

INUS Neuro-Urology News

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Welcome INUS 2026 Congress

Dear Colleagues and Friends,

It is our great honor and pleasure to welcome you to the International Neuro-Urology Congress 2026 in the vibrant and historic city of Yogyakarta, Indonesia. This meeting represents more than a scientific gathering—it is a celebration of collaboration across borders, a commitment to excellence in care and research, and a shared vision for the future of neuro-urology. Embracing the theme “Neuro-Urology Without Borders: Advancing Science, Technology, and Global Impact,” this Congress brings together clinicians, researchers, innovators, and trainees from around the world to explore emerging frontiers and practical strategies that improve lives.

Our scientific program has been thoughtfully curated to reflect both cutting-edge innovation and foundational learning. Topics span from neuromodulation and artificial intelligence to microbiome science, global health, surgical innovation, and hands-on clinical skills—ensuring relevance across experience levels and geographic regions. We are especially proud to support capacity-building and educational access for local and regional participants.

Yogyakarta, known for its rich cultural heritage and intellectual spirit, offers the perfect backdrop for this event. As we engage with groundbreaking ideas and forge new connections, we also invite you to immerse yourself in the unique hospitality and beauty of our host city.

Thank you for being part of this global community. We look forward to inspiring conversations, meaningful partnerships, and a truly unforgettable congress experience.

With warmest regards,



Thomas Kessler
INUS President, on behalf of the INUS 2026 Organizing and Scientific Committees

Scientific Committee:

Glenn Werneburg (chair), Helmut Madersbacher, Marcio Averbeck

Organizing Committee:

Kadir Onem (chair), Harrina Erliantri, Thomas Kessler

INUS Calendar

INUS Lecture at the European Academy of Neurology (EAN) Congress

Helsinki, Finland

June 21-24, 2025

INUS Lecture at the Italian Society of Urodynamics (SIUD)

Bologna, Italy

June 26-28, 2025

INUS Lecture at the 6th Asian Oceanian Congress of Neurorehabilitation (AOCNR) 2025

Yogyakarta, Java, Indonesia

September 3-7, 2025

INUS Lecture at Annual Scientific Meeting of Indonesian Urological Association (ASMIUA)

Medan, N. Sumatra, Indonesia

September 25-27, 2025

INUS Annual Congress 2026

Yogyakarta, Java, Indonesia

January 22-24, 2026

Register now at neuro-uro.org



**INUS ANNUAL
CONGRESS
YOGYAKARTA**
22-24 January 2026

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Neuro-Urology Around the World: Ukraine

Establishing Neuro-Urology in Ukraine - for a Better Future of Patients with Paraplegia



Ruth Kirschner-Hermanns (DE)

Prof. of Neuro-Urology at University Clinic
Bonn, Germany
INUS Oversight Committee Member

Ruth Kirschner-Hermanns, Liliya Tryfonnyu, Dmytro Razkevych1, Iryna Gudyma, Anna-Lena Butscher, Volodymyr Golyk

Since the onset of the conflict in Ukraine on February 24, 2022, estimates indicate that approximately 390,000 soldiers have been wounded, excluding civilian casualties. These circumstances have led to an enormous increase of individuals with spinal cord injuries (SCI), almost all of whom suffer from neurogenic lower urinary tract dysfunction (NLUTD). We estimate about 1000 new patients with SCI per year. Without adequate diagnostics and treatment, there is a risk of severe kidney damage, life-threatening complications and a severely reduced quality of life. The estimated mortality for spinal cord-injured people with an upper motor neuron lesion without proper care lies between five and seven years.

Ukraine lacks essential neuro-urological procedures, especially urodynamic diagnostics. Rapid modernization of the Ukrainian rehabilitation system is essential, particularly neuro-urological care for SCI

patients. It is crucial to understand the role of the bladder in the rehabilitation of paraplegic patients, focusing on maintaining low bladder storage pressures to preserve renal function.

Ruth Kirschner-Hermanns has launched an initiative to develop neuro-urology in Ukraine and to establish standardized care in accordance with international guidelines. The aim is to reduce mortality, prevent complications, and enable patients to lead a self-determined life. In 2023, Kirschner-Hermanns launched the project together with two Ukrainian doctors and a representative of the NGO “Razom for Ukraine”. In 2023, one urodynamic unit was installed with the help of WHO. By then, physicians and nurses were not sufficiently trained to use the device to diagnose a neurogenic lower urinary tract dysfunction and thus imply the appropriate therapy. During trips to Ukraine in November 2023 and May 2024, she trained doctors and nurses on the only urodynamic device available in Ukraine. The two Ukrainian doctors are now regularly performing urodynamics. They are now also training

colleagues themselves and helping to pass on knowledge about the important role of the bladder. Weekly online meetings with Kirschner-Hermanns ensure the quality of both the measurements and the training. The WHO provides an interpreter for these meetings to ensure smooth communication. The material for urodynamic measurements for about a year was partly donated by the Association for the Promotion of Continence Research and Continence Education, a German charity association founded in 2006 by Kirschner-Hermanns.

In April 2024, Kirschner-Hermanns offered the Ukrainian urologist Valerii Zaitsev, Head of the Department for Clinical Studies at the Bucovinian State Medical University in Chernivtsi, Ukraine, the opportunity to complete a practical training course in urodynamics. During the three-day course, he was able to deepen his knowledge of the diagnosis and treatment of bladder dysfunction, particularly in patients with spinal cord injury. (continued)



To address the often-underestimated role of the bladder in the development of the Ukrainian rehabilitation system, a number of symposia and conferences were held. These conventions were organized by Ukrainian spinal cord physicians and urologists in close cooperation with several organizations. Speakers included the authors and other medical experts as well as a representative of the Ukrainian Minister of Health and representatives of WHO. The events had several hundred participants, and were very well received. These conferences are important steps towards a sustainable improvement in the care of people with spinal cord injuries.

At present, urodynamic diagnostics and integrated therapy planning are only carried out in the Rivne center. Thanks to WHO, the necessary equipment is now available for two other Rehabilitation Hospitals in Dnipro and Vinnytsia. Momentum is establishing a neuro-urology unit in the Unbroken Rehabilitation Center in Lviv. With the help of INUS we are working to set up an online teaching platform for Ukrainian medical students and physicians.

Kirschner-Hermanns is planning another trip to Ukraine in early 2025 to visit all four centers. Our focus will be on quality control of urodynamic studies, implementation of international guidelines and standardized

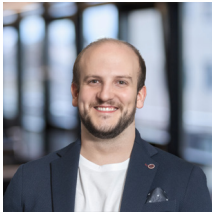
data collection. There is still a long way to go, but the enthusiasm and curiosity of her Ukrainian colleagues inspire her and her partners.



Above: "Together, we can create sustainable structures, improve medical care and prevent suffering." Kirschner-Hermanns and her partners and a neuro-urological patient in Ukraine.

Interview with the Expert

Characterization of spinal circuits in lower urinary tract function



Andrea Sartori (US)

2025 Swiss Continence Foundation Award Recipient

Post-Doctoral Fellow

Beth-Israel Deaconess Medical Center, Harvard University

Interviewer: Glenn Werneburg, Editor, NUN

I had the pleasure of interviewing Andrea Sartori. He is a neuro-urological scientist. He has an impressive research portfolio and is an emerging scientific leader in the field. He is the recipient of the prestigious 2025 Swiss Continence Foundation Award. Below is our discussion, edited for clarity.

Glenn Werneburg: What was already known about the field prior to your work?

Andrea Sartori: For a long time, we have known that the spinal cord plays a central role in controlling lower urinary tract function. Several studies have mapped spinal circuits using viral tracers, giving us a rough blueprint of the pathways involved. However, these studies primarily focused on tracing connections rather than truly characterizing the neurons within those circuits; what types of cells are involved, what molecular signatures they carry, and how they might function in lower urinary tract control. That gap left many open

questions, especially when it comes to understanding which specific populations are most relevant for targeted interventions. My work aims to fill that gap by not only mapping, but defining the key players at the cellular level.

GW: Describe the design of the current study. What was your hypothesis?

AS: To really understand how the spinal cord orchestrates lower urinary tract function, we needed a way to identify the neurons that are actively engaged during bladder control. To do this, we took advantage of a transgenic mouse line that allows us to label neurons that are activated in response to stimulation of the lower urinary tract. Specifically, we continuously infused saline via a catheter to mimic bladder filling and trigger natural activation of the circuitries involved in controlling both the bladder and external urethral sphincter.

Our hypothesis was that, given the complexity of lower urinary tract control, there should be multiple distinct populations of spinal neurons involved: some that promote bladder contraction, others that facilitate external urethral sphincter relaxation, and likely some that inhibit activity to coordinate the timing of these opposing functions.

GW: What were the main findings of the current study? What are its implications?

AS: Our study identified distinct neuronal populations in the mouse lumbosacral spinal cord that are active during lower urinary tract function. We labeled neurons that responded to bladder stimulation and found that these neurons are distributed across multiple spinal cord regions, rather than being confined to a single nucleus.

A key discovery was that these neurons belong to multiple, distinct subpopulations, likely reflecting the need for both excitatory and inhibitory control of bladder and external urethral sphincter function. We also observed that some of these neurons project locally within the spinal cord, while others send long-range projections, suggesting an intricate network of interactions that coordinate lower urinary tract activity.

By identifying and mapping these neuronal populations, we provided a more refined understanding of how the spinal cord integrates sensory and motor signals for lower urinary tract control. This study establishes the basis for future research to explore how these neurons interact and adapt under pathological conditions.

GW: What is the clinical significance of the findings?

AS: What makes this project particularly exciting is its direct translational potential. We are not only mapping the neuronal populations involved in lower urinary tract control in the mouse but also running transcriptomics experiments on the human sacral spinal cord. By identifying which neurons are responsible for lower urinary tract control in mice, we can use that knowledge to look for similar populations in human tissue. Once we pinpoint these neurons, transcriptomic analysis allows us to determine which neurotransmitters and receptors they express. This is critical because it opens the door for targeted pharmaco-

logical approaches, designing treatments that act on specific neuronal populations rather than affecting the entire spinal cord indiscriminately. Additionally, for neuromodulation therapies, mapping the precise location of these neurons in the human spinal cord can help refine electrical stimulation techniques, potentially improving the efficacy and precision of spinal cord stimulation for lower urinary tract dysfunction.

GW: What were the limitations of the study? What are the next steps?

AS: Since our study was conducted in mice, the next critical step is to determine whether the same neuronal populations exist in humans. No one has yet demonstrated whether lower urinary tract-controlling neurons are conserved across species at a molecular level, which is why our parallel transcriptomic work on the human sacral spinal cord is so important. By comparing these datasets, we can begin to assess whether similar neuronal populations exist and whether they share the same molecular signatures. Another limitation is that our study primarily focused on mapping and molecular characterization, but not yet on functional validation. While we identified key neuronal populations and their molecular signatures, the next step is to manipulate these neurons *in vivo*, activating or inhibiting them selectively to confirm their precise role in lower urinary tract control. This would help us understand not just where they are and what they express, but how

they contribute to function.

GW: What advice do you have for junior INUS members interested in embarking on a career as a surgeon-scientist/clinician-investigator with a neuro-urology focus?

AS: Neuro-urology is a relatively small field, but that is one of its greatest strengths. There are excellent research groups around the world, and because so many fundamental questions remain unanswered, there are plenty of opportunities to make a real impact. One of the best ways to get started is by engaging with the community at international meetings like INUS. These meetings are not just about presenting data - they are an opportunity to connect with others in the field, exchange ideas, and learn from different perspectives. The collaborative nature of neuro-urology means that conversations at these meetings can often lead to new insights, new projects, and even new career opportunities.

For those interested in combining clinical work with research, finding good mentorship is key. Reaching out to established clinician-scientists to discuss their experiences can provide invaluable guidance on navigating the challenges of balancing both worlds. But most importantly, staying curious and open to interdisciplinary approaches will help push the field forward and ultimately improve patient care.



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