

Wings for Life: The backbone of spinal cord research

Think of energy drinks company Red Bull and by association some of the most exhilarating sports probably spring to mind. Sponsoring over 500 extreme sports, from base jumping to downhill skating, has done much to get the brand noticed. But its sponsorship does not end there. Red Bull founder, Dietrich Mateschitz, set up the charity Wings for Life with Heinz Kinigadner back in 2003 after noticing a gap in funding for spinal cord research. We spoke to **Anita Gerhardtter**, Wings for Life's CEO, to find out more about the charity's background, heritage and philosophy.

Red Bull gives you wings is the catchy slogan we have all come to associate with the caffeinated drinks company. Not many will know about the company's background charity work though, where it provides the financial backbone for Wings for Life – a spinal research charity founded by Heinz Kinigadner and Red Bull's founder, Dietrich Mateschitz.

Following an accident to Kinigadner's son which left him paralysed, the two realised that spinal cord injury research was hugely underfunded, so they set up the charity to bridge the funding gap and find a cure. Since that time, Wings for Life has established itself as a significant force in spinal cord research and its fundraising events, such as the Wings for Life World Run, have garnered huge support and done much to raise awareness. *Research Features* recently sat down with Anita Gerhardtter, CEO of Wings for Life, to discuss the charity's history in more detail, and find out where science currently stands on finding a potential cure.

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Hello Anita! What does your role involve as CEO of Wings for Life?

In general, this role is no different to a similar position in the business world, including, as it does, building and leading a team, setting strategies or shaping our foundation's culture and behaviour. Basically, I am responsible for making sure that we as a team raise as much money as possible and spend it responsibly, wisely and effectively on research.

Can you explain the background and aims of Wings for Life?

Wings for Life is committed to finding a cure for spinal cord injuries. The driving forces behind it are two-time motocross world champion Heinz Kinigadner and the founder of Red Bull, Dietrich Mateschitz.

In 2003, Kinigadner's son Hannes suffered a tragic accident that left him tetraplegic. Reeling from shock, but determined to find a way forward, Kinigadner and Mateschitz invited leading scientists from across the world to Salzburg. All these experts reported that contrary to common opinion, there is

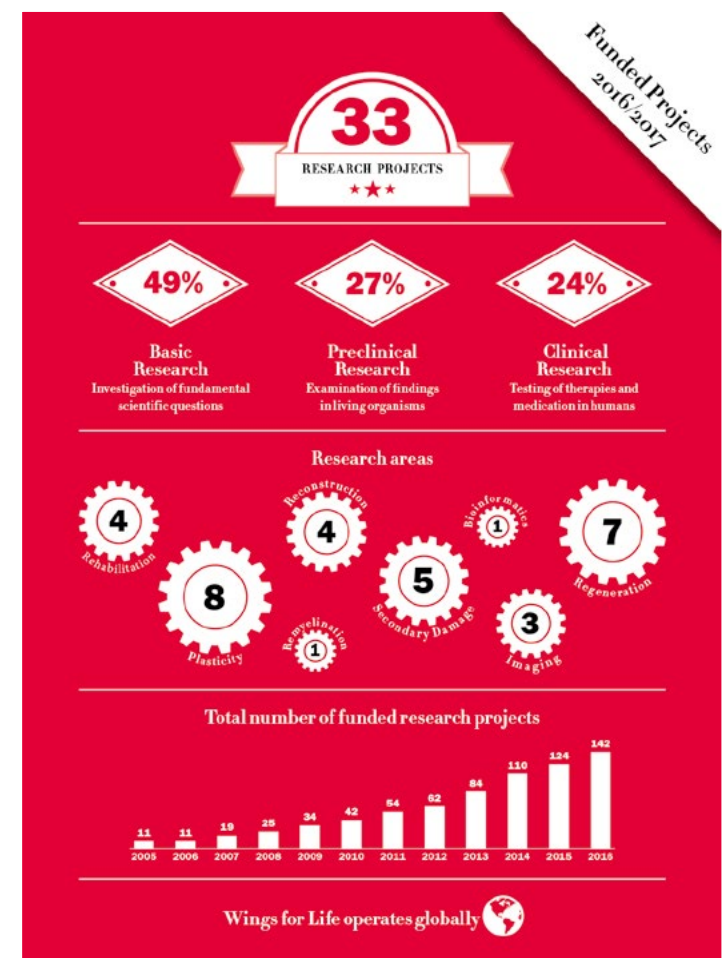
legitimate reason to hope that traumatic spinal cord injury can be cured.

Kinigadner and Mateschitz soon realised that research into spinal cord injury was underfunded. Paralysis is not considered a widespread condition so investing millions in research to help a small number of people was generally thought to be an unprofitable endeavour for the medical industry.

This realisation prompted Kinigadner and Mateschitz to set up the Wings for Life research foundation – with the goal of finding ways to cure everyone affected.

What impact do you think Wings for Life has had on spinal cord injury research since it was first established in 2004?

Without question, Wings for Life has contributed to pushing the whole field of neuroscience forward. We have grown from a small entity to a renowned and well-positioned foundation in spinal cord



research. Nowadays, we receive more than 250 applications from scientists out of 30+ countries every year. Over the years more than 400 reviewers helped us to evaluate these proposals. In total, we have funded 142 research projects, resulting in 256 publications, which have also appeared in scientific journals such as *Nature* and *Science*.

During that time, what have been the foundation's most notable research breakthroughs?

This is a tough question to answer, as there is no common agreement as to what constitutes a breakthrough, or a method by which to measure it. Personally, I tend to speak of a breakthrough when a successful treatment has passed the clinical tests and is available for a larger group of patients. This is something we and the whole field are still working towards. To get there sooner, we have established a programme called the Accelerated Translational Program (ATP), which aims to bring basic research projects into the clinics. ▶

Wings for Life funds spinal cord research projects all over the world. How does the foundation go about centralising and sharing the research findings?

Centralising and sharing findings is very important to make significant progress. We work on several levels to achieve this. First of all, we ensure that funded scientists publish their findings, whether positive or negative – this is stipulated by contract. Then, we are part of the *AllTrials* campaign, an initiative advocating that all clinical trials should be listed in a registry, and their results should always be shared as open data. We also fund bioinformatic projects for datasharing and harnessing big data to accelerate translation. And we supported a FAIR-share (FAIR is a set of guiding principles for scientific data management) workshop together with pre-clinical researchers, industry and NGOs to look deeper into the potential opportunities and challenges of big data.

What are the key considerations when seeking to identify potential research projects?

The goal of Wings for Life is to find biological repair strategies. To do so, we support all approaches, in various stages of development, anything from molecular-pharmacological approaches to stem cells,

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from neuroprotection to neuroregeneration, and from basic research to clinical studies. A key requirement for us is that the proposals from scientists have the potential to provide real benefits for patients and a view to translate from the laboratory to the clinical setting.

Can you tell us about some of the exciting research projects currently underway?

There are so many exciting projects underway that it is hard to home in on just a few. One example is a very promising study which uses electrical stimulation to improve locomotion. Another example is a study with an antibody which works against Nogo-A – a protein that prevents nerves from growing. Repurposing of existing drugs is also a very exciting field. One example of that is a current study into the pain killer Ibuprofen,

which could result in a promotion of axon growth – axons are extensions of neurons which transmit information to different neurons, or directly to effector organs. There is even a clinical study that investigates how low oxygen levels can stimulate walking function recovery in people with chronic spinal cord injury.

Wings for Life organises international conferences every year to bring together leaders in research and medicine. Can you tell us more about these conferences?

Our annual scientific meeting is definitely a highlight in our yearly event calendar. All scientists who are funded by Wings for Life come together in Austria to present their projects, and to discuss and exchange their knowledge. The who's who of spinal cord research attend and I think that the conference is highly effective, due in no small part to its intimate format.

While on a layover at Moscow airport in 2012, the idea of the Wings for Life World Run was born. The premise was simple - a race run simultaneously at multiple sites



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Wings for Life CEO Anita Gerhardt with World Run International Director, Colin Jackson at the World Run control centre

across the world, in support of spinal cord injury research. How did a passing idea in an airport go on to become a global fundraising event?

The idea for the Wings for Life World Run was presented to us by an event specialist who had some time to kill at Moscow airport. It sounds like a cliché but he drew the

concept on a napkin. We loved the project from the very beginning because we saw the incredible potential to make people aware of spinal cord injuries, win many new supporters around the world, raise money for research and do something fun together – all at the very same time!

The event is logistically, technically and, in terms of communication, a huge challenge. Without the help of Red Bull we would never have been able to pull off this global event.

Wings for Life's mission is to make spinal cord injury curable. How close are researchers to finding a cure?

There is no telling when a cure will be found. Scientists agree that in the next five to 10 years we will see significant progress so Wings for Life is pushing as hard as possible, with all our energy, to bring that day around as soon as possible.

Why is finding a cure for spinal cord injury important to you personally?

Finding a cure is a matter very close to my heart. I know so many people who are affected by this dreadful injury and I admire their mental and physical strength and the way that they cope with a daily life so full of obstacles, difficulties and deprivations. It

would be wonderful to give these people their bodily functions back - things like being able to breathe on their own, or move their fingers – that would massively change their lives for the better.

• If you would like to donate, get involved with Wings for Life's World Run, or find out any more information related to Wings for Life's exciting work, please visit their website at www.wingsforlife.com.



Contact

Wings for Life – International
Fürstenallee 4
5020 Salzburg
Austria

W: www.wingsforlife.com

F: [/wingsforlife](https://www.facebook.com/wingsforlife)

T: [@WingsforLifeUK](https://www.instagram.com/wingsforlifeuk)



Wings for Life fund world-class scientific research and clinical trials around the globe