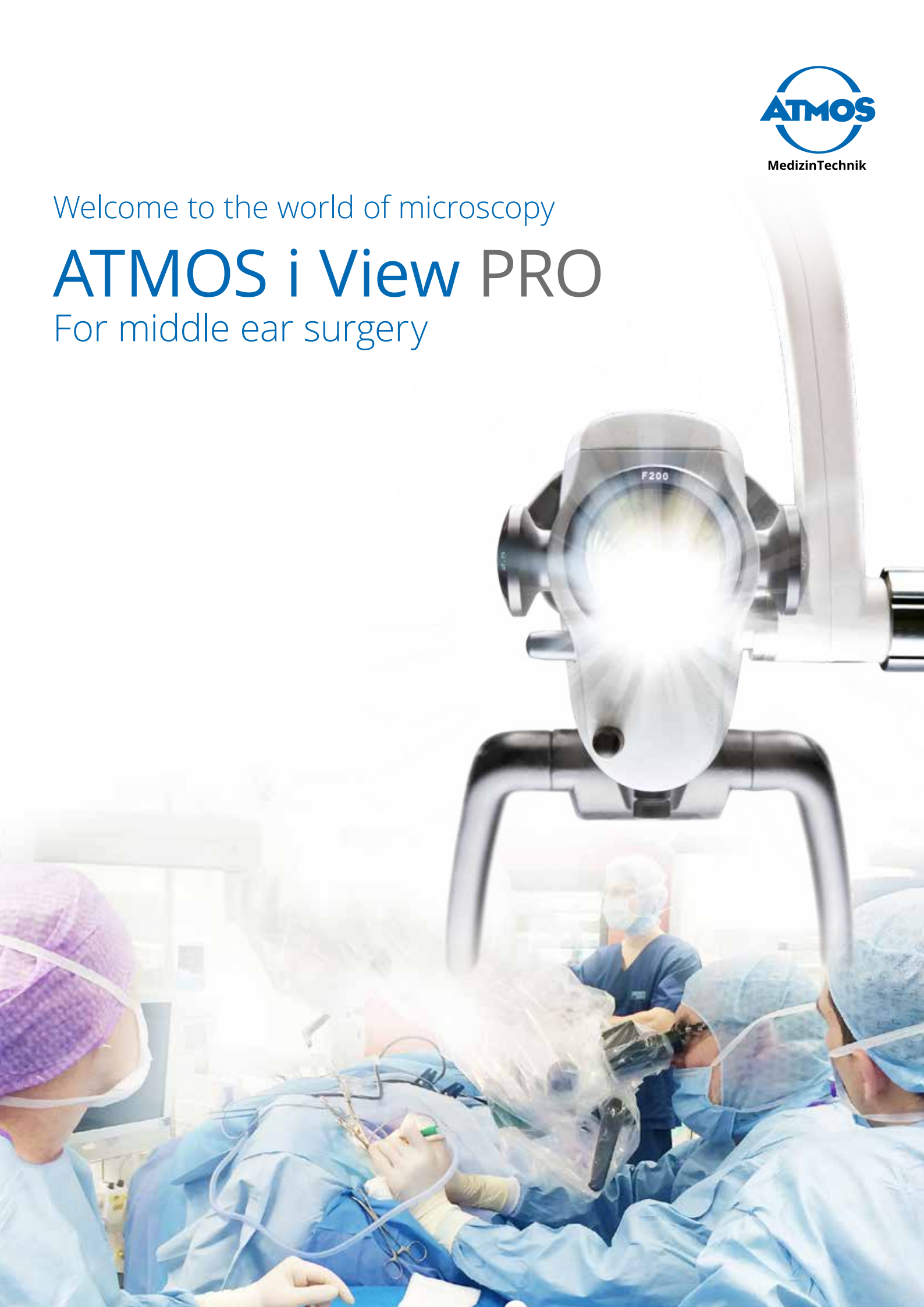


Welcome to the world of microscopy

# ATMOS i View PRO

For middle ear surgery



# A pioneering achievement

“ The ATMOS i View PRO represents a new generation of microscopes. International experts confirm that we have met the needs of demanding surgeon. ”

Peter Greiser | CEO



## The best

CEO Peter Greiser had the idea of revolutionising the world of ENT microscopy. His development goal: a new dimension of vision. A microscope for ENT specialists setting new standards in terms of usability and image quality. So Peter Greiser created a team of his best people and an optics expert from Wetzlar to make history. A story, which focuses on the "ATMOS i View Pro".

During the device's first presentation in 2011, ear surgeons were interested in the ATMOS i View PRO. They recognised this microscope had great potential to make complex and risky procedures safer. ATMOS i View PRO allowed the surgeon and his/her surgical team an unprecedented view into the depths of the body without adverse tissue heating.

In close cooperation with an ear surgeon from Ludwig Maximilian University in Munich, the ATMOS perfectionists optimised the ATMOS i View PRO.

The declared aim was to integrate ATMOS i View PRO seamlessly into the surgeon's workflow. "ATMOS i View PRO" is the result this unique collaboration. It sets new standards in terms of light strength, depth and intuitive handling.



The ATMOS i View PRO marks a decisive milestone in the company's 125th year. It is our entrance into the demanding world of surgery.

Made in Germany since 1888



# The new dimension of safe detailed vision

Safety in detail



Prof. Dr. Joachim Müller

Senior Physician at the Cochlear Implant Centre and the Polyclinic for Otorhinolaryngology at Munich University Hospital:

“...remote areas of the middle ear can be inspected quickly and adaptations are possible according to changing operational situations.

The ATMOS i View PRO has proven itself during difficult procedures such as stirrup operations, stapes revisions and CI procedures.”



## We listened carefully

to surgeons who said that they could only go as far as their vision allowed in the operative field. There are good microscopes on the market with many operation and documentation options.

Yet many surgeons want a better microscope. A microscope for surgery must be built "sparingly". It must be "unobtrusive" and must not hinder, stop or distract the surgeon.

The sound of a fan can interfere with concentration. And the operation of the device should be as simple and intuitive as possible.

## Patient safety is paramount

We at ATMOS have taken this seriously and, with the ATMOS i View Pro, present a new generation of surgical microscopes. The development was carried out in close collaboration with the University of Munich. The result is an instrument that helps the surgeon optimise their workflow. Modern LED tech-

nology, an expanded stereo base and adaptation to the exit pupil makes the ATMOS i View PRO an ideal instrument. Due to the enormous depth of focus, the microscope rarely has to be readjusted if at all. The "cold" LED light protects the patient's tissue, the surgeon's eyes tire less and there is no distracting fan noise.

The benefit: the procedure can be completed faster and safer. The patient benefits, inter alia, from shorter anaesthesia time.



# Brilliant performance in the operating room



## Safe Work

The ATMOS iView Pro has everything a tip microscope needs - nothing more.

The development goal was to give surgeons the best possible tool to use during procedures to allow a concentrated, trouble-free operation.

ATMOS has achieved this with "slim design" optics, lighting and harmonious operation. Distracting features were deliberately omitted.

## Large exit pupil

Perfect three-dimensional perception and comfortable, fatigue-free working. Eyepieces with other enlargements available as an option.

## Ergonomic Handles

The ATMOS iView PRO follows the movements of the surgeon easily.



## Fanless integrated cold light

LED lighting. So the light always follows the viewing direction. Excellent illumination up to 120 klux. Realistic image using patented colour correction. No thermal load on the patient's tissue, no annoying fan noise.

## Scale display

Dimension scale in any magnification setting. Displayed on the 3D image and all camera images for precise documentation.

## HD camera

Razor-sharp images in HD quality for patient documentation through the built-in camera or external cameras with E-mount bayonet. Push buttons make it easy to use. Auto white balance, no manual focusing.



## Operating panel

Several clearly arranged keys allow intuitive operation of the microscope.

# Keep a Cool Head

The new "cold light" - The Turbo LED<sup>Pat</sup>



Dr. John Martin Hempel

Chief Physician at  
Großhadern hospital:

“The ATMOS i View PRO produces no heat unlike other more expensive microscopes. One had to accept you could not use the entire lighting capacity to prevent any risk of heating the tissue and this is just simply not the case with the ATMOS microscope.”

## Optimised lighting quality

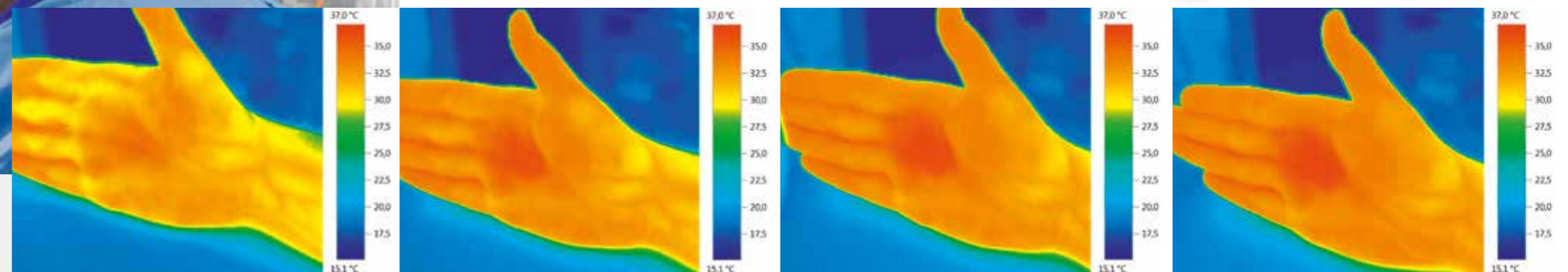
We used a single meaningful light source in the development: LED. ATMOS has been using LEDs for years. Integrated, confocal LED lighting is at the heart of our new development. We were able to draw on experience with our headlamps, our endoscopic light sources and our camera visualisation. LED lighting offers a number of advantages: the light is very bright but

the patient's tissue is not thermally stressed. During the operation, full lighting can be used without limitation. No fan noise interferes with concentration.

A special feature of the ATMOS i View PRO corrects colour temperature so that the tissue observed is reproduced as faithfully as possible.

## Lifetime warranty on the light source

LEDs are the "long-distance runners" among light sources. Their energy consumption is low and they are not sensitive to vibrations. ATMOS offers its customers a lifetime warranty on the lamp.



Even during longer procedures, it only heats the patient's tissue minimally.

(For example: overall warming over a period of 10 minutes <1.8°C!)



# Depth PLUS<sup>Pat</sup>

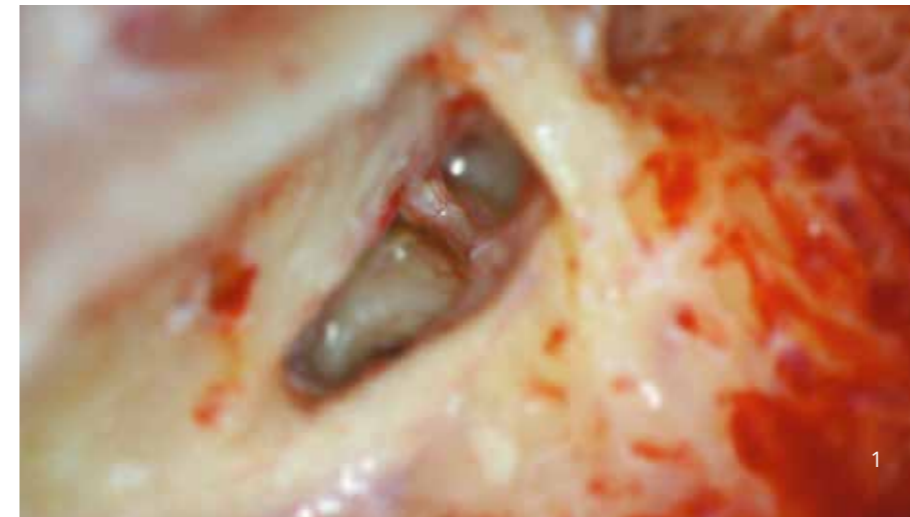
For better vision



Prim. Dr. Wolfgang Elsässer

Chief Physician at Feldkirch State Hospital, Austria, at the CI Congress in Munich:

“With this microscope I noticed the brightness and extreme depth that I haven't found with other microscopes. This depth reminds me of 3D glasses but I have never experienced it in microscopes. This is the quality that I want for my operations.”



*While conventional microscopes (1) always need to be refocused when changing the viewing plane, the ATMOS i View PRO (2) has an unparalleled large depth of field*

## The new dimension of vision

For the ATMOS i View PRO, completely new optics were developed. The 24 mm stereo base makes for brilliant space impression. The extra large exit pupil facilitates the adaptation of the human eye to the eyepiece and promises fatigue-free and concentrated work, even over long periods.

The lenses are for working at a distance of 200 to 400 mm, optional fine focusing available.

The magnification can be set at five levels from 2.6 to 16. The focus of the lens can be adjusted. The measurement of objects can be displayed to scale regardless of the selected magnification.

The requirements of HD camera technology were consistently taken into account in the calculation of the optical system as were those of LED technology. The microscope allows the adaptation of the latest-generation Sony digital cameras and thus the recording of digital images with 16.1 million pixels with optimum optical resolution.

The perfect field of vision and fine detail are the best conditions for transmission

Video monitor. Thus, the surgical assistant is "in the picture" at all times when it comes to what the surgeon is doing and can assist optimally.

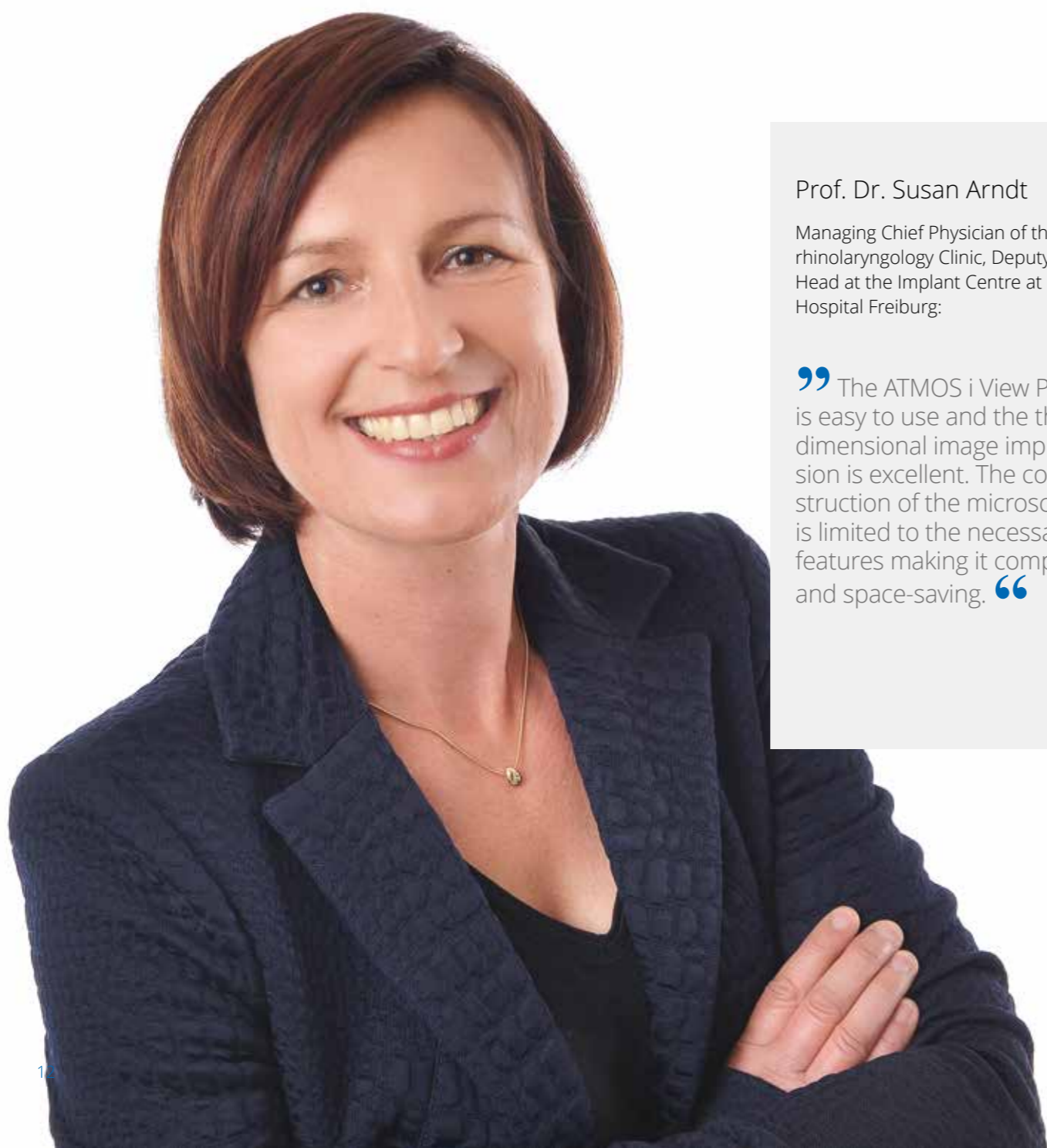
## Deep view operation

"Depth of field Plus" is an option, with the depth of field of the microscope able to be increased by magnification of up to **200%**.

The patented design developed by ATMOS uses a special two-image technique to show the viewer's brain a light, 3D image boasting unique sharpness.

# The instrument the best

Because it is about detail



Prof. Dr. Susan Arndt

Managing Chief Physician of the Otorhinolaryngology Clinic, Deputy Section Head at the Implant Centre at University Hospital Freiburg:

” The ATMOS i View PRO is easy to use and the three-dimensional image impression is excellent. The construction of the microscope is limited to the necessary features making it compact and space-saving. “



*The designers of ATMOS have found a way for the instrument to be guided and positioned manually without a magnetic brake.*

This increases safety and saves time. The Black Forest perfectionists developed the idea of suspending the microscope. All movements are smooth with no disturbing jerking.

Dr. MP Manoj, a Cochlear Implant Specialist in Calicut, praises the high optical quality and the pleasant movement of the device. He points out that movements are "smooth".

The optional built-in video camera has a Full HD resolution and can transfer the image data via standardised interfaces to the patient documentation system. The connection of endoscope cameras is also possible.

## Because it is about detail

For complex interventions such as ear surgery, it is about concentrated, undisturbed surgical work. The large depth of field means the surgeon sometimes no longer has to refocus. With the ATMOS i View PRO many tasks can now be performed with just one setting.



# My i View

equipment options for even better vision

Align the i View PRO at your working distance. **Lenses** available in the focal lengths of 200, 250, 300, 400 mm.

With the **varifocal lenses** 200-350 mm, it is easy to change procedures without making adjustments.

With the **wide field eyepieces** 10 x and 16 x you can use your i View PRO with your usual viewing settings.

Document your work with the best quality. The optional integrated **HD camera** provides surgical images in **full HD resolution**. A single press on the panel is sufficient.

An **adapter** is available for documentation with Sony system cameras.

The **HD Monitor** mounted on a pillar shows the assistant the field of view enjoyed by the surgeon so they can provide optimal assistance.

Work without interruption using **Depth PLUS**. This is an additional option that provides an even more detailed image of the view through the eyepieces.



The new ATMOS technology increases the already excellent depth of field of the microscope with magnification by up to 200%. With depth PLUS you rarely have to refocus.

Perform complex operations with just one setting. This increases safety and saves time. Adjust the microscope effortlessly to suit every work situation. You can choose between the **straight tube**,

a **45° tube** and the **swinging tube** without affecting the excellent imaging quality.

For varying tasks in the operating room, we recommend a **floor stand** on sturdy wheels with brakes.

For constantly recurring operations, the microscope can be permanently installed using the **wall mount**.

The microscope is quickly operational thanks to the ready-made **sterile hoods** for the i View. The hoods are sterilised and packaged in tear-open wrappers.

**Do you have any questions about the ATMOS i View PRO or any special requests?**

At ATMOS you can contact competent professionals directly. Our team of consultants looks forward to speaking to you.



# Precision work

From the Black Forest



## Made in Germany

The ATMOS i View PRO is a complex instrument. The appropriate task for perfectionists from the High Black Forest.

The people here always had a keen eye for delicate work and focus. It takes the specialists up to 16 hours to mount an ATMOS i View PRO device.

The best experts from the mechanics, optics and electronics sector are part of the ATMOS i View PRO production team. Each of them has a lot of experience of manufacturing medical devices, enthusiasm for the product and a strong quality awareness.

At ATMOS we leave nothing to chance. The ATMOS i View PRO is "made in Germany". Therefore, the depth of production is high. ATMOS uses ultramodern production machinery and high-precision optical and tactile sensors. Production takes place in our factory in Lenzkirch (turning, milling through to sanding). The parts are also painted and printed here. Finally, the entire microscope head is assembled and tested here, including the electronics.

Before an ATMOS i View PRO leaves the factory, the optics and LED lighting are precisely adjusted and measured. All functions are thoroughly checked based on a meticulous inspection plan. Only then is the instrument released for delivery.

The proverbial ATMOS quality is geared to the high demands of our customers.

To produce quality, as part of their duties, employees must consider quality and are responsible for their own work - always based on the guidelines in DIN EN ISO 9001 and EN 13485. The ATMOS quality management system covers every step from development to service.

## ATMOS quality is built on responsibility

We don't restrict quality to just our products but strive for the utmost corporate quality as well. This includes the quality of the environment because we are aware that long-term corporate success with limited resources and limited ecosystem capacity requires a conscious approach to the environment. Therefore, environmental



protection and energy efficiency is an integral part of the ATMOS quality management system.



# Innovations

For a better life - Safe & Intuitive

More than 300 employees are devoted to the same goal: to extend life and sustainably improve the life quality of people. This is our motivation for further development and innovation: with safe and easy to handle medical solutions, we open users of modern medical technology up to new ways and possibilities.

Through close cooperation with doctors and clinics, we develop high-quality practical solutions. The ATMOS i View PRO represents this philosophy and marks a significant development step in this direction.

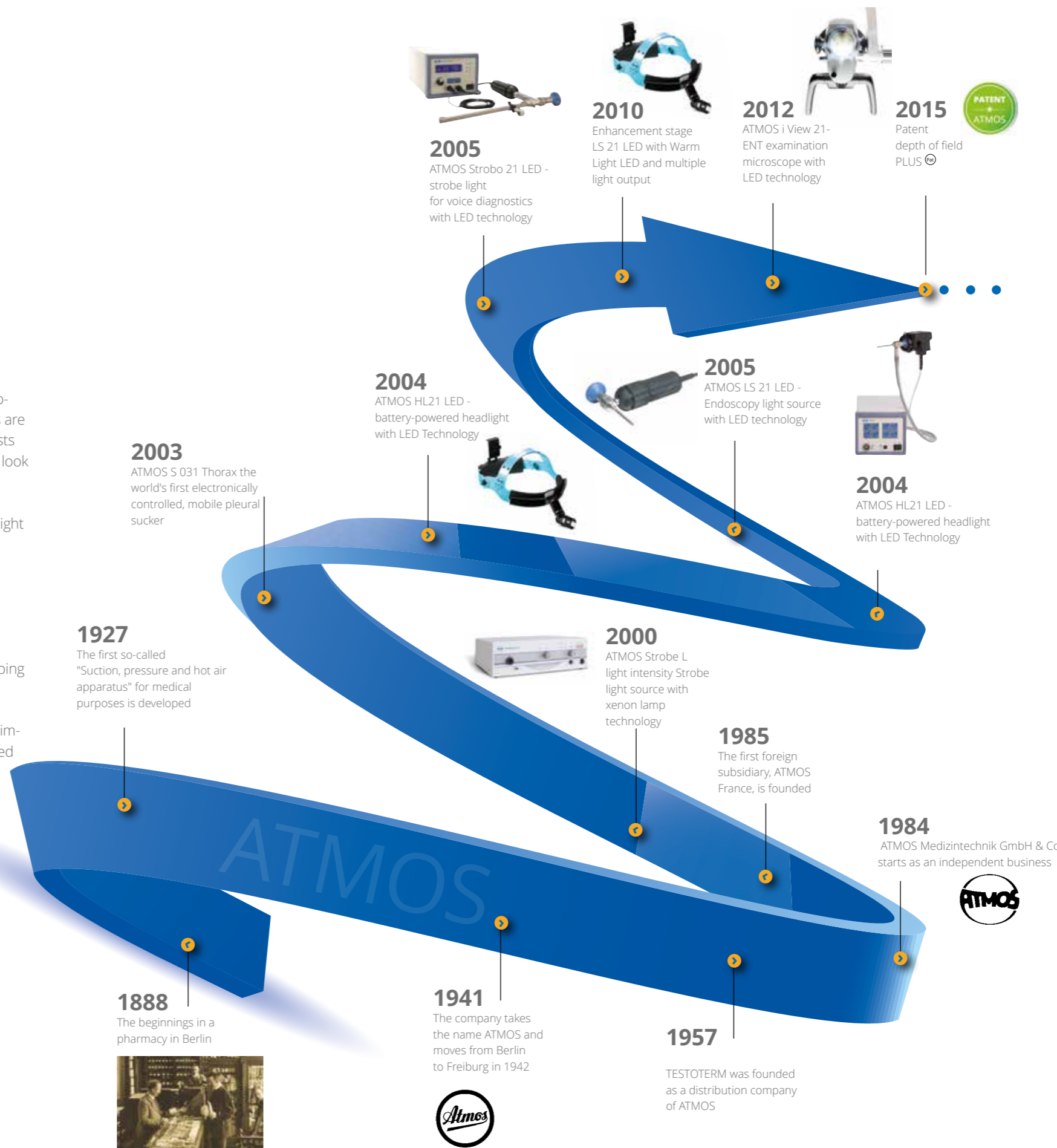
Simple, plain, inconspicuous, intuitive, durable, resistant, etc.

Doctors have a long list of wishes when it comes to their working tools. But ATMOS listens to its customers. Since 2004, ATMOS has developed LED light sources in headlamps, endoscopic light sources and camera visualisation systems.

In the development of the microscope completely new methods are pursued. Together with specialists from Wetzlar, a completely new look was envisioned. A specific method changes the colour temperature of the LED light source in the i View so that the tissue colours are reproduced almost exactly.

Through the suspension of the microscope, all movements are now smooth without any disturbing jerking.

The process through which the impressive depth of field is obtained the result of the latest ATMOS patent.





Innovations for a better life  
Safe & Intuitive



**MedizinTechnik**

ATMOS MedizinTechnik GmbH & Co. KG  
Ludwig-Kegel-Str. 16  
79853 Lenzkirch / Germany  
Tel: +49 7653 689-0  
atmos@atmosmed.de

[www.atmosmed.com](http://www.atmosmed.com)