

April 2016

### [New approach allows noninvasive identification of tumor mutations in lung cancer patients](#)

“Researchers at the Stanford University School of Medicine have devised a way to significantly increase the sensitivity of a technique to identify and sequence DNA from cancer cells circulating in a person's blood.”

### [Facing Up to the Possibility of Lung Cancer](#)

“Right now, lung cancer is responsible for more deaths than colon, breast, and prostate cancer combined. But a new screening method could change all that.”

### [Curing Cancer Is Within Reach](#)

“One of the most frightening words a patient can hear from a doctor is “cancer.” We know it from the experience of our families and friends, and the millions of Americans who hear it directly from their doctors each year.”

### [FIGHTING FOR LUNG CANCER PATIENTS: MY EXPERIENCE AT LUNG FORCE ADVOCACY DAY](#)

“I was diagnosed with stage IV lung cancer on September 27, 2011. I will never forget that day and the doctor's exact words: “You have lung cancer that has already spread to your spine.” I was 40 years old, very active and fit, and had no known risk factors. I was learning, like thousands of others, that you only need lungs to get lung cancer.”

### [Biden's Astronaut Takes Over Moonshot](#)

“There's no arguing that Greg Simon's resume is impressive: Influential staff positions in both chambers of Congress and the White House, strategy consultant for technology CEOs, co-founder of a patient advocacy non-profit, senior executive for a big pharmaceutical company. It's easy to see why Vice President Biden tapped him to lead the White House's \$1 billion cancer moonshot initiative.”

### [Histone Deacetylase Inhibitors Enhance Immunotherapy in Lung Cancer Models, Say Moffitt Cancer Center Researchers](#)

“Several new immunotherapeutic antibodies that inhibit checkpoint receptors on T cells to restimulate the immune system to target tumors have been approved to treat advanced stage lung cancer and melanoma; however, only 20 percent of lung cancer patients show a response to these agents. Moffitt Cancer Center researchers have identified a class of drugs that improve the activity of immunotherapeutic antibodies by stimulating the movement of T cells into a tumor and enhancing their activity.”

### [New Hotline Lends an Ear to Patients With Lung Cancer](#)

“Patients with lung cancer and their caregivers can now call a toll-free number to receive emotional support and answers to some of their questions about life after diagnosis and maximizing quality of life.”

### [These new nanoparticle 'cluster bombs' could make chemotherapy less toxic](#)

“Chemotherapy is one of the key weapons in our fight against cancer, but it comes with a whole host of [unwanted side effects](#) and damage to the surrounding, healthy areas of the body. So an international team of researchers has come up with what they think could be a much less toxic way of delivering the treatment, and it's based around 'cluster bombs' of nanoparticles.”

### [On Carbs and Cancer](#)

“The “sugar is poison” ideology is wrong. While I've argued for reducing sugar for my entire career, I do think it's wrong to perpetuate the idea that it is somehow toxic.”

### [ASCO to honor researchers, scientists at annual meeting](#)

“The exceptional accomplishments of each of our awardees reflect their exemplary dedication to furthering cancer research and serving as a beacon of hope to the cancer community,” Peter Paul Yu, MD, FACP, FASCO, immediate past president of ASCO and chair of the special awards selection committee, said in a press release. “It is our honor to recognize their enduring contributions with ASCO's most prestigious awards.”

### [Lung Cancer: The Disease of Tomorrow](#)

“In the United States, there are approximately 40 million current smokers – that's more than 13 percent of the total population. Cigarette smoking is the number one cause of preventable disease and death in the country, contributing to 220,000 lung cancer diagnoses and 150,000 lung cancer deaths each year.”

### [Newly discovered clues to the cause of chemoresistance in small cell lung cancer](#)

“Small cell lung cancer is not usually detected until it is at an advanced stage, when metastases have already formed. Chemotherapy is very effective initially but, within a year, cancer recurs and this time does not respond to a course of chemotherapy. The research group headed by Gerhard Hamilton, University Department of Surgery at MedUni Vienna, has now managed to identify the reason for this chemoresistance. The group's results have recently been published in the journals "*Cell Adhesion and Migration*" and "*Trends in Cancer*".”

### [FDA grants priority for Genentech's Cancer Immunotherapy Atezolizumab in Specific Type of Lung Cancer.](#)

“Genentech, a member of the Roche Group (SIX: RO, ROG; OTCQX: RHHBY), today announced that the U.S. Food and Drug Administration (FDA) has accepted the company's Biologics License Application (BLA) and granted Priority Review for atezolizumab (anti-PDL1; MPDL3280A) for the treatment of people with locally advanced or metastatic non-small cell lung cancer (NSCLC) whose disease expresses the protein PD-L1 (programmed death ligand-1), as determined by an FDA-approved test, and who have progressed on or after platinum-containing chemotherapy.”

### [Pericardial window operation less efficient in cases of lung cancer than any other cancer](#)

“Pericardial window operation, a procedure, where abnormal quantity of malignant fluid, or malignant pericardial effusion (MPE), surrounding the heart, is drained into the neighbouring chest cavity through a surgically placed tube, is commonly applied to patients diagnosed with cancer.”

### [Targeted and Immunotherapy for Cancer: The Latest and Greatest Treatments in Cancer](#)

“What is Targeted therapy and Cancer Immunotherapy? Over the last few years there has been a push to improve survival in patients with cancer with newer treatments that are less toxic than traditional chemotherapy. Two ways to achieve this is with targeted therapy and immunotherapy.”

### [Lung cancer is more than one disease](#)

“Each protein in the body is made according to the instructions encoded in a gene. Sometimes there’s an error in these instructions that causes the protein to work differently to how it should– this is a mutation.<sup>1,2</sup> Not all mutations cause cancer, but mutations are often associated with cancer, and the growth of cancer cells is sometimes triggered by underlying mutations.<sup>3</sup> Scientists suspect that most cancers are the result of a combination of mutations. But there are some “driver mutations” that are important in the start and spread of cancer. Just one may be enough to initiate tumour growth.<sup>1,2</sup>”

### [Liquid Biopsy For Lung Cancer: Simple Blood Test Can Detect Mutation In Key Genes](#)

“A study has found that a simple blood test is enough to detect gene mutation that occurs in patients with lung cancer.”

### [Cancer: 8 Carcinogens You’ve Never Heard Of](#)

“Carcinogens are cancer causing agents that we all need to be aware of. We’re all in the know already about the common ones such as cigarette smoke and air pollution, but there are some you’ve never heard of.”

### [High Glycemic Index Diet Associated With Increased Risk of Developing Lung Cancer](#)

“Recent research published in Cancer Epidemiology, Biomarkers & Prevention points to a correlation between diets with a high glycemic index (GI) and the development of lung cancer in non-Hispanic whites. According to the study, people with the highest daily GI had almost a 50 percent higher risk than those in the lowest GI category. This suggests that diet can play a role in altering one’s risk of lung cancer.”

### [5 Warning Signs Of Lung Cancer You Might Be Ignoring](#)

“The diagnosis of nearly 40 percent of people with lung cancer only come after the disease has advanced. Here are five warning signs of lung cancer that can greatly increase early detection and treatment. According to the National Cancer Institute,

one out of 14 people will be diagnosed with lung cancer, which will exceed breast cancer as the primary cause of cancer-related death in the U.S. Fortunately, early detection in lung cancer can be treatable and curable.”

#### [FDA Staff Casts Doubt on Clovis' Lung Cancer Drug](#)

“FDA staff members on Friday questioned whether Clovis Oncology's lung cancer drug was superior to existing treatments and also raised concerns about its safety profile.”

#### [Mersana Therapeutics' New Immunoconjugate Demonstrates Anti-Cancer Activity in Non-Small Cell Lung Cancer and Ovarian Cancer Tumor Models](#)

“Mersana Therapeutics, Inc. today announced that preclinical data for its new immunoconjugate product candidate, XMT-1536, demonstrated significant anti-cancer activity in non-small cell lung cancer (NSCLC) and ovarian cancer tumor models. The data were presented today during a poster session at the 2016 American Association for Cancer Research (AACR) Annual Meeting in New Orleans, LA.”

#### [Phase 3 Trial of Brigatinib for Non-Small Cell Lung Cancer Linked to ALK Mutations Is Launched by ARIAD](#)

“ARIAD Pharmaceuticals recently announced the start of a Phase 3 clinical trial of brigatinib for locally advanced or metastatic non-small cell lung cancer (NSCLC) in adults with mutations in the anaplastic lymphoma kinase (ALK) – a tumor-promoting gene. If approved by the FDA, the treatment is expected to become a new first-line treatment for NSCLC.”

#### [Patients with EGFR expressing NSCLC benefit most from necitumumab added to chemotherapy](#)

“Patients with epidermal growth factor receptor (EGFR) expressing advanced squamous non-small-cell lung cancer benefit most from necitumumab added to gemcitabine and cisplatin chemotherapy, according to a subgroup analysis from the SQUIRE trial presented today at the European Lung Cancer Conference (ELCC) 2016 in Geneva, Switzerland.”

#### [Plasma genotyping to predict treatment benefit in patients with NSCLC](#)

“The benefit of plasma genotyping to predict treatment benefit in patients with non-small-cell lung cancer (NSCLC) is confirmed in three studies presented today at the European Lung Cancer Conference (ELCC) 2016 in Geneva, Switzerland.<sup>1</sup> Researchers however warned that plasma tests are unlikely to fully replace tissue biopsies.”

#### [Frontline Osimertinib Approaches 80% Response in EGFR+ NSCLC](#)

“First-line treatment with single-agent osimertinib (Tagrisso) induced a response rate of 77% in patients with EGFR-mutated non-small cell lung cancer (NSCLC), according to phase I data<sup>1</sup> presented at the 2016 European Lung Cancer Conference (ELCC).”

#### [Basket Cases: Changing the Way Cancer Is Treated](#)

**“Cancer patients have traditionally been treated based on where their tumors originate – lung tumors with treatments for lung cancer, breast tumors with therapies developed specifically for breast cancer. But what if doctors started caring less about where a tumor first emerged and more about the genetic mutations that caused it to appear in the first place?”**

#### **[FDA Approves Afatinib for Platinum-refractory Advanced Squamous NSCLC](#)**

**“The U.S. Food and Drug Administration (FDA) has approved afatinib for the treatment of patients with advanced squamous cell carcinoma of the lung whose disease has progressed following platinum-based chemotherapy.”**

#### **[Liquid Biopsy Offers Alternative to Predicting Osimertinib Response in NSCLC](#)**

**“Plasma genotyping can, in most cases, identify T790M-positivity in non-small cell lung cancer (NSCLC), which gives patients the option of receiving the targeted therapy osimertinib (Tagrisso) without the need for a tumor biopsy, according Geoffrey R. Oxnard, MD, at the 2016 European Lung Cancer Conference (ELCC).”**

#### **[Bristol’s Opdivo Shows Benefits in Cancer Immunotherapy Trial](#)**

**“More than one-third of advanced melanoma patients treated in a study of Bristol-Myers Squibb Co.’s Opdivo have survived at least five years, researchers said, providing fresh evidence of the durable benefit cancer immunotherapy agents have for some patients.”**

#### **[FDA approves Boehringer Ingelheim's Gilotrif for squamous cell lung cancer](#)**

**“The US Food and Drug Administration (FDA) has approved Boehringer Ingelheim's supplemental New Drug Application (sNDA) for Gilotrif (afatinib) as new oral treatment option for patients with squamous cell carcinoma (SqCC) of the lung.”**

#### **[Varian Medical Systems Supports Phase III Trial On Lung Cancer Radiosurgery](#)**

**“Varian Medical Systems (VAR) said it is supporting a phase III trial comparing outcomes of radiosurgery versus surgical resection for the treatment of early-stage, high-risk, operable non-small cell lung cancer, or NSCLC.”**

#### **[Diagnostic device that quickly measures gas components in people's breath](#)**

**“Fujitsu Laboratories today announced that it has developed a portable breath sensor that can extract and quickly measure the concentration of only specified gas components, such as ammonia, that are included at low concentrations in people's breath and are suggested to be correlated with lifestyle diseases.”**

#### **[Q&A: What’s the secret to building a successful lung cancer screening team?](#)**

**“How do you take an assortment of individual medical professionals from various disciplines and turn them into a well-oiled lung cancer screening machine?”**

#### **[FDA Panel Advises Against Approval of Rociletinib in Lung Cancer](#)**

**“After considering if early-stage trials were enough to recommend accelerated approval, the FDA’s Oncologic Drugs Advisory Committee (ODAC) ultimately voted against the accelerated approval of rociletinib for patients with metastatic EGFR T790M–mutated non–small cell lung cancer (NSCLC) who have previously received an EGFR-targeted therapy.”**

### **[High Insulin Levels Linked to Increased Lung Cancer Risk in Smokers](#)**

**“High insulin levels but reduced levels of insulin-like growth factor binding protein (IGFBP)-3 were associated with increased risk for developing lung cancer among current smokers, a study published in the *Journal of the National Cancer Institute* has shown.”**

### **[Afatinib \(Gilotrif\) Improves Clinical Outcomes Compared With Gefitinib \(Iressa\) in Head-to-Head Lung Cancer Trial](#)**

**“A global head-to-head phase 2b study has compared afatinib (Gilotrif, Boehringer Ingelheim) and gefitinib (Iressa, AstraZeneca) in patients with non–small-cell lung cancer (NSCLC) whose tumors harbored the most common epidermal growth factor receptor (EGFR) mutations.”**

### **[Survival Prolonged by Continuing Ceritinib Beyond Disease Progression in Non-small Cell Lung Cancer](#)**

**“Continuation of ceritinib therapy beyond disease progression was associated with prolonged survival, according to results from a retrospective study of the use of ceritinib to treat advanced ALK-positive non-small cell lung cancer (NSCLC). These results were presented at the 2016 European Lung Cancer Conference.<sup>1</sup>”**

### **[Specific Non-small Cell Lung Cancer Patents Show Improvement in ARIAD’s Clinical Trial for Brigatinib](#)**

**“ARIAD Pharmaceuticals recently presented updated data from an ongoing Phase 1/2 trial testing brigatinib, an investigational tyrosine kinase inhibitor, in patients with anaplastic lymphoma kinase positive (ALK+) non-small cell lung cancer (NSCLC) and other malignancies.”**

### **[Might Metformin be "Repurposed" from Diabetes to Lung Cancer Treatment?](#)**

**“A retrospective study suggested that patients with locally advanced non-small cell lung cancer (NSCLC) who were taking metformin for diabetes at the time of cancer treatment faced a lower risk of developing metastatic disease.<sup>1</sup> But while some other retrospective studies have come to similar conclusions, others have not—and prospective clinical trials are underway to explore metformin's anti-cancer potential.”**

### **[More than half US population lives amid dangerous air pollution, report warns](#)**

**“More than half of the US population lives amid potentially dangerous air pollution, with national efforts to improve air quality at risk of being reversed, a new report has warned.”**

### [FDA approves afatinib for squamous cell carcinoma of the lung](#)

“FDA has approved a supplemental New Drug Application for afatinib (Gilotrif—Boehringer Ingelheim) tablets for the treatment of patients with advanced squamous cell carcinoma (SqCC) of the lung whose disease has progressed after treatment with platinum-based chemotherapy. “

### [Scientists propose treatment for severe lung diseases](#)

“Researchers are developing a new drug to treat life-threatening lung damage and breathing problems in people with severe infections like pneumonia, those undergoing certain cancer treatments and premature infants with underdeveloped, injury prone lungs.”

### [Research Breakthrough Could Improve Lung Cancer Outcomes](#)

“A team of West Virginia scientists have made a breakthrough in cancer research that could improve the results patients see from lung cancer treatments.”

### [Watercress extract may prevent lung cancer in smokers, study says](#)

“An extract from watercress reduced the effects of carcinogens in smokers, lowering their risk for developing lung cancer, according to a recent study.”

### [Histone Deacetylase Inhibitors Shown to Restimulate T Cells, Improve Immunotherapy in Lung Cancer](#)

“Histone deacetylase (HDAC) inhibitors improve the activity of immunotherapeutic antibodies in cell culture and mouse models of lung cancer. HDAC inhibitors achieve this by restimulating T cells to move into a tumor. Once in the tumor, the activity of the T cells is enhanced.<sup>1</sup>”

### [Gilotrif Gains Approval for NSCLC](#)

“Gilotrif (afatinib) was approved for the treatment of advanced squamous cell non-small cell lung cancer (NSCLC) after progression on platinum-based chemotherapy, said Boehringer Ingelheim, the manufacturer of the irreversible EGFR inhibitor.”

### [New Potential Lung Cancer Biomarkers Identified](#)

“Protea Biosciences Group, Inc., (OTCQB:PRGB) announced the use of its proprietary bioanalytical technology to achieve the molecular profiling of live tumor cells while they are under treatment.”

### [Varian backs Phase III non-small cell lung cancer trial](#)

“Varian Medical (NYSE:VAR) said today it is supporting a Phase III clinical trial set to compare outcomes of radiosurgery against surgical resection for treating early-stage, high-risk operable non-small cell lung cancer.”

### [Carefully Staged: Advances in Early Stage Lung Cancer](#)

“Cyndi Price had been having some trouble breathing and went to her family physician in High Point, North Carolina. Thinking she might have pneumonia, the doctor sent her

out for a chest X-ray. The report came back mixed — she had fluid in her lungs that was, in fact, caused by pneumonia, but there was also a suspicious shadow on her lower left lung.”

### [Entrectinib Active Against Cancers With Various Gene Rearrangements](#)

“New data indicates that entrectinib has clinical activity in patients with a variety of cancers with gene alterations in NTRK1/2/3, ROS1, or ALK who had never been treated with agents designed to target those alterations.”

### [A New Era of Hope in Lung Cancer](#)

“Pam Griffith’s days were filled with sunshine, golf and trip planning. She and her husband, Randy, were basking in retired life, living on Royal Lakes Golf Course in Lakewood Ranch, Florida. So when a nagging cough would not disappear, she blamed it on seasonal allergies and tried to ignore it. After all, she was too busy to go to the doctor: She played golf three to four days a week with friends and other couples, and she and Randy had just returned from one of their many trips, their first river cruise, down the Rhine River in Germany.”

### [Lung Cancer: A Road With Many Twists](#)

“ADMIRABLE PROGRESS has been made in treating lung cancer in recent years, and more breakthroughs are on the horizon, but the process of making these gains has, admittedly, been a long trip down a winding road.”

### [A Moving Target: Targeted Therapies Boosting Lung Cancer Survival Rates](#)

“Elizabeth Lacasia experienced a defining moment the day she found out that her rare form of lung cancer carried the ROS-1 gene alteration.”