

OCTOBER 2018

move! 91

*a new way of thinking about everyday life
in medicine and in the clinic*

STIMULI FROM ORTHOPAEDICS AND THE PROFESSIONAL FIELD – FOR PHYSICIANS, SPECIALISTS AND EXECUTIVES

Interview with Dr Dirk Ganzer

«The first clinical application
was a total success
in terms of intuitive use»



Preservation in motion

Thinking about later earlier:
bone preservation for increased mobility



From the professional field

Storytelling – the key to success
Using stories to get into
people's heads



«The first clinical application was a total success in terms of intuitive use»



Dr Dirk Ganzer

is a specialist in orthopaedics and trauma surgery and has been Chief Physician of the Department of Orthopaedics at the Dietrich Bonhoeffer Hospital with its locations in Alttrentow, Malchin and Neubrandenburg. The clinic in Alttrentow is certified as endoprosthesis center by EndoCert and specializes in joint surgery, artificial joint replacement and arthroscopic surgery. With over 2'500 inpatient procedures a year, it is one of the country's premier facilities for orthopaedics – and Dr Ganzer one of its top knee surgeons. Physician rankings by «Focus» magazine regularly support this conclusion.

Ganzerd@dbknb.de

The name «leggera» comes from the Italian word meaning «light». We spoke

to knee expert and co-developer Dr Ganzer to find out whether legger

instruments really do simplify the implantation of balanSys knee prostheses.

Dr Ganzer, as co-developer, at the start of the year you were the first user to implant a balanSys knee endoprosthesis with the aid of the new legger instruments. What were your initial experiences?

That's right. On 31st January 2018, we introduced legger instruments into everyday clinical practice for the first time. I did not hesitate to invite Professor Rüter from Hamburg, co-developer and valued colleague, to join me.

What were the key points that were discussed during legger's development process, which spanned more than two years?

At our facility, we have implanted almost 4'000 balanSys knee endoprotheses. That's enough to know that the instruments we had been using were in urgent need of an overhaul. Not just due to the design, but more importantly from a functional, economic and purely practical point of view including the number of



We were delighted how well the two operations went that we performed that day, and that our positive impressions from the development meetings were confirmed during the procedures. We were also delighted with how naturally and confidently our theatre nurses handled the instruments. The first clinical application was a total success in terms of intuitive use.

trays, processing in the sterilisation department, etc. This was also the fundamental principle shared by the entire team of developers.

We decided on the following key areas: 1. Intuitive operation and high precision; 2. Innovative, ergonomic design; 3. High-quality, robust and long-lasting instruments and 4. Efficient tray organisation as well as a reduction in the number of instrument trays.



I believe we were successful. You could say the same thing in three words: «*Engineered in Switzerland*».

«You could also say the same thing in three words: «*Engineered in Switzerland*».»

How important do you feel the implant design and instruments are for the clinical outcome?

With the balanSys knee prosthesis, we have an implant that has been in clinical use since 1998 and shows very well documented long-term results. A single-radius design with the main stress zone between 20 and 90 degrees of flexion, such as that found on the balanSys, has become the gold standard. The case for asymmetrical designs, or patient-specific implants, still remains to be proven in terms of clinical superiority. As a result, an innovative and, most importantly, patient benefit-centred change to the balanSys implant design was not part of the discussion. We are all aware, however, of a not insignificant number of positioning errors affecting the implant components in knee replacement. It is exactly here that precision instruments can be most effective and lead to improvements.

«We were also delighted by how naturally and confidently our theatre nurses handled the instruments.»

What surgical challenges does leggera address?

Incorrect positioning and malrotation of the implants, as well as malalignment in the frontal plane are recurring errors during knee replacement. Inaccurate maintenance of the tibial slope can also be seen in many cases.

The restoration of a largely neutral post-oper-

ative leg axis within the 3-degree corridor, as it is known, as well as the ability to generate kinematic alignment during the operation if required, are the key challenges facing a modern set of knee endoprosthesis instruments. This could be managed very effectively by the tibial resection gauge, for example.

Significant rotational defects of the tibial and femoral components almost always result in reductions in the clinical outcome. Here too, I am convinced that the new instruments will provide a high degree of safety and minimise rogue results in implant rotation or alignment.

«With the balanSys knee prosthesis, we have an implant that has been in use since 1998 and which has very well documented long-term results.»

Independent of the clinical evidence, the new instruments have the advantage that malpositioning is virtually impossible. Relevant adjustment mechanisms have been marked with colour, prompting the surgeon to check them. Scales of an easily readable size have also been integrated, since theatre nurses and doctors are not getting any younger! Finally, staff from sterilisation departments were also included in the development process, which is a perspective that unfortunately is easily forgotten. After all, thorough cleaning and disinfection of the instruments are extremely important aspects of patient safety.

Dr Ganzer, thank you for talking to us today.

Stimulating bone growth

In cases of delayed fracture healing (pseudoarthrosis), low-intensity, pulsed magnetic therapy can stimulate bone growth. Physio-Stim® from Orthofix can be controlled via an app.



Orthofix has now received FDA approval and the CE mark for its latest bone growth stimulator Physio-Stim®, which is suitable for home-based treatment. According to the company, Physio-Stim® offers an overall success rate of 80 % and up to 88 % with fracture gaps of less than 3 mm, representing a safe and non-invasive option for the treatment of slow-healing fractures. Hyperaccurate placement is not required, since the electromagnetic field works over a wide area. It can be positioned in the area of the fracture and its effect is not diminished by clothing, dressings or implants.

The latest version of Physio-Stim® is connected to the STIM onTrack™ app for iOS devices. The app helps patients to comply with their prescribed therapy and to improve their clinical outcomes.

Find out more about PhysioStim® at web.orthofix.com and about the app at www.bonestimulation.com.

Thinking about later earlier: bone preservation for increased mobility

Early artificial joint replacement is becoming a consideration for more and more patients.

One reason for this is the growing demand for quality of life and unrestricted

mobility. This means that revision surgery is also becoming increasingly likely as we age.

The revision of an artificial joint in middle-aged patients presents significant challenges in the discipline of hip endoprosthetics. It is therefore important right from the first operation to reduce the degree of wear and keep the resulting osteolysis, as well as other factors that can impair bone quality, to a minimum.

With the «Bonepreservation» system, comprising three components, Mathys is addressing a number of key challenges:

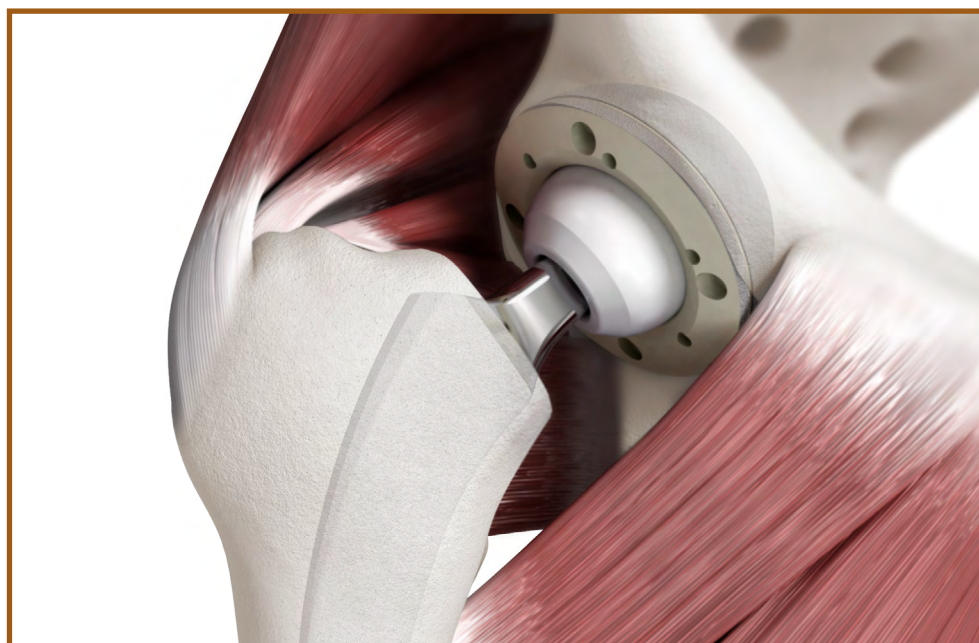
The three components of the bonepreservation system are made up of the optimys stem with the ceramys ceramic head and RM Pressfit vitamys cup:

- One of the major advantages of optimys compared to other short stems is the anatomically inspired insertion into the femur. This allows the surgeon to reconstruct the patient's individual offset and CCD angle.¹ The stem design and reconstruction of the

You can find out more at www.bonepreservation.com and learn about the individual components in detail through videos and animations. Become a community member and benefit from interactions with other users.

Sources

- ¹ Kutzner K.P., Freitag T., Donner S., Kovacevic M.P., et al. Outcome of extensive varus and valgus stem alignment in short-stem THA: clinical and radiological analysis using EBRA-FCA. Archives of Orthopaedic and Trauma Surgery, 2017: p. 1-9.
- ² Bieger R., Ignatius A., Reichel, H., Durselen L., Biomechanics of a short stem: In vitro primary stability and stress shielding of a conservative cementless hip stem. J Orthop Res, 2013. 31(8): p. 1180-6.
- ³ Kutzner KP, Kovacevic MP, Roeder C, et al. Reconstruction of femoro-acetabular offsets using a short-stem. Int Orthop. 2015;39(7):1269-75.
- ⁴ Kutzner KP, Donner S, Schneider M, et al. One-stage bilateral implantation of a calcar-guided short-stem in total hip arthroplasty. Oper Orthop Traumatol. 2017;29(2):180-92.
- ⁵ Al-Hajjar M, Jennings LM, Begand S, et al. Wear of novel ceramic-on-ceramic bearings under adverse and clinically relevant hip simulator conditions. J Biomed Mater Res B Appl Biomater. 2013;101(8): 1456-62.
- ⁶ Rochongar et al. Creep and Wear in Vitamin E-Infused Highly Cross-Linked Polyethylene Cups for Total Hip Arthroplasty: A Prospective Randomized Controlled Trial. J Bone Joint Surg Am. 2018 Jan 17;100(2):107-114



- Reconstruction of the patient's personal biomechanics with a resulting impact on bone quality, without altering the position of the femur relative to the pelvis thus maintaining the offset
- Reduction of wear in order to reduce or prevent osteolysis in the short, medium and long term using the enhanced polyethylene vitamys (vitamin E-enriched PE which reduces ageing processes in the polymer)
- Development of medical ceramics to produce improved tribological pairings

patient's own anatomy allows the stress distribution into the bone to be improved, reducing stress shielding^{2, 3, 4}

- The ceramys femoral head features one of the highest fracture resistances of all medical ceramics⁵
- The RM Pressfit vitamys cup is a cementless, elastic monoblock cup made from vitamys. Through enrichment with vitamin E and high cross-linking of the material, vitamys is one of the most resilient HXLPE materials of our time compared to UHMWPE⁶

**Preservation
in motion**



Storytelling – the key to success

Using stories to get into people's heads

When communicating with patients and other important target groups, it is obvious that hard facts should be presented. When it comes to convincing people and encouraging them to engage, stories are a much better and more successful tool.

«Over 20'000 patients a year trust our hospital.» «Every year, we carry out around 3'000 arthroscopic procedures.» «Our portfolio includes conversion osteotomies.» When it comes to communicating with patients, employees, journalists and other important target groups, it is obvious that hard facts and clinical figures should be presented in order to demonstrate your own capabilities. When it comes to imparting knowledge, convincing people and prompting them to engage, stories are a much better tool. A company's image only truly comes to life through stories that are told about the company.

Good stories are like a cinema in the mind

Neuroscience tells us that the human brain functions like a dynamic, self-organising system that processes information in contexts and patterns. This means that even very complex facts are grasped more effectively if they are embedded in stories. They allow us to create images in our heads, making them more understandable, logical and memorable than abstract information. Good stories touch us emotionally, causing us to celebrate with the hero and suffer with the victim. They make us laugh, cry and daydream. Stories that are told in an infectious and authentic manner anchor themselves more deeply in our memories. We remember them more easily if we are emotionally stirred and if we are able to identify with the characters in the story.

What actually is «storytelling»?

When companies use stories as a brain-friendly and highly effective form of communication, this is known as «storytelling». Storytelling is variously defined as «a method that is systematically planned and designed for long-

term effect to communicate facts about a company in the form of authentic, emotional stories that create lasting, positive memories in the minds of important internal and external reference groups».¹ And: «Narrative texts have a persuasive character, which means that they can change opinions and attitudes», says Annika Schach, Professor of Applied PR.² The



information packaged into stories is also perceived as credible.²

Making everyday hospital life real

Storytelling became established in corporate communications a number of years ago, and is increasingly being used in hospitals too. Whereas in the past real patient cases were ethically taboo as advertising for doctors and hospitals, nowadays most hospitals use their patients' success stories as part of their PR campaigns. Patients highlight, for example, what physical problems they had before their surgery, how they experienced their stay in

hospital and how well they are after the procedure. Doctors and other hospital employees can talk about their everyday duties and how they work as part of a team. This allows patients, as well as future job applicants, to get a picture of the hospital.

Honesty and authenticity are essential when using such testimonials. This means that nothing is touched up, and tiny glitches or mispronunciations make the statements all the more credible. The stories can be told via the hospital's website, for example in the form of short videos. In principle, however, storytelling is suitable for all media, be it print, digital or film.

A few practical examples of patient stories by way of inspiration

Text and picture:

The websites of the KSA-KSB Orthopaedic Centre, Basel University Hospital and Triemli City Hospital, which use text and images, provide an example of how information

can be communicated through patient stories:

www.orthopaediezentrum-ksa-ksb.ch

www.unispital-basel.ch

www.stadt-zuerich.ch/triemli

Press release:

A patient story can also work in a press release, as witnessed by this example from Arnsberg Hospital: «A torn cruciate isn't a broken bone!»:



Download

The storytelling checklist can be found here to [download](#)



www.blickpunkt-arnsberg-sundern-meschede.de/ein-kreuzbandriss-ist-doch-kein-beinbruch/

Videos:

Patient Norman Lane tells about his double hip replacement in a 4-minute-long film, giving insight to his treatment, how it positively changed his life and how he's running over 40 miles a week (approx. 65 km):

<https://www.nhs.uk> (Video)

Additional tip for corporate stories

Image films:

A successful example of storytelling can be found at the Spire Portsmouth Hospital. This film shows in 3.5 minutes what the clinic has to offer to patients, what the facilities look like, introduces staff and lets consultants speak:

www.youtube.be/xTuLT7N7uoE

Or have a look how the colour concept of the Schwyz hospital is providing a positive atmosphere in the clinic:

www.youtube.com/oVuLg6XKkEY

Maybe you'd like to find out more about storytelling and develop your own story? We've put together a few book suggestions and tips for good stories for you. **With Checklist [for download](#).**

¹ Hillmann M. Storytelling. Mit Geschichten Unternehmen gestalten. In: Hillmann M (Hrsg). Das 1x1 der Unternehmenskommunikation. Wiesbaden: Gabler, 2017.

² Schach A. Storytelling und Narration in den Public Relations. Wiesbaden: Springer Fachmedien, 2016.

If you would like to read more about storytelling



Choy E.

Let the Story Do the Work: The Art of Storytelling for Business Success.
AMACOM; 2017

Granzky T.

Using Stories to Influence Change in Healthcare: Lessons From the Frontlines of Educate the Young.
Lab Rats LLC; 2014

Robertson C, Clegg G (ed.)

Storytelling in Medicine: How Narrative can Improve Practice.
CRC Press; 2016

Masthead

Publisher:

Mathys Ltd Bettlach • Robert Mathys Strasse 5 • 2544 Bettlach • Switzerland
Telephone: +41 32 644 1 485 • E-mail: move@mathysmedical.com

Editor responsible for the magazine:

Tanja Rölli • Head of Market Communication & Congresses • Mathys Ltd Bettlach

move! is published by Mathys Ltd Bettlach – your competent partner for total arthroplasty. With new, useful information, *move!* is addressed to specialists in orthopaedics and traumatology in hospitals and practices, as well as all specialist and management staff in the medical field, nursing staff and general

management in hospitals. We would like to thank all of those who have helped us in realising the publication of *move!* by making individual contributions, or providing information and photographs.