June 2016

Immunotherapy in Lung Cancer Treatment: Current Status and Future Directions
“Immunotherapy research for cancer treatment predates even standard chemotherapy as cancer treatment. The idea of harnessing the body's own immune response to fight a “foreign” invader sounds appealing, but overcoming the enemy of malignant cells that evolve from the body's own cellular architecture has been much more daunting than initially perceived.”

Boehringer Ingelheim starts Eluxa trial program to further investigate olmutinib lung cancer compound
“Boehringer Ingelheim has started the Eluxa trial program, designed to further investigate the therapeutic potential of olmutinib (BI 1482694) lung cancer compound.”

Precision medicine can widen cancer care options: studies
“Using a patient's individual tumor biomarkers to determine the best treatment can improve success rates, studies showed Saturday.”

Researchers find up to one-quarter of lung cancer patients ineligible for immunotherapy
“A significant proportion of lung cancer patients also have autoimmune disease, which may make them unsuitable for increasingly popular immunotherapy treatments, a team of researchers at UT Southwestern Medical Center's Harold C. Simmons Comprehensive Cancer Center has found.”

Two-drug immunotherapy deemed safe for lung cancer patients, study shows
“Utilizing the immunotherapeutic agents nivolumab and ipilimumab could lead to more effective treatment options for non-small cell lung cancer patients who fail initial therapy, report scientists.”

The Future of Lung Cancer Diagnosis and Treatment
“The management of lung cancer, which in many cases is a deadly disease, is likely to change in the near future as the field adopts new strategies for diagnosis and treatment. A more fine-grained and stepwise approach to screening, and pharmaceutical and surgical innovations could help to fight the disease.”

Genetic Testing For Cancer Risk Is On The Rise -- But Is It Smart?
“At the upcoming meeting of the American Society of Clinical Oncologists (ASCO), more than 150 presentations are planned on recent discoveries about how genes may predict cancer. The presenters range from health research luminaries like the Mayo Clinic to for-profit companies such as Myriad Genetics. The data from the closely watched conference will no doubt fuel the growing trend of healthy people getting
tested to determine their future risk of developing cancer—and the resulting questions about who really needs to undergo such testing.”

**Researchers find new way to inhibit mutant protein driving most common form of lung cancer**
“Scientists at Dana-Farber Cancer Institute report that they've been able to shut down a mutant enzyme critical to lung cancer cells by chemically blindsiding it. The study was published in the journal Nature.”

**The American Society of Clinical Oncology (ASCO) Meeting on June 3: Why National Medical Conferences Are Important to Patients**
“In Chicago on June 3, the international cancer society ASCO convenes its annual meeting. With over 35,000 cancer specialists attending from many countries, scientific advances of the year will be revealed which will change how many patients with cancer will be treated. Expected are advances in breast cancer, lung cancer, colon cancer, and leukemia, as well as in many other tumor types and also in management of symptoms and care of survivors. Oncologists are hoping for new methods of cancer prevention and screening to be announced as well.”

**Phase 3 Study of Patritumab for NSCLC to be Discontinued**
“The 2-part phase 3 human epidermal growth factor 3 (HER3)-Lung study of patritumab for treatment of patients with non-small cell lung cancer (NSCLC) will not proceed into the second part, according to a news release.”

**Consensus Statement Guides Optimal Management of EGFR-Mutation-Positive NSCLC**
“The 2016 consensus statement from the International Association for the Study of Lung Cancer (IASLC) describes how to best manage epidermal growth factor receptor (EGFR)-mutation-positive (M+) non-small cell lung cancer (NSCLC). The statement discusses pathologic, diagnostic, and therapeutic considerations and provides recommendations for clinical guidance and research priorities.”

**Lung Metastasis in Mice Prevented by Targeting a Key Cancer Protein, Researchers Find**
“Researchers at Brown University demonstrated that controlling a key protein involved in cancer, through the activation of a specific immune response, can prevent cancer metastasis in mice’s lungs.”

**FDA approves first blood test to detect gene mutation associated with non-small cell lung cancer**
“The U.S. Food and Drug Administration today approved the cobas EGFR Mutation Test v2, a blood-based companion diagnostic for the cancer drug Tarceva (erlotinib). This is the first FDA-approved, blood-based genetic test that can detect epidermal growth factor receptor (EGFR) gene mutations in non-small cell lung cancer patients.
Such mutations are present in approximately 10-20 percent of non-small cell lung cancers (NSCLC).”

**Scientists Say They’re One Step Closer to Universal Cancer Vaccine**

“Scientists are reportedly one step closer to creating a universal cancer vaccine that would cause the immune system to attack tumors like it were a virus. The breakthrough comes a couple of months after it was announced in February that the U.S. would move to test a lung cancer vaccine available in Cuba.”

**Lung Cancer Screenings Increase Five-Year Survival Rate by 73%**

“An English study concluded that screening people at high risk for developing lung cancer can increase their five-year survival chances by 73%.”

**New Cancer Drugs Fire Up Body’s Hunters in Tumor Hide and Seek**

“In recent years, the biggest breakthroughs in cancer have focused on unmasking tumors’ ability to hide from the immune system. Now researchers are turning their attention toward ways to dial up the body’s existing defenses, a combination that could magnify the effect of the drugs.”

**Results of Phase 1a/1b Study of AbbVie’s Investigational Medicine Rovalpituzumab Tesirine (Rova-T) Showed Overall Response Rate of 39 Percent in Pretreated Patients with Biomarker-Defined Small Cell Lung Cancer (SCLC)**

“AbbVie, a global biopharmaceutical company, today announced that treatment with rovalpituzumab tesirine (Rova-T), a delta-like protein 3 (DLL3)-targeted antibody-drug conjugate (ADC), demonstrated a confirmed overall response rate (ORR) of 39 percent and clinical benefit rate (stable disease or better) of 89 percent in patients with recurrent or refractory small cell lung cancer (SCLC), identified with high expression of DLL3.”

**Ariad Drug Appears To Delay Lung Cancer’s Return Longer Than Rival Medicines**

“Ariad Pharmaceuticals’ experimental drug to treat patients with non-small cell lung cancer who’ve stopped benefiting from Pfizer PFE -1.59%’s Xalkori seems to work longer than other options, and may be better at affecting tumors that have spread to the brain, according to new data to be presented here at the American Society of Clinical Oncology this morning.”

**Antibody Drug Conjugate Shows Promise in Small-Cell Lung Cancer**

“An antibody-drug conjugate, rovalpituzumab tesirine, shows promising efficacy against recurrent small-cell lung cancer (SCLC), according to early findings from a first-in-human clinical trial.”

**Advanced cancer patients receive aggressive care at high rates at the end of life**

“In the last month of their lives, younger cancer patients continued to be hospitalized and receive other aggressive treatment at high rates, a University of North Carolina Lineberger Comprehensive Cancer Center-led study found.”
Novel targeted drug shows promise against advanced small cell lung cancer
“The experimental "smart-bomb" drug rovalpituzumab tesirine (Rova-T) appears safe and shows efficacy in treating patients with advanced small cell lung cancer (SCLC), according to results from a first-in-human clinical trial to be presented today by a Memorial Sloan Kettering Cancer Center (MSK) researcher at the 2016 American Society of Clinical Oncology (ASCO) Annual Meeting in Chicago. “

Tagrisso (Osimertinib) Shows Clinical Activity in Patients with Leptomeningeal Disease from Lung Cancer
“AstraZeneca today announced clinical and safety data for osimertinib in patients with leptomeningeal (LM) disease, a complication of epidermal growth factor receptor (EGFR) mutation-positive advanced non-small cell lung cancer (NSCLC), where cancer cells spread to the cerebrospinal fluid (CSF). LM is a devastating disease often associated with advanced lung cancer.”

Circulating Tumor DNA Panel Can Detect Early-Stage Lung Cancers
“A targeted-sequencing gene panel that includes EGFR, KRAS, PIK3CA, and other mutations from circulating tumor DNA (ctDNA) detects stage I non–small-cell lung cancer (NSCLC) and might outperform existing tumor markers’ positive predictive value (PPV), according to a prospective study presented at the 2016 American Society of Clinical Oncology (ASCO) Annual Meeting, held June 3–7 in Chicago.”

Elderly Lung Cancer Patients Overtreated With Chemoradiotherapy
“Elderly patients with stage III non–small-cell lung cancer (NSCLC) experience poorer overall survival than patients younger than age 70 years when treated with standard concurrent chemoradiotherapy (CCRT), according to a pooled analysis of cooperative group clinical trial data presented at the 2016 American Society of Clinical Oncology (ASCO) Annual Meeting, held June 3–7 in Chicago.”

Web App Boosts Survival for Patients With Lung Cancer
“Patients with lung cancer who participated in a web-based system for reporting and tracking their symptoms achieved dramatic gains in survival compared with individuals who were followed with typical protocols, according to study results presented during the 2016 annual meeting of the American Society of Clinical Oncology (ASCO), a gathering of over 30,000 oncology professionals in Chicago.”

Here’s One Reason To Be Optimistic About The Field Of Cancer Research
“Simply comprehending that not every cancer behaves the same way has significantly changed how scientists conceptualize the disease — and has helped them make some promising breakthroughs in related research.”

Researchers prove lung cancer mutations can be detected in saliva
“Confirming that saliva is just as accurate as biopsied tissues to detect treatable cancer mutations is a major step forward in the field of salivary diagnostics. Collecting and
analyzing saliva is a non-invasive, inexpensive method in the early detection of many types of cancer. Lung cancer patients can particularly benefit from this method as lung cancer tends to be diagnosed in advanced stages and may be mistaken for other problems."

**Simple, affordable breath test for lung cancer may give more patients a better chance for cure**
“A single breath may be all it takes to identify the return of lung cancer after surgery, according to a study posted online today by The Annals of Thoracic Surgery.”

**Too Many 'Me-Too' Cancer Drugs? FDA Official Asks**
“A new type of cancer drug that takes the brakes off the body's immune system has given drugmakers some remarkable wins against the deadly disease, but a top U.S. regulator says too many companies are focused on the same approach.”

**Lung Cancer Highlights from ASCO**
“This past weekend Chicago hosted the annual “Super Bowl” of cancer meetings, the ASCO (American Society of Clinical Oncology) Annual Meeting. Over 35,000 attendees learned about cutting-edge clinical cancer research for many different types of cancers. Here are the key lung cancer highlights you need to know.”

**Adjuvant chemotherapy improves overall survival in patients with stage IB non-small cell lung cancer**
“The use of adjuvant chemotherapy in early-stage non-small cell lung cancer (NSCLC) patients improves overall survival (OS) and 5-year OS in patients with tumor sizes ranging from 3 - 7 cm.”

**FDA Approves First Blood Test to Detect Specific Mutations in Non-Small Cell Lung Cancer**
“The U.S Food and Drug Administration (FDA) has approved the first blood-based genetic test designed to detect mutations in the epidermal growth factor receptor (EGFR) gene in non-small cell lung cancer (NSCLC) patients.”

**Referrals for Lung Cancer CT Imaging Screening Remain Low Among Family Physicians**
“Most family physicians report discussing low-dose CT imaging with patients at high risk for lung cancer, but referrals for screening remain low, a study published in the journal Cancer has shown.”

**Alecensa Could Become New First-Line Standard in Subset of Patients With Lung Cancer**
“Patients with advanced or recurrent ALK-positive non–small cell lung cancer (NSCLC) being treated with Alecensa (alectinib), a second-generation oral ALK-targeting agent, had 66 percent higher progression-free survival (PFS) rates than those being treated with Xalkori (crizotinib), the current standard. This finding comes from a prespecified interim analysis of an open-label phase 3 Japanese study presented at Annual Meeting"
of the American Society of Clinical Oncology (ASCO), a gathering of 30,000 oncology professionals in Chicago.”

Middle-aged more likely to be diagnosed with advanced lung cancer
“Younger patients - aged 50 to 64 - are more likely to be diagnosed with late stage lung cancer than older patients according to new data being presented at the Cancer Outcomes and Data Conference in Manchester today.”

Hundreds of Cancer-Causing Chemicals Pollute Americans' Bodies
“Hundreds of cancer-causing chemicals are building up in the bodies of Americans, according to the first comprehensive inventory of the carcinogens that have been measured in people. EWG released the inventory today.”

Long-Term Data Shows Continued Benefit With Opdivo in Lung Cancer
“Pretreated patients with either nonsquamous or squamous non-small cell lung cancer (NSCLC) showed overall survival (OS) improvements with Opdivo (nivolumab) in the phase 3 CheckMate-057 trials.”

Expert: Can Cancer Therapies Have a Different Effectiveness in Women?
“Many of the medicines we take were only ever tested on men during clinical studies. This poses a distinct danger that females are receiving suboptimal care—and that treatments specifically benefiting women are going undiscovered. “

Warning Signs Of Lung Cancer You Should Never Ignore
“Over the last few decades, there has been a drastic increase in the incident rate of lung cancer.”

PET/CT Sharpens Lung Cancer Staging, Prognosis
“For patients with non-small-cell lung cancer, a simple PET/CT protocol can enhance the precision of traditional staging, which could lead to more appropriate management, according to new research presented here at the Society of Nuclear Medicine and Molecular Imaging 2016 Annual Meeting.”

Stand Up To Cancer Returns For Fifth Live Roadblock Telecast Friday, September 9
Bradley Cooper To Executive-Produce With Award-Winning Team At Done + Dusted
“The Hollywood community is once again uniting to support Stand Up To Cancer (SU2C), a program of the Entertainment Industry Foundation (EIF), which will stage its fifth biennial televised fundraising special on Friday, Sept. 9 (8:00 – 9:00 PM ET/PT / 7:00 PM CT). Academy Award-nominated actor and founder of the Charles J Cooper Patient Support Fund, Bradley Cooper, will serve as executive producer along with renowned live, large-scale event producers Done + Dusted, working with Stand Up To Cancer’s production team. Additional stars and performers will be announced in the coming weeks.”

Lung Cancer Trial Stopped After Jimmy Carter Drug Shrinks Tumors
“Researchers have stopped a study of a new lung cancer drug, saying it’s so effective they want to offer it to all the patients in the trial. The drug, Keytruda, is the same drug that former president Jimmy Carter says helped stall advanced melanoma that had spread to his brain.”

Jefferson Researchers Find Highly Active Gene in Aggressive Human Lung Cancer
“Scientists believe that “conserved” genes — those found in life forms that range from bacteria to plants, insects and humans — perform vital biological functions across species. And limited research on one of those genes, Nitrilase 1 (Nit1), suggested it acts to inhibit cancer development.”

Ariad seeks FDA approval of lung cancer drug
“Ariad Pharmaceuticals Inc. said Friday it has begun its application for federal approval of an experimental drug to treat a form of non-small cell lung cancer.”

Frontline Pembrolizumab Improves Survival in NSCLC Patients With High PD-L1 Expression
“Frontline pembrolizumab (Keytruda) improved overall survival (OS) versus chemotherapy in non–small cell lung cancer (NSCLC) patients with high levels of PD-L1 expression, according to results from the phase III KEYNOTE-024 trial reported by Merck, the company developing the PD-1 inhibitor.”

Lung Cancer Drug Brigatinib Submitted for FDA Review
“Ariad Pharmaceuticals has announced the initiation of a new drug application (NDA) submission for its investigational anaplastic lymphoma kinase (ALK) inhibitor brigatinib to the FDA.”

Why this cancer drug is being fast-tracked for FDA approval
“An immunotherapy drug tested on non–small cell lung cancer patients proved so effective in a recent clinical trial that the study has been cut short and the drug is being fast-tracked for approval from the Food and Drug Administration.”

Do Too Many Lung Cancer Patients Miss Out on Surgery?
“Many patients with advanced lung cancer might live longer if treated surgically, but few go that route, new research indicates.”

MSU alum wins entrepreneurship competition with low-cost lung cancer screening tool
“Montana State University alumnus Joseph Azzarelli has won a prestigious business plan competition with a noninvasive, low-cost lung cancer screening technology that he played a key role in developing.”

First-line Pembrolizumab Superior to Chemo for Patients With Advanced NSCLC
“Pembrolizumab was superior to chemotherapy in terms of both progression-free survival, the primary endpoint, and overall survival in patients with previously
untreated, advanced non-small cell lung cancer (NSCLC), according to findings from the KEYNOTE-024 trial.”

**Stage IIIA NSCLC Quality Measures Associated With Improved Outcomes**
“A new study suggests a wide variability in compliance with quality measures in the treatment of stage IIIA non-small cell lung cancer (NSCLC), and further that the survival rates of patients with stage IIIA NSCLC who underwent surgery increased more than 3-fold for those who received 4 quality measures as part of their care.”

**Radiation Combined with Immunotherapy Seems to Improve Lung Cancer Outcomes in Animal Models**
“Researchers at the NYU Langone Medical Center and the Dana Farber Cancer Institute found that combining radiation therapy with immunotherapy may significantly improve outcomes in non-small cell lung carcinoma (NSCLC).”

**Surgery Tied to Longer Survival for Lung Cancer Patients**
“Many patients with advanced stage non-small-cell lung cancer (NSCLC) might live longer if treated surgically, but few patients are actually undergoing surgery, according to a study published online June 9 in the Annals of Thoracic Surgery.”

**Adjuvant Chemotherapy Improves Overall Survival in Early Stage NSCLC**
“Adjuvant chemotherapy in patients with stage Ib non-small cell lung cancer (NSCLC) improved overall survival (OS) and 5-year OS. Tumor size in these patients ranged from 3 to 7 cm.”

**NBC News takes level-headed approach covering ‘Jimmy Carter drug’ for lung cancer**
“This is a story about a lung cancer clinical trial for a drug known as Keytruda. As the story explains, Keytruda “worked at least as well if not better than the chemo, so the researchers have stopped the study to give everyone a chance to take” it.”

**Unexpected findings reveal insight into how cancer spreads in the body**
“Cancer cells appear to depend on an unusual survival mechanism to spread around the body, according to an early study led by Queen Mary University of London (QMUL). The discovery could help with future development of novel treatments to prevent metastasis and secondary tumours.”

**Frontline Keytruda Bests Chemotherapy in Subset of Patients With Lung Cancer**
“When compared with chemotherapy, Keytruda (pembrolizumab) showed an improved overall survival (OS) as a frontline therapy for patients with non–small cell lung cancer (NSCLC) with high levels of PD-L1 expression in the phase 3 KEYNOTE-024 trial reported by Merck, the company developing the PD-1 inhibitor.”

**Nab-paclitaxel Associated With Favorable ORR in Previously Treated Advanced NSCLC**
“Weekly nab-paclitaxel resulted in a favorable objective response rate with acceptable toxicity in previously treated patients with advanced non-small cell lung cancer (NSCLC), a study published in the *Journal of Thoracic Oncology* has shown.”

**LabCorp Announces Launch of New Companion Diagnostic for Non-Small Cell Lung Cancer**

“Laboratory Corporation of America® Holdings (LabCorp®) announced today the availability of a new application for the companion diagnostic associated with the use of Tarceva® for the treatment of certain patients with non-small cell lung cancer (NSCLC).”