



# Press Release

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## Winners of second Shock Society / Novo Nordisk Research Grant for Hemorrhagic Shock and Hemostasis announced

### **Annual scholarship continues to support shock research**

On 4 June 2006 the winners of the 'Shock Society / Novo Nordisk Research Grant for Hemorrhagic Shock and Hemostasis' were revealed at the 29th Annual Conference on Shock in Broomfield, Colorado, US.

European winner Dr rer nat Johanna Catharina Duvigneau and US winner Stephen Trzeciak, MD, were awarded 100,000 euros and 120,000 US dollars respectively to transform their innovative research proposals into reality. These substantial grants support cutting-edge shock research being the second in an annual scholarship launched last year.

### **Original approaches rewarded**

The two winners were chosen from a field of applications from across Europe and the US.

Dr rer nat Johanna Catharina Duvigneau from Institute for Medical Chemistry, Department of Natural Sciences, Veterinary University Vienna in Austria, won in recognition of her research proposal entitled: 'Role of iron metabolism in hemorrhagic shock – Interplay of heme oxygenases and nitric oxide synthases'.

Stephen Trzeciak, MD, Section of Critical Care Medicine and the Department of Emergency Medicine, UMDNJ – Robert Wood Johnson Medical School at Camden Cooper University Hospital in the US, won in recognition of his research proposal entitled: 'The Impact of Global Tissue Hypoxia on Modulation of Hemostasis in Early Goal directed Resuscitation for Septic Shock'.

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## **Iron metabolism modulation may reduce organ failures and death in trauma**

"Multiple organ failure remains a major cause of late death in patients with severe blood loss after trauma," explained Prof Dr Med Uwe Bernd Brückner, Division of Surgical Research, Department of Visceral & Transplantation Surgery from the University Hospital in Ulm in Germany, and president of the European Shock Society. "The underlying mechanism leading to this sometimes fatal complication is multi-factorial but not fully understood. It is possible that iron ions (LMW iron) participate in the generation of so-called oxidative stress during resuscitation which can lead to cell damage and subsequent organ dysfunction. Dr Duvigneau's research will investigate to which extent iron plays a role in organ damage, and whether two enzyme systems impacting the availability and toxicity of iron can be modulated to reduce organ damage and potentially save lives."

## **Alteration of early resuscitation may reduce septic shock progression**

"Septic shock is a life-threatening condition that is caused by overwhelming infection causing the body's organ systems to shut down. This condition is both common and deadly; currently 50% of patients with septic shock will not survive," said Prof Richard S Hotchkiss, MD, Washington University School of Medicine, Dept. of Anesthesiology from St. Louis in the US, and president of the US Shock Society. "A dysfunction of the haemostatic system seems to play an important role in sepsis development and progression. Dr Trzeciak's clinical research will demonstrate the importance of early resuscitation on halting mechanisms of septic shock progression, and may provide insights into new therapeutic strategies targeting the haemostasis system."

## **Translating science into clinical benefits for patients**

"The Shock Societies are highly interesting because they stand for basic science as well as its translation into clinical reality," said Mads Krogsgaard Thomsen, chief science officer, Novo Nordisk A/S. "We are proud to support research leading to a better understanding of the mechanisms behind deadly conditions such as organ failure and septic shock, and how they can be better targeted therapeutically. We therefore welcome the researchers as 'visiting scientists' at our haemostasis research facility in New Brunswick, as we share a common goal of being able to make a difference by offering new treatments to these patients in the future."

## **Notes to editors:**

### *About the Grants*

Novo Nordisk A/S and the European and US Shock Societies have founded this annual scholarship as a long-term investment towards supporting investigational science and improving standards of care for shock and trauma patients. Submissions are judged by Shock Society scientific committee

members and the grants are funded through an educational grant from Novo Nordisk A/S.

The grants aim to develop new insights into haemorrhagic shock, resuscitation and haemostasis management by giving early career researchers (PhDs, MDs, MD/PhDs or equivalent) the opportunity and resources to develop independent research. Winners can utilise the grants at their home institutions and are invited to participate in a 'visiting scientist' programme at the new Novo Nordisk Research Laboratories in North Brunswick, NJ, US.

#### *About the European and US Shock Societies*

The mission of the European and US Shock Societies is to improve the care of victims of trauma, shock, and sepsis, by:

- Promoting relevant research into the basic biology of trauma, shock, and sepsis
- Providing a multidisciplinary forum to integrate and disseminate new knowledge in trauma, shock and sepsis
- Promoting the education and mentoring of the next generation of investigators in the field of trauma, shock, and sepsis.

*Novo Nordisk is a healthcare company and a world leader in diabetes care. The company has the broadest diabetes product portfolio in the industry, including the most advanced products within the area of insulin delivery systems. In addition, Novo Nordisk has a leading position within areas such as haemostasis management, growth hormone therapy and hormone replacement therapy. Novo Nordisk manufactures and markets pharmaceutical products and services that make a significant difference to patients, the medical profession and society. With headquarters in Denmark, Novo Nordisk employs more than 22,500 employees in 79 countries, and markets its products in 179 countries.*

For more information, visit [www.shocksocieties.org](http://www.shocksocieties.org)

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