

Global Microbubbles/Ultrasound Contrast Agents Market Outlook: 2015-2021

https://marketpublishers.com/r/GE0EA8FB109EN.html

Date: September 2015

Pages: 176

Price: US\$ 4,175.00 (Single User License)

ID: GE0EA8FB109EN

Abstracts

Microbubbles are composed of gas core stabilized by a shell of proteins, lipids, or polymers and have unique ability to respond to ultrasound, and thus are used as ultrasound contrast agents. The field of ultrasound contrast imaging has been literally bursting in the last decade. Incessant engineering advances in ultrasound technologies over the last decade have resulted in widespread usage of ultrasound for clinical applications. The potential benefits of ultrasound such as low-cost, convenience, and real-time capability of ultrasound images has led to wide acceptance of this technology. When compared with other imaging modalities, the ultrasound molecular imaging has many advantages such as good temporal resolution, quantitative data, real-time practice, noninvasiveness, relatively inexpensive cost, and no ionizing radiation.

Microbubbles/ ultrasound contrast agents for medical imaging have been swiftly translated from exploratory research to clinical application. It helps to sharpen the image, improve the reliability of the scan and reduce the need for unnecessary downstream testing. In addition, microbubbles can be employed for diagnostic imaging and as a therapeutic tool. These are safe, convenient, completely radiation-free, versatile, and routinely used by physicians throughout the world to obtain a reliable ultrasound diagnosis.

The global microbubbles/ ultrasound contrast agents market is expected to grow at a CAGR of 28.7% to reach \$797.5 million by 2021 from 2015. The research report on microbubbles market provides comprehensive analysis of the global market and helps in understanding the driving forces for the growth of this market. The report also provides analysis of major applications such as molecular imaging, gene therapy, drug delivery, and stem cell delivery with their application areas, trends, challenges, and opportunities in this market. In addition, the report analyzes the global microbubbles



market by various disease areas such as renal disorder, cardiovascular, and neurology with their drivers, restraints, ongoing research, and future potential.

The market has been segmented by geography as North America, Europe, Asia-Pacific, and Rest of the World (RoW) with a detailed qualitative and quantitative analysis. North America is the major market in the global microbubble market and is expected to dominate this market during the forecast period followed by Europe, and Asia-Pacific.

Lantheus Medical Imaging with its DEFINITY ultrasound contrast imaging agent dominated the global microbubbles/ ultrasound contrast agents market in 2014. The other major players in the global microbubble market include Bracco Imaging S. p. A., Daiichi Sankyo Company, Limited, and GE Healthcare.

Source: Expert Interviews, Government Authorities, Related associations/Institutes, Related Research Publications, Government Publications, Company Press Releases, Company Annual Reports, Company Websites, Company Publications, SEC Filings, Meticulous Research Analysis.



Contents

1 INTRODUCTION TO GLOBAL MICROBUBBLES/ULTRASOUND CONTRAST AGENTS MARKET

- 1.1 Microbubbles/Ultrasound Contrast Agents Market Ecosystem
- 1.2 Report Elucidation
- 1.3 Market Buzz and Foreground
- 1.4 Types of microbubble shells
- 1.5 Effects on microbubbles under ultrasound
- 1.6 Research Methodology
 - 1.6.1 Secondary Research
 - 1.6.2 Primary Research
 - 1.6.3 Market Analytics

2 EXECUTIVE SUMMARY

3 MARKET INSIGHTS

- 3.1 Commercially Available Microbubbles
- 3.2 Global Penetration of Commercially Available Microbubble Contrast Agents
- 3.3 Pipeline Analysis
- 3.4 Market Share Analysis
- 3.5 Drivers
- 3.5.1 Technological Advancements to increase the adoption of microbubble contrast agents
 - 3.5.1.1 Evolution of Microbubbles
 - 3.5.1.2 Miniaturization of Ultrasound Devices
 - 3.5.1.2.1 Wearable Ultrasound Pain Therapy Device
 - 3.5.1.2.2 Flow Focusing Microfluidic Devices (FFMDs)
 - 3.5.1.2.3 Handheld Ultrasound Scanners
 - 3.5.1.2.4 Phone-based Ultrasound Systems
 - 3.5.1.2.5 New Generation Ultrasound Transducers
 - 3.5.2 Advantages of microbubble contrast agents over other technologies
- 3.5.3 Favorable reimbursement policies for contrast-enhanced procedures to drive the market
- 3.5.4 Rising demand for diagnostics and image-guided procedures influences the sales of microbubbles
- 3.6 Restraints



- 3.6.1 Complexity involved in conducting CEUS procedures to limit the market growth
- 3.6.2 Limited training and financial resources restraints the market growth
- 3.7 Opportunities
 - 3.7.1 Increase in researches related to microbubbles
 - 3.7.2 Rise in off-label usage of microbubble contrast agents
- 3.8 Trends
 - 3.8.1 Journey through black-box warning
 - 3.8.2 Expansion a key growth strategy followed by market players

4 MICROBUBBLES/ULTRASOUND CONTRAST AGENTS MARKET, FUTURE PROSPECTS, BY APPLICATION

- 4.1 Molecular Imaging
 - 4.1.1 Production of Microbubbles for molecular imaging
 - 4.1.1.1 Passive Targeting
 - 4.1.1.2 Active Targeting
 - 4.1.1.3 Ligand Attachment to performed microbubbles
 - 4.1.2 Advantages of use of microbubbles in molecular imaging
 - 4.1.3 Application Areas
 - 4.1.3.1 Angiogenesis
 - 4.1.3.2 Angiosarcoma
 - 4.1.3.3 Oncology
 - 4.1.4 Trends In Molecular Imaging
 - 4.1.4.1 Development of Novel Microbubbles to Improve the Target Binding
 - 4.1.4.2 Development of Novel Microbubbles to Suit the Modalities Used in Imaging
 - 4.1.4.2.1 Photo Acoustic Imaging (PAI)
 - 4.1.4.2.2 Magnetic Resonance Imaging (MRI)
 - 4.1.5 Challenges
 - 4.1.6 Opportunities
 - 4.1.6.1 Researches to Improve Understanding of Microbubble Behavior
 - 4.1.6.2 Active Targeting
- 4.2 Gene Therapy
 - 4.2.1 Introduction
 - 4.2.2 Methods of Gene Therapy
 - 4.2.2.1 Membrane Sonoporation
 - 4.2.2.2 Bi-layer Sonoporation
 - 4.2.2.3 Modulation of Vascular Integrity
 - 4.2.2.4 Stimulating Endocytotic Uptake
 - 4.2.2.5 Active Deliver of DNA Vectors Beyond the Vasculator



- 4.2.2.6 Loading of Drug on Microbubble Surface
- 4.2.3 Study Considerations
 - 4.2.3.1 Microbubble Surface Architecture
 - 4.2.3.2 Microbubble Size
 - 4.2.3.3 Molecular Targeting
- 4.2.3.4 Ultrasound Parameters
- 4.2.4 Recent Researches
- 4.2.5 Industry Speaks
- 4.3 Drug Delivery
- 4.3.1 Introduction
- 4.3.2 Drivers
- 4.3.2.1 Growing Number of Researchers In The Field of Drug Delivery Using Microbubbles
- 4.3.2.2 Rising Incidence & Mortality Of Cancer & Cardiac Disease To Create Need For Better Drug Therapies
 - 4.3.2.3 Growing Researches Involving Targeted Drug Delivery Using Microbubbles
 - 4.3.3 Recent Researches
 - 4.3.4 Industry Speaks
- 4.4 Stem Cells Delivery
 - 4.4.1 Introduction
 - 4.4.2 Recent Researches

5 MICROBUBBLES/ULTRASOUND CONTRAST AGENTS MARKET, FUTURE PROSPECTS, BY DISEASE AREA

- 5.1 Renal Compramized Functions
 - 5.1.1 Ultrasound applications in kidney
 - 5.1.1.1 Diagnosis between Solid Renal Masses and Pseudo-tumors
 - 5.1.1.2 Differentiation between Cystic and Solid Lesions of the Kidneys
 - 5.1.1.3 Characterization of Complex Cystic Renal Masses
 - 5.1.1.4 Renal Infections
 - 5.1.1.5 Renal Trauma
 - 5.1.1.6 Renal Artery Stenosis
 - 5.1.1.7 Assessment of Percutaneous Ablation Therapy
 - 5.1.1.8 Kidney Fibrosis
 - 5.1.1.9 Kidney Transplantation
 - 5.1.2 Future Potential
 - 5.1.2.1 Imaging
 - 5.1.2.2 Drug Delivery



- 5.1.2.3 Recent Researches
- 5.1.3 Study Considerations
 - 5.1.3.1 Circulation Period
 - 5.1.3.2 Microbubbles Concentration
 - 5.1.3.3 Ultrasound Energy
 - 5.1.3.4 Size of the objest
- 5.1.4 Drivers
 - 5.1.4.1 Regulatory Changes to Boost Clinical Research Related to Kidney
 - 5.1.4.2 Feasible Solution for Identification of Malignant Renal Vein Invasion
- 5.1.5 Restraints
 - 5.1.5.1 Retention of Microbubbles
- 5.1.6 Industry Speaks
- 5.2 Cardiovascular
 - 5.2.1 Introduction
 - 5.2.2 Sonothrombolysis
 - 5.2.2.1 Introduction
 - 5.2.2.2 Mechanism
 - 5.2.2.3 Drivers
 - 5.2.2.3.1 High Incidence of Stroke
 - 5.2.2.3.2 Improvisation in therapies to boost the application in Sonothrombolysis
 - 5.2.2.4 Future Potential
 - 5.2.3 Targeted Microbubbles
 - 5.2.3.1 Introduction
 - 5.2.3.2 Structure of Targeted Microbubbles
 - 5.2.3.3 Recent Researches
 - 5.2.3.3.1 VEG-fR2 receptor (BR-55)
 - 5.2.3.3.2 Clot-targeted Microbubbles
 - 5.2.3.3.3 Endothelial Epitopes as Targets
 - 5.2.3.3.4 WBCs as Carriers of Microbubbles
 - 5.2.3.4 Accessible Targets for Targeted Microbubbles
 - 5.2.3.5 Future Potential
 - 5.2.4 Gene Therapy
 - 5.2.4.1 Ultrasound Target Microbubble Destruction (UTMD) in Cardiovascular
 - 5.2.4.2 Gene Delivery to Treat Diabetes
 - 5.2.4.3 Future Potential
 - 5.2.5 Recent Researches
 - 5.2.6 Industry Speaks
- 5.3 Neurology
- 5.3.1 Introduction



- 5.3.2 The Blood Brain Barrier (BBB)
- 5.3.3 Study Considerations
 - 5.3.3.1 Non-linear Behavior of Microbubbles
 - 5.3.3.2 Assessing the Nature of Target Drug
 - 5.3.3.3 Safety Assessment
- 5.3.4 Drivers
 - 5.3.4.1 Limitations of Alternative Strategies for Drug Delivery Across BBB
 - 5.3.4.2 Advantages Offered by Microbubble in Drug Delivery in Brain
- 5.3.5 Opportunities
 - 5.3.5.1 Development of Novel Microbubbles
 - 5.3.5.2 Increasing Researches Focused on Opening of BBB
- 5.3.6 Recent Researches
- 5.3.7 Industry Speaks
- 5.4 Other Diseases
 - 5.4.1 Crohn's Disease
 - 5.4.1.1 Introduction
 - 5.4.1.2 Recent Researches
 - 5.4.2 Atherosclerosis
 - 5.4.2.1 Introduction
 - 5.4.2.2 Recent Researches

6 RECENT RESEARCHES ON MICROBUBBLES/ULTRASOUND CONTRAST AGENTS

7 MICROBUBBLES/ULTRASOUND CONTRAST AGENTS MARKET, BY GEOGRAPHY

- 7.1 North America
- 7.2 Europe
- 7.3 Asia-Pacific
- 7.4 Rest of the World

8 COMPANY PROFILES

- 8.1 Lantheus Medical Imaging, Inc.
- 8.2 Bracco SpA
- 8.3 GE Healthcare
- 8.4 Daiichi Sankyo Company, Limited



I would like to order

Product name: Global Microbubbles/Ultrasound Contrast Agents Market Outlook: 2015-2021

Product link: https://marketpublishers.com/r/GE0EA8FB109EN.html

Price: US\$ 4,175.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/GE0EA8FB109EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970