole in her throat bothered her,
and she wanted to become like her old self again.

During the last leg of the journey, Julia is interviewed
by the interpreter for the German crew.

Tell us about when you woke up this morning,
and about how you felt.

-What were your thoughts?
- I got myself ready.
-Were you calm?
  -Yes, shouldn't I be?

Weren't you scared or worried?

When you ask, I get the feeling that you're trying to get me worked up.

No, I...

For now I just take it one step at a time.

Is Macchiarini the only one who can help you?

I actually don't know.

Hopefully it leads to something good. Perhaps I'll get better.

But you never know... what will happen.

THORAC SURGERY
How are you feeling, waiting for your surgery?

If you asked less I would be calm, but now I'm starting to get nervous.

That was the penultimate question.

It's as if it's all down to me.
-That's right.

50% of the outcome is dependant on your attitude.

In that case, my answer is this, at the airport I wanted to buy a Pepsi from a machine-

-but I got both a Pepsi and a Snickers bar.

-I believe that's a good sign.
-Sure.

Right, then we'll see you at the examination, when we will...

-When is that?
-Today. The specialists will arrive...
-Am I staying here?
-Yes, you stay here.

Come in!

This is the German physician Philipp Jungebluth, Macchiarini's right-hand man.

It was he who prepared the plastic tracheas.

First, bone marrow was extracted from Julia's hipbone.

The cells were mixed into a liquid-

-which was then poured over Julia’s new plastic trachea.

The trachea was left to rotate for several days. A number of tracheas were prepared as extras.

With one day to go before the operation, Paolo arrived.

The situation seemed pressured.
Two weeks ago, I was in Moscow.

0114 00:13:08:00 00:13:14:22

They said, "OK, let's do the transplantation."
But we never received any money.

0115 00:13:15:01 00:13:22:18

Since January 2012,
we have received no money at all.

0116 00:13:42:17 00:13:46:10

-Do you want something, tea, coffee, water?
-No.

0117 00:13:46:14 00:13:50:00

I just want to talk to Igor.

0118 00:13:50:03 00:13:52:15

OK, please take a seat.

0119 00:13:53:01 00:13:57:01

Igor Polyakov
was going to operate together with Macchiarini.

0120 00:13:57:10 00:14:00:20

Nice to meet you.

0121 00:14:01:00 00:14:05:06

-Let's go to...
-A short break.

0122 00:14:05:10 00:14:10:01

We have to decide.
Do you know about the problem?
-No, what is the problem?
-We were not able to continue...

...because one of the prosthesis is rather short,
and the second one rather weak.

The third is probably damaged,
because they find holes...

It's just a break, because we have...

So one scaffold is too weak.
And the other one is...

The other one is with the holes inside.

The third one is good-

-but the distance between the rings
is rather short.

But it will be OK,
because we can cut and adjust it a little bit. Maybe.

-What is the problem?
-It is too short, three millimetres.
-Where? Distally or proximally?
  -Distally.

-Then sod it, it doesn't matter.
  -Sod it? We'll use it?

-Yes.
  -You can stitch through the cartilage.

Shall we take the best one?
  The one with three?

-Three what?
  -Three millimetres distally.

-And the other one?
  -It's distally weak.

But it has eight millimetres.

-Is it very weak?
  -Yes, I wouldn't take that one.

-Then let's go with the other one.
  -The one with three millimetres?
-Would you like to have a look?
-There's not much to choose from.

One out of two.
Both have been prepared in the same way.

This is beginning to sound worrying.

It seems like all the plastic tracheas have something wrong with them.

And yet, no one considered cancelling the operation, instead everything continued as planned.

Julia was now going to get information about the functions of a plastic trachea.

David Green, the CEO of one of Paolo's American associates-

-would explain this to Julia.

-Hello. Is it OK to come in?
-Yes.

I'm David, David Green. Nice to meet you. Can I sit here?
Olga and Viktor told me that you would like to see the trachea scaffold and the bioreactor.

-So these are sterile.
-I understand what he says.

But this is exactly the same as what will go into you tomorrow.

So when the doctors came two months ago... You can touch it, you can feel it.

When the doctors came two months ago, they took the CAT scans of your neck-

-and this is made to the exact dimensions.

But this has no cells. Your trachea has cells and blood vessels.

So when this has the cells on it, it will look like normal tissue.

-It looks like foam rubber.
-She says it looks like plastic.
It is plastic. It is the same plastic as this bottle is made from.

0162 00:18:03:16 00:18:07:05

It says on the bottom here, for recycling, it says PET.

0163 00:18:07:09 00:18:12:01

This is the same plastic. But this is food grade-

0164 00:18:12:05 00:18:18:17

-and this is medical grade, so this is much, much purer. This is just for industrial use.

0165 00:18:18:21 00:18:24:06

-So we know this material is very safe. -Isn't it better with a natural material?

0166 00:18:24:10 00:18:30:05

This you cannot get naturally, so we have to make it. I can show you...

0167 00:18:30:09 00:18:34:21

-This is Mr Andemariam Beyene. -Yes, I hear about him.

0168 00:18:35:00 00:18:38:01

He received his trachea one year ago.

0169 00:18:38:05 00:18:43:00

-It's the same? -Very similar. Very similar to this.

0170 00:18:43:03 00:18:49:13

We all went to Iceland, with all the surgeons, to make a celebration, like a one-year birthday party.
One week earlier, David Green had been to Iceland, where he took the photo he showed her.

In the photo was Andemariam Beyene, Paolo’s first plastic trachea patient.

Green and Macchiarini’s team had travelled there to celebrate the anniversary of the operation.

It’s of course a big moment—

-for both us the team here in Iceland, and of course the team at Karolinska...

They had held a press conference to inform about the operation.

Back then nobody knew that we would be here one year later to celebrate, so it’s a huge clinical milestone.

When I saw him the first time, he asked me, "What do you want to do with me?"

So I explained it to him.
And his first reaction was just to look at me and say, "You are crazy."

And I said, "Yes, I am. But this is the only chance you have."

But at this point, one week before Green's visit with Julia-

-Macchiarini knew that there was a fault also with Andemariam's trachea.

He had made this discovery earlier that spring.

When I felt the scaffolds, the were completely welded wrong.

They were like the POSS PCU material that we implanted in Mr Beyene.

...completely welded wrong...

Macchiarini and his team covered up the seriousness of the situation during the press conference.

Did they wish to portray the operation as a greater success than it really was?
In fact, Andemariam had not been very well.

His wife, Merhawit, remembers that it all seemed successful right after the operation.

But slowly, it had become clear that all wasn't as it should be.

These events have been so painful - that Merhawit wished for her and the children not to be shown in the photographs.

He was coughing, but we believed it was due to the cold weather.

We thought he would get better after the winter.

Everybody believed he would get better.

Come here now!

Come on!
We were hoping it would pass.

0201 00:21:41:06 00:21:45:16

We never thought he was seriously ill.

0202 00:21:45:20 00:21:50:23

We said the coughing was caused by the weather.

0203 00:21:51:02 00:21:54:15

And that he would get better once he got used to it.

0204 00:21:54:19 00:21:59:10

But as time went by, he just got worse.

0205 00:22:01:09 00:22:07:11

Merhawit also remembers the anniversary, and how the operation was portrayed as a success.

0206 00:22:09:00 00:22:13:20

After the conference, a few days maybe...

0207 00:22:15:05 00:22:21:17

And he read something that... it is going well.

0208 00:22:21:21 00:22:27:09

And he said, "How they can write like this?"

0209 00:22:27:13 00:22:32:02

"I'm going down, but they wrote like this."

0210 00:22:36:18 00:22:39:19

In reality, shortly before the press conference-
-Andemariam had been forced to fly to Sweden to receive care.

The examination film shows inflammation, and an increasingly problematic trachea.

He’d had trouble keeping his airways open, and he had coughed up blood and mucus.

They’d had to insert a steel net in order for him to breathe.

Paolo was a chief physician at Karolinska. Surely he couldn't have missed this?

THORACIC SURGERY

What we saw in Karolinska is that...

...after so many hours the scaffold gets very, very soft.

So they need to be dry before implanted, otherwise they will collapse completely...

Is it possible that Paolo’s team, here in Krasnodar,
was covering up the problems?

Did they choose not to tell Julia about the risks?

We know that this material is very safe.

Did Green want Julia to believe that everything had been tried and tested, instead of focusing on the risks?

So this can turn like this, to turn it around.

And this is mounted in here, and then the stem cells are poured in here. And this rotates very slowly.

They're in the bioreactor for two days, it's completely sterile, and then it's done.

And tomorrow they will put this into you. But after it goes in, it still has no blood supply.

It takes about seven days for your body to grow new blood vessels through the scaffold-and then it will be your new trachea.
And how will I feel during those seven days?

0231 00:24:34:09 00:24:38:07

It will be just like this.
You'll be sitting in bed, lying in bed.

0232 00:24:38:11 00:24:42:05

You're in very good hands.
Paolo is the best surgeon in the world.

0233 00:24:42:07 00:24:45:10

There's no one better
who can do this surgery for you.

0234 00:24:48:19 00:24:52:00

-I know.
-You know? You are right.

0235 00:24:53:05 00:24:57:11

Very nice meeting you, Julia. Bye-bye.

0236 00:24:57:15 00:25:00:02

Bye-bye. Thanks.

0237 00:25:02:17 00:25:04:09

Bye.

0238 00:25:16:06 00:25:20:03

This is the final brainstorming
before the transplantation.

0239 00:25:20:07 00:25:26:03

Julia, tomorrow, will be the first patient
entering our clinical trial.

0240 00:25:26:07 00:25:32:07
We need to go through every single step.

0241 00:25:33:01 00:25:36:10

When I watch this,
I wonder why it all seems so rushed.

0242 00:25:36:19 00:25:40:21

This distance should cover it.

0243 00:25:41:00 00:25:47:17

We need to give credit to Professor Porchanov.
The pressure that he and I have-

0244 00:25:47:21 00:25:53:12

-from different ministry authorities,
is extremely high.

0245 00:25:53:16 00:26:00:11

They want that this will be a success,
and I'm confident that we will do the best.

0246 00:26:00:15 00:26:05:16

Was it the pressure from ministers
and financiers that made Paolo push on?

0247 00:26:05:20 00:26:11:10

If we can do the transplantation
by just doing two surgical incisions only-

0248 00:26:11:14 00:26:14:06

-this would be a major achievement.

0249 00:26:14:10 00:26:20:09

She will be doing interviews,
and so forth, and so forth...

0250 00:26:26:21 00:26:31:21
Shortly before the operation, Paolo and Julia finally met.

0251 00:26:38:23 00:26:42:06

-You look beautiful!
-Thank you.

0252 00:26:43:20 00:26:47:09

Even though Julia has been informed that this is an experiment-

0253 00:26:47:11 00:26:49:14

-and perhaps she's also signed a document-

0254 00:26:49:18 00:26:55:18

-she doesn't seem to understand the risks she is about to take.

0255 00:26:55:22 00:27:00:10

Regardless of whether we transplant the trachea, the hole still needs to be sealed.

0256 00:27:00:14 00:27:08:17

It's not a question of cosmetics, or how you're going to breathe-

0257 00:27:08:21 00:27:14:12

-but there might be an accident, and then you won't be able to breathe at all.

0258 00:27:14:16 00:27:18:00

Not even her doctor, Polyakov-

0259 00:27:18:03 00:27:24:05

-seems to have been informed of the set-backs from Paolo's method.
Do what you have to, 
but consider my wishes for the transplant.

We have to know the wishes.

I realise that some scarring is unavoidable, 
but I'd prefer it if you didn't cut the breasts.

Show on top of your clothes 
where you don't want any scars.

OK, so this is the zone forbidden.

OK? Scars, but out of this zone.

-So, what do you say, Julia? 
-What do you choose?

Which part do we choose? Not here? 
Not this part...

-On this part, here is fine. 
-Only here.

The time had finally come.
Paolo would get to implant a plastic trachea-

0270 00:28:34:19 00:28:40:19

-in a test patient
who quite possibly had a long life ahead of her.

0271 00:29:36:16 00:29:40:03

It is a historic moment.

0272 00:29:49:19 00:29:51:11

Carefully.

0273 00:30:25:04 00:30:28:22

Would the new trachea work?

0274 00:30:30:19 00:30:35:02

Eventually,
Julia awoke from the narcosis.

0275 00:30:42:06 00:30:48:23

Well done! Wake up, sweetheart.
We'll remove the tube once you're awake.

0276 00:30:49:02 00:30:51:19

Bend it! Bend it even more.

0277 00:30:51:23 00:30:57:22

-Even higher.
-That's fine. Put your leg down.

0278 00:30:58:22 00:31:01:22

-Oops.
-Wow!

0279 00:31:02:01 00:31:06:05

-Put your leg down, sweetheart.
-No messing around.

0280 00:31:06:09 00:31:08:18

She has to speak.

0281 00:31:08:22 00:31:12:02

-She opens her eyes.
-She has to speak.

0282 00:31:12:06 00:31:18:08

-How are you?
-Julia, it's me. Can you hear me?

0283 00:31:18:12 00:31:23:05

The surgery is over.
Can you say something? Say something.

0284 00:31:25:08 00:31:28:05

-Say something.
-Thank you.

0285 00:31:28:09 00:31:31:15

-Good!
-Congratulations to everybody!

0286 00:31:31:19 00:31:37:08

Thanks to everybody in the team!
Thanks to our beloved party!

0287 00:31:37:12 00:31:41:00

Calm down. It's all over.

0288 00:31:41:03 00:31:46:14

We have removed everything,
and it looks good.

0289 00:31:46:18 00:31:52:04
You don't need to tense up like this.
Just relax, relax...

No, don't cry.

Will I be able to play with my son?

Yes, as much as you want.

Don't worry.

Everything is fine.

She's asking if she'll be able to play with her son again.

THORACIC SURGERY

Already after a few days, a press conference was called.

Julia, Julia...

This is Julia.
When I first met Julia, she wasn't able to play with her child.

It was a very emotional moment for me.

And I immediately said, "This is the right patient."

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

She's a little bit afraid of you-

-so please be very sweet...

She can answer all the questions, if you would like.

I'm not afraid of anyone.

A new era has begun for you. Congratulations! What are you going to do? What kind of work?

For four years you have... You have lost four years of your life!
I don't know what I'm going to do.

0311 00:35:31:09 00:35:39:04

First I need to get well,
and then I'd like to continue my studies.

0312 00:35:39:08 00:35:44:12

I can't give you a concrete answer,
I'm worried I'll disappoint you.

0313 00:35:52:14 00:35:55:23

It seemed like a success all around.

0314 00:35:57:01 00:36:02:01

Julia was seemingly on the road to complete recovery.

0315 00:36:02:05 00:36:08:20

And Macchiarini could show off
a groundbreaking transplantation.

0316 00:36:11:09 00:36:16:12

He could continue doing research
and performing operations.

0317 00:36:21:08 00:36:23:17

Cheers!

0318 00:36:40:04 00:36:47:00

Another experimental subject had been operated on
almost immediately afterwards, it was Alexander Zozulya.

0319 00:36:53:09 00:36:58:00

The operation was followed
in an adjacent room.
Here was paediatric surgeon Mark Holterman.

Together with Paolo, he would soon implant a plastic trachea in a child.

Parallel with the trials in Russia-

- Paolo continued to implant plastic tracheas in patients who were seriously ill.

The operation would take place in the US, on 2-year-old Hannah Warren.

- It's OK.
- Don't worry about it.

And then there was one more patient in waiting.

22-year-old Yeşim Çetir from Turkey.

Yeşim was not part of the Russian trials-

- but would be operated on at Karolinska Hospital-
-were Macchiarini's plastic trachea transplants first saw the light of day.

0331 00:37:59:21 00:38:04:07

But Yeşim's operation failed already from the start.

0332 00:38:04:11 00:38:10:01

The plastic trachea wouldn't take hold, and it lost its shape.

0333 00:38:10:05 00:38:16:00

It had to be cleaned every four hours, to prevent her from suffocating.

0334 00:38:16:04 00:38:23:00

After a year, Yeşim had a new plastic trachea implanted, but matters didn't improve.

0335 00:38:24:09 00:38:27:11

In the end, Yeşim stayed for over three years.

0336 00:38:27:15 00:38:32:15

One of the longest staying intensive care patients ever at Karolinska.

0337 00:38:35:11 00:38:40:02

Hannah Warren also remained in intensive care.

0338 00:38:43:08 00:38:48:21

She died three months after having received her plastic trachea.

0339 00:38:54:19 00:39:01:18

The condition of Macchiarini's first plastic trachea patient, Andemariam, also worsened.
He felt that there was something wrong with his trachea, and he tried to reach Macchiarini.

Andemariam left Iceland and travelled to Sweden-

-to meet Dr Paolo, who had promised to examine him.

But when he arrived in Stockholm, Dr Paolo wasn't there.

He was told that if he wished to see him-

-he would have to go to either Italy or the USA.

But Andit wasn't able to go to the USA or to Italy.

He needed to get care either in Iceland or in Sweden.

Not only the patients felt that Paolo wasn't there when they needed him.

While Macchiarini travelled across the world, the hospital staff back in Stockholm-
was left to deal with the patients and their severe complications.

One of the doctors dealing with Paolo's patients was Thomas Fux.

A meeting was called-

-where Paolo Macchiarini would present the results-

-of all the patients he had operated on, case by case.

The information was very worrying.

The foundation was crumbling.

The meeting generated more questions than answers.

Even the management started to have issues with Macchiarini's methods.

In October 2013, his transplantations
at Karolinska were stopped.

But since Paolo had been stopped, his patients were left without specialist help.

Thomas Fux tried to fill the void.

He and his colleagues would now make a very surprising discovery.

Our approach was to look for a possible solution.

A therapeutic remedy for a deeply suffering patient.

So we buried ourselves into the literature-and read through Paolo Macchiarini's published studies.

Fairly soon, or rather straight away, we got the impression-

-that the material he had published in his scientific reports-
-did not correspond
to the clinical reality we had experienced.

Their suspicions concerning the truth in Paolo's reports
were soon about to be strengthened.

Andemariam returned one last time
to Karolinska.

He was in terrible pain.
He suffered immensely.

When I arrived, he was barely alive,
I wasn't able to make contact with him.

He was dying.

I don't think he heard anything I said to him.

The only sign of life was that he was breathing.

Andemariam Teklesenbet Beyene
passed away in January, 2014.

And from the autopsy report,
the doctors got the truth about his plastic trachea.
AUTOPSY REPORT

0380 00:43:49:00 00:43:53:01

There were no signs of a new organ having been created.

0381 00:43:53:05 00:43:55:10

Only inflammation and dead tissue.

0382 00:43:55:12 00:43:57:21

"severe inflammation"
"necrotic tissue"

0383 00:43:57:23 00:44:01:23

The plastic trachea was so loose that it could simply be lifted out.

0384 00:44:02:00 00:44:04:02

"90% loose"

0385 00:44:04:04 00:44:07:05

It was far worse than the doctors had imagined.

0386 00:44:07:09 00:44:13:11

They decided to compare the test results of the plastic trachea patients in Sweden-

0387 00:44:13:15 00:44:19:00

-to the way they had been described in Macchiarini's scientific reports.

0388 00:44:20:02 00:44:23:22

They soon discovered a pattern.

0389 00:44:29:10 00:44:34:10
Apart from the fact that what was written in the articles-

- was inaccurate, manipulated, or embellished-

- the most important information, the worst part, had consistently been left out.

The trachea broke down. It came loose at both ends, where it had been stitched together.

There are chronic infections, the plastic tube did not knit...

There's inflammation, which results in granulation tissue at the connecting points-

- and this might strangle, i.e. suffocate the patient, unless it is removed.

The plastic trachea eats its way into the oesophagus...

... creating a connection through the oesophagus...

... and the chest cavity, the chest, and the airway.
There is information about certain problems in Macchiarini's work-

-but nothing about how many times Andemariam needed emergency treatment.

And nothing about a chronically infected trachea that eventually came loose.

Or about the fact that Yeşim had endured more than 7000 examinations and operations.

The doctors now inform their superiors, at the Institute, and at the University Hospital.

Our assessment is that they are misleading the scientific society-

-and they are misleading practising physicians, as well as patients.

It is extremely serious.

Macchiarini's operations had been stopped in Sweden.
But Fux and his colleagues suspected that the faults in Paolo's work-
-still led to further operations, and further suffering, abroad.

The doctors asked their superiors to inform the world of what had really been going on.

Otherwise other patients risked receiving Paolo's plastic trachea.

Others like Julia.

She was one of the patients, meant to prove that the method worked.

How did she get on after the operation?

This is something Macchiarini has kept very quiet about, officially.

A few days ago, she couldn't breathe or talk normally.

Shortly after the surgery, the doctors examined the results of Julia's operation.
-Here is the upper part.
  -What is that fold?

It has folded over,
and it seems to have become completely...

-What can be done about it?
  -Nothing.

-The trachea isn't collapsing.
  -It is bent.

-Doctor, is the prosthesis working?
  -Yes, it works perfectly.

It hasn't gotten...

-Has the prosthesis folded over badly?
  -No, no.

-But you said it would bend even more.
  -It hasn't happened with other patients.

Do you want to know something?
  Stop crying.
Remember that the wounds in a winner heal quicker.
Stop crying!

0428 00:48:44:13 00:48:49:11

-I can hardly get any air. It's difficult to breathe.
-I is that why you're crying?

0429 00:48:49:15 00:48:52:20

Everything is as it should be.
Stay strong.

0430 00:48:58:14 00:49:03:14

This is the last I saw of the German recordings.

0431 00:49:03:18 00:49:07:19

Watching this footage has generated many questions for Paolo.

0432 00:49:07:23 00:49:13:13

But first I had to follow this story until the end.

0433 00:49:13:17 00:49:21:05

I suspected that I would only get one more chance to interview Paolo.

0434 00:49:22:08 00:49:29:04

When he and his team flew off to the next operation, everything went back to normal...

0435 00:49:30:20 00:49:34:00

...for everybody, except for Julia.

0436 00:49:39:11 00:49:42:23

But all wasn't as it should be.

0437 00:49:45:18 00:49:50:21
When she came home, she was breathing normally.

0438 00:49:51:00 00:49:56:00

But there was a strange smell.

0439 00:49:56:04 00:49:59:16

It was somehow synthetic.

0440 00:50:02:07 00:50:07:00

She had a fever... and she was swollen.

0441 00:50:08:05 00:50:13:06

She had a shortness of breath.
   All sorts of things...

0442 00:50:14:17 00:50:18:02

She had severe breathing difficulties,
   and she coughed a lot.

0443 00:50:18:06 00:50:24:23

She had bouts of coughing, lasting for hours,
   and she could barely breathe.

0444 00:50:26:17 00:50:32:20

Julia had to be rushed back
to the hospital in Krasnodar to get help.

0445 00:50:35:12 00:50:39:13

Her surgeon told me
   about what had gone wrong.

0446 00:50:39:17 00:50:45:20

First of all there was a problem
   with the scaffold. It collapsed.
It collapsed over time.

0448 00:50:51:18 00:50:57:22

The surrounding tissue kept pushing the trachea together, and it gave way.

0449 00:50:58:01 00:51:03:04

You had to constantly keep the airway open.

0450 00:51:09:15 00:51:14:15

Polyakov had to insert a steel stent into Julia's trachea-

0451 00:51:14:19 00:51:21:20

-to prevent her from suffocating. She remained in Krasnodar for months.

0452 00:51:24:02 00:51:30:12

Without the plastic trachea, Julia might have lived for decades, perhaps even longer.

0453 00:51:32:07 00:51:36:18

But the situation continued to be life-threatening.

0454 00:51:37:11 00:51:45:00

I asked about Macchiarini, and they claimed to have regular contact.

0455 00:51:45:03 00:51:52:01

But he was already like a ghost, and I realised he wasn't very interested.

0456 00:51:52:05 00:51:54:20

And now she began to stink.
Julia was able to return home, but she was constantly suffering from infections.

Macchiarini’s team had no other solution than to insert a new plastic trachea.

But that didn’t solve anything.

It smelled of rotting flesh. The smell was so awful that...

It was really... It was horrendous.

I realised that she was rotting while still alive.

Here in her apartment, Julia spent her final time alive.

She coughed up blue suture thread, along with bits of flesh.

Julia’s sister-in-law remembers her final days.

She said, "I'm so tired, I have no strength to live. I'm completely exhausted."
She said...

...that she was very sad
she would not get to see her son grow up...

...and that she had wanted to live.

Julia Tuulik died at home alone,
in September, 2014.

It had then been seven months since the doctors
at Karolinska had warned their superiors-

-that Paolo's methods
could result in the death of his patients.

One might think that such serious warning signs
would have made the management at Karolinska-

-act a long time ago.

But despite several meetings, emails,
and conversations, there was no reaction.

And in Russia, Paolo's trials continued
on almost completely healthy Dmitri Onogda.
The doctors got more and more frustrated with their superior's lack of reaction.

Therefore they decided to take drastic action. They documented all the faults they could find-in a 400-page-long report and filed it with the Vice-Chancellor at Karolinska Institute.

We were worried when we handed it in, as we realised it would be disastrous-not only for Macchiarini and his team, but for the Karolinska Institute as a whole.

We thought it would have a major impact, but nothing happened.

...until the story was published in the New York Times and Nature.

Although lives were at stake, it wasn't until nine months after the doctors' warning-that the Vice-Chancellor at Karolinska Institute commissioned an impartial inspection.
And that's when our situation at work started to get uncomfortable.

First we were told that we would be reported to the Police.

But that was changed, and instead we would receive the most severe warning there is-

-from our Operations Manager on the basis of breach of medical records.

What was going on in Karolinska Hospital and Karolinska Institute?

Were they trying to silence the doctors?

Did they not want to investigate Macchiarini's operations and his research?

Paolo Macchiarini is trusted by the Karolinska Institute.

I had seen patient after patient die.

According to Macchiarini,
the tracheas had nothing to do with the deaths.

He had presented all facts correctly, and always been there for his patients.

But was this really the case? In part three, Paolo will answer all of my questions.

Perhaps there's something I've missed.

-Your profession is? 
-...because she had so much...

Answer my question, "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?

You know all the details of a medical evaluation? Of course not.
But I've read all the documents of the investigation.

0506 00:57:53:20 00:57:59:22

This is totally wrong.
You should revise your English.