

Event Guide

Your quick guide to all things medical at RAPID + TCT 2017





Medical Manufacturing Innovations at a Glance

Conference or fee registration required

Included with all registrations unless indicated

Sunday, May 7

1:00-4:00 PM

RSNA 3D Printing Special Interest Group Meeting

For more information, visit: https://www.rsna.org/3D-Printing-SIG/

Monday, May 8

Registration/Badge Pick-up

7:00 am - 5:00 pm

Pre-conference Workshops

8:00 am - 1:00 pm

Regulatory & Quality System Considerations for 3D Printed Medical Devices Room 319

WORKSHOP LEADER: Janelle Schrot, Materialise INSTRUCTORS: Matthew DiPrima, Food & Drug Administration; Kim Torluemke, 3D Systems, Jenny Jones, Materialise; Beatrice Ogembo,

American Preclinical Services:

Gilbert Cortes, Johnson &

Johnson

3D Printing in Hospitals: What You Need to Know Room 320 WORKSHOP LEADER: Jonathan Morris, MD & Jane Matsumoto, MD, Mayo Clinic INSTRUCTORS: Andy Christensen, eNable; Amy

Alexander, Mayo Clinic; Nicole Wake, New York University; Adam Jakus, Northwestern

University

Bioprinting Fundamentals *Room 320*

WORKSHOP LEADER: Roger Narayan, UNC/NCSU Joint Department of Biomedical Engineering

INSTRUCOTRS: Phil Campbell, Carnegie Mellon University; Prashant Kumta, University of Pittsburgh; Adam Feinberg, Carnegie Mellon University; Ken

Church, nScrypt

RAPID + TCT Workshops of interest:

- Fundamentals of Additive Manufacturing
- Fundamentals of 3D Scanning and Modeling
- Metal Part Fabrication Using Additive Manufacturing
- Realizing Value with Additive Manufacturing

Facility Tours

8:00 am - 12:00 pm

ExOne

Arconic (Alcoa)

1:30 pm – 5:00 pm

RAPID + TCT Kickoff

ROOM: Spirit of Pittsburgh Ballroom

SME/Additive Manufacturing Community Awards

State of America Makes

Rob Gorham, America Makes

KEYNOTE: Networked Matter and the Nature of Things

Mickey McManus, Chairman, MAYA and Research felloffice of CT/Future of learning, Autodesk

What's New: Roundup of the Latest 3D printing and 3D Scanning Products

Todd Grimm, T.A. Grimm & Associates

PANEL: Transformation of Manufacturing

Moderator: Mickey McManus, Chairman, MAYA and Research Fellow Office of CTO/Future of Learning, Autodesk Panelists: Vyomesh Joshi (VJ), President and Chief Executive Officer, 3D Systems; Stephen Nigro, President – 3D Printing, HP; Greg Morris, Additive Technologies Leader, GE Aviation; Fried Vancraen, Founder and CEO, Materialise

Tuesday, May 9

Registration/Badge Pick-up

7:00 am - 5:00 pm

8:00 am - 9:45 am

KEYNOTE and PANEL

ROOM: Spirit of Pittsburgh Ballroom

PANEL: New Frontiers in Metal 3D Printing

Moderator: Debbie Holton, VP Industry Strategy and Events, SME

Panelists: Ric Fulop, CEO, Desktop Metal; Kyle Nel, Founder and Executive Director, Lowe's Innovation Labs, Lowe's Companies Inc; Don Jones, Director, Global Aftermarket Parts Strategy and Transformation, Caterpillar Inc.

KEYNOTE PRESENTATION: Brilliant Factory—A New Era of Manufacturing Philippe Cochet, Executive Vice President, GE

Tuesday, May 9 (continued)				
MMI: Clinical Applications I 10:15 am – 12:15 pm— <i>ROOM: 306-307</i>	RAPID+TCT Sessions of Interest 10:15 am – 12:15 pm	Exhibits and Other Activities		
MODERATOR: Adam Jakus				
10:15 AM - 10:25 AM Low Cost and Equipment Methods to Create Flexible Anatomical Models (Novice)	Digital Thread & Standards Power Up	Exhibit Hours 10:00 am – 6:00 pm		
Joseph P. Higgins, Cardiovascular Systems Inc 10:25 AM - 10:45 AM	3D Imaging/Scanning: CT Scanning	7:00 am – 6:00 pm MMI Display		
Development of Low Cost Hand Prostheses by Additive Manufacturing (Expert)	Post Processing I	Lobby		
Jorge Lino Alves PhD & Daniel Sousa Ferreira, University of Porto / Faculty of Engineering	Materials I	10:30 am – 11:30 am Show Floor Tour: General		
10:45 AM - 10:55 AM Additive Manufacturing of Silicone Prosthetic Implants with Heterogeneous Properties (Intermediate) Farzad Liravi & Ehsan Toyserkani PhD Peng, University of Waterloo		10:30 am – 11:30 am Tech Briefing: 3D Scanning Theater		
10:55 AM - 11:05 AM Development of a Custom Ankle-Foot Orthothis (Novice) Arif Sirinterlikci PhD & April Krivoniak, Robert Morris University		12:30 pm – 1:30 pm Innovation Auditions <i>Theater</i>		
11:05 AM - 11:15 AM Simulation of Coronary Atrial Intervention Challenges, Learnings, and Final Methods (Intermediate) Joseph P. Higgins Cardiovascular Systems Inc		1:20 pm – 2:00 pm Improving Time to Market in Medical Additive Manufacturing Smart Manufacturing Hub		
11:15 AM - 11:40 AM Using 3D Printing (Additive Manufacturing) to Produce Low Cost Simulation Models for Medical Training (Novice) Peter C. Liacouras PhD, Walter Reed National Military Medical Center, Department of Radiology		2:00 pm – 3:00 pm Show Floor Tour: Metals		
11:45 AM - 12:10 PM Potential Best Use Cases for 3D Printing for Cardiothoracic Surgery (Intermediate) Justin Ryan PhD, Phoenix Children's Hospital				
MMI: Clinical Applications II 2:15 pm -4:15 <i>ROOM: 306-307</i>	RAPID+TCT Sessions of Interest 2:15 pm -4:15	Exhibits and Other Activities		
MODERATOR: Janelle Schrot				
2:15 PM - 2:40 PM Retro Engineering the Feyh-Kastenbauer Retractor System for Transoral Robotic Surgery Using Surface Scanning & 3D Printing (Intermediate) Jonathan Morris MD, Mayo Clinic 2:45 PM - 2:55 PM	3D Imaging/Scanning: Surface Scanning Direct Write Printed materials/Electronics	2:00 pm – 5:00 pm Additive Manufacturing Standardization Forum Featuring updates from MITA (DICOM), AAMI, ASTM, ASME, AWS, SAE, and IEEE-PWG.		
3D Printed Wear Model to Simulate Tissue Ablation: Equipment, Materials, Technologies, and Tools Used by Interventionalists (Intermediate) Jacob Draxler & Joseph P. Higgins, Cardiovascular Systems Inc 2:55 PM - 3:15 PM Single Institution Experience in 3D Modeling of Congenital Heart Defects (Novice) Robert Wesley, Nicklaus Children's Hospital	Post Processing II Design Considerations Material properties I	Room 310-311 2:30 pm – 3:30 pm Tech Briefing: Additive Manufacturing Theater		

Tuesday, May 9 (continued)			
MMI: Clinical Applications II continued		Exhibits and Other Activities Continued	
3:15 PM - 3:40 PM		3:30 pm – 5:00 pm	
Creation of Functional Finger Prostheses Combining 3D Printing with Traditional, Materials (Intermediate) Irene R. Healey, New Attitude Prosthetic Designs Inc		Technology Launch Pad Theater	
3:45 PM - 4:10 PM		6:00 pm – 8:30 pm	
Separating Conjoined Twins: Applying Virtual Surgical Planning and 3D Printing (Intermediate) Hayeem L. Rudy, Albert Einstein College of Medicine; and Katie		Welcome Event: Heinz Field (Fee required, transportation from convention center provided)	
Weimer, 3D Systems - Healthcare			

Wednesday, May 10

Registration/Badge Pick-up

7:00 am – 5:00 pm

8:00 am - 9:55 am

KEYNOTE and PANEL

ROOM: Spirit of Pittsburgh Ballroom

KEYNOTE: New Materials for 3D Printing in Medicine: What's Next is Closer than You Think

Ramille Shah PhD, Assistant Professor, Materials Science and Engineering, Assistant Professor, Surgery (Transplant Division), Northwestern University; and Sue Jordan MD PhD, Chief Resident – Plastic and Reconstructive Surgery, Northwestern Memorial Hospital

PANEL: Medical 3D Printing Applications—Growth Beyond Surgical Guides

Moderator: Sue Jordan MD PhD, Chief Resident – Plastic and Reconstructive Surgery, Northwestern Memorial Hospital

Panelists: Ramille Shah PhD, Assistant Professor, Materials Science and Engineering, Assistant Professor, Surgery (Transplant Division),
Simpson Querrey Institute for BioNanotechnology, Northwestern University; Carlos Carvalho, Process & Material Development, EnvisionTec;
William Wagner, Director, McGowan Institute for Regenerative Medicine, Professor of Surgery, Bioengineering and Chemical Engineering,
University of Pittsburgh; Fried Vancraen, Founder, CEO, Materialise

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MMI: Biomaterials	RAPID+TCT Sessions of Interest	Exhibits and Other Activities
10:15 am – 12:15 pm <i>ROOM: 306-307</i>	10:15 am – 12:15 pm	
MODERATOR: Jayanthi Parthasarathy		
10:15 AM - 10:40 AM	Process Monitoring, Control, and	Exhibit Hours
Drug-eluting Polymeric Additive Manufacturing for	Qualification	10:00 am - 6:00 pm
Applications in Orthopaedics (Intermediate)		·
Martin J. Petrak Peng, Precision ADM / Orthopaedic	Material Properties II	7:00 am – 6:00 pm
Innovation Centre; and Trevor C. Gascoyne Peng, Orthopaedic	·	MMI Display
Innovation Centre	Academic research I	Lobby
10:45 AM - 10:55 AM		
3D Printing Soft Polydimethylsiloxane (PDMS) Elastomer		10:30 am – 11:30 am
Toward Custom Fit Wearable Devices (Intermediate)		Show Floor Tour: General
Sara Abdollahi & Adam Feinberg PhD, Carnegie Mellon		
University		10:30 am – 11:30 am
10:55 AM - 11:05 AM		Tech Briefing: Additive
3D Bioprinting Collagen Scaffolds for Engineering		Manufacturing
Human Cardiac Tissue (Intermediate)		Theater
Andrew Lee & Adam Feinberg PhD, Carnegie Mellon University		11.00
11:05 AM - 11:15 AM		11:30 am – 12:30 pm
3D Printing Collagen Type I Using Freeform Reversible		SME AM Community Panel
Embedding of Suspended Hydrogels (FRESH) (Intermediate)		Theater
Thomas J. Hinton & Adam Feinberg PhD, Carnegie Mellon		12.20 nm 1.20 nm
University		12:30 pm -1:30 pm SME MMI Theater Hour
11:15 AM - 11:25 AM		SME Medical AM/3DP Workgroup
Control of Gelatin Particle Size and Uniformity to Improve		FDA/CDRH
Fidelity Using FRESH 3D Bioprinting (Expert)		DICOM WG-17 3D Manufacturing
Andrew Hudson & Adam Feinberg PhD, Carnegie Mellon		RSNA 3D Printing SIG
University		Theater
11:25 AM - 11:45 AM		, mater
Additive Manufacturing of Biodegradable Photopolymers		1:00 pm – 6:00 pm
and Ceramics (Intermediate)		Poster Session
Johannes Benedikt PhD, Lithoz GmbH		

Wednesday, May 10 (continued)			
MMI: Biomaterials continued		Exhibits and Other Activities continued	
11:45 AM - 12:10 PM Additive Manufacturing of Polymeric Biosensors and Drug Delivery Devices(Intermediate) Roger NarayanUNC/NCSU, Joint Departmentof Biomedical Engineering		1:20 pm -2:00 pm Reinventing Possibilities in Manufacturing of Medical Devices Smart Manufacturing Hub	
MMI: Quality, Regulatory & Implants 2:15 pm – 4:15 pm <i>ROOM: 306-307</i>	RAPID+TCT Sessions of Interest 2:15 pm -4:15 pm	2:15 pm - 3:15 PM Show Floor Tour: Medical	
MODERATOR: Roger Narayan	New Processes Power Up	Applications	
2:15 PM - 2:40 PM Quality Strategy Approach for Additive Manufacturing (Intermediate) Gilbert A. Cortes, Johnson & Johnson 2:45 PM - 3:10 PM	Quality and Inspection Materials II New Processes Power Up Quality and Inspection	2:30 pm – 3:30 PM Tech Briefing: 3D Scanning Theater 3:30 pm – 5:00 pm	
A Study on Removal of Additive Manufacturing Residue from Complex Parts (Expert) Matthew DiPrima & James Coburn, US Food & Drug Administration 3:15 PM - 3:40 PM Addressing Challenges in Custom Orthopedic Implants Using Additive Manufacturing (Novice) Maryam Jahanzad & Guha Manogharan PhD, Pennsylvania State University	Materials II	Technology Launch Pad Theater 4:30 pm -5:00 pm 3D Fashion Show Design Studio 5:00 pm - 6:00 pm Show Floor Networking Reception	
3:45 PM - 4:10 PM Anisotropic Behaviors of 3D Printed Dental Jaw Bone Implants (Intermediate) Xiong Yu PhD PE & Russel Wang, Case Western Reserve University	rsday, May 11	кесериоп	

Thursday, May 11

Registration/Badge Pick-up 7:00 am – 1:00 pm

8:00 am – 9:45 am

KEYNOTE and PANEL

ROOM: Spirit of Pittsburgh Ballroom

PANEL: So Where Do We Go from Here?

Moderator: James Woodcock, Head of Content, The TCT Group

Panelists: Mark Cotteleer, Managing Director, Deloitte; Todd Grimm, President, T. A. Grimm & Associates, Inc; Graham Tromans, Owner and Principal Industry Consultant, GP Tromans Associates; Robin Wilson, Head of Manufacturing, Innovate UK

KEYNOTE: The Future of Additive Manufacturing and 3D Printing Terry Wohlers, Principal Consultant and President, Wohlers Associates, Inc.

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MMI: Metals	RAPID+TCT Sessions of Interest	Exhibits and Other Activities	
10:15 am – 12:15 pm <i>ROOM: 306-307</i>	2:15 pm – 4:15 pm		
MODERATOR: Alejandro Espinoza	Material Properties III	Exhibit Hours	
10:15 AM - 10:40 AM		10:00 am – 2:00 pm	
Additive Manufacture of Stiffness Matched Skeletal Fixation	Materials III	7.00 2.00	
Devices (Expert)		7:00 am – 2:00 pm	
David Dean PhD, The Ohio State University	Material Properties III	MMI Display	
10:45 AM - 11:10 AM		Lobby	
Design Considerations and Capabilities for Implants	Materials III	10:15 am – 11:00 am	
Manufactured with Integrated Porous Structures		Tech Briefing: 3D Printing in	
(Intermediate)		Medicine	
Oscar Hedin, Arcam AB		Theater	

MMI: Metals <i>(continued)</i> 10:15 am – 12:15 pm <i>ROOM: 306-307</i>		Exhibits and Other Activities (continued)
11:15 AM - 11:40 AM Different Metal Additive Manufacturing Laser Methods Compared to EBM for Serialized Production of Orthopedic Implants (Intermediate) Emanuele Magalini, Eurocoating s.p.a.		11:00 am – 12:00 pm Show Floor Tour: Medical Advancements
11:45 AM - 12:10 PM Effect of Powder Morphology on Mechanical Properties of Cobalt-Chrome Alloy for the Dental Industry by Laser Powder Bed Fusion (Intermediate) Ivy Li CMfgE, Material Technology Innovations Co Ltd		11:30 am – 12:30 pm Technology Launch Pad <i>Theater</i>
Facility Tours 1:00 pm – 4:00 pm	1:00 pm – 5:00 pm SME Medical Additive Manufacturing 3D Printing Workgroup Meetin ROOM: 319	
Arconic (Alcoa) Bally Design/MAYA Design	Additional registration (no fee) required REGISTER HERE: www.sme.org/medical-am3dp-workgroup	

Medical Additive Manufacturing Resources

Stay up to date throughout the year with these resources.

- www.sme.org/medical-additive
 - Technology summaries, articles, suppliers, YouTube playlist, more
 - Standards: <u>www.sme.org/am3dp</u>
 - Tech papers: www.sme.org/am3dptech
 - SME Medical AM/3DP Workgroup: www.sme.org/medical-am3dp-workgroup
- Springer Open Journals
 - 3D Printing in Medicine: http://www.springer.com/medicine/radiology/journal/41205
 - 3D-Printed Materials and Systems: http://www.springer.com/materials/journal/40861
- RSNA 3D Printing Special Interest Group: https://www.rsna.org/3D-Printing-SIG/







To find resources for Medical Manufacturign Innovations, visit the exhibitors with blue borders.







In the exhibit hall, look for floor stickers in the aisle to find Medical Manufacturing Innovations Exhibitors.

DOOL	Hullibel	020	Changhair adion room co.	1007	Tommado
523	Xiamen Raco Electronic		Ltd	1650	Photocentric3D
	Technology Co. Ltd.	937	3D Platform	1655	Ruwac
537	OR Lasertechnology Inc	942	3DSIM	1713	SLM Solutions NA Inc
555	Visser Precision	943	Washington Mills Ceramics	1727	Autodesk
608	Profound3D	947	STARDUST MATERIALS	1737	Carbon
617	L-DEVO Japan		LLC	1746	3D Material Technologies
623	German Reprap	1010	Rize, Inc.	1813	EnvisionTEC Inc
626	Baker Industries	1013	Nscrypt Inc	1823	Additive Industries
712	PES Testing	1017	Polymaker	1837	GKN Powder Metallurgy
713	Tech Cast LLC	1026	Sigma Labs Inc	1923	Fusion3
714	CNPC Powder North America	1037	Jesse Garant Metrology	1926	Afinia 3D
	Inc		Center	2115	Arcam AB
715	Protocam	1046	Polyrix Inc	2119	Advanced Powders
716	Agile Manufacturing Inc	1047	Wipro Ltd	2127	GPI Prototype &
725	LSN Diffusion LTD	1113	Oriental Motor USA Corp		Manufacturing Services Inc
728	Stratasys Direct	1126	TIGER-VAC USA INC	2147	Arburg Inc
	Manufacturing	1137	BigRep America Inc	2223	Sodick
729	DWS SRL	1212	Hangzhou Shining 3D Tech	2237	GE Additive
743	H.C. Starck Gmbh		Co Ltd	2242	Direct Dimensions Inc
746	SICAM Corporation	1223	LPW Technology Inc	2243	C & A Tool Engineering
748	Markany Inc	1226	Synergeering Group	2246	3DEO
751	II-VI	1229	FARO Technologies Inc	2250	NSL Analytical Services Inc
808	Rapid Prototyping Services	1237	TRUMPF Inc	2252	GeoCorp Inc
811	Cimquest Inc	1250	Dunlee - Smit Röntgen	2255	Kinetic Vision
818	VAC-U-MAX	1313	Essentium Materials LLC	2331	TCT Group
822	Forecast 3D	1327	Concept Laser Inc	2342	Hoganas
823	Shenzhen Esun Industrial Co	1337	Microtek Finishing	2343	Laboratory Testing Inc
	Ltd	1351	Polygonica - MachineWorks	2347	Makergear
829	Ultimaker	1355	Perryman Company	2436	Plural Additive Manufacturing
843	Lithoz Gmbh	1413	EOS of North America	2440	Granta Design Ltd
846	Clemco Industries Corp	1416	Proto Labs Inc	2452	Tekna
847	LINK3D .	1429	CIDEAS Inc	2517	HP Inc
915	Carpenter Technology Corp	1450	Added Scientific	2525	3D Systems
917	RP Sales America, Inc and	1513	Stratasys Inc	2637	Methods Machine Tools Inc
	UnionTech, Inc	1522	North Star Imaging Inc		
926	Intamsys Technology Co LTD	1613	Materialise		

Shanghai Fusion Tech Co.

929

3D Material Technologies

810 Flight Line Blvd

Booth Number

Deland, FL 32724-2055

United States

P: 386-626-0006

3D Platform

6402 E Rockton Rd Roscoe, IL 61073-8812

United States

www.3dplatform.com

P: 800-962-8979

3D Systems

333 Three D Systems Cir Rock Hill, SC 29730-7811

United States

www.3dsystems.com

P: 803-326-3900

2246 3DEO

852 Santee St

Los Angeles, CA 90014

United States

www.3deo.com

P: 310-400-6382

1746

937

2525

3DSIM

1794 Olympic Pkwy Ste 110

Park City, UT 84098-6388

United States

P: 435-363-5197

3DSIM provides predictive simulation tools that help medical professionals understand how their metal AM designs will react to the AM process before physically building the part; drastically improving the probability of first pass success, which is critical in time sensitive implant situations. Users can also improve efficiency in developing new materials and improving manufacturing of AM components through simulation. Confidence rises with knowledge and 3DSIM provides that necessary insight!

Formlabs

1637

Added Scientific 1450

Coates Building University Park

Nottingham NG7 2RD

United Kingdom

www.addedscientific.com

We work with the pharmaceutical and medical industries to help develop AM processes and materials to manufacture pharmaceutical dosage forms and advanced design methodology for next generation prosthetics and medical devices.

Additive Industries

Postbus 30160

Eindhoven 5600 GA

Netherlands

additiveindustries.com

P: 31(402)1800660

Advanced Powders 2119

3765 Rue La Vérendrye

Boisbriand, QC J7H 1R8

Canada

www.raymor.com

P: 450-434-1004

Afinia 3D 1926

8150 Mallory Ct

Chanhassen, MN 55317-8586

United States

www.afinia3d.com

P: 952-556-1600

Afinia 3D desktop printers and 3D scanners are utilized in medical applications to create prosthetics, medical models, and fixtures. The EinScan-Pro is a handheld 3D scanner that captures 3D detail for a price under \$5000 and the H800 3D printer can create models as large as 10x8x8 inches and is under \$2000.

Agile Manufacturing Inc

716

1823

920 W 10th St

Pella, IA 50219-7860

United States

www.additive3d.parts

P: 641-780-5385

Arburg Inc 2147

644 West St

Rocky Hill, CT 06067-3414

United States

www.arburg.com

P: 860-667-6500

Arcam AB 2115

Krokslaetts Fabriker 27A

Moelndal, Vaestra Goetalands Laen 431 37

Sweden

www.arcam.com

P: 46 31710320

Arcam's EBM technology is used for the production of standard as well as custom orthopedic implants. The Arcam EBM technology allows implant industries to manufacture innovative products and at the same time reduce production costs and lead times. It is particularly cost-efficient for volume production of press-fit implants with advanced Trabecular Structures™. Solid and porous sections of the implant are built in the same process step, eliminating the need to apply coatings.

Autodesk 1727

PO Box 8250

San Rafael, CA 94912-8250

United States

www.autodesk.com/

P: 415-507-5000

Autodesk Within Medical is generative design software that optimizes 3D printing of medical implants for the orthopedic industry. The software allows biomedical engineers to create orthopedic implants with micro-lattice porous structures that help

properly connect the implants to living bone (osseointegration), and promote development of blood vessels in the surrounding tissue (vascularization) to facilitate healing.

Baker Industries

626

16936 Enterprise Dr

Macomb, MI 48044-1006

United States

P: 586-764-7763

BigRep America Inc

1137

Gneisenaustr 66

Berlin 10961

Germany

www.bigrep.com

P: 4.9302084826e+012

C & A Tool Engineering

2243

PO Box 94

Churubusco, IN 46723-0094

United States

www.catool.com

P: 914-572-2939

Carbon 1737

1089 Mills Way

Redwood City, CA 94063-3119

United States

carbon3d.com

P: 650-285-6307

Carbon, a Silicon Valley-based additive manufacturing company, offers modern hardware, software and functional resins, enabling manufacturers of medical therapies to move beyond prototyping to direct digital manufacture. With a range of sterilizable, biocompatible, engineering resins, Carbon provides the ability to transition from design iteration to manufacture on a single platform, opening up tremendous opportunities for device manufacturers, dental laboratories, and diagnostics companies.

Carpenter Technology Corp

915

101 Bern St

Reading, PA 19601-1203

United States

www.cartech.com

P: 800-654-6543

Carpenter Powder Product's powder metal alloys are designed for special applications in the medical industry. Customized CarTech Micro-Melt alloys provide superior performance for medical products such as orthopedic implants, fracture fixation devices and surgical instruments.

CIDEAS Inc

1429

125 Erick St Ste A115 Crystal Lake, IL 60014-4500

United States

www.buildparts.com

www.buildparts.com

P: 847-639-1000

For over 10 years, CIDEAS has been producing anatomical models for use in pre-surgery as well as training for doctors. Utilizing CT scans, the enlarged SLA parts are typically built in clear and Polished to view the internal cavities, as well as, flow.

Cimquest Inc

3434 Us Highway 22 Ste 130 Branchburg, NJ 08876-6011 **United States** www.cimquest-inc.com

P: 732-699-0400

Clemco Industries Corp

1 Cablecar Dr

Washington, MO 63090-1122

United States

www.clemcoindustries.com

P: 636-239-4300

We manufacture equipment used to clean and improve the surface finish of parts made with additive manufacturing processes.

CNPC Powder North America Inc

714

846

Unit 204 23 Fourth Street Charlottetown, PE C1E 2B4

Canada

P: 902-316-0218

As a metal powder supplier, we work with our clients to develop customized powder solutions that can meet the needs of the medical industry.

Concept Laser Inc

1327

1000 Texan Trl Ste 150 Grapevine, TX 76051-3780 **United States**

www.conceptlaserinc.com

P: 817-328-6500

From quick-turn prototyping to large-scale series production, Concept Laser printers are becoming a standard solution for medical manufacturers. Our 3D metal printers enable the production of complex, trabecular, bio-analogous structures for enhanced osseo- and vascular integration. LaserCusing® gives the manufacturer the capability to produce highly customized implants, foam, or lattice structures that are specific to a patients needs.

Direct Dimensions Inc

2242

10310 S Dolfield Rd Ste B Owings Mills, MD 21117-3558 **United States**

P: 410-998-0880

Direct Dimensions works closely with clinicians to create cosmetically accurate prosthesis, usually for the face, and also fingers, hands, toes, feet, and other. Come by our booth to see samples and learn about this process. We've been helping medical professionals from Johns Hopkins, Walter Reed, and others for years.

Dunlee - Smit Röntgen

1250

Veenpluis 6 Best 5684 PC Netherlands

www.smitroentgen.com

P: 31(402)762707

DWS SRL

Via della Meccanica, 21 Thiene, VI 36016 Italy

www.dwssytems.com P: 39-044-5810810

DWS features six high-performance 3D printers, designed for dentists and large labs. The company's materials are developed for: crowns, bridges, partials, digital models, surgical guides (class I)*, 3D medical imaging and the biocompatible material (class IIA)* for restorations. *(as for the European Council

Directive 93/42/EEC, waiting for extra-EU approval).

EnvisionTEC Inc

1813

15162 S Commerce Dr Dearborn, MI 48120-1237 **United States**

www.envisiontec.com

P: 313-436-4300

1413

28970 Cabot Dr Ste 700 Novi, MI 48377-2978 **United States** www.eos.info

EOS of North America

P: 248-306-0143

The EOS Additive Manufacturing process allows for fast, flexible, and cost-effective production of individual or small customised lots of medical devices and instruments. Unlike conventional manufacturing methods, EOS Additive Manufacturing allows maximum design flexibility, enabling the implementation of innovative medical functions. Thus, test series, prototypes, patient-specific one-off parts and small production runs can be manufactured at a profit.

Essentium Materials LLC

1313

5880 Imperial Loop Ste 10 College Sta, TX 77845-6442

United States

www.essentiummaterials.com

P: 979-777-2354

FARO Technologies Inc

1229

250 Technology Park Lake Mary, FL 32746-7115 **United States**

www.faro.com P: 407-333-9911

FoldStar Inc

1653

21 Longview Dr Holmdel, NJ 07733-1641 United States

www.foldstar.com

P: 732-539-0905

FoldStars patented software and machine design technology facilitates the creation of complex fully reversible deterministic folding tessellations for sheet and cylinder materials.

Forecast 3D

2221 Rutherford Rd Carlsbad, CA 92008-8815 **United States**

P: 760-929-9380

Formlabs 1637

35 Medford St Ste 201 Somerville, MA 02143-4237 United States

www.formlabs.com P: 617-932-5227

Fusion3 1923

2700 Liberty Rd

Greensboro, NC 27406-4714

United States

www.fusion3design.com

P: 877-452-0010

GE Additive 2237

9701 Windisch Rd ste 100 West Chester, OH 45069 United States www.geadditive.com P: 513-618-5295

The medical industry uses both Concept Laser and Arcam (both part of GE Additive) machines for the development and manufacture of medical devices and implants. Arcam's electron beam melting technology has revolutionized the production of acetabular cup implants, and Concepts laser melting enables the precision necessary for complex medical parts.

GeoCorp Inc 2252

9010 River Rd

Huron, OH 44839-9523

United States

GeoCorp, Inc. currently supplies thermocouples and thermocouple wire to companies that work with the MedAccred program offered by PRI. We understand the quality required to maintain accreditation. If you're looking at the MedAccred program and have any questions please contact us. We'll be happy to help.

German Reprap 623

SW 8th St ste 204-A Coral Gables, FL 33134 United States www.germanreprap.us

P: 786-701-0700

GKN Powder Metallurgy

Krebsoege 10

Oberbergischer Kreis 42477

Germany

Our products are used in the field of medicine for example for prostheses as well as in the field of surgical aids, for example in the form of grippers.

GPI Prototype & Manufacturing Services Inc 2127

940 W North Shore Dr Lake Bluff, IL 60044-2202

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