

# BIO-TECH SYSTEMS, INC.

*Market Research in the Health Care Field*

NEWS RELEASE

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4167 Pinecrest Circle West  
Las Vegas, Nevada 89121

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(702) 456-7608 (702) 456-2189 FAX

E-Mail: [mburns@biotechsystems.com](mailto:mburns@biotechsystems.com)

Web Site: [www.biotechsystems.com](http://www.biotechsystems.com)

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FOR IMMEDIATE RELEASE

Contact: Marvin Burns

Tel: (702) 456-7608

Fax: (702) 456-2189

## ***BIO-TECH SYSTEMS ANNOUNCES THE RELEASE OF A NEW PET REPORT:***

### **Report 340: MARKET FOR PET RADIOPHARMACEUTICALS AND PET IMAGING**

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**PRESENT AND EMERGING MARKETS FOR PET IMAGING, NEW MARKETS FOR PET RADIOPHARMACEUTICALS, GOOD OPPORTUNITIES IN PET CARDIOLOGY, NEW PET AGENTS FOR ALZHEIMER'S, NOVEL BIOMARKERS FOR ONCOLOGY, U.S AND WORLDWIDE MARKET FOR PET SCANNERS, SALES FORECASTS TO 2018**

Bio-Tech Systems Inc. announces the publication of a comprehensive report analyzing the markets for PET radiopharmaceuticals and PET imaging systems. This includes growth in cardiology, neurology and oncology. The report analyzes opportunities as new products and biomarkers are introduced for imaging Alzheimer's and Parkinson's disease as well as new oncology products for apoptosis imaging, integrin biomarkers for angiogenesis and highly sensitive hypoxia imaging agents to optimize chemotherapy and radiotherapy. Demand for rubidium PET for cardiology is also increasing and will supplement new PET cardiology agents for perfusion imaging that will be approved shortly.

The report also analyzes the US and worldwide markets for PET scanners indicating the positive market response to the new PET-MR systems and expanded opportunities in time-of-flight imaging as well as increased choice for users in lower priced systems with good imaging capabilities. This has successfully expanded the base of PET, offering a greater range of sophisticated products at all ends of the price spectrum. It has also increased the international market for PET both in major medical centers as well as developing countries around the world.

Each of the market segments is analyzed in detail including mobile PET, which has been pressed recently because of reduced reimbursement. However, the larger mobile companies have survived, acquiring many of the smaller operators in the field.

Growth forecasts for PET are positive as physicians gain more confidence in using PET. They are also more knowledgeable in pursuing applications in diagnosis and staging of disease as well as treatment planning and monitoring of therapy for a broader class of patients. This has increased PET's credibility with referring physicians as well as radiology benefits managers assuring continued growth of procedure volume.

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## **GROWTH OF PET PROCEDURES AND RADIOPHARMACEUTICAL SALES**

PET procedures increased 9% in 2010 to 2.1 million, with growth continuing in 2011. Physicians had more confidence in PET's capabilities in diagnosis, staging and management of disease. They were also better adjusted to the reimbursement requirements of Medicare and insurance carriers. This allowed PET to be used more effectively with average procedure volume increasing and scanner utilization improving. The less efficient providers continued to sell their practices to hospitals, consolidating the installed and improving the economics of PET. Sales of FDG increased about 9% to about \$300 million and prices were relatively stable. Growth should continue and will accelerate over the next several years as new products are introduced. Therefore, FDG sales of \$300 million in 2010 will increase to \$825 million by 2018, while total PET radiopharmaceuticals sales will grow to \$4.1 billion by 2018. Of this total, \$3.1 billion will be from sales of new products across a wide spectrum of applications in cardiology, neurology and oncology. As new products enter the mainstream, it will stimulate growth of procedure volume and encourage more users to pursue sophisticated imaging applications. This will improve PET's prospects and help accelerate future growth.

## **SALES GROWTH OF PET IMAGING SYSTEMS**

In 2010, U.S. sales of PET scanners increased 22% over 2009. Previous uncertainties were replaced with more confidence in the future of PET and its role in diagnosis and management of disease. The successful introduction of PET-MR with its high price was a good example. Manufacturers took orders for 178 PET systems in the U.S. and 260 systems internationally. Uncertainties over reimbursement and excess capacity seemed less of an issue in 2010 than previously. In addition, there was more choice for users with systems available to fit all budgets. Scanner manufacturers have all introduced advanced time-of-flight PET systems with 64-slice CT's while expanding their product lines to include functional scanners affordably priced. The market has responded well to the added choice, which should help future sales. International orders for PET systems have exceeded the U.S. recently in both unit orders and sales volume with greater emphasis on high end systems. Based on these observations, both U.S. and international sales will grow at 12-14% per year over the next several years with international sales running at about 60% of the total. Therefore, worldwide sales of PET scanners will increase from about \$724 million in 2010 to \$1,744 million by 2018

## **ABOUT THE AUTHOR**

Marvin Burns is president of Bio-Tech Systems, Inc., founded in 1981 to perform market research for companies in the healthcare field. Burns specializes in market evaluation, where technological and scientific insight is important. He has prepared numerous reports on PET that have been widely distributed. He also reports on the markets for diagnostic and therapeutic radiopharmaceuticals, brachytherapy products, contrast agents, interventional cardiology and cardiac imaging. Burns has served as a consultant to many international firms and venture groups in strategic planning and development of new business opportunities. He has also been Technology Editor of Future Oncology, a publication widely circulated in the pharmaceutical and biotechnology industry, reporting on new developments in cancer diagnosis and treatment. Burns is a graduate of MIT and Harvard Business School's advanced management program. He has over 100 publications and 15 patents for medical devices, instrumentation and drug delivery. Prior to forming Bio-Tech Systems, he was employed by firms in life sciences, bioinstrumentation and medical imaging fields in general management, marketing and product development. He was also a hospital administrator in charge of professional and technical services including medical imaging, clinical laboratories and oncology and therapy services.

# **THE MARKET FOR PET IMAGING: REPORT CONTENTS**

## **SECTION I: PET Market Overview**

- Applications for PET in cardiology, neurology and oncology with review of new products and procedures. Effect of expanded indications on sales.
- Forecast sales growth of PET radiopharmaceuticals and PET scanners with analysis of future business opportunities.

## **SECTION II: New PET Tracers and Biomarkers**

- Analysis of new neurology products for Alzheimer's and Parkinson's imaging.
- Projections for new cardiology agents, growth prospects for use in cardiology office labs.
- New oncology agents for apoptosis imaging, angiogenesis agents and hypoxia imaging.

## **SECTION III: Growth of PET Procedures and Radiopharmaceutical Sales**

- Distribution of PET procedures by disease group. Forecasts of procedure growth in the major categories and emerging opportunities.
- PET reimbursement issues and expanded indications in the major procedure categories.

## **SECTION IV: Analysis of the FDG Market**

- Historic and forecast sales growth of FDG by application and disease group.
- Analysis of FDG suppliers and challenges in producing and delivering FDG. Competitive prospects, pricing pressures and growth opportunities

## **SECTION V: US and Worldwide Market for PET Scanners**

- PET sales by manufacturer, new technologies, marketing strategies and future outlook.
- Product mix of fixed site and mobile scanners. Pricing trends and competitive strategies of PET manufacturers.

## **SECTION VI: US AND Worldwide PET Sales Forecasts**

- US and worldwide sales forecasts for PET scanners by type of installation including fixed site and mobile PET systems.
- Analysis of the market environment and future growth of PET both US and internationally. Prospects for new products and technological opportunities.

## **SECTION VI: Growth of US and Worldwide Installed Base**

- US and worldwide forecasts of installed base from 2005-2018. Rationale underlying the growth of installed base in all product categories.
- Changes in market environment that may affect growth of installed base.

## **SECTION VII: End-User Profile**

- Analysis of end-user groups and comparative requirements for PET imaging.
- Procedure mix and product utilization in hospitals and clinics. Allocation of imaging procedures and equipment by hospital bed size.

## LIST OF EXHIBITS—MARKET FOR PET IMAGING

HISTORIC AND FORECAST PET PROCEDURE VOLUME FOR RADIOLOGY, RADIOLOGY AND ONCOLOGY BY PROCEDURE TYPE FROM 2005-2017

HISTORIC AND FORECAST SALES OF PET RADIOPHARMACEUTICALS FOR RADIOLOGY, RADIOLOGY AND ONCOLOGY FROM 2005-2017

HISTORIC AND FORECAST SALES OF RUBIDIUM GENERATORS FOR RADIOLOGY PET PERFUSION STUDIES FROM 2004-2017

HISTORIC AND FORECAST SALES OF PET RADIOLOGY PRODUCTS BY PRODUCT CATEGORY FROM 2005-2017

HISTORIC AND FORECAST SALES OF PET RADIOLOGY IMAGING PRODUCTS BY PRODUCT CATEGORY FROM 2005-2017

HISTORIC AND FORECAST SALES GROWTH OF PET ONCOLOGY PRODUCTS BY PRODUCT CATEGORY FROM 2005-2017

SALES OF FDG SUPPLIERS IN THE U.S. IN 2009 AND FIRST HALF OF 2010, NUMBER OF PET PHARMACIES, ANNUAL DOSES SOLD AND SALES VOLUME

U.S. UNIT ORDERS FOR PET SCANNERS IN 2009 AND FIRST HALF OF 2010, PET UNITS ORDERED BY MANUFACTURER AND MARKET SHARE

U.S. SALES OF PET SCANNERS IN 2009 AND FIRST HALF OF 2010, SALES VOLUME BY MANUFACTURER AND MARKET SHARE

HISTORIC U.S. UNIT ORDERS FOR PET SCANNERS IN 2007 AND 2008, PET UNITS ORDERED BY MANUFACTURER AND MARKET SHARE

HISTORIC U.S. SALES OF PET SCANNERS IN 2007 AND 2008, SALES VOLUME BY MANUFACTURERS AND MARKET SHARE

INTERNATIONAL ORDERS FOR PET SCANNERS IN 2009 AND FIRST HALF OF 2010, PET UNITS ORDERED BY MANUFACTURER AND MARKET SHARE

INTERNATIONAL SALES OF PET SCANNERS IN 2009 AND FIRST HALF OF 2010, SALES VOLUME BY MANUFACTURER AND MARKET SHARE

HISTORIC INTERNATIONAL UNIT ORDERS FOR PET SCANNERS IN 2007 AND 2008, PET UNITS ORDERED BY MANUFACTURER AND MARKET SHARE

HISTORIC INTERNATIONAL SALES OF PET SCANNERS IN 2007 AND 2008, SALES VOLUME BY MANUFACTURER AND MARKET SHARE

WORLDWIDE UNIT ORDERS FOR PET SCANNERS IN 2009 AND FIRST HALF OF 2010, PET UNITS ORDERED BY MANUFACTURER AND MARKET SHARE

WORLDWIDE SALES OF PET SCANNERS IN 2009 AND FIRST HALF OF 2010, SALES VOLUME BY MANUFACTURER AND MARKET SHARE

HISTORIC WORLDWIDE UNIT ORDERS FOR PET SCANNERS IN 2007 AND 2008, PET UNITS ORDERED BY MANUFACTURER AND MARKET SHARE

HISTORIC WORLDWIDE SALES OF PET SCANNERS IN 2007 AND 2008, SALES VOLUME BY MANUFACTURER AND MARKET SHARE

U.S. UNIT ORDERS FOR MOBILE PET SCANNERS FROM 2007-2009, UNITS ORDERED BY MANUFACTURER AND MARKET SHARE

U.S. SALES OF MOBILE PET SCANNERS FROM 2007-2009, SALES VOLUME BY MANUFACTURER AND MARKET SHARE

## LIST OF EXHIBITS—MARKET FOR PET IMAGING

PET UNITS PURCHASED BY MOBILE PET PROVIDERS FROM 2000-2009, UNITS ACQUIRED BY EACH MOBILE PET COMPANY

HISTORIC AND FORECAST U.S. UNIT ORDERS FOR NEW AND REFURBISHED PET SCANNERS FROM 2004-2017

HISTORIC AND FORECAST U.S. SALES VOLUME FOR NEW AND REFURBISHED PET SCANNERS FROM 2004-2017

HISTORIC AND FORECAST U.S. ORDERS OF MOBILE PET SCANNERS, MANUFACTURERS' UNIT ORDERS AND SALES VOLUME FROM 2004-2017

HISTORIC AND FORECAST WORLDWIDE UNIT SALES OF NEW AND REFURBISHED PET SCANNERS FROM 2004-2017

HISTORIC AND FORECAST WORLDWIDE SALES VOLUME OF NEW AND REFURBISHED PET SCANNERS FROM 2004-2017

GROWTH OF U.S. AND WORLDWIDE INSTALLED BASE OF PET SCANNERS FROM 2004-2017

GROWTH OF MOBILE PET INSTALLED BASE IN THE U.S. FROM 2004-2017

ESTIMATED PET PROCEDURE VOLUME IN THE U.S. BASED ON SCANNER UTILIZATION IN 2009

COMPARATIVE ALLOCATION OF DIAGNOSTIC FACILITIES BY HOSPITAL BED SIZE IN 2009

COMPARATIVE UTILIZATION PARAMETERS FOR DIFFERENT IMAGING MODALITIES IN 2009

DISTRIBUTION OF HOSPITAL DIAGNOSTIC IMAGING PROCEDURES IN THE U.S. BY HOSPITAL BED SIZE IN 2009

RELATIVE PROCEDURE VOLUME AMONG DIFFERENT IMAGING MODALITIES, PERCENTAGE RELATIONSHIP BY HOSPITAL BED SIZE IN 2009

RELATIVE ACTIVITY INDEX AMONG DIFFERENT IMAGING MODALITIES, PROCEDURES PER BED PER YEAR BY

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Las Vegas, Nevada 89121

Telephone: (702) 456-7608

FAX (702) 456-2189

E-Mail: mburns@biotechsystems.com