By Carolyn Gretton

## *Oncologists Rate*

# Genentech Highest in Image

**TREND: Analysts correlate overall company image with key behaviors such as recommending products to colleagues, providing additional time for sales reps and medical science liaisons, and attending company-sponsored programs.**


Dr. Katy Palmer

Genentech and Novartis have the best image among oncologists and hematologists in terms of field force, corporate functions, and R&D, according to Market Strategies International's 2012 Oncology Image Study.

The study evaluated more than 30 attributes to determine which measures drive a company's image and performance in this rapidly growing, competitive marketplace. Genentech maintains the lead in overall image across office-based and hospital-based oncologists, while Novartis, for the first time, ranks first among hematologists.

Over the past several years, Novartis and several others have been closing in on Genentech as the image leader in oncology. In fact, the study notes that the gap in ratings between the top 10 competitors continues to narrow in 2012, as was the case in 2011. Related to the narrowing margins of differentiation, Novartis edged out Genentech on overall image among hematologists for the first time this year, driven primarily by its leadership in the field force and corporate equity dimensions.

"Though the difference in ratings is small, this change in leadership is noteworthy as we have watched the oncology competitive field evolve quite a bit over the last several years," observes Katy Palmer, Ph.D., senior VP of Market Strategies' healthcare division.

Amgen remains third among office oncologists while slipping one spot among hospital oncologists. The biotech company's largest gain was among hematologists, outscoring Celgene and Millennium: The Takeda Oncology Company.

According to Dr. Palmer, it's important to note that Celgene/Abraxis and Millennium retain two of the top five spots for hematologists in 2012, reinforcing that size of a company's oncology portfolio does not dictate image leadership.

*For more information, visit marketstrategies.com.*

### TOP 5 COMPANIES AMONG ONCOLOGY SPECIALISTS

| Rank | Office Oncologists | Hospital Oncologists | Hematologists |
|---|---|---|---|
| 1 | Genentech | Genentech | Novartis |
| 2 | Novartis | Novartis | Genentech |
| 3 | Amgen | Eli Lilly/ImClone | Amgen |
| 4 | GlaxoSmithKline | Amgen | Celgene/Abraxis |
| 5 | Bristol-Myers Squibb | Pfizer | Millennium |

*For more information, visit marketstrategies.com.*

Source: Market Strategies International, 2012 Oncology Image Study.

## *Nurses, PAs Use Digital Resources*

## MORE OFTEN THAN PHYSICIANS


Christina Anthogalidis

Physician assistants (PAs), advanced practice registered nurses (APRNs), and registered nurses (RNs) are a vital part of healthcare delivery and treatment decisions and have the potential to influence other stakeholders that drive prescription drug choices.

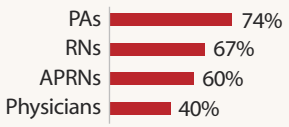
According to Manhattan Research's latest Taking the Pulse Nurses study, 98% of PAs and 75% of ARPNs write at least one prescription per week.

To make the most of digital budgets, many companies are looking to leverage their experience and knowledge marketing to physicians as a starting point for connecting with nurse and NP audiences.

"The digital channel is mainstream in the professional lives of nurses and PAs today," says Christina Anthogalidis, principal analyst at Manhattan Research. "Their extensive use of mobile at the point of care is only one of many striking examples of digital opportunities brands should be thinking of exploring in 2013."

The study finds that compared with physicians, PAs, APRNs, and RNs spend more time online for professional purposes than physicians and

### HEALTHCARE PRACTITIONERS USING SMARTPHONES DURING PATIENT CONSULTATION




*For more information, visit manhattanresearch.com.*

Source: Manhattan Research, Taking the Pulse Nurses and Taking the Pulse U.S. 2012.

use smartphones more often during patient consultations. In addition, PAs, APRNs, and RNs use pharma or biotech websites more frequently than physicians and are more interested in using pharma features on electronic health record (EHR) systems.

*For more information, visit manhattanresearch.com.*

## Other market insights…

### *Education, Reimbursement Options* KEY FOR BRAND WEBSITES

As tech-savvy patients increasingly take solace in trusted chronic-care product websites that help them understand their condition and treatment options better, the need to engage patients in critical information exchange has made it vital for these websites to effectively present information.

According to the Best Practices report, Online Patient Support Excellence: Using Brand Website Services for Condition and Treatment Education, it is essential for pharma companies, especially those with treatments for chronic conditions, to have brand websites that meet three key objectives. These sites must educate patients about their medical conditions and treatment options, help patients understand how the reimbursement system works and how to navigate it, and provide ongoing patient support activities that encourage patient compliance and build brand loyalty, the report advises.

*For more information, visit best-in-class.com.*

### *R&D Boom Forecast for* ASIA PACIFIC

Low operating costs and skilled manpower continue to attract pharmaceutical companies to the Asia Pacific region, which is now emerging as a powerhouse of pharma research & development (R&D).

According to the RNCOS report, Asia Pacific Pharma Sector Analysis, the future of the region remains bright and is projected to post a compound annual growth rate (CAGR) of around 10% during the 2012-to-2015 period.

The report says growth will mainly be driven by factors such as changing regulatory environment, increasing disposable incomes, rising prevalence of lifestyle diseases, and significant developments in the field of contract manufacturing, particularly in APIs.

*For more information, visit rncos.com.*

### *MCOs Expect Significant Discount* IN BIOSIMILAR PRICING

Although manufacturers of biosimilar drugs are looking to recoup their high development costs, without a meaningful price reduction they will likely face limited market access in the United States.

The BioTrends Research Group study, US and EU Payer Perspectives: Payer Perspectives on Biosimilar Pricing, Reimbursement, and Uptake in the United States and Europe, finds that surveyed medical and pharmacy directors from major managed care organizations (MCOs) in the United States will require manufacturers to price their biosimilars 26% lower than the reference brand to be included in their formularies.

Surveyed U.S. payers also report that those

companies offering a greater cost savings (on average 29% lower than the reference brand) will be rewarded with fewer reimbursement restrictions than the reference brand.

European payer advisors interviewed as part of this study express disappointment in the price reductions that have been seen for currently available biosimilars. Most would like to have a 30% to 40% discount, but are currently seeing only a 20% to 25% discount.

In addition, pharmacy and medical directors were questioned on many other topics that are pivotal to understanding the current and future uptake of biosimilars, including physician familiarity, their experience and comfort with biosimilars, clinical trial requirements and expectations for promotional efforts of biosimilar manufacturers.

*For more information, visit biotrends.com.*

## *Robust U.S. Market for* DRUG DELIVERY PRODUCTS

Demand for drug and fluid delivery products is rising rapidly in the United States, driven by the aging population and chronic health conditions such as diabetes and respiratory disorders, as well as exciting technological advances in non-invasive drug delivery.

According to the Medtech Insight report, U.S. Markets for Drug and Fluid Delivery Devices, U.S. sales of injection/infusion, transdermal, and inhalation drug delivery devices totaled almost $22 billion in 2011. Over the forecast period covered by the report, sales are expected to increase at a CAGR of 5.4%, reaching more than $28 billion in 2016.

*For more information, visit medtechinsight.com.*

## *Market for Therapeutic* STEM CELLS ON THE RISE

The market opportunity for stem cells is still largely at an early, experimental stage, but researchers predict they will eventually be used to treat disease. While the use of stem cells from a patient's own bone marrow to treat conditions such as leukemia is well-established, the wider stem-cell market is still largely at an early, experimental stage.

Experts predict the major market for stem cells will be their use in the treatment of disease, with a number of companies already specializing in developing stem cells directed toward specific disease targets.

According to BCC Research report, Global Markets for Stem Cells, the global market for stem cells was valued at an estimated $3.8 billion in 2011 and is projected to reach $6.6 billion in 2016, for a five-year CAGR of 11.7%.

*For more information, visit bccresearch.com.*

**GLOBAL STEM CELL MARKET ($ MILLIONS)**

| Market | 2010 | 2011 | 2012 | 2016 | CAGR% |
|---|---|---|---|---|---|
| Americas | 1,218 | 1,354 | 1,508 | 2,329 | 11.5% |
| Europe | 785 | 872 | 967 | 1,463 | 10.9% |
| Asia | 67 | 82 | 930 | 1,492 | 12.5% |
| Rest of World | 683 | 768 | 860 | 1,353 | 12.0% |
| Total | 3,359 | 3,822 | 4,265 | 6,637 | 11.7% |

Source BCC Research

## *Medical Device Market* MAKES GAINS

The global medical devices and diagnostics (MD&D) market made further gains in 2011, growing to an estimated $345 billion despite continued capital constraints and other limiters associated with the global economic slump.

The Health Research International report, Opportunities in Global Medical Devices & Diagnostics, observes that the market's gains were concentrated in middle-income and developing nations, although the adoption of selected new technologies in developed nations also contributed.

Going forward, short-term expectations are high that Europe will largely address its financial challenges, Japan will recover from the tsunami, and the United States will achieve clarity on the direction of its healthcare system.

Resolution of these issues will provide greater stability to MD&D markets in the developed nations as they attempt to address the effects of demographics and the growing prevalence of age-related diseases, especially obesity and diabetes, the report predicts.

*For more information, visit lifescienceintelligence.com.*

## *Wholesalers Sector in* JAPAN DOMINATED BY A FEW

Pressures felt in Japan as a result of the country's aging population, drug price revisions, and patent expiries have compelled pharmaceutical industry leaders to rationalize their sourcing and distribution and increase operational efficiency.

The GBI Research report, Pharmaceutical Supply Chain in Japan - Periodic Drug Price Revisions by National Health Insurance Increase Competition and Squeeze Profit Margins, observes that market competition has led to a monopoly being held by a few wholesalers, who effectively control Japan's pharmaceutical distribution market.

As a result of mergers and reorganizations, the number of pharmaceutical wholesalers in Japan has fallen by 45% over the last decade, with four wholesalers — Medipal Holdings, Alfresa Holdings, Suzuken, and Toho Holdings — accounting for 90% of the overall pharmaceutical distribution market in 2011 and generating total revenue of 7.3 trillion yen (about $87.8 billion).

*For more information, visit gbiresearch.com.*

## *Australia Expected to* POST STEADY GROWTH

The positive trends in the Australian healthcare market can be attributed primarily to ease of market access to pharmaceuticals, increasing awareness of the need for the early detection of lifestyle and chronic diseases, and annual review and addition of expensive innovative drugs to the government-subsidized Pharmaceutical Benefit Scheme drug list.

According to the GlobalData report, Healthcare, Regulatory and Reimbursement Landscape - Australia, the Australian pharmaceutical market was estimated at $14.9 billion in 2010 and is expected to reach $30.5 billion by 2020, for a projected CAGR of 7.4%. The medical device market in Australia was worth about $6.5 billion in 2011 and is projected to reach $10 billion by 2020, for an estimated CAGR of 4.8%.

*For more information, visit globaldata.com.*

## *In Vitro Diagnostics Face* PRICING CHALLENGES

The worldwide in vitro diagnostic (IVD) market broke $50 billion last year on the strength of an aging population, product innovations, and sales to emerging markets. The Kalorama Information report, The Worldwide Market for In Vitro Diagnostic (IVD) Tests, 8th Edition, estimates the global market for in vitro diagnostics at about $50.9 billion in 2011. But the report cautions that the market will be challenged with a sharp decline in pricing for diagnostic tests in Europe and consolidation in the United States, which will lead to price erosion.

*For more information, visit kaloramainformation.com.* PV

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## THERAPEUTIC FAST TRAX...

### AUTOIMMUNE DISORDERS

For the treatment of fibromyalgia, Lilly/Boehringer Ingelheim's Cymbalta was the patient- and market-share leader in the United States in 2011, after surpassing Pfizer's Lyrica in 2010. Cymbalta garnered a 32% share of U.S. fibromyalgia patients in 2011, while Lyrica held a patient share of about 26%. In the United States, France, Germany, Italy, Spain, the United Kingdom, and Japan, the overall fibromyalgia therapy market is forecast to increase from $1.8 billion in 2011 to more than $2 billion in 2018, before declining again to $1.8 billion in 2021.

Source: Decision Resources, Pharmacor findings on Fibromyalgia.

*For more information, visit decisionresources.com.*

For the treatment of psoriasis, Abbott/Eisai's Humira has displaced Amgen/Stiefel/Pfizer/Takeda's Enbrel as the preferred first-line biologic in several markets, and Humira became the leading agent in 2011 with sales of more than $1.4 billion in the United States, France, Germany, Italy, Spain, the United Kingdom, and Japan. But while Humira will maintain its patient-share dominance among biologics through 2021, sales of the agent will start to decline in 2018 owing to deeper penetration of Janssen Biotech/Janssen Cilag's Stelara, intensified competition from emerging agents, and to a lesser extent the market entry of biosimilars.

Source: Decision Resources, Pharmacor findings on Psoriasis.

*For more information, visit decisionresources.com.*

The majority of surveyed rheumatologists believe that Pfizer's tofacitinib has a substantial effect on signs and symptoms of rheumatoid arthritis as a monotherapy and in combination with disease-modifying antirheumatic drugs. But about a quarter of surveyed rheumatologists believe that data is insufficient to be able to draw a conclusion about the drug's effect on slowing joint damage. Tofacitinib is the first oral kinase inhibitor to be evaluated by the FDA for approval for the treatment of rheumatoid arthritis.

Source: Decision Resources, Snapshot: Tofacitinib 2012.

*For more information, visit decisionresources.com.*

If drug development continues to be slowed due to adverse results in clinical trials, growth in the value of the osteoarthritis (OA) pain therapeutics market may be stunted. The global OA pain market was worth about $4.52 billion in 2011 and is forecast to post a compound annual growth rate (CAGR) of 3.7% to reach an estimated $6.06 billion by 2019.

Source: GlobalData, Osteoarthritis Pain Therapeutics - Pipeline Assessment and Market Forecasts to 2019.

*For more information, visit globaldata.com.*

### CANCER

U.S. oncologists indicate that they would prescribe the emerging vaccine rindopepimut (Celldex Therapeutics' CDX-110) to 36% of their newly diagnosed glioblastoma multiforme (GBM) patients. Rindopepimut is projected to earn an 18% patient share in the U.S. newly diagnosed GBM market by 2020 because only about one-third of GBM patients harbor the appropriate EGFRVIII variant targeted by rindopepimut. This factor, combined with increased competition in the GBM market, will limit the patient population eligible for the therapy.

Source: Decision Resources, Newly Diagnosed Glioblastoma: Avastin's Future Hangs in the Balance as Oncologists Await Phase III Data: Which Other Emerging Drugs Excite Them.

*For more information, visit decisionresources.com.*

The drug-treated non-small-cell lung cancer (NSCLC) patient population in China will expand from 2011 to 2016 as drug-treatment rates among NSCLC patients increase in both rural and urban regions. These factors will contribute to China's NSCLC drug market growing from about $500 million in 2011 to more than $860 million in 2016.

Source: Decision Resources, Non-Small-Cell Lung Cancer in China.

*For more information, visit decisionresources.com.*

Three-quarters of surveyed U.S. oncologists are prescribing Pfizer's Xalkori for the treatment of non-small-cell lung cancer (NSCLC) just 10 months after the drug's launch, illustrating the power of a targeted agent with a strongly predictive biomarker to achieve usage, despite a small eligible patient population. An even higher proportion of surveyed oncologists prescribe Genentech/OSI Pharmaceuticals/Roche/Chugai's Tarceva, with all surveyed office-based oncologists and 93% of hospital-based oncologists prescribing Tarceva to their NSCLC patients, while 80% of surveyed managed care organization (MCO) pharmacy directors report they reimburse for Tarceva.

Source: Decision Resources, What Are the U.S. Market Access Levers and Hurdles Facing Orally Administered, Small-Molecule Targeted Oncology Drugs for Breast Cancer and Non-Small-Cell Lung Cancer?

*For more information, visit decisionresources.com.*

Some of the most promising pipeline molecules for treating cancer include Avastin, T-DM1, Afinitor, Iniparib, Afatinib, V503, Tykerb, and Thera CIM. These novel molecules are expected to provide better treatment options to cancer patients by increasing progression-free survival and addressing drug safety and unmet patient needs. The launch of promising molecules is projected to add almost $2.98 billion in revenue to the oncology market by 2018.

Source: GBI Research, Novel Therapies in Oncology - Protein Kinase Inhibitors, Monoclonal Antibodies and Vaccines Therapeutic Classes Dominate Late-Stage Pipeline.

*For more information, visit gbiresearch.com.*

The gastrointestinal stromal tumors (GIST) therapeutics market in the seven key markets of the United States, the United Kingdom, Germany, Italy, France, Spain, and Japan was worth $946.5 million in 2011, and is expected to decline at a negative CAGR of 1.8% to $820.1 million by 2019. The current market is strong, and dominated by two approved drugs: Gleevec (imatinib mesylate) from Novartis Pharmaceuticals, and Sutent (sunitinib) from Pfizer. The market is, however, expected to decline in the forecast period due to Gleevec's patent expiry in January 2015.

Source: GlobalData, Gastrointestinal Stromal Tumors (GIST) Therapeutics - Pipeline Assessment and Market Forecasts to 2019.

*For more information, visit globaldata.com.*

The global neuroendocrine carcinoma therapeutics market was worth $127 million in 2011, and is forecast to expand at a CAGR of 17.9% to reach $475 million by 2019. The high growth is primarily attributed to the advent of approved drugs, Sutent (sunitinib) and Afinitor (everolimus), in the major markets.

Source: GlobalData, Neuroendocrine Carcinoma Therapeutics - Pipeline Assessment and Market Forecast to 2019.

*For more information, visit globaldata.com.*

In 2011, the ovarian cancer therapeutics markets in the key countries of the United States, the United Kingdom, Germany, France, Italy, Spain, Japan, Brazil, Russia, India, and China were worth $736.7 million collectively. The global market for ovarian cancer therapeutics is anticipated to record threefold growth by 2020, reaching $2.36 billion for a CAGR of 13.8%. Growth is expected to be driven by strong pipeline candidates that are anticipated to change the treatment paradigm of ovarian cancer when launched.

Source: GlobalData, Ovarian Cancer Therapeutics - Global Drug Forecasts and Treatment Analysis 2020.

*For more information, visit globaldata.com.*

Physicians said they would use new treatments now in clinical trials in nearly 30% of their metastatic melanoma patients with BRAF mutations, mostly at the expense of Bristol-Myers Squibb's Yervoy (ipilimumab).

Source: Kantar Health, New Treatments in Melanoma May Steal Share from Yervoy

*For more information, visit kantarhealth.com.*

Physicians said they would use Zytiga (abiraterone acetate, Janssen) in more than half of their castrate-resistant prostate cancer (CRPC) patients who are asymptomatic or minimally symptomatic in the pre-chemotherapy setting.
Source: Kantar Health, Physicians to Increase Zytiga Use in Chemo-Naive Prostate Cancer.

*For more information, visit kantarhealth.com.*

America's biopharmaceutical research companies are testing 981 medicines and vaccines to fight the many types of cancer affecting millions of patients worldwide. These potential medicines, which are either in clinical trials or under review by the Food and Drug Administration, include 121 for lung cancer, 117 for lymphoma and 111 for breast cancer.
Source: Pharmaceutical Research and Manufacturers of America (PhRMA).

*For more information, visit phrma.org.*

The oncology market, one of the fastest-growing segments of the pharmaceutical industry, has been expanding on the back of rising cancer incidences and hefty investment by private players. The global cancer generics market is anticipated to record a CAGR of around 26% during the 2011-2015 period, as many anticancer blockbuster drugs are on the verge of patent expiry and governments are introducing biogenerics for controlling rapidly increasing healthcare costs.
Source: RNCOS, Cancer Generics Market Analysis.

*For more information, visit rncos.com.*

High cancer prevalence worldwide and resulting strong demand for effective cancer treatments are driving the cancer monoclonal antibodies market, which is anticipated to expand at a CAGR of around 7% during the 2012-2015 period. While research and innovation in this field have been growing exorbitantly, the industry has witnessed a large number of consolidation activities.
Source: RNCOS, Cancer Monoclonal Antibodies Market to 2015.

*For more information, visit rncos.com.*

Cancer patients in the United States get faster access to more oncology drugs to treat their disease than patients in Europe, with U.S. oncology drug approvals outpacing European approvals by 33% between 2000 and 2011. But oncology drug prices in Europe are 9% lower on average than U.S. drug prices, and patient cost sharing is much lower in Europe than in the United States, where the average coinsurance rate per covered drug is 33%.
Source: Tufts Center for the Study of Drug Development.

*For more information, visit csdd.tufts.edu.*

## CARDIOVASCULAR

In 2010, U.S. sales of heart failure-specific diagnostic and therapeutic technologies totaled about $3.19 billion. This market is expected to increase in value at a CAGR of 2.8%, with sales reaching an estimated $3.68 billion in 2016.
Source: Medtech Insight, U.S. Markets for Current and Emerging Technologies for the Treatment of Heart Failure.

*For more information, visit medtechinsight.com.*

## CENTRAL NERVOUS SYSTEM

Less than one-half of U.S. neurologists believe that the anti-JC virus antibody assay has had a positive impact on both their willingness to prescribe Tysabri and on their comfort with the risk-benefit profile of Tysabri. While disease-modifying agent (DMA) brand shares among DMA-treated patients have remained relatively stable compared with previous quarters, Tysabri share among secondary progressive multiple sclerosis patients has increased significantly over the past year (9% to 17%), primarily at the expense of Teva's Copaxone. More than three-quarters of neurologists report being aware (unaided) of recent news related to Novartis's Gilenya, with most mentions focusing on the recent label changes and/or reports of sudden or unexplained deaths in Gilenya-treated patients.
Source: BioTrends Research Group, TreatmentTrends: Multiple Sclerosis (U.S.) Q2 2012.

*For more information, visit bio-trends.com.*

Examination of U.S. patient-level claims data reveals that less than half of newly diagnosed Alzheimer's disease patients began drug therapy within a year of diagnosis. On average, it took 72 days for a newly diagnosed Alzheimer's disease patient to begin drug therapy.
Source: Decision Resources, Treatment Algorithms in Alzheimer's Disease.

*For more information, visit decisionresources.com.*

In recently treated bipolar disorder patients, atypical antipsychotics captured more than a third of patient share in the fourth quarter of 2011. Abilify and AstraZeneca's Seroquel claimed nearly identical patient share in this group. But only about 16% of drug switches to Abilify came from patients taking other atypical antipsychotics, supporting Abilify's position as an early line choice.
Source: Decision Resources, Treatment Algorithms in Bipolar Disorder.

*For more information, visit decisionresources.com.*

Examination of U.S. patient-level claims data shows that patient share of Teva/Lundbeck's Azilect among recently treated Parkinson's disease patients continues to grow, increasing 8% between the fourth quarter of 2010 and the fourth quarter of 2011. Use of Azilect may be driven in part by its milder side effect profile compared with selegiline (Somerset Pharmaceuticals' Eldepryl, generics), making Azilect a safer treatment choice among monoamine oxidase type B (MAO-B) inhibitors.
Source: Decision Resources, Treatment Algorithms in Parkinson's Disease.

*For more information, visit decisionresources.com.*

In 2011, the global Parkinson's disease (PD) therapeutics market — which includes the key markets of the United States, Japan, Germany, the United Kingdom, France, Italy, Spain, Brazil, China, India, and Russia — was estimated to be worth $2.99 billion, having recorded a CAGR of 5.8% from the 2002-to-2011 period. Going forward, the global PD therapeutics market is expected to grow at a more modest CAGR of 2.2% and is forecast to reach $3.65 billion by 2020.
Source: GlobalData, Parkinson's Disease Therapeutics - Global Drug Forecasts and Treatment Analysis to 2020.

*For more information, visit globaldata.com*

The global post-traumatic stress disorder (PTSD) therapeutics market was worth $1.39 billion in 2011, following a decline at a negative CAGR of 1.9% from 2006 to 2011. It is expected to grow at a CAGR of 3.2% to reach $1.78. billion by 2019, due to an increased patient population. The PTSD category is currently served by two FDA-approved selective serotonin reuptake inhibitors, Zoloft and Paxil, and various off-label generic drugs with a low cost of therapy.
Source: GlobalData, Post-Traumatic Stress Disorder (PTSD) Therapeutics - Pipeline Assessment and Market Forecasts to 2019.

*For more information, visit globaldata.com.*

## DIABETES

Dipeptidyl peptidase (DPP-IV) inhibitors claim a larger share of newly diagnosed type 2 diabetes patients across all three lines of therapy compared with peroxisome-proliferator activated receptor (PPAR)-gamma agonists. DPP-IV inhibitors include Merck's Januvia, Bristol-Myers Squibb/AstraZeneca's Onglyza and Boehringer Ingelheim's Tradjenta. This trend represents a reversal from last year's analysis when PPAR-gamma agonists, such as Takeda's Actos and GlaxoSmithKline's Avandia, captured a higher percentage of patient share across all lines of therapy.
Source: BioTrends Research Group, Treatment Algorithms in Type 2 Diabetes.

*For more information, visit bio-trends.com.*

The global type 2 diabetes therapeutics market in 2011 was $23.7 billion, and the market is expected to record CAGR of 7.4% during the 2011-2020 period, reaching $45.1 billion by 2020. The expected entry of me-too molecules, generic products, and drugs with unique qualities will intensify competition in the future market and improve patient confidence, which has been damaged in recent years by the adverse effects caused by discredited therapeutics Actos and Avandia on diabetes patients with additional illnesses.

Source: GlobalData, Type II Diabetes Therapeutics - Global Drug Forecasts and Treatment Analysis to 2020

*For more information, visit globaldata.com.*

The insulin delivery system market is currently characterized by the emergence of new drug delivery devices, and this trend is likely to continue in the coming few years. The global insulin delivery systems market is projected to record a CAGR of around 8% during the 2012-2014 period.

Source: RNCOS, Insulin Delivery Systems Market Forecast to 2014.

*For more information, visit rncos.com.*

With global diabetes rates expected to catapult to 552 million by 2030, the global market for oral antidiabetics and human insulins is forecast to almost double over the next ten years, reaching close to $70 billion by 2020. The vast majority of incidences of diabetes are type 2 diabetes, which is strongly linked to health problems such as cardiovascular disease, obesity, decreased renal function, deterioration of vision, and neuropathy.

Source: TriMark Publications, Diabetes, Metabolic Syndrome and Cardiovascular Disease.

*For more information, visit trimarkpublications.com.*

## GENITOURINARY

The market for genitourinary drugs can be broken down by disease into six categories: hormonal contraceptives, benign prostatic hypertrophy (BPH), erectile dysfunction, urinary incontinence and overactive bladder, infertility, and infection and other conditions. Genitourinary drug revenue totaled about $26.5 billion in 2011 and is projected to climb to almost $30.8 billion in 2016, for a five-year CAGR of 3%.

Source: BCC Research, Genitourinary Drugs: Technologies and Global Markets.

*For more information, visit bccresearch.com.*

## GOUT

The majority of physicians surveyed report high satisfaction ratings for their gout patients' responses to current UAL therapies. The majority of moderate and virtually all severe gout patients are treated with UAL therapy. Allopurinol (Prometheus Laboratories/GlaxoSmithKline's Zyloprim/Zyloric, generics) remains the predominant first-line UAL agent of choice among PCPs and rheumatologists, although Takeda's Uloric (febuxostat) has made inroads, particularly in the treatment of severe gout patients. The 300-milligram dose of allopurinol is still the most commonly prescribed strength and many physicians are reluctant to escalate allopurinol doses because they felt their patients had achieved their target SUA level.

Source: BioTrends Research Group, ChartTrends: Gout U.S.

*For more information, visit bio-trends.com.*

## INFECTIONS

The global market for antifungal therapeutics was valued at $10.7 billion in 2011 and is projected to reach $12.2 billion in 2016, for a five-year CAGR of 2.7%. Market growth is expected to be driven by Japan, with a projected five-year CAGR of 5.3%, and markets outside the United States and Europe, which are forecast to expand at a five-year CAGR of 6.3%.

Source: BCC Research, Antifungal Drugs: Technologies and Global Markets.

*For more information, visit bccresearch.com.*

Almost two-thirds of surveyed physicians have seen an increase in the hepatitis C (HCV) patients they manage over the past year with close to half attributing the increase to "de-warehousing" patients for treatment with the newest protease inhibitors (PIs). Physicians view Vertex's Incivek (telaprevir) and Merck/Roche's Victrelis (boceprevir) as significantly outperforming dual therapies. In particular, they rate both PIs significantly better than Roche's Pegasys or Merck's PegIntron plus ribavirin on the top three most important attributes of high efficacy in genotype 1s, treatment-naive patients, and prior non-responders/partial responders; but physicians rate Incivek as significantly outperforming Victrelis on these same measures.

Source: BioTrends Research Group, TreatmentTrends: Hepatitis C (U.S.), Wave 1.

*For more information, visit bio-trends.com.*

Decreasing susceptibility to IV vancomycin and preference for other therapies that target methicillin-resistant Staphylococcus aureus (MRSA) are among the most frequently cited factors that are driving physicians to decrease usage of IV vancomycin for the management of MRSA infections in the inpatient setting. In fact, almost one-third of surveyed physicians report prescribing less IV vancomycin over the past 12 months, and 29% of physicians anticipate decreasing their use of the drug for MRSA infections in the future.

Source: BioTrends Research Group and Arlington Medical Resources, TreatmentTrends: MRSA and Serious Gram-Positive Infections (US) Report.

*For more information, visit bio-trends.com.*

The antibacterials market is large and well-established but still seeing good growth due to the increasing problem of nosocomial infections and the rise of drug-resistant bacteria. Despite several patent expiries, including that of Levaquin, one of the highest selling antibacterials, the market is expected to reach $12.7 billion in 2017 with new therapies needed to tackle pathogens that have developed resistance to older antibacterials.

Source: GBI Research, Antibacterials Market to 2017 - Innovative Anti-infectives that Target MDR Gram-negative Pathogens Offer Significant Revenue Potential.

*For more information, visit gbiresearch.com.*

Generics are predicted to take over the antiviral drugs market, especially in the case of HIV medication, as a series of patent expiries will open opportunities for ambitious companies to seize huge revenue. In 2010, generics accounted for 18.9% of the market share in the global antivirals market, this market share is forecast to grow to reach 29.2% by 2018. This is largely due to a series of patent expiries expected to hit the antiviral market, which will act to raise the value of generic antiviral drugs to more than $9 billion by 2018. Generics in the HIV market in particular accounted for an estimated majority market share of 46% in the total generic antivirals market during 2010. HIV generics are expected to create a boom in the market, due to a loss of patent exclusivity for key antiviral drugs.

Source: GBI Research, Generics in the Antivirals Market to 2018 – Launch of Generic Combivir and Patent Expiry of Sustiva, Kaletra and Epivir-HBV will Drive Volume Growth.

*For more information, visit gbiresearch.com.*

The global hepatitis B therapeutics market stood at $2.02 billion in 2006 and posted a CAGR of 8.6% to reach $3.06 billion in 2011. The global hepatitis B therapeutics market will report a slower CAGR of 4.8% over the forecast period to reach $4.44 billion by 2019. The low growth in the global hepatitis B therapeutics market can be attributed to the high vaccination coverage rates in developed countries, resulting in lower incidence rates of hepatitis B. The hepatitis B therapeutics market is also set to witness the patent expiry of most of the nucleoside analogues between 2013 and 2017.

Source: GlobalData, Hepatitis B Therapeutics - Pipeline Assessment and Market Forecasts to 2019.

*For more information, visit globaldata.com.*

Although the number of hospital-associated MRSA cases has been decreasing, the overall MRSA prevalence has escalated due to increased community-

associated MRSA infections, a steady increase in the elderly and immunocompromised population, an increase in the average number of days spent in hospitals, and the emergence of multidrug-resistant bacterial strains. The global MRSA market is forecast to reach $3.46 billion by 2019, for a CAGR of 3.4% during the forecast period.

Source: GlobalData, Methicillin-resistant Staphylococcus aureus (MRSA) Therapeutics - Pipeline Assessment and Market Forecasts to 2019.

*For more information, visit globaldata.com.*

## KIDNEY DISEASES

After many years of few erythropoiesis-stimulating agents (ESAs) on the market to treat chronic kidney disease (CKD), namely Amgen's Epogen and Aranesp and Janssen's Procrit, a novel therapy is emerging that may capture market share from these players. Physicians say an estimated 80% of patients are on ESAs in hemodialysis, with Epogen being the market leader in this patient population.

Source: BioTrends Research Group, Q1 2012 U.S. Treatment-Trends Nephrology.

*For more information, visit bio-trends.com.*

The rising incidence of kidney disease due to increasing obesity, high blood pressure, and diabetes is forming a gigantic market for new renal disease treatments. No targeted therapy currently exists to slow down disease progression in patients with end-stage renal disease (ESRD), who currently rely on expensive options such as dialysis or kidney transplant. The ESRD pipeline has 17 molecules in various phases of clinical development, including 13 FIC molecules, of which three are in Phase III trials and one in preregistration; MP-146 and Zerenex in Phase III; and Peginesatide in the preregistration phase.

Source: GlobalData, End Stage Renal Disease Therapeutics - Pipeline Assessment and Market Forecasts to 2019.

*For more information, visit globaldata.com.*

## MUSCLE DISORDERS

Four new agents to treat Duchenne muscular dystrophy (DMD) are expected to launch by 2021. These therapies include GlaxoSmithKline/Prosensa's GSK-2402968/PRO-051/drisapersen, Santhera/Takeda's Catena/Sovirma's idebenone, AVI BioPharma's eteplirsen/AVI-4658, and Prosensa's PRO-044. Of these therapies, GSK-2402968, eteplirsen, and PRO-044 are disease-modifying therapies that will heavily saturate their target patient segments. But given the small size of these segments, the market will still be very receptive to novel disease-modifying agents.

Source: Decision Resources, Niche Markets and Rare Diseases: Muscular Dystrophy.

*For more information, visit decisionresources.com.*

## OPHTHALMIC

After six months on the market, 76% of retinal specialists have prescribed Regeneron's Eylea to at least one of their wet age-related macular degeneration (AMD) patients, a significant increase from one month (40%) and three months (58%) post-launch. With this growth in prescriber base, the mean Eylea patient volume per prescriber has also grown compared to previous waves, suggesting continued uptake within prescribing practices.

Source: BioTrends Research Group, LaunchTrends: Eylea Wave 3 report.

*For more information, visit bio-trends.com.*

## PAIN

The acute pain therapeutics market was estimated to be worth $10.47 billion in 2011 and is forecast to expand at a CAGR of 5.2% to reach $15.70 billion by 2019. This projected market growth is attributed to the expected launch of products such as Dyloject (in the United States), Ketotransdel, and MRX-7EAT, as well as the increasing elderly population in the United States, Japan, and Europe.

Source: GlobalData, Acute Pain Therapeutics to 2019.

*For more information, visit globaldata.com.*

## RESPIRATORY

Driven by an increased incidence of respiratory disease and an aging population, the respiratory market reached an estimated $44.2 billion in 2011. The largest component of this market is respiratory inhalers and associated therapeutic pharmaceuticals, reflecting about 77% of the total. Some respiratory device areas are expected to see sales growth of 7% to 9% in the next five years.

Source: Kalorama Information, World Market for Respiratory Devices.

*For more information, visit kaloramainformation.com.*

Having diagnosed asthma presents a significant quality of life burden in Brazilian patients. Health-related quality of life (HRQoL) was significantly lower among adults with diagnosed asthma compared with those without an asthma diagnosis. The average mental component summary (MCS) score was 42.41 among asthma patients, versus 46.99 for those without asthma, and the physical component summary (PCS) score averaged 47.27 for asthma patients, versus 50.58 for those without asthma. In addition, 52% of asthma patients surveyed had inadequate control of their symptoms.

Source: Kantar Health, National Health and Wellness Survey.

*For more information, visit kantarhealth.com.*

In the next five years, the global asthma and COPD drug market is expected to grow slowly, primarily because of expiry of patents of leading drug brands and price erosion in the market. The global asthma and COPD market was worth $25.10 billion in 2010 and is expected to reach $26.97 billion in 2017, for a modest CAGR of 1% over the period. The COPD segment, estimated at $10.59 billion in 2010, is projected to reach $12.62 billion in 2017.

Source: Transparency Market Research, Asthma and COPD Drug Market - Global Industry Analysis, Market Size, Share, Trends, Growth and Forecasts, 2010 – 2017.

*For more information, visit transparencymarketresearch.com.*

## WOUND CARE

The diabetic foot ulcer therapeutics market, made up of the diabetic foot infection (DFI) and wound healing sectors, grew from a value of $1.13 billion in 2006, to $1.53 billion in 2011. The market is forecast to show moderate growth, climbing from $1.53 billion in 2011 to $1.97 billion in 2019.

Source: GlobalData, Diabetic Foot Ulcer Therapeutics - Pipeline Assessment and Market Forecasts to 2019.

*For more information, visit globaldata.com.*

Driven by innovative products that heal wounds faster and an increase in wound occurrences, the worldwide wound care market posted revenue of $16.1 million in 2011. The market is expected to exhibit an overall steady growth rate due to the increasing elderly population, rising rates of diseases such as diabetes and obesity, the availability of new therapeutic techniques, and the recent focus on wound care products and prevention.

Source: Kalorama Information, World Wound Care Markets (Skin Ulcer, Burns, Surgical/Trauma).

*For more information, visit kaloramainformation.com.*

The global wound care market is expected to be worth $22.14 billion by 2016, driven by increase in the aging population, rise in chronic diseases such as diabetes and hypertension, and technological advancements. The demand for portable and easy-to-use devices is expected to drive the growth of the wound care market in the coming years. At the same time, tissue-engineered products like skin substitutes and biological growth factors are expected to drive the market in the long term.

Source: MarketsandMarkets, Wound Care Market - Current Trends, Opportunities & Global Forecasts (2011 - 2016).

*For more information, visit marketsandmarkets.com.*