World’s longest running international conference on innovation, manufacturing and purchasing strategies in orthopaedics

20 international speakers: Learn from the most influential orthopaedic companies and CMOs. Network and exchange with 200 top decision makers

On June 6th, 17:00 to 19:00:
Benefit from Avicenne Medical’s latest market research during the Pre-event Tutorial: Market dynamics, forecasts, technology and regulatory shifts

Please see the list of our top speakers and the complete program on our website: www.implants-event.com
Avicenne Medical created IMPLANTS in 2005 to focus on changes in manufacturing technologies and purchasing strategies. Over the years we have succeeded in:

- Attracting to Paris more than 200 decision makers, to build a unique gathering place for orthopaedic contract manufacturers and orthopaedic companies. Fostering business networking and fruitful meetings in a limited timeframe.
- Providing a content-rich event, with the latest views from Avicenne Strategic market research and a wealth of operational acumen and vision from the best of class companies, on carefully selected topics.

IMPLANTS is the world’s longest running conference on innovation, manufacturing and purchasing strategies in orthopaedic implants, instruments and biologics.

The 2018 IMPLANTS conference will be held in Paris on June 6-7, 2018 and will feature the following main topics:

1. **Supply chain and contract manufacturing**: How can the collaboration between OEMs and contract manufacturers yield innovation? How is the ongoing market concentration affecting their relationships?

2. How will the increasing weight of **regulatory and quality issues** be shared between OEM and CMO?

3. **Additive Manufacturing** (3D printing) is now massively used by some OEMs for implants. Is Additive Manufacturing the right option for CMOs as well? Which technology / equipment supplier will be dominant?

4. How is **Robotic assisted therapy and navigation** changing the nature of the industry by demanding new know-how and technologies? How can CMOs adapt?

5. **Minimally invasive surgery** was a revolution which carved a niche in the market. What is its future potential? What will be the next milestones?

6. **Disruptive innovations, emerging technologies & markets in orthopaedics**. Probe into the future of emerging trends such as Smart Implants & Instruments, Disposable Instruments, Biologics, bio-resorbable raw materials, Anti-infection products, Customized implants, etc.

Seize the opportunity to be in Paris, to learn from the leaders of the entire industry and interact with them during the conference, and at the closing cocktail.

**ALI MADANI**
Managing Partner of Avicenne Medical
Founder of IMPLANTS event

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**NEW LOCATION:**

**#CLOUD Business Center**

- New Location with high-tech amenities and a modern 200 seat auditorium nested in a 900 m² facility
- Located within the center of Paris, walking distance from the Paris Opera and historical downtown
- 10bis rue du Quatre-Septembre 75002 PARIS
  - Metro Quatre-Septembre or Bourse
More than 200 top level decision makers attended the 2017 conference

As usual, IMPLANTS attracted people from all over the world. The 2017 conference attendees came from the following countries:

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>15%</td>
</tr>
<tr>
<td>France</td>
<td>38%</td>
</tr>
<tr>
<td>Germany</td>
<td>12%</td>
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<tr>
<td>Switzerland</td>
<td>8%</td>
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<tr>
<td>Italy</td>
<td>6%</td>
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<tr>
<td>Ireland</td>
<td>4%</td>
</tr>
<tr>
<td>Others</td>
<td>9%</td>
</tr>
</tbody>
</table>

IMPLANTS attracted a wide variety of company profiles. The 2017 conference attendees were from the following corporations:

<table>
<thead>
<tr>
<th>COMPANY TYPE</th>
<th>DELEGATE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopaedics OEM 25%</td>
<td>Executive / Director 24%</td>
</tr>
<tr>
<td>Contract Manufacturing 52%</td>
<td>Manager 29%</td>
</tr>
<tr>
<td>Consulting &amp; Media 9%</td>
<td>Sales &amp; Marketing 28%</td>
</tr>
<tr>
<td>Private Equities 14%</td>
<td>Other 28%</td>
</tr>
</tbody>
</table>

Key executives from orthopaedic companies and contract manufacturers will share their views on the following topics:

- What are the latest trends and main changes within the orthopaedic market?
- What are the needs of orthopaedic OEMs? One-stop shopping, shared responsibilities, co-invention and co-development agreements, etc.
- Are the major OEMs increasing their outsourcing to contract manufacturing?
- What are the key growth factors and barriers for orthopaedic contract manufacturing development?
- What roles will the BRICS, South America and Central European countries play in the future of contract manufacturing? What is the risk of production relocation to lower labor cost economies? and for which products? generic instruments, non-complex implants, etc.
- What will be the winning emergent products and technologies? Customized implants, single-use instruments, biologics and bio-resorbable materials, smart implants and instruments, disruptive manufacturing process, etc.
- Will increased weight of regulations and certifications impact profitability? Will there be more inspections, audits, and tighter controls for contract manufacturers?
- Latest trends in orthopaedic raw material improvements
- What are the long-term trends affecting the casting, forging, machining, coating and finishing processes? What is the impact of Additive Manufacturing?
- How has contract manufacturing of the coating process changed?
- How do the major OEMs work with product markings, packaging and sterilization?

Ali Madani’s tutorials feature among the most highly rated presentations by participants. Come on Wednesday afternoon and benefit from Avicenne’s latest market research based on 25 years of experience and extensive business connections with all parties (Orthopaedic companies, CMOs, Surgeons, PE funds, etc). You will hear about:

1. Orthopaedic market perspectives and main issues:
   - Past and current dynamics, tight regulations making innovation harder to achieve, reimbursement trends and impact on orthopaedics
   - Players’ strategies: Major players and nimble challengers. The orthopaedics paradox of size, growth and profitability
   - Market forecasts: Balance of new and mature products, Critical Success Factors and high value-added products, strategic positioning of main players, Threats & Opportunities

2. Orthopaedic Contract Manufacturing Markets, trends and player strategies:
   - Contract Manufacturing market: Outsourcing trend vs. inertia of in-house
   - Player strategies: Is concentration a good response to the needs of major players?
   - Organizing Contract Manufacturers – Do they evolve fast enough in relation to market needs?
   - Critical size Vs agility and specialization Vs profitability?
   - Which part of the value chain is strategic? Controlling most of the manufacturing chain or focusing on the high value-added portions?
   - Will Additive Manufacturing affect forging, casting and machining? Is Additive Manufacturing a relevant strategic choice for Contract Manufacturers?
   - Long term forecasts for Orthopaedic Contract Manufacturing: common features and differences with aerospace & automotive contract manufacturing, Business Model

"It was a good conference and has moved on a lot since I first attended several years ago. For me the most useful presentations were Ali Madani’s overview of the contract manufacturing market place and hearing the perspectives of the supply base through their presentations.”

Simon Adam
Senior Director, Supplier Quality
Deputy Synthes
2018 CONFERENCE PROGRAM

SUPPLY CHAIN & CONTRACT MANUFACTURING

ALI MADANI  
Chief Executive Officer & Founder,  
Avicenne, France

Pre-workshop (Wednesday June 6,  
17:00 – 19:00) & Keynote speech
- Orthopaedic market perspectives and main issues  
- Orthopaedic Contract Manufacturing Markets, trends and player strategies

MARK KEMP  
President & Chief Executive Officer,  
Tecomet, USA

Partnership Innovation is Happening Now:  
- Are the major OEMs increasingly relying on contract manufacturing?  
- What are the critical needs of the orthopedic OEMs...?   
  One-stop shopping, shared responsibilities, co-invention and co-development agreements?  
- Key growth factors and barriers to development for orthopedics “Solutions Providers”

JERRY JURKIEWICZ  
Chief Executive Officer, Orchid Orthopedic Solutions, USA

Strategy in the changing Contract Manufacturing landscape:  
- What are the industry’s heavy trends?  
- Orchid positioning & strategy  
- Conclusion: Lessons for the future of orthopaedics contract manufacturing

QUALITY & REGULATORY

DANIEL DELFOSSE  
Head of Innovation & Technology,  
Mathys Ltd Bettlach, Switzerland

The impact of the new Medical Devices Regulatory on innovations: How high will the hurdles be?  
- Regulatory threats and uncertainties for innovative ideas  
- Cost and timeline to bring innovations to the market  
- Need for technical documentation from subcontractors  
- Timely communication with the Notified Body

DIARMUID DE FAOITE  
Global Clinical Strategy Manager,  
Smith & Nephew, Switzerland

Dynamic tools to measure health outcomes after an orthopaedic surgery  
- Item Response Theory Vs Traditionnal Patient Reported Outcome  
- PROMIS development  
- Smith & Nephew specific App. strategy  
- What findings after the first results?  
- How can these tools be extended to the wound segment?

STEFANO ADAMI  
Senior consultant, Confinis, Switzerland

Dealing with Innovation and costs In Orthopedics: how can regulatory and quality tasks become more costeffective?  
- What are the upcoming Regulatory and Quality challenges and main changes for the Orthopedic Sector  
- Streamlining of Quality and Regulatory activities in the Orthopaedic value chain  
- How to plan for cost-effective Regulatory and Quality tasks?  
- How to manage the increased regulatory burdens?
ADDITIVE MANUFACTURING

ALI KIAPOUR
Senior Principal R&D Engineer, 4WEB Medical Inc., USA

3D printing pure players: exception or way to go?
- What are the current challenges and limitations of Additive Manufacturing?
- What is the role of the FDA and regulation in the Additive Manufacturing medical device landscape?
- What are the emerging technologies to master in the Additive Manufacturing process?
- How can 3D printing be adapted to biological tissues?
- Expected Process improvement and techniques for the near future

MARK MORRISON
Manager, Materials Research and Tribology, Smith & Nephew, USA

Applications of Additive Manufacturing in the Orthopaedic Industry:
- What are the key applications where additive manufacturing is growing?
- Why is application selection critical for the creation of value?
- How to measure pros and cons of each application for Additive Manufacturing?

PIERFRANCESCO ROBOTTI
Scientific Marketing Manager, Eurocoating, Italy

Use of Additive Manufacturing in the serial production of titanium based Orthopaedic Implants:
- Are there specific issues to overcome to achieve Additive Manufacturing serial production?
- Material performances across different building strategies
- What are the critical operations required during serial Additive Manufacturing?
- How different are quality, cleaning and post processes in Additive Manufacturing?

MAGNUS RENÉ
Former Chief Executive Officer, ARCAM, Sweden

Additive Manufacturing for orthopaedics: from niche market to the mass market!
- Will additive manufacturing be a key technology for the orthopaedics industry in the years to come? For which products & which applications?
- Which users? Additive Manufacturing for implants will be used mainly by orthopaedic companies or contract manufacturing organizations?
- Additive Manufacturing applications for orthopaedic Instruments
- Additive Manufacturing: Raw materials issues

ROBOTIC ASSISTED & NAVIGATION

SÉBASTIEN HENRY
General Manager, Pixee Médical, France

Where is consensus on robotics for orthopaedics? Is it the right candidate for a standard of care?
- A growing installed based and a strong commitments from the Majors
- What are the surgeons’ needs and their real expectations?
- Are Augmented Realty and Virtual Reality the right candidates for mass market and can they become industry standards?
- Other affordable and efficient solutions to better answer surgeons’ needs

MANUEL FUENTES
Regional Business Manager, Robotics and Total Joint Replacements, Eastern USA, OMNIlife science, USA

Robotic-assisted surgery in orthopaedics: fact or fad?
- Resistance toward Robotics development
- What it is the expected value of Robotics today and in the future?
- Results from field studies and consulting bodies
- Magnitude of the market and competitive landscape
- What is OMNIlife robotic solution bringing to the market?
- Is robotics a game changer in orthopaedics?
2018 CONFERENCE PROGRAM

DISRUPTIVE INNOVATIONS, EMERGING TECHNOLOGIES & MARKETS

LANE HALE
President & CEO, ECA Medical Instruments, USA

and

JAMES B. SCHULTZ
Executive Vice President Sales & Marketing, ECA Medical Instruments, USA

Single-Procedure Instrument & Procedural Kit Advancements & Opportunities for Orthopaedic & Spine
- The goal: One Instrument, One Patient at a Time
- The problem of pain (industry woes and paradigm shifts)
- Application of single-procedure instrumentation (standalone & procedural kits)
- Clinical benefits of surgery ready single-procedure instrumentation (and implants) to hospitals and outpatient surgical centers
- Business benefits of sterile-pack, surgery-ready instrumentation to Ortho / Spine stakeholders
- What the future holds for mass market adoption (logistics/fulfillment, global reach & impact, personalized medicine and more)

NICOLAS PIVERT
Restorative Therapy Group Director, Pain & Spine Business Director, Medtronic, France

Pathways for innovation in the orthopaedic field: beyond products
- What can be considered as genuine innovation in orthopaedic / Spinal surgery today?
- Incremental vs disruptive innovation
- How to overcome innovation hurdles today?
- How is the healthcare system shaping future orthopaedic innovations?

MAURO MALZANNI
Strategy and Marketing Director - Emerging Markets and Asia Pacific, Smith & Nephew, UAE

Changes and dynamics within the Emerging Markets for the orthopaedic industry
- The key emerging markets and their characteristics (China, India, South America)
- Opportunities and challenges to consider to achieve market penetration
- Barriers to entry and strategies to overcome local specificities

ANDREW T. ROCK
Co-founder of K2M Group, Board member and Consultant for several Medtech companies, USA

- Mid 80s to early 90s
- Late 90s
- 2000s
- 2010 US Market disruption and adaptation to AHC
- Future of a Mature Spine Market

DAVID PELIZZON
President, Squadron Capital, USA

Integrating Supply and Finance – A New Model For Growth:
- What are the financial Challenges Facing Start-up and Smaller Orthopedic Companies?
- Weighting the top 4 requirements for success:
  - Create Product or service differentiation
  - Demonstrate Operational and financial leadership
  - Build a sound Supplier relationship
  - Secure Adequate financing
- Structure Medical innovative Integrations of Supply and Finance
- Its Impact to Valuation
- A brief Case study
TESTIMONIALS

“I really enjoyed the participation and would like to thank you again for giving me the chance to speak there. I certainly would be willing to attend another IMPLANTS conference”

Mario Powierski, Supplier Quality Specialist Zimmer Biomet Deutschland GmbH

“I appreciated the meeting and fruitful discussions with you and colleagues from other companies, as well as the very impressive presentations I can say I learned a lot and would be glad to join IMPLANTS again. Very good organization and high level conference – congratulations!!”

Dr Ulrich Matern, Former Manager Clinical & Medical Sciences, Stryker GmbH

“I enjoyed the conference and hope to work with you again in the future”

Gordon Hunter, Group Manager Materials Quality & Strategic Manufacturing, Advanced Surgical Devices, Smith & Nephew

“It was impressive to see what an audience you gathered. Congratulations to a great event!”

Magnus René, Former CEO Arcam

“Thank you for a very interesting day at IMPLANTS Paris”

Mattias Holmström | Director Altor Equity Partners AB
REGISTRATION AND SPONSORSHIP OPPORTUNITIES

Wednesday & Thursday, June 6-7th, 2018 / Paris
#CLOUD Business Center

www.implants-event.com

REGISTRATION INFORMATION
- Register online @ www.implants-event.com
- Full Day participant: €490 (+ VAT)
- Pre Workshop Tutorial: €190 (+ VAT)
- Register as a Team and Save: -15% on the second participant, -20% on the third, -25% on the fourth


SPONSORING OPPORTUNITIES FOR IMPLANTS 2018
- From January to June 2018: Customization available at each level. Just ask!
- Sponsor levels: Price: Associated benefits:
  - **Platinum (only 1) 5,000€**: Your logo on IMPLANTS 2018 website, on our 30 email IMPLANTS 2018 promotion campaigns* and on IMPLANTS 2018 brochure first page**. 3 conference entries, 3 customized Ad inserts within email campaign.
  - **Gold (only 3) 3,000€**: Your logo on IMPLANTS 2018 website, on our 15 email IMPLANTS 2018 promotion campaigns* and on IMPLANTS 2018 brochure** first page. 2 conference entries, 1 customized Ad insert within email campaign.

*Sent to our qualified database of over 35,000 contacts. ** 3000 hard copies sent, downloadable on website, paper version distributed to all participants and at AAOS New Orleans March 2018.

MICRO-BOOTH DURING THE CONFERENCE
- For industry partners:
  - **Price: €1,950 with a brandable desk**
  - Enhance your participation at the IMPLANTS 2018 conference with a micro-booth. This unique space allows you to showcase your products, share documentation and have a convenient meeting point with customers during all the networking times: coffee breaks, lunch buffet and closing cocktail reception. Limited availability. First come, first served!
  - **Associated benefits:**
    - 1 square meter, 1 customized desk, 1 conference entry including Partner’s brochure distributed to every participant

ADVERTISING INSERT
- Published in the official program sent out in mid-February 2018 to qualified contacts, distributed at the 2018 AAOS meeting in New Orleans in March and displayed during the IMPLANTS conference in June.
- **Target:** Orthopedic implant companies, contract manufacturers, private equity firms, research laboratories in Europe, USA, etc.

Supply the advertisement in final size with 2 mm bleed, four-color (CMYK), 300 dpi, HD PDF or EPS file.

Price: Full page 1,200 €

CONTACTS
For any questions relating to registration, organization, sponsoring or submission of topics for IMPLANTS 2018 conference, please contact us.

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