

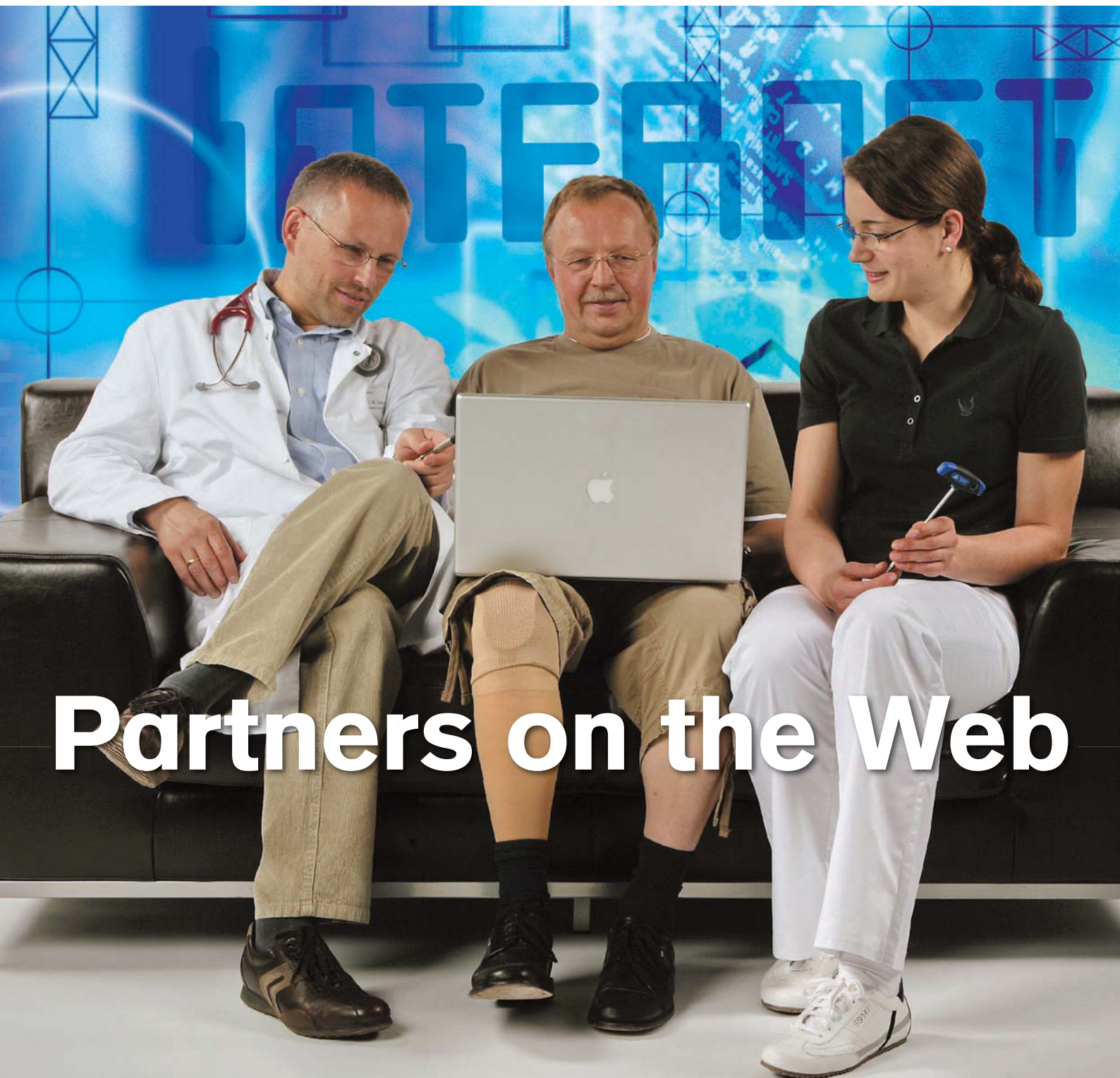
*Otto Bock*<sup>®</sup>

QUALITY FOR LIFE

# DIALOG

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www.ottobock.com

The Magazine of Otto Bock HealthCare



# Partners on the Web



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### Contact Corporate Communications:

Rüdiger Herzog (Corporate Publishing): ruediger.herzog@ottobock.de  
 Christina Hermann (Corporate Publishing): christina.hermann@ottobock.de  
 Christin Gunkel (Assistant to Director Corporate Communication): christin.gunkel@ottobock.de

### Masthead

#### Publisher:

Otto Bock HealthCare GmbH  
 Corporate Communications  
 Max-Näder-Straße 15  
 37115 Duderstadt  
 Germany

#### Concept:

Otto Bock HealthCare GmbH  
 Corporate Communications

#### Responsible-for-content (V.i.S.d.P.):

Joachim F. Hamacher

#### Editor-in-Chief:

Rüdiger Herzog

#### Editorial department:

Christina Hermann

#### Layout/Design:

Studio1 Werbeagentur GmbH  
 37308 Heilbad Heiligenstadt  
 Germany

#### Print:

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# Our world of ideas

Dear Readers:

Can you imagine a world without the comfort of well-structured newspapers and magazines? Have you ever searched for something online and found everything except what you were looking for? There's a downside to all this endless variety: you can get really tangled up and confused on the World Wide Web. In this issue of Dialog, we introduce you to our new website, where information is not only easier to pinpoint. The site has also been redesigned with full disabled accessibility for today's users in mind. From the home page, three areas for different target groups are just a click away: "Patients and users," "Doctors and therapists" and "Customers and technicians." Visit us on the Internet, where a world of new information about the company, our research and development activities, history and global network is awaiting you.

In this issue of DIALOG, we also fill you in on the market launch of the ActiGait®. Our first neuroimplant has been approved for the EU market and already been used on two patients with weak foot dorsiflexion. We have documented the progress of these patients on film as their new implants use healthy nerves to reactivate muscles and improve their gait pattern. The future of medical technology is upon us. For a glimpse of what's in store, see this issue's special feature by Dr. Klaus-Peter Hoffmann, Head of Medical Technology and Neuroprosthetics at the Fraunhofer Institute for Biomedical Engineering in St. Ingbert, Germany.

This issue of DIALOG introduces you to people from all over the world. People like Daniela Dantcheva, who is doing admirable work for patients with disabilities in Bulgaria. Or Richie from Sulawesi, Indonesia, a 15-year-old victim of a terror attack who amazed our technicians by adjusting to his first transtibial prosthesis with such speed and skill.



It's during moments like this that we realize how motivating technology can be for people. Not only for users, technicians and therapists, but for us as manufacturer as well. It was a great honor for us to be named a landmark in the "Land of ideas" by German President Horst Köhler. At our Future Day event on the 13th of July, 2007 in Duderstadt, we plan to show the greater public how a global corporation can cooperate in local and regional networks. The event will also feature interactive hi-tech exhibits and showcase environmentally friendly production methods. To top it off, German rock star Peter Maffay and his band will give an open-air concert to end the day on a festive note.

I hope you find this edition of DIALOG both entertaining and informative.

Prof. Hans Georg Näder

President and CEO,  
Otto Bock HealthCare



A woman with long brown hair, wearing a light pink sweater and tan pants, is pushing a silver and black stroller with a green seat. She is in a candy store, with wooden shelves filled with various candies and bags of sweets in the background. The shelves have labels in German, such as 'Schaumware', 'ohne Gelatine', 'Fruchtstift-Bäume', 'Weiße Mohn', 'Erdbeere-Marmelade', 'Schokolade', 'Bunte Augen', 'Bunte Fußballer', 'Erdbeere-Mischung', 'Schokolade', 'Speck', 'Erdbeere-Spezialität', 'Erdbeere-Spezialität', 'Erdbeere-Spezialität', and 'Erdbeere-Spezialität'. The floor is made of brown tiles.

## Who's that kid?

The one who knows exactly what he wants? His name is Deniz-Julian Ranalli, and he's one three-year-old with a lot of modeling experience under his belt already. His photo graces the first page of the section on the Pediatric Positioning System in the 230-page Otto Bock Kids catalog. The picture shows the bright-eyed boy in the Kimba Spring while out shopping with his mother Alexandra. Deniz is in seventh heaven in front of this selection of sweets. That's plain to see. But there's more to it than that: his sister Julia is going to be ecstatic when she sees the gummi bears he brings home from his first photo shoot.





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# Breaking down barriers on the Web

**Just one click and the world's at your fingertips. Today, the Internet is the primary source of information for more and more people, especially those with disabilities who need information about medical treatment. With the specific needs of these people in mind, Otto Bock HealthCare completely redesigned its website with a focus on full accessibility for the disabled.**

Disability-accessible apartments and city centres have been an issue for years. But one place frequented by those with restricted mobility has been neglected: the Internet. "Full accessibility to information for the disabled should be as standard as disabled parking spaces," says Thomas Grabe, head of New Media. For this reason, Otto Bock has designed its websites [www.ottobock.de](http://www.ottobock.de) and [www.ottobock.com](http://www.ottobock.com) for

full accessibility, regardless of physical disabilities or technical limitations. Full accessibility not only helps disabled and older people, it also improves clarity and usability for all users (see interview below). Otto Bock followed the guidelines of the World Wide Web Consortium in its efforts to remove obstacles for disabled people on its site. The company also received assistance from Comspace, an agency located



## A few words with Web author and accessibility expert Oliver Gliss



*Oliver Gliss (32) has been working as a Web author in Otto Bock's New Media and E-Commerce department since February 2006. He wrote his master's thesis on Internet accessibility for the disabled and helped design Otto Bock's new websites.*

### **Oliver, why is accessibility such an important issue for the Internet?**

For people with disabilities, the Internet boosts independence and improves quality of life. As an example, we designed our website so that users can navigate using the keyboard eliminating the need to use the mouse. This feature is especially important for users with motor

disabilities. Blind people can use our site with a Braille display, and older users can adjust the font size on our site without having to make complicated changes to system settings. In other words, the layout practically adjusts to the user.

### **What else do you have to think of when it comes to accessibility?**

Blind or illiterate people use a screen reader program that reads the content of the page to them. Text and graphical elements on a Web page are often created using invisible table structures. Many Web design agencies use this method without considering the consequences for people with disabilities. As a result, content is not read in a logical sequence, and the user gets confused. That's why we didn't use any of these layout tables in Otto Bock's websites. Another issue is that many people around the world have impaired vision or are colour blind (for example, they cannot distinguish easily between red and green). Those with such

disabilities are often unable to see page content if there isn't enough contrast between the foreground and the background colors. Therefore we have to make sure that all our graphics and text are designed with these problems in mind.

### **How do you ensure accessibility in all of Otto Bock's subsidiaries' websites?**

We use a Web authoring system to make sure that all the websites are programmed for maximum accessibility. In terms of content, we offer our subsidiaries the option of using disabled-accessible pages designed by our team in Duderstadt. Our company-wide content management system provides standardized templates that allow subsidiaries to create their own content while ensuring accessibility at the same time. Otto Bock maintains quality standards in its websites around the world through training courses and by providing comprehensive guidance for local editors.



Reading with fingers:  
Braille keyboard for the blind

in Bielefeld, Germany, which was responsible for making the German Ministry of Health's website accessible to disabled users. According to Andreas Kämmer, president of Comspace, there are a number of tangible reasons for providing accessibility on the Web. These include shorter loading times, wider audiences and a positive image for the company. Approximately 10% of the German population is registered as disabled. As a result, website accessibility would significantly boost the number of visitors to sites, said Kämmer.

### Three different areas for three different target groups

The Otto Bock website was redesigned to give users a better overview of content much faster. The site is divided into three areas: "Users and Patients," "Doctors and Therapists" and "Customers and Technicians." In this way, text can be tailored to the needs and interests of a specific target group. Customers will find production information that is more technically-oriented, whereas content for patients is

modified to include only that information which is essential information for this target group. The website contains more than just information about all of Otto Bock's products. It also features user stories, information about the company, press releases and information about conferences and other events. Order

forms and product brochures are also available for downloading. In addition to the websites for the UK and Austria, the Australian and Indian sites have also been revised, with more countries to follow. With their uniform design and full compliance with accessibility standards, the Otto Bock websites will soon provide users everywhere with a full look at the whole world of Otto Bock. ■



Thomas Grabe,  
head of the New  
Media division,  
and colleague  
Sebastian  
Krellmann



# Exploring the exciting world of medical technology

Innovative spirit, creativity and visionary thinking all come together in "Germany, Land of Ideas," an initiative that demonstrates Germany's awesome potential. Otto Bock HealthCare was named a Landmark in the Land of Ideas in an official award ceremony held on 30 April 2007 at its Duderstadt headquarters. On 13 July 2007, Otto Bock will hold "Future Day", a fun and interactive event where all are welcome to explore the exciting world of medical technology.

Just like Otto Bock's research and development activities, Future Day will focus on people. The event will feature promotions and activities centered on the three key areas of people, technology and the environment. Future Day will focus on such topics as demographic trends, the future of medical technology, environmentally friendly utilization of resources, and Otto Bock's commitment to the Paralympics.

Visitors will be able to tour our production and development departments, and watch Otto Bock technicians at work. They will even have the opportunity to try out an arm prosthesis to see how it works.

Future Day will allow guests to experience fascinating high-tech products in a way everyone can understand. Visitors can then develop their own visions and formulate their own



A ceremony attended by national and local politicians: Walter Flecken (left) from Deutsche Bank AG presents Dr. Hans Georg Näder, Chairman and CEO of the Otto Bock Group, with the award on behalf of German President Horst Köhler, patron and co-initiator of the "Germany, Land of Ideas" initiative.

ideas and concepts on the wall of ideas as if they were Otto Bock employees.

The history of Otto Bock will be presented in special "history rooms," where visitors can get a feel for the atmosphere of every era. The large activity space will encourage guests to become active. Children can enjoy the moonwalk, a climbing wall and dexterity games. The event will also include a program of music and dance. In the "Global Village," guests can sample ethnic cuisine from the five different continents on which Otto Bock has subsidiaries.

Otto Bock HealthCare exports its products to more than 140 countries around the world. The company coordinates the activities of its 37 international sales and service subsidiaries from its headquarters in Duderstadt, Germany. Neverthe-

less, Dr. Hans Georg Näder, Chairman and CEO of the global player, is a passionate proponent of quality "Made in Germany:" "The economic climate in Germany is much more positive than reports suggest. Our aim on the Day of Ideas is to show how future-oriented, efficient and innovative our country and region really are."

At the same time, Otto Bock is also committed to cooperating with local partners. These partners will demonstrate how closely the company is integrated into regional networks by actively contributing to the program with their own presentations. On the evening of 13 July 2007, the event will be topped off by a special open air concert: German rock star Peter Maffay, still a number one performer after 30 years, will entertain fans in Duderstadt's pedestrian zone. ■

## Deutschland Land der Ideen



Ausgewählter Ort 2007





# His greatest wish comes true: to walk again.

Exhausted, Richie Samputra rests on his crutches. The trip from Indonesia to Duderstadt, Germany, was long and arduous. But it was well worth the trouble because the trip would make a dream come true for Richie. His greatest wish was to play soccer again.



On 31 December, 2005, Richie lost his lower left leg in a bomb attack on the market square of his home town Palu. Eight people lost their lives in the bombing and more than 50 were injured. A year after the attack, Richie travelled with his mother to Duderstadt, where many patients from countries without their own Otto Bock branch have already been treated. In Duderstadt he was fitted with a modern below-knee prosthesis. His treatment was made possible through the joint initiative sponsored by the Childwatch Foun-

ation in Hanover, the Katarina Witt Foundation, and Germany's Bildzeitung newspaper. When he arrived, Richie was a little shy. He was cold and didn't know what was going to happen to him. But fitting Richie's lower leg went smoothly and quickly. The Otto Bock technicians were pleased that he was able to walk confidently with the new prosthesis straight away. After practicing several times with parallel bars, Richie was even able to walk down the stairs in the gait laboratory. He was proud to show Karl Becker, head of Technical Customer Service, how fast he could go on the stationary bike.

## A special day

Richie is the oldest of three siblings. He is in the 10th grade and helps out in his parent's shop after school. Because he's still growing, his lower leg prosthesis will have to be refitted once he's back home in Indone-



sia again. "I'm just looking forward to being able to climb trees and run around with my friends again," says Richie. But there's another reason why this day is so special for Richie. Something Mechthild Rittmeier from Patient Reception noticed while studying his file: it was Richie's 15th birthday. The Otto Bock employees organize a small birthday party for him at short notice. Thirty minutes later they had whipped up an apricot cream cake that read "Happy Birthday Richie" and a jacket that said "Duderstadt." on it. Upon his return to Indonesia, the souvenir would serve to remind him of his two weeks in Germany. Mechthild Rittmeier blew up a few balloons and decorated the table with candles and gummi bears. Johanna Stengel from the Childwatch Foundation added a pair of tennis shoes in a gift-wrapped box. When Richie entered the room with his new prosthesis, he looked around the room in disbelief with a shy smile. He'd never seen a cake like that. And the light blue jacket fit the gangling 15-year-old like a glove. "Thank you very much," he whispers – "Terima kasih." ■



Practicing on the parallel bars for the first time, Richie shows Karl Becker, Head of Technical Customer Service, how well he can walk with his new prosthesis. Richie's Mother, Johanna Stengel from the Childwatch Foundation as well as interpreter René Klie are also enthusiastic about Richie's performance.



## Daniela Dantcheva dances for Hollywood

For the media in Bulgaria, physician Dr. Daniela Dantcheva is a very popular person to consult when it comes to the needs of people with physical disabilities. But never in her wildest dreams did she imagine she would one day appear on the big screen. "Brand Hauser," a political satire, is scheduled to appear in cinemas sometime in mid to late 2007. The film features John Cusack as co-producer and leading man as well as a cast of other Hollywood stars like Ben Kingsley (of Gandhi fame). Daniela Dantcheva was hired for a dance scene in the film.

"One day the phone rang and I was asked to find six female prosthetic leg wearers aged between 20 and 25 who could also dance. Finding them would be no small task," says Daniela Dantcheva. The call came from Nu Image, a Bulgarian production company and subsidiary of Nu Image/Millennium films in Los Angeles. But after a series of test shootings, the production team headed by Joshua Seftel knew there was only one woman for the job: Daniela Dantcheva herself.

Although her foray into the world of cinema may be just a short adventure, her commitment to people with disabilities has become an integral part of her life. In 2006, Daniela Dantcheva reached an important milestone in her career. "Never before has the subject of prosthetic fitting been discussed at such a

high level in Bulgaria," she says after attending a conference in Sofia.

"With an average monthly income of 180 euros, most people can't afford good prosthetic treatment by themselves," explains Daniela Dantcheva. For this reason, the free-lance physician and her patients have embarked on a mission to find sponsors. Her subsequent visits to the Department of Health and Social Affairs in Sofia are frequent.

In 1984, following a train accident in which she lost four limbs, Daniela Dantcheva was fitted at Otto Bock in Duderstadt. The Bulgarian Department of Health covered her costs. Today she wears two below-knee prostheses (with the new Trias carbon foot since 2006) and myoelectric below-elbow prostheses with

### Hope for Improvement

There are some 30,000 amputees in Bulgaria. The orthopaedic conference held in Sofia in summer 2006 met with positive response from print, radio and TV media. As a result, many hoped that Bulgaria would enjoy Western European standards of treatment when it joined the EU in early 2007. Otto Bock HealthCare was invited to Bulgaria to demonstrate the possibilities offered by modern technology. Sales Export colleagues Uwe Rabanda, Torsten Lange and Ramona Grosse assisted conference organizer Mincho Koralsky, head of

Bulgaria's agency for the disabled, with program development and product presentation.

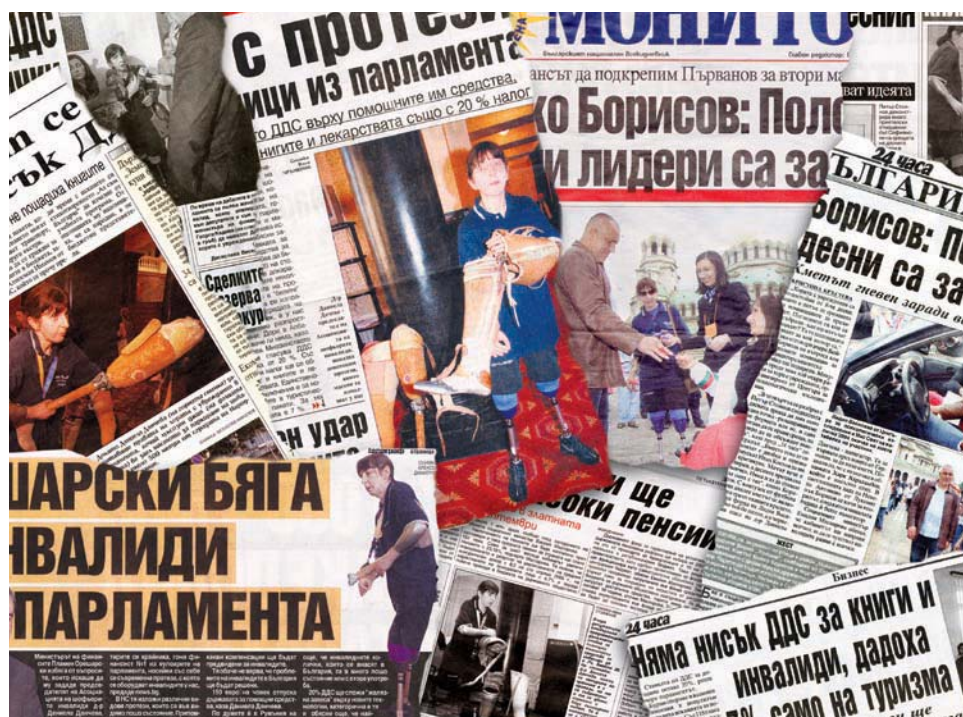
"Equal opportunity for patients is a long way off," admits Daniela Dantcheva. Recently, the country introduced a 20% sales tax on aids for people with disabilities. However, this rate was not reduced to 7% for prosthetics, a standard practice in neighbouring countries. And reimbursement rates have remained low because the government has not increased the financial margin of those bearing the costs.



the SensorHand Speed. This hand allows her to do such tasks as completing forms for patients at her desk.

She takes care of her 93-year-old father, manages her household completely on her own, and is also a successful rally driver – last year she was even joined by a special celebrity co-driver: Boiko Borissov, the mayor of Sofia. In 2005, she established an organization which advocates for motorists with disabilities.

And now a big screen debut – “at 53!” exclaims Dr. Daniela Dantcheva with a broad smile. So why not help out in Hollywood this time? Besides, dancing has always been one of her favorite activities. ■



All across the media: Daniela Dantcheva features prominently in coverage of the conference

## Sports move South Africa

According to statistics, 52% of all Europeans with a disability are employed. In South Africa, the figure is 0.93%! With these numbers, Speaker Kim Krynauw defined the key topic at “Disability 2006,” an orthopaedics conference held in Johannesburg, South Africa. The percentages vary according to the calculation method used. For example, the EU claims a 40% employment rate. Still, the statistics clearly show the differences in opportunity between disabled people in Western developed countries and those in South Africa.

High-quality orthopedic technology can break the vicious circle of disability, unemployment and poverty. “We compared the costs of prostheses and orthoses with their therapeutic benefits,” says Klaus Frölich, who visited the conference and trade fair for Otto Bock along with Gerhard Nolte. According to Frölich, low-quality prostheses that are harmful to the patient's health or which require frequent repairs are not cheaper in the long run. Instead, they cost patients dearly by depriving them of the opportunity of integration.

The Paralympics were the perfect starting point for Klaus Frölich's talk. South Africa is a country of sports enthusiasts and has produced record-breaking athletes like Oscar Pistorius, professional golfer Anthony Netto and other outstanding disabled athletes. After discussing professional disabled sports, Frölich touched on the opportunities that rehabilitation and popular sports provide for improving mobility and performance. Frölich's words were well received by the press: “Sports make you strong” was the title of the North Eastern Tribune's article about Disability 2006. ■



Klaus Frölich (far right) and Gerhard Nolte (2nd from left) met with Health Minister Lizzy Nomsa Jajula (2nd from right) and her delegation on the sidelines of the Disability 2006 trade fair.

### Simon is all smiles

At the beginning of 2006, Nosimo Balindlela, Prime Minister of Eastern Cape, allocated some 1 million Rand (about 110,000 euros) of her budget to go to amputees in particularly isolated areas of the country. The Amputee Club was assigned the task of providing the prosthetic fittings. With Oscars in mind, this self-help organization generated a further 500,000 Rand for orthopedics technology by providing Warner Brothers with 28 extras for the movie Blood Diamond. These amputees appeared with Leonardo di Caprio during filming in South Africa.

While filming on the Wild Coast, the production team collected another 23,000 Rand for Simon, the youngest member of the cast of extras. The money went toward his first prosthesis. Simon was all smiles: “Now I can get rid of my crutches.” ■

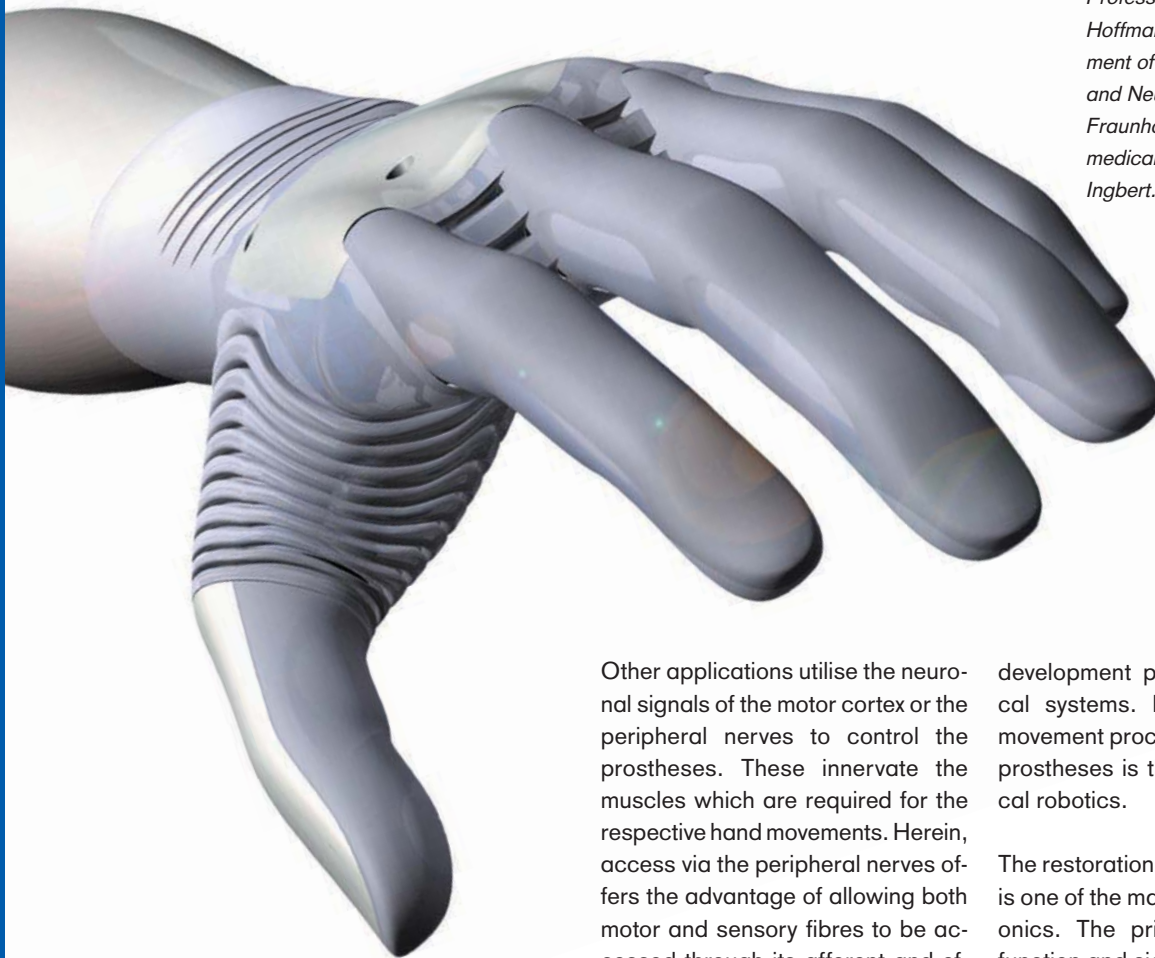
# Status and opportunities of neurobionics

as demonstrated by a bionic hand prosthesis

**Goals and methods of neurobionics also include the technical realisation of sensory functions. This enables the creation of hand prostheses which, aside from compensating the loss of motor functions, also allow for partial restoration of sensory functions. The prerequisite for this is the integration of actuators and sensors in the prosthesis and a bidirectional interface to the peripheral nerve.**



*Professor Klaus-Peter Hoffmann heads the Department of Medical Technology and Neuroprosthetics at the Fraunhofer Institute for Biomedical Technology in St. Ingbert.*



When compensating the loss of a hand, both cosmetic and functional aspects are significant. For a long time, the focus was on restoration of motor functionality. Frequently, bioelectric potential differences which can be recorded on the underarm by means of surface electrodes were used to control the prosthesis. The myoelectrical motor hand prostheses developed on this basis have proven themselves in numerous everyday applications [3].

Other applications utilise the neuronal signals of the motor cortex or the peripheral nerves to control the prostheses. These innervate the muscles which are required for the respective hand movements. Herein, access via the peripheral nerves offers the advantage of allowing both motor and sensory fibres to be accessed through its afferent and efferent tracts. This opens up new options. Aside from motor functions, it can be possible to restore sensory functions in this manner, thereby moving one step closer to the natural functions of a hand [2, 3].

A significant prerequisite lies in consistently implementing the methods and principles of bionics for the development of hand prostheses. Bionics provide a scientific link between biology and technology. Their goal lies in the technical implementation of construction, process and

development principles of biological systems. Imitation of natural movement processes and control of prostheses is the object of biological robotics.

The restoration of sensory functions is one of the major goals of neurobionics. The principles of sensory function and signal processing borrow from and imitate nature. The bionic prostheses which are created in this manner are part of a new generation of prostheses.

An important object of current research is the direct interaction of humans and machines, in particular at the interface between the biological tissues and the technical system. The actual interface must be bidirectional, that is, it must include afferent and efferent tracts. This is currently possible via various implantable microelectrodes which



create a direct contact with the peripheral nerve. The structural forms currently used include:

- a) the cuff electrode, which is placed around the nerve like a cuff;
- b) the shaft electrode, which is inserted into the nerve;
- c) the sieve electrode, which is inserted between two nerve stumps which have a sieve from which the regenerating fibres sprout [5], and
- d) the thread electrode, which is drawn through the nerve longitudinally and is intrafascicular [1, 2, 4].

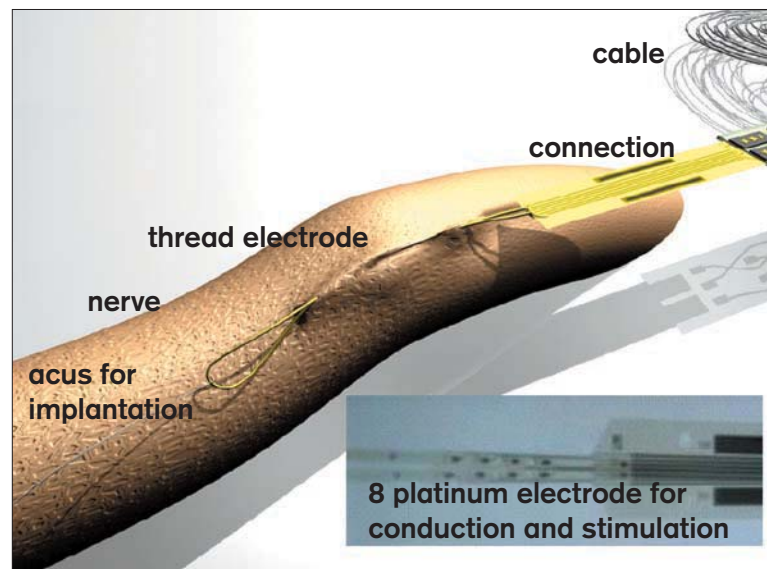


Figure 2: Structure and possibilities of applications for thread electrodes (tf-LIFE, thin film longitudinal interfascicular electrode)

As a common feature, all electrode forms are utilised both for the derivation of bioelectrical potentials and for the stimulation of nerve fibres.

The currently favoured structural form for human use is the thread electrode (tf-LIFE). Reasons for this include its relatively straightforward application, direct contact with the individual nerve fibres and resulting excellent selectivity, the degree of miniaturisation obtainable, the option of fixation to the nerve and resulting extremely low mechanical strain on the nerve – not to mention

its biocompatibility and long-term stability (see Fig. 2). The thread electrode is currently in preparation for first-time clinical use.

The corresponding hand prosthesis must be equipped with sensors in addition to numerous actuators and intelligent control mechanisms. Proprioceptive sensors for recording the hand position and hand movement, as well as exteroceptive sensors for realizing the hand's sensory functions are required. Such sensors could be used for sensing the movement and position of individual

fingers and the force they apply. These signals are also important for direct control of grasping movements. The sense of touch can be simulated using miniature touch sensors. Further sensors could be used for sensing temperature, the mechanical qualities of surfaces, etc. [4].

Telemetric data transmission represents an important interface between the technical biological interface and the actuators and sensors which are integrated into the actual prosthesis. This is the sole means for interaction between the implant and the external hand prosthesis. This means that the electrode and the electronics for signal pre-processing must be directly linked [5]. All of these individual components determine the options and particularly the acceptance of bionic hand prostheses to a significant degree. ■

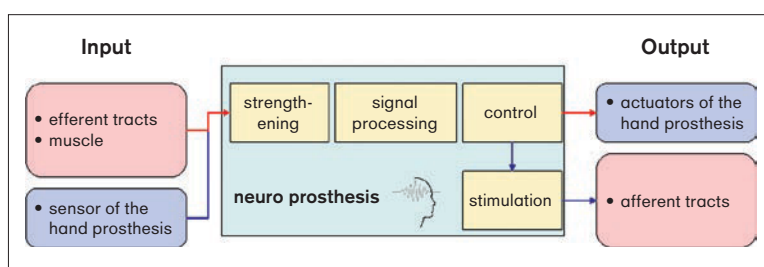


Figure 1: Basic block diagram for a bionic hand prosthesis

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## Everything changed overnight

“The stroke changed my whole life,” says Karl Papp. Then his otherwise so happy expression turns pensive. One night, after working the night shift, he laid down for a few hours. When he woke up, he was paralyzed on one side. “I couldn’t walk, speak or write properly,” recalls the 53-year-old as the camera rolls in the background. For people like Karl Papp, Otto Bock developed the ActiGait® Neuroimplant, a completely new form of therapy for stroke patients with weak foot dorsiflexion. As part of the rollout process, the neuroimplant was used in Germany for the first time when it was tested on patients at the Werner-Wicker-Clinic near Bad Wildungen. The two patients’ gait patterns are captured on video to document their progress before their operation and in the first few months afterwards.

Before filming starts, Ralf Halbhuber and Ralf Stützer from Studio 1 need to take care of the lighting in the room. They pull down the blinds and cover the spotlight with a transparent cloth. Makeup artist Julia Reich prepares Karl Papp and Frank Menzel, the other ActiGait® patient, for shooting. The first step is to apply foundation. “It’s important, otherwise their faces will shine in the spotlights,” explains Julia Reich, who arrived with an array of cases containing cosmetics, hair spray, moisturizing cream, makeup brushes and sponges. Karl Papp’s

up first. Powdered and wired up, he sits down for his interview. “The means of aid I previously wore never helped,” he says, squinting under the bright lights. The 53-year-old from Weissenburg near Nuremberg, Germany, hopes his spasms will disappear with the ActiGait®. What’s his greatest wish? “To get back on the playing field again – I was a soccer coach for many years.” Now it’s Frank Menzel’s turn to speak: “I used to pilot gliders,” says the 40-year-old from Cologne. But now he only flies as a copilot. After his stroke, he was in the hos-



Time for make-up: Julia Reich and Karl Papp

pital for five months. One of his carotid arteries had become clogged. “I had great difficulty walking on cobblestones and climbing stairs,” says Frank Menzel during his interview.

Some questions have to be repeated, while others are answered straight away. Later, while filming in the spa gardens, the film crew sees other patients with weak foot dorsiflexion. “It’s a very widespread disease,” says Ralf Stützer. And it’s a disease that can strike anyone. Julia Reich is amazed how easily the two men deal with their disabilities. “When you see the effects of a stroke, it makes you really appreciate your own good health,” says the makeup artist from Hanover. Following shooting in the pump room and near the swan pond, the two men are filmed during their medical examinations and gait tests. After the filming, the video images before and after ActiGait® are compared. “We did this to show how stroke patients can improve their quality of life with ActiGait®,” says physical therapist Jürgen Kaus, expert in functional neuro and electric stimulation. And Frank Menzel knows exactly what that would mean for him: “I’d like to be able to go on walks in the woods again, and hike over rough terrain. I hope ActiGait® will make that dream come true for me again.” ■

Ralf Halbhuber (Studio 1) films Frank Menzel and Karl Papp in the spa gardens





# Never forget your goal

In a company that defines mobility as quality of life, it's not surprising to find an above-average number of employees who enjoy doing sports. Now, customers of Otto Bock Hungary have a true Iron Man to rely on: Balázs Polonyi took on the competition, the weather and himself at the world's toughest triathlon in Hawaii and passed the test.

For 16 years, Balázs has been swimming, cycling and running for titles and medals. His personal record is 8 hours, 39 minutes. The 32-year-old had already qualified for the Ironman in Hawaii as early as 1999 and 2003. But unfortunately he wasn't able to take part in those events for financial reasons. "I never lost sight of my big dream," says Balázs.

## Training in subzero temperatures

The training period leading up to the competition was hard. He swam four times a week, cycled every other day and went running every day. "Training in subzero temperatures wasn't always that much fun," admits Balázs. But when you've set yourself a goal, everything's possible, he goes on to say. On 2 July, 2006, Balázs stood at the starting line at the Ironman Switzerland in Zurich. It was a hot summer day,



35 degrees Celsius in the shade. Everything went according to plan in the swimming and cycling legs of the event. But when it came time for the 42 km marathon, the difficult terrain and the extreme heat started to effect to Balázs Polonyi. He doesn't give up and keeps running. When he finally reaches the finish line after 9 hours and 26 minutes, he's way over his record time. Still, it's enough to qualify him for Hawaii.

In the coming months, Balázs Polonyi faces countless hours of training and trial competitions. "It takes a lot of discipline to train for a triathlon while working fulltime," says the 32 year old who has been working in field sales Otto Bock Hungary for one year now. He receives a lot of support from his wife Amelita, who never stops encouraging him. She is also a triathlete and a doctor at a hospital in Budapest.

## Marathon through a lava desert

Balázs arrives in Hawaii one week before the Ironman. It's a stressful

flight with a stopover in New York, and it's almost 40 degrees Celsius outside when he lands. "It felt like walking into a sauna when I got off the plane," recalls Balázs Polonyi. Even on the day of the competition, the mercury rose to 36 degrees. The swimming goes smoothly for Balázs. But after 100 km of cycling his strength starts to dwindle. The final 80 km feel like an eternity to him: "With all those long steep climbs, the wind, the sun and the rain, I thought I'd never reach the finish line," says the triathlete. During the marathon through the lava desert, all he could think of was just getting a finisher's medal. After 10 hours and 29 minutes, he finally reaches the finish line.

"That was the hardest race of my life" says Balázs Polonyi, "I'm really glad I kept going." Now 32, when asked whether he would take part in the Ironman in Hawaii again, Balázs is doubtful. But he says one thing's certain: he'll definitely take part in a marathon again. ■

## Background information:

In an Ironman triathlon, participants have to swim 3.8 km, cycle 180.2 km, and run 42.2 km. The most important Ironman is the world championship in Hawaii. Each year, more than 40,000 triathletes sign up to compete in the event. However, to qualify for one of the 1500 reserved spaces, athletes have to compete in one of 25 trial races for their age group. Since 1978, the Ironman has been held every October on the Hawaiian Islands in the Pacific Ocean. It is considered one of the toughest endurance contests in the world, especially challenging because of the extreme heat and the Mumuku winds on the archipelago. The next Ironman on Hawaii will take place on 13 October 2007.

## Roadshow with the SuperFour®

On your next vacation, breeze through high mountain trails. Sit horizontally during effortless descents through alpine pastures. Venture onto bumpy forest tracks, or amaze pedestrians around you as you wield your joystick to make operating the four-wheel steering system seem like child's play. With the SuperFour® Outdoor Vehicle, Otto Bock has opened up a new era in the history of mobility.

The SuperFour® was showcased at the REHAB conference in Karlsruhe, Germany, from 10-12 May 2007. Visitors were given the opportunity to test-drive the outdoor vehicle on a test course.

The hybrid electric vehicle features outstanding all-terrain mobility and ability to travel distances of up to 200 kilometers. Thanks to its four-wheel steering and 130 mm spring excursion, the SuperFour® is incredibly maneuverable and stable on any surface. As a result, those with restricted mobility can now reach

far-away destinations with a maximum of safety and comfort.

Most recently, the SuperFour® won the Universal Design Award, which it received from Lower Saxony's Ministry of Trade and Finance in March 2007 at the CeBIT trade fair in Hanover, Germany. ■

### Roadshow dates in 2007:

Berlin: June 30/July 1; Hamburg: July 7/8; Munich: July 14/15.

For more information, see [www.superfour.net](http://www.superfour.net)



*Sit in a relaxed horizontal position, even when traveling downhill: Felix Bernhard tried out the SuperFour at the presentation in Bad Wildungen on May 24th (Photo: Sonderhüsken)*

## Three “best of the best” red dot awards

This year, three Otto Bock HealthCare products received red dot awards in the “best of the best” category. In the world famous design competition sponsored by the Design Zentrum Nordrhein-Westfalen, the new C-Leg®, the Lumbo TriStep back orthosis and the Trias carbon foot won first place in product design. In addition, the Genu Arexa knee orthosis and the Blizzard active wheelchair both won a red dot for their high-quality design.

With some 5,000 entries from 50 countries in 2006, the red dot design award is one of the biggest design competitions in the world. The jury, made up of renowned designers and design experts from all over the world, evaluate the products with respect to innovation, func-

tionality and ergonomics, among others things. Otto Bock HealthCare took home three “best of the best” awards, securing the company's top place in the competition.

With our products, we aim to bring improved mobility and quality of life

to people with disabilities. While we value innovative technology and functionality, appealing design is also a key feature of our products. To have a therapeutic effect, orthopaedic aids must be attractive to the user and easily integrated into everyday life. ■



Lumbo TriStep



Trias 1C30



C-Leg®