INTERNATIONAL WORKSHOP ON
OSSEOINTEGRATION AND BIONIC LIMP RECONSTRUCTION

BOLOGNA (Italy)
October 18-19th 2023
Rizzoli Orthopaedic Institute
Institute of Anatomy,
University of Bologna

FINAL PROGRAM
Bionic limb reconstruction has grown tremendously in the last decade and faces the challenges of restoring motor and sensory function in patients who have lost their limb. Pioneering leaders in the field of limb reconstruction from both fields of medicine and bioengineering will come together for this International Workshop in Bionic Limb Reconstruction at the Rizzoli Institute in Bologna, Italy, and share their experiences with the newest techniques to improve the function and the quality of life of amputated patients. A world class faculty members will provide personal instruction with lectures, panel discussions, video dissections, and case presentations. Furthermore, a Cadaver Lab session will offer the opportunity to see different surgical techniques such as osseointegration, targeted muscle/sensory reinnervation, regenerative peripheral nerve interface, and many others, with interactive discussions with the audience to optimize teaching and learning time.

Scientific Coordinators
Paolo Sassu, Bologna - Italy
Stefano Zaffagnini, Bologna - Italy
Marco Innocenti, Bologna - Italy

Scientific Secretariat
Francesco Mori, Bologna - Italy
Francesca Alice Pedrini, Bologna - Italy
Luca Salmaso, Bologna - Italy

FACULTY
Oskar Aszmann, Vienna (Austria)
Rickard Brånemark, Jacksonville (USA)
Matthew J. Carty, Cambridge (USA)
Paul S. Cederna, Ann Harbor (USA)
Christian Cipriani, Pisa (Italy)
Lorenzo Alirio Díaz Balzani, Rome (Italy)
Jennifer Ernst, Hannover (Germany)
Jonathan A. Forsberg, New York (USA)
Alexander Gardetto, Brixen (Italy)
Marco Innocenti, Bologna (Italy)
Yan Li, Stockholm (Sweden)
Lucia Manzoli, Bologna (Italy)
Max Ortiz Catalan, Gothenburg (Sweden)-Melbourne (Australia)
Chang sik John Pak, Seoul (South Korea)
Stanisa Raspopovic, Zurich (Switzerland)
Stefano Ratti, Bologna (Italy)
Paolo Sassu, Bologna (Italy)
Jaimie T. Shores, Baltimore (USA)
Jason Souza, Columbus (USA)
Stefano Zaffagnini, Bologna (Italy)
**SESSION II – BIONIC LIMB RECONSTRUCTION**  
**Moderators:** Paolo Sassu, Max Ortiz Catalan

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>11.00</td>
<td>Challenges in artificial limb reconstruction</td>
<td>Max Ortiz Catalan</td>
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<tr>
<td>11.15</td>
<td>Bionic limb reconstruction after amputation or devastating peripheral nerve injuries</td>
<td>Oskar Aszmann</td>
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<tr>
<td>11.30</td>
<td>Regenerative peripheral nerve interface (RPNI) for prosthesis control</td>
<td>Paul S. Cederna</td>
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<tr>
<td>11.45</td>
<td>The myokinetic interface: tracking implanted magnets as a mean for prosthetic control</td>
<td>Christian Cipriani</td>
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<tr>
<td>12.00</td>
<td>Neuromusculoskeletal prostheses and pain neurorehabilitation</td>
<td>Max Ortiz Catalan</td>
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<tr>
<td>12.15</td>
<td>Bionic lower limb: experiences from the Asan medical centre</td>
<td>Changsik John Pak</td>
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<tr>
<td>12.30</td>
<td>Bone-anchored prosthesis and TMR: experience from the Campus Biomedico in Rome</td>
<td>Lorenzo Alirio Diaz Balzani</td>
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**SESSION III – ANATOMICAL AND ARTIFICIAL LIMB RECONSTRUCTION**  
**Moderator:** Oskar Aszmann, Jaimie T. Shores

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<tr>
<td>14.00</td>
<td>Somatosensory neuroprosthetics</td>
<td>Stanisa Raspopovic</td>
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<td>14.15</td>
<td>Targeted muscle reinnervation (TMR) for prosthesis and pain control</td>
<td>Jason Souza</td>
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<td>14.30</td>
<td>Agonist-antagonist myoneural interface (AMI) in Europe</td>
<td>Jennifer Ernst</td>
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<tr>
<td>14.45</td>
<td>Combining agonist-antagonist myoneural interface (AMI) and osseointegration</td>
<td>Matthew J. Carty</td>
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<tr>
<td>15.00</td>
<td>Targeted sensory reinnervation</td>
<td>Alexander Gardetto</td>
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*Additional information:*  
**Wednesday, October 18th 2023**  
Rizzoli Orthopaedic Institute - Codivilla Putti Research Center  

8.00 Registration  
8.30 Opening remarks and introduction to the Workshop  
- Marco Innocenti, Paolo Sassu, Stefano Zaffagnini  

**SESSION I - OSSEOINTEGRATION**  
**Moderators:** Rickard Brånemark, Jason Souza

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<tr>
<td>8.45</td>
<td>Osseointegration: history and basic science</td>
<td>Rickard Brånemark</td>
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<tr>
<td>9.00</td>
<td>Clinical experience with osseointegration for bone-anchored prostheses</td>
<td>Jonathan A. Forsberg</td>
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<tr>
<td>9.15</td>
<td>Osseointegration in the thumb and fingers</td>
<td>Yan Li</td>
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<tr>
<td>9.30</td>
<td>Osseointegration in limb replacement: soft tissue considerations</td>
<td>Jason Souza</td>
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<tr>
<td>9.45</td>
<td>Potential complications and expected outcomes</td>
<td>Yan Li</td>
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<tr>
<td>10.00</td>
<td>The future in osseointegrated reconstruction</td>
<td>Rickard Brånemark</td>
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<tr>
<td>10.15</td>
<td>Discussion</td>
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<tr>
<td>10.30-11.00</td>
<td>Coffee Break</td>
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**SESSION III – ANATOMICAL AND ARTIFICIAL LIMB RECONSTRUCTION**  
**Moderator:** Oskar Aszmann, Jaimie T. Shores

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15.15 Bionic limbs and hand transplantation: the Swedish experience - Paolo Sassu
15.30 Bionic limbs and hand transplantation: the Johns Hopkins University experience - Jaimie T. Shores
15.45 Preliminary experience with osseointegration at the Istituto Ortopedico Rizzoli - Stefano Zaffagnini
16.00 Embodiment in limb prostheses - Max Ortiz Catalan
16.15 Discussion
16.30-16.45 Coffee break
16.45 PANEL DISCUSSION AND INTERACTIVE QUESTIONS ON THE FUTURE OF BIONIC RECONSTRUCTION AND LIMB TRANSPLANTATION
Moderators: Oskar Aszmann, Paul S. Cederna, Rickard Brånemark, Jaimie T. Shores, Paolo Sassu, Marco Innocenti, Stefano Zaffagnini
17.40 Discussion
17.55 Closing remarks
18.15 End of the first day of the Workshop
ITALIAN CME CREDITS
CME PROVIDER: I&C SRL- No. 5387- 394054
Credits awarded: 13,9
Training hours: 13 hours
I&C is responsible for the contents, the quality and ethical appropriateness of this CME activity.

The Congress will be accredited for the following professionals
- Physicians, Physiotherapists, Biomedical Laboratory Technician, Orthopedic Technician, Occupational Therapist.

Only attendees working in the above disciplines will be entitled to educational credits.

Places available: 50

METHODOLOGY
- Residential

EDUCATIONAL OBJECTIVE

ASSESSMENT TEST
- Written test with open-ended questionnaire. To obtain the CME credits relating to the event it is mandatory: participate in 90% of the training activities, pass the written test (assessment by the Scientific Director), complete the ECM material in its entirety (personal data, evaluation form for the residential training event and I&C questionnaire - quality and training needs).

OFFICIAL LANGUAGE
- English is the official language of the Course. Simultaneous translation is not provided.

REGISTRATION FEE
- Physicians € 500,00 (VAT 22% included)
- Trainees/Residents** € 250,00 (VAT 22% included)
- Physiotherapists, Biomedical Laboratory Technician, Orthopedic Technician € 250,00 (VAT 22% included)
- Biomedical Engineers € 300,00 (VAT 22% included)
- ** A certificate will be requested upon registration

CANCELLATION
- Cancellations must be communicated in writing via email to the Organizing Secretariat. For cancellations received before October 8th, the deposit paid will be refunded, net of agency fees (€ 30.00). After this term, no refund is foreseen. The refund will be made at the end of the Congress.

REGISTRATION
- Online registration on: www.leanevent.it/bionic_limb_reg/

PAYMENT
- CREDIT CARD
- PAYPAL
- BANCOMAT OR BANK TRANSFER (ONSITE)

The proforma invoice will be sent immediately at your email address.

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