

# CALL FOR ABSTRACTS



Dear Colleagues,

worldwide about 400 blind patients already received electronic Retina Implant Systems to restore visual functions. It took several groups a more than 20 year long journey of research and development to the present approved products. In the beginning there was a lot of skepticism within the ophthalmic community. Would this work, wouldn't there be massive complications and many failures? As always with new technologies it needed some courageous people to continue even after several setbacks. Patients already benefit from wearing such devices. Although in the beginning our expectations were higher and we thought that the improvements in vision would be greater, but what was achieved today is an important first step to overcome certain forms of blindness using implantable active microsystems. Other steps will follow to improve the performance of visual prostheses and to achieve better outcomes.

This 2023 Symposium will take place in Duisburg, Germany on the occasion of the 57th Annual Meeting of the German Society for Biomedical Engineering ([www.bmt2023.de](http://www.bmt2023.de)) as a satellite meeting. The Artificial Vision Symposium is scheduled for September 25th-26th, 2023.

The symposium will cover all fields of research for vision prostheses starting from understanding degenerative processes in the visual system, microsystem design and materials, microelectronics and systems, electrodes, implantation tools and surgery, preclinical and clinical results, and perception. We believe, that this symposium can serve as an excellent platform for a continuation of the interdisciplinary dialogue between engineering, biophysics, computer science, neuroscience, and medicine.

This symposium is a fully open, non-invitational meeting. We encourage everyone who is working in the field of Visual Prostheses or Artificial Vision to present your work. We especially encourage young researchers to come to Duisburg. To participate in the conference as an author, I am asking you to submit an abstract via the online abstract submission system not later than by April, 16th.

As in the earlier meetings we will have sessions on technology, biophysics, material science, visual system disorders, preclinical testing and clinical trials.

Duisburg can be reached easily via the international airport of Dusseldorf or via Cologne or Frankfurt in combination with the German Train Service.

Together with my colleagues Sven Ingebrandt (RWTH), Frank Müller, and Andreas Offenhäusser (Forschungszentrum Jülich) I cordially invite you to come to Duisburg.



Prof. Dr. Peter Walter  
Department of Ophthalmology, University Hospital Aachen  
RWTH Aachen University, Medical Faculty

## IMPORTANT DATES

**April 30, 2023**

Submission deadline of abstracts and conference papers

**May 20, 2023**

Notification of abstract acceptance and paper decision

**June 05, 2023**

Submission deadline for revised conference papers

**June 16, 2023**

Notification of final paper decision

**July 01, 2023**

Submission deadline for camera ready papers

**July 20, 2023**

Registration deadline for presenting authors

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## CONGRESS OUTLINE

The goal of the International Symposium on Visual Prosthetics – Artificial Vision 2023 is to provide a platform for researchers and clinicians to meet, to present, and to discuss the latest advances and achievements in the field of providing vision with electronic implants to the blind. The symposium will cover all aspects of Artificial Vision such as:

- Mechanisms of degeneration in the visual system
- Interfaces to the visual system: electrodes (materials, designs and fabrication methods)
- Innovative concepts of electrical stimulation for perception enhancement
- Active and passive stimulation and recording devices: complex implants, systems, algorithms - Preclinical tests: biocompatibility and proof of concept studies
- In vitro and in vivo experimental results of retinal tissue.
- Clinical experiences: patient selection, surgery, and functional outcomes
- New ideas and visions

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### Abstract submission

All authors are invited to submit a structured abstract (300 words). The abstracts will be peer-reviewed and, if accepted, published online in a special issue of the journal „Current Directions in Biomedical Engineering“ by De Gruyter (open access).

The submission system will open on January 19, 2023. Abstracts must be submitted by April 16, 2023. Please use the Abstract text field in the submission form to submit your structured abstract with Sections Introduction, Objective, Methods, Results and Conclusion.



### Contact

Conference Office  
[office@bmt2023.de](mailto:office@bmt2023.de)  
[av.bmt2023.de](http://av.bmt2023.de)

### Venue

Mercatorhalle Duisburg / City  
Palais König-Heinrich Platz  
D-47051 Duisburg