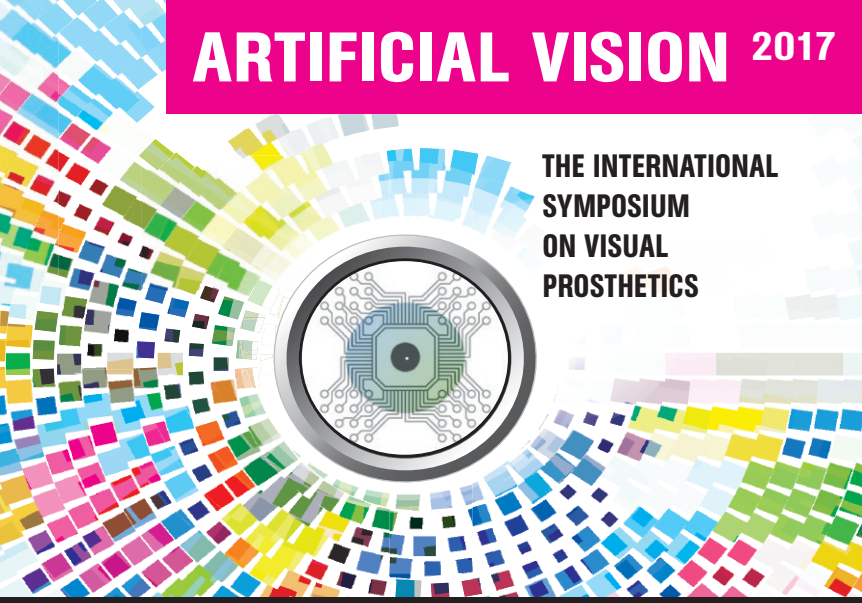
ARTIFICIAL VISION 2017



THE INTERNATIONAL SYMPOSIUM ON VISUAL PROSTHETICS

Friday, 1st – Saturday, 2nd December, 2017
Aachen, Germany

INVITATION
CALL FOR ABSTRACTS
MEETING INFORMATION

Center for Technology
Aachen Europaplatz
www.artificial-vision.org

Deadline for the receipt of abstracts:
Sunday,
17th September, 2017

RWTH AACHEN UNIVERSITY | JÜLICH FORSCHUNGSZENTRUM

Worldwide about 200 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. Others steps will follow to improve the performance of visual prostheses and to achieve better outcomes.

The 3rd International Symposium of Artificial Vision 2017 is planned to provide a platform for researchers working in this field to come together, to present their recent work and to discuss the results and consequences. It is also ment to discuss new approaches and to find ways to foster this field of research in the global scientific community. The earlier meetings in Aachen were always planned in between the 2-year interval of the Eye and the Chip Meeting in Detroit, USA. This year the organizers in the US decided to make the Detroit Meeting an annual meeting and we discussed if we should discard the Aachen Meeting. But than we thought that the two meetings are different in several aspects and that the Aachen Meeting should have its place.

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 Aachen. For young researchers we will have a number of travel grants available. To get a place in the program I am asking you to send in an abstract via the online abstract submission system not later than by 17th September.

As in the earlier meeting we will have sessions on technology, biophysics, material science, visual system disorders, preclinical testing and clinical trials. The meeting will be supported by RWTH Aachen University, which is one of the leading technical universities in Europe, and the Research Center in Julich, one of the largest Research Centers in Germany with a strong focus on Neuroscience and Technology.

Together with my colleagues Wilfried Mokwa (RWTH), Frank Müller and Andreas Offenhäusser (RC Julich) I cordially invite you to come to Aachen.

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

Date
Friday, 1st December, 2017, 13:00 h – 18:30 h
Saturday, 2nd December, 2017, 09:30 h – 16:00 h

Venue
Center for Technology Aachen Europaplatz
Dennewartstraße 25-27, 52068 Aachen, Germany

Homepage and Online Registration
www.artificial-vision.org

Scientific programme and further information
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RWTH Aachen University, Medical Faculty
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Organization
Congress-**O**rganisation **G**erling GmbH
Werftstraße 23, 40549 Düsseldorf, Germany
Phone: +49 (0) 2 11 / 59 22 44, Fax: +49 (0) 2 11 / 59 35 60
E-Mail: info@congresse.de, Homepage: www.congresse.de

Official Language
English

Hotel Booking
See hotel on the registration form
(or online www.artificial-vision.org)

Social Event
Conference Dinner
Friday, 1st December, 2017
20:00 h
Drehturm Belverdere
Belvedereallee 5
52070 Aachen


Quelle: Drehturm

ATTENDANCE FEE

Registration	Until 19th September	After 19th September	On site
International symposium attendance fee	EUR 180,–	EUR 200,–	EUR 220,–
Reduced rate for PhD students and residents*	EUR 100,–	EUR 120,–	EUR 140,–

*PhD Students and residents must supply a letter of verification as proof of training. The letter has to be sent to the congress organization prior to the meeting.

The attendance fee covers the costs for coffee breaks, lunch, and the conference dinner (accompanying person EUR 50,–). Incl. VAT and excl. foreign transfer fees.

Payment
by bank transfer (bank details are quoted on your confirmation and invoice. Please do not transfer money without noting your invoice number!) PayPal or by credit card: VISA, AMERICAN EXPRESS, MASTERCARD

Important notes for participants

The attendance fee covers the costs for coffee breaks, lunch, and the conference dinner. If you register late or on site we cannot guarantee for lunch and participation at the social program.
You are encouraged to apply for the meeting either online, by mail or by fax.
Cancellation for the symposium has to be made via e-mail or via fax (+49 (0) 2 11 / 59 35 60) by 27th November, 2017. In any case an administration fee of EUR 22,– has to be paid. After this date no refunds can be made.

Changes, errors and misprints excepted.

CME-POINTS

The Symposium is registered at the Ärztekammer Nordrhein providing CME-points for the German Continuing Medical Education System. Please bring your Barcode Labels and we will register you for CME-point documentation.
An equivalent Certificate of Attendance will be given to you upon on-site registration.

CALL FOR ABSTRACTS

Abstract submission

Please submit your abstract online:
www.artificial-vision.org
Deadline for Abstract submission: Sunday, 17th September, 2017

Layout

Your abstract must not exceed 2000 letters in total (including blanks) and), it must be written in Times New Roman 10 point with single line spacing. Start with the title, authors, and affiliation(s) followed by a blank line followed by a standard abstract structure (Objective, Materials & Methods, Results, Discussion). In case of external or institutional funding please acknowledge the sponsor.

Example

The thresholds for retinal stimulation in blind RP subjects.
Franz Reuter, Julia Sachtweh, Reinhard Meier
Department of Ophthalmology, Island City, Elsewhere

Objective. To describe the stimulation thresholds for subretinal stimulation using platinum red electrodes embedded into new insulation materials.
Materials and Methods. In six blind RP patients a new subretinal device was implantated and cortical potentials were recorded upon electrical retinal stimulation. Cortical potentials were determined using a new response isolation algorithm developed by Meier et al. The cortical responses were correlated with stimulus parameters.
Results. In all six patients the implantation was done successfully. All patients had visual percepts. In all patients cortical potentials can be recorded and the the stimulus duration necessary to obtain a response was 67 ms cathodic first with an mean amplitude of 435 µV.
Discussion. The stimulation at threshold was well within the non-toxic range for tissue stimulation and no patient had any adverse events.
Acknowledgment. This work was supported by ABC grant 874987.

The goal of the International Symposium on Visual Prosthetics – Artificial Vision 2017 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
- principles of electrical stimulation in the visual system
- interfaces to the visual system: electrodes
- stimulation and recording devices: complex implants, systems, algorithms
- preclinical tests: biocompatibility and proof of concept studies
- clinical experiences: patient selection, surgery, and functional outcomes
- new ideas and visions

PRELIMINARY PROGRAMME STRUCTURE

Friday, 1st December, 2017

13:00 h – 14:00 h	**Come together reception**
14:00 h	**Opening remarks**
14:30 h	**Session I** **Mechanisms of degeneration in the visual system**
16:00 h	**Session II** **Principles of electrical stimulation in the visual system**
17:30 h	**Session III** **Interfaces to the visual system - electrodes**
18:30 h	**End of day I**
20:00 h	**Conference dinner**

Saturday, 2nd December, 2017

09:30 h	**Session IV** **System design, algorithms and fabrication**
11:00 h	**Session V** **Preclinical studies, biocompatibility, surgery**
12:30 h	**Lunch break**
13:30 h	**Session VI** **Clinical Outcome, Measuring Artificial Vision**
15:00 h	**Session VII** **Outlook and new projects**
16:00 h	**Closure remarks - farewell reception**

Travel Grants for young researchers

We especially encourage young researchers to come to the Aachen Meeting and to present your own work and to discuss all aspects of visual prosthetics with colleagues from many different disciplines and countries. To make things easier we will provide travel grants of up to 2,000 EUR for young researchers. Although it is difficult or in other words impossible to define a threshold for being young, a poorly artificial definition and limit has to be set. We feel that usually researchers younger than 40 years of age need more financial support than the older ones. We may be wrong but somehow we need a definition.

To apply for a travel grant please send a CV and a motivation letter to:
pwalter@ukaachen.de

Aachen, and the EUREGIO area

The city of Aachen is the most western city in Germany close to the borders of The Netherlands and Belgium. Aachen has approx. 250,000 inhabitants and the University and the University Hospital are the largest workgiver here in Aachen. Aachen has a long history and you can still see significant witnesses of a time long ago, such as the cathedral with its beautiful and mystic octagon and the astonishing gothic city hall. But Aachen with its important historic phase of Charlemagne today is a young and vivid town with its university and the many students from various countries in the world. RWTH Aachen University is one of the leading technical universities in Europe with a strong focus on mechanical and electrical engineering but also on information technology and natural sciences. Aachen forms a cultural, industrial and also scientific cross border triangle together with Liege in Belgium and Maastricht in The Netherlands forming the EUREGIO area. Many cooperations exist between the institutions within this area.

The Artificial Vision Meeting is set to the beginning of December. Although the weather might not be perfect – in fact it could be cold and maybe rainy – it is worth to visit the cosy Christmas Market in the city. You should try “Printen”, a local biscuit speciality with a high “addiction” potential.

Aachen is also not far away from Cologne with its huge cathedral and its several concert halls and the province capital Düsseldorf with its important art and fashion scene. You can also reach the European capitals Paris and Brussels with a high speed train within a few hours.

There are also many more reasons to come and visit Aachen and we are looking forward to see you.

(Stamp)

Please
prepay

For German participants:
BARCODE-AUFKLEBER
EFN-FORTBILDUNGSNUMMER

RÜCKANTWORT

Congress-
Organisation
Gerling GmbH

Werftstraße 23
40549 Düsseldorf

GERMANY

1st – 2nd DECEMBER, 2017
AACHEN, GERMANY

ARTIFICIAL VISION 2017

THE INTERNATIONAL SYMPOSIUM ON VISUAL PROSTHETICS

☐ Mrs/Ms ☐ Ms

Title | Name | First name

Institute

Institute address

ZIP code Town | Country

Phone | E-Mail

Date | Signature

Important: Please print-type used! You will receive a registration confirmation. Cancellation of your registration has to be made via mail or via fax (+49 211 / 59 35 60) by 27th November, 2017. In any case an administration charge of € 20.00 has to be made. No refunds will be made after this date.
For German participants: **Bitte kleben Sie einen Aufkleber mit Ihrer Fortbildungsnummer (EFN/Barcode) auf die Vorderseite dieser Anmeldung!**

Please tick ☒:

☐ I am interested in this meeting. Please send me the final program
or
☐ I register **definitely** for **Artificial Vision2017**

Lunch on Saturday, 2nd December, 2017 (included in the conference fee)
☐ yes ☐ no (please tick)

Social event:
☐ **Conference Dinner** (Friday, 1st December, 2017) _____ person/-s

I am a (please tick):
☐ Regular ☐ PhD student*, resident* **(*presentation of appropriate proof of status required)**

Payment (please tick required method):
☐ Bank transfer Credit card: ☐ MasterCard ☐ VISA ☐ American Express

Card No.: _____

Valid: _____ Card Validation Code (3 or 4 digits): _____

Hotel reservation:

_____ _____
Arrival date Departure date

Mercure Hotel Aachen Europaplatz****
www.mercure.com
(next to the Center for Technology)

SR: € 120.00 I DR: € 144.00
incl. breakfast
Cancellation deadline: 2nd October, 2017

Please tick:
☐ Single room (SR)
☐ Double room (DR)

Special request

Service and VAT (value added tax) are included in the room rate. The rooms will be confirmed by Congress-Organisation Gerling GmbH, Düsseldorf, in order of their receipt. To guarantee your requested hotel, reservations should be made as soon as possible.
Please do not reserve your hotel by phone. For cancellation and/or rebooking after confirmation an administration charge of € 22.00 will be made. In case of cancellation of the hotel reservation or if the participation is partly or fully cancelled after the indicated deadline Congress-Organisation Gerling GmbH reserves the right to charge up to 100 % of the agreed accommodation price.

Congress-Organisation Gerling GmbH
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