WCLC 2017
IASLC
DAILY NEWS
INTERNATIONAL ASSOCIATION FOR THE STUDY OF LUNG CANCER
IASLC 18TH WORLD CONFERENCE ON LUNG CANCER
Tuesday, October 17, 2017 | Yokohama, Japan
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TODAY'S HIGHLIGHTS

Plenary Session: Presidential Symposium including Top 3 Abstracts and James Cox Lectureship Award Presentation
8:15-9:45
Plenary Hall (Exhibit Hall D)

Grand Rounds: Management of Immunotherapy-Related Adverse Events
11:00-12:30 • Main Hall

Pro/Con: Is Radiotherapy Necessary for Extensive SCLC? (Thoracic Radiation/PCI)
11:00-12:30
F203 + F204 (Annex Hall)

Advanced NSCLC: Emerging Diagnostic/Biomarkers in NSCLC
11:00-12:30 • Room 313 + 314

Molecular Testing
15:45-17:30 • Room 301 + 302

Nursing/Palliative Care/Ethics: Communication Skills in the End of Life/ Symptom Management in Lung Cancer
15:45-17:30 • F201+202 (Annex Hall)

INSIDE THIS ISSUE

New Era of Lung Cancer Prevention and Early Detection the Focus of Monday Plenary Session

By Cynthia L. Kryder, MS

Four experts provided their perspectives on the changes taking place in the treatment of lung cancer as a result of smoking cessation programs and advances in the early detection of lung cancer.


Carolyn Dresler, MD, MPA

Current Status of Smoking Cessation

Carolyn Dresler, MD, MPA, Silver Spring, USA, offered insight into the current status of smoking cessation, with a focus on efforts being undertaken by the tobacco industry. Dr. Dresler talked about a relatively new nicotine-delivery system, heat not burn (HNB) sticks, which she referred to as the industry's version of smoking cessation. She explained that these devices heat but do not combust the tobacco; nevertheless, HNB sticks are not smokeless products, despite being touted as such by the tobacco industry. Dr. Dresler stated that in comparison to cigarettes, there is a substantial decrease in the amount of toxicants released with HNB sticks,

see **Monday Plenary**, page 5

Low-Dose CT Screening Coupled with Smoking Cessation Initiatives Is More Cost Effective than CT Screening Alone

By Cynthia L. Kryder, MS

When coupled with smoking-cessation interventions, low-dose computed tomography (LDCT) screening of smokers at high risk for lung cancer would save lives and be relatively cost effective, according to the results of a microsimulation model. William Evans, MD, FRCP(C), McMaster University, Hamilton, Canada, presented the results of an analysis using the OncoSim-LC model on Monday afternoon. OncoSim-LC incorporates Canadian demographic characteristics, risk factors, cancer management approaches and outcomes, and resource utilization to assess clinical, economic, and health care system impacts.


William Evans, MD, FRCP(C)

see **Smoking Cessation**, page 7

Outcomes for Dacomitinib According to *EGFR* Mutation Subtype

By Lori L. Alexander, MTPW, ELS, MWC®

A prospective subgroup analysis of data from ARCHER 1050 has demonstrated that dacomitinib, a second-generation EGFR tyrosine kinase inhibitor (TKI), prolonged progression-free survival compared with gefitinib for patients with advanced *EGFR*-positive NSCLC with either exon 19 deletion or L858R mutation. Yi-Long Wu, MD, Guangdong Lung Cancer Institute, Guangdong General Hospital & Guangdong Academy of Medical Sciences, Guangzhou, China, reported the results of the study.

ARCHER 1050 was a randomized phase III study in which dacomitinib was associated with a significantly longer progression-free survival than gefitinib for the first-line treatment of patients with advanced *EGFR*-positive NSCLC (median, 14.7 vs 9.2 months; $P < 0.0001$). This subgroup analysis was designed to evaluate the results according to *EGFR* mutation subtype, as previous studies have shown greater efficacy of EGFR TKIs for NSCLC with exon 19 deletion than for NSCLC with L858R mutation.

In ARCHER 1050, 452 patients were randomly assigned to dacomitinib (227 patients) or gefitinib (225 patients). In each treatment group, 59% of the patients had exon 19 deletion and 41% had L858R mutation. The primary endpoint was progression-free survival by blinded independent radiologic central review.

Yi-Long Wu, MD

Secondary endpoints included overall survival and objective response rate, as determined by independent radiologic central review and investigator assessment.

Dr. Wu reported that dacomitinib was associated with significantly longer progression-free survival than gefitinib for both *EGFR* mutation subtypes (Table).

"Despite a similar objective response rate among the treatment and *EGFR* mutation subgroups, duration of response was longer with dacomitinib for both mutations," he added. ●

Table. Subgroup Analysis of ARCHER 1050: Progression-Free Survival According to EGFR Mutation Subgroup

	Exon 19 Deletion			L858R Mutation		
	Dacomitinib	Gefitinib	HR, 1-Sided *P* Value	Dacomitinib	Gefitinib	HR, 1-Sided *P* Value
Progression-free survival (mos., 95% CI)						
IRC review	16.5 (11.3-18.4)	9.2 (9.1-11.0)	0.55 (0.41-0.75) $P < 0.0001$	12.3 (9.2-16.0)	9.8 (7.6-11.1)	0.63 (0.44-0.88) $P = 0.0034$
Investigator assessment	16.6 (12.9-18.4)	11.0 (9.3-12.8)	0.66 (0.50-0.89) $P < 0.0027$	14.7 (12.8-18.4)	11.0 (9.2-12.9)	0.58 (0.41-0.83) $P = 0.0010$
Objective response rate (%, 95% CI)						
IRC review	76.1 (68.0-83.1)	69.9 (61.4-77.6)	$P = 0.1271$	73.1	73.9	$P = 0.5487$
Investigator assessment	79.1 (71.2-85.6)	71.4 (63.0-78.9)	$P = 0730$	69.9	68.5	$P = 04175$

IRC = independent radiologic central review.

Osimertinib was Superior to Standard of Care in Patients with Plasma-detected *EGFR* Mutations

By Cynthia L. Kryder, MS

The results of a subgroup analysis support the clinical utility of plasma circulating tumor DNA (ctDNA) EGFR mutation testing for selecting patients eligible for first-line treatment with osimertinib. The data analyzed were from FLAURA, a phase III double-blind randomized study designed to assess the efficacy and safety of osimertinib compared with standard of care (an *EGFR* tyrosine kinase inhibitor [TKI]) as first-line treatment for patients with advanced EGFR-mutated NSCLC. Jhanelle E. Gray, MD, H. Lee Moffitt Cancer Center & Research Institute, Tampa, USA, presented these findings on Monday.

Dr. Gray and colleagues randomly assigned 556 patients 1:1 to osimertinib (n=279) or to a first-generation TKI, either gefitinib or erlotinib (n=277). Eligibility criteria included exon 19 deletion/L858R mutation-positive lung adenocarcinoma and no prior systemic therapy for NSCLC. Tumor tissue samples at baseline, were analyzed for *EGFR* mutation status using the cobas® EGFR Mutation Test, and blood samples for retrospective analysis of *EGFR* mutation status by plasma circulating tumor DNA (ctDNA) using the cobas® EGFR Mutation Test v2. The primary endpoint was progression-free survival based on investigator assessment (according to RECIST v1.1). Progression-free survival by *EGFR* mutation status detectable in plasma ctDNA was a secondary endpoint.

Dr. Gray reported high concordance between central tissue and plasma testing for *EGFR* mutations. She stated that in the plasma ctDNA *EGFR* mutation-positive subgroup, risk of progression or death was reduced by 56% with osimertinib compared with standard of care (hazard ratio [HR] 0.44; 95% CI 0.34, 0.57). This result was consistent with the overall progression-free survival result observed in the full analysis set (Figure). Likewise, in the tissue *EGFR* mutation-positive/plasma ctDNA *EGFR* mutation-positive subgroup, osimertinib resulted in significant improvement in progression-free survival compared with standard of care (HR 0.44; 95% CI 0.34, 0.57; $P < 0.0001$). Dr. Gray pointed out that in the tissue *EGFR* mutation-positive/plasma ctDNA *EGFR* mutation-negative subgroup, the median progression-free survival for both treatment arms was prolonged.

Jhanelle E. Gray, MD

"These results, and the good concordance between tissue and plasma testing for *EGFR* mutations, support the clinical utility of plasma ctDNA *EGFR* mutation testing for selecting patients eligible for first-line osimertinib treatment," Dr. Gray concluded. "Where feasible, tumor biopsy tissue testing is recommended for patients with plasma ctDNA *EGFR* mutation-negative status." ●

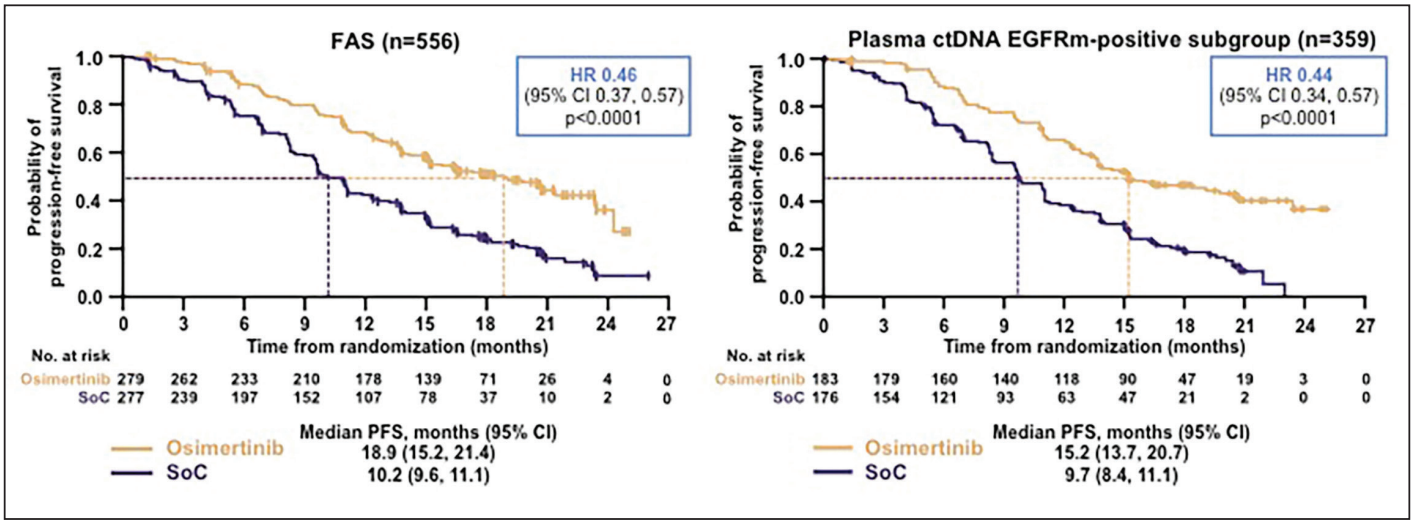

Figure. Investigator-assessed progression-free survival in the full analysis set (FAS) and the plasma circulating tumor DNA (ctDNA) *EGFR* mutation (EGFRm)-positive subgroup. In the plasma *EGFR* mutation-positive subgroup, the risk of progression or death was reduced by 56% with osimertinib compared with standard of care. The progression-free survival benefit in this subgroup was similar to that in the full analysis set. The median progression-free survival, with 95% confidence intervals, was calculated with the Kaplan-Meier method. All patients had tumor tissue *EGFR* mutation-positive status by local or central testing.

Specialized Palliative Care Failed to Significantly Improve Quality of Life for Patients with Malignant Pleural Mesothelioma

By Cynthia L. Kryder, MS

Specialist palliative care was not associated with beneficial changes in quality of life for patients with recently diagnosed malignant pleural mesothelioma, according to the results of RESPECT-MESO, a randomized controlled trial. Fraser Brims, MBcHB, MRCP, MD, FRACP, Curtin University, Curtin Medical School, Perth, Australia, presented the findings of this multicenter trial on Monday.

Dr. Brims and colleagues in 24 centers across the United Kingdom and Australia randomly assigned 174 patients to receive early specialized palliative care integrated with standard care (87 patients) or standard care alone (87 patients). Eligibility criteria included a new diagnosis of malignant pleural mesothelioma and an ECOG performance status of 0 or 1. Quality of life and mood were assessed at baseline and every 4 weeks for up to 24 weeks with the EORTC QLQ–C30 questionnaire and the General Health Questionnaire (GHQ-12), respectively. The primary outcome was the change in global health status/quality of life (from EORTC QLQ-C30) at 12 weeks after randomization. Secondary endpoints included health-related quality of life at 24 weeks, patient mood at 12 and 24 weeks, and overall survival.

The median age was 73 years (range, 69-78 years) and 139 (80%) were male; 66 (38%) had an ECOG performance status of 0. Data were available for 148 (85%) patients at 12 weeks and for 125 (72%) patients at 24 weeks. By 24 weeks, 30 (17%) patients had died; 11 patients before 12 weeks and 19 before 24 weeks.

Fraser Brims, MBcHB, MRCP, MD, FRACP

> "As clinicians and investigators we have all seen patients with malignant pleural mesothelioma with a high burden of symptoms, and intuitively many of us felt that the intervention was likely to help."
>
> *Fraser Brims, MBcHB, MRCP, MD, FRACP*

Dr. Brims reported that compared with standard care alone, regular early specialist palliative care in this population, regardless of baseline symptoms or perceived need, did not result in a significant change in quality of life or median survival (Table).

"I think the primary outcome is the most interesting aspect," said Dr. Brims. "As clinicians and investigators we have all seen patients with malignant pleural mesothelioma with a high burden of symptoms, and intuitively many of us felt that the intervention was likely to help."

Dr. Brims concluded that these findings demonstrate that with the current provision of support from clinicians and, perhaps more importantly, specialist thoracic cancer and chemotherapy nurses (as in the UK and Australian health care systems), there is no benefit from routine referral to palliative care early in the time course after diagnosis of malignant pleural mesothelioma.

Prasad S. Andusumilli, MD, FACS, FCCP, Memorial Sloan Kettering Cancer Center, New York, USA, the discussant for the abstract, congratulated the investigators for conducting a randomized quality-of-life study in patients with mesothelioma, noting that these types of studies are rare. He advocated for the inclusion of the quality-of-life parameters in future studies. Dr. Andusumilli concluded that the RESPECT-MESO data are representative of what clinicians see in the mesothelioma population. ●

Table. Outcomes in RESPECT-MESO

Outcome	Standard Care	Specialized Palliative Care	Mean Difference	*P* Value
Global health status/QOL at 12 wks. (mean and SD)	59.5 (21.2)	60.2 (23.6)	1.8 (95% CI -4.0 to 8.5)	0.60
Global health status/QOL at 24 wks. (mean and SD)	63.7 (19.8)	61.3 (20.8)	-2.0 (-8.8 to 4.6)	0.55
GHQ-12 anxiety/depression scores at 12 wks. (mean and SD)	2.6 (3.2)	2.2 (3.0)	-0.6 (-1.5 to 0.4)	0.24
GHQ-12 anxiety/depression scores at 24 wks. (mean and SD)	2.1 (2.55)	1.75 (2.5)	-0.4 (-1.2 to 0.4)	0.28
Survival (median mos., 95% CI)	12.6 (10.7-19.7)	11.5 (9.8-15.9)		0.51

QOL = quality of life.

Early Findings Suggest Role of Combination Immunotherapy for Mesothelioma

By Lori L. Alexander, MTPW, ELS, MWC

The findings of a phase II study indicate that the addition of ipilimumab to treatment with nivolumab is associated with a better disease-control rate and response rate than nivolumab alone for unselected patients with malignant pleural mesothelioma.

Interest in using immunotherapy for malignant pleural mesothelioma is increasing, and a disease-control rate of 50% at 12 weeks has been reported with nivolumab alone, said Paul Baas, MD, PhD, The Netherlands Cancer Institute, Amsterdam, the Netherlands. He and his colleagues sought to test the effect of the combination of nivolumab and ipilimumab for recurrent mesothelioma.

The single-arm prospective study included 38 patients, with a median age of 65 years (range, 37-78 years). ECOG performance status was 0 for 11 patients and 1 for 25 patients. Ipilimumab, 1 mg/kg IV, was given every 6 weeks, and nivolumab was given at a fixed dose of 240 mg every 2 weeks. Computed tomography was performed every 6 weeks to evaluate response. The primary endpoint was the disease-control rate at 12 weeks. Other endpoints included changes in the inflammatory microenvironment before and after treatment, toxicity, progression-free survival, and overall survival. A Simon's minimax two-stage design was used to identify a disease-control rate of more than 50%.

Dr. Baas reported the disease-control rate and toxicity. (Other data are expected to be available in 2018.) Among 27 patients for whom data were available at 12 weeks, the disease-control rate was 74%, and the response rate was 27%. He also noted that the toxicity profile was favorable, with serious adverse events occurring in four patients (pleural effusion, dyspnea, and diarrhea/colitis).

"Immunotherapy has changed the current practice for patients with recurrent malignant pleural mesothelioma," Dr. Baas concluded.

In discussing the abstract, Daniel H. Sterman, MD, NYU Langone Medical Center/NYU School of Medicine, New York, USA, noted "Combination checkpoint inhibitors may well be part of our future for mesothelioma. However, we need to view results cautiously."

Paul Baas, MD, PhD

Dr. Sterman noted that several questions remain unanswered, including histologic subtype specificity, tumor-related biomarker data, and biomarkers of response to anti-CTLA-4 monoclonal antibodies. In addition, he said, there is a need for biomarkers for single vs. dual checkpoint inhibitor treatment in malignant pleural mesothelioma. ●

Monday Plenary

Continued from page 1

which may have an effect on the prevalence of lung cancer. Launched in Japan in May 2014, and expanded to other countries 2 years later, HNB sticks have grown in popularity, and Dr. Dresler expects this growth to continue exponentially (Figure 1). "This is a tsunami coming at us," she said.

Advances in CT Screening

Claudia Henschke, PhD, MD, Mount Sinai Medical Center, New York, USA, highlighted major advances in computed tomography (CT) screening from a radiologist's perspective. She pointed out management protocol advances, including updates in lesion size thresholds for the initiation of workup, improved understanding of the indolence of lung cancer manifesting as subsolid nodules, increased standardization of terminology, and continued advances in volumetric analysis and its integration into the imaging algorithm. Dr. Henschke emphasized the growing recognition that CT images provide much health-related evidence about not only the lungs, but other thoracic organs, as well.

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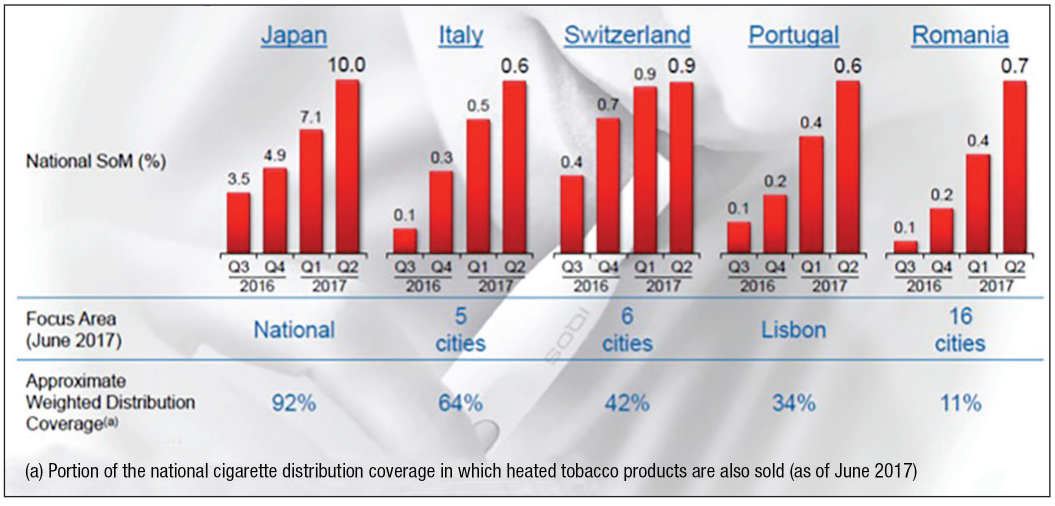

Figure 1. Growth in heated tobacco unit national share of market (SoM).
Source: https://www.pmi.com/investor-relations/overview/event-details/?eventId=5246143.

Monday Plenary

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"We have come a long way, but still have an exciting future of innovation in all aspects of screening, including development of alternative methods of screening and creative methods for researching underserved communities," she concluded.

Changing Epidemiology of Lung Cancer

Mary Reid, MSPH, PhD, Roswell Park Cancer Institute, Buffalo, USA, addressed the changing epidemiology of lung cancer. She stressed that because of the global entrenchment of tobacco use and aging populations, the prevalence of lung cancer will remain unacceptably high for the next several decades. Dr. Reid noted that lung cancer mortality rates continue to be excessive in Europe, Asia, and North America (Figure 2). She predicted several ways in which lung cancer epidemiology will change in the future. In countries with effective smoking cessation strategies and resources, the rates of smoking will decrease, along with a corresponding decline in lung cancer rates. Countries that can afford to implement lung cancer screening likely will see a dramatic change in the stage distributions of lung cancer as well as its survivability. The greatest burden for lung cancer, Dr. Reid noted, will shift to countries as they transition from fighting infectious diseases to managing chronic diseases but continue to have high smoking rates, environmental exposures, and limited treatment options.

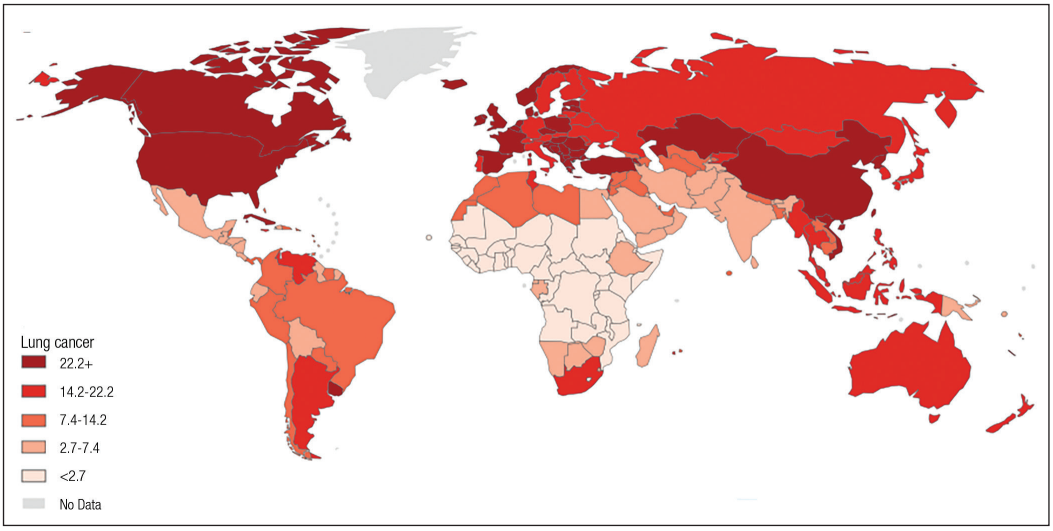

Figure 2. Age-standardized rate (per 100,000) of lung cancer mortality for men and women. Source: GLOBOCAN 2012 (IARC).

Mary Reid, MSPH, PhD

"We have an obligation to translate our advances in lung cancer detection, prevention, and treatment to medium- and low-income countries that will bear a greater burden of lung cancer in the years to come."

Mary Reid, MSPH, PhD

"We have an obligation to translate our advances in lung cancer detection, prevention, and treatment to medium- and low-income countries that will bear a greater burden of lung cancer in the years to come," Dr. Reid concluded.

Optimal Management of Screen-detected Lung Cancer

Shun-ichi Watanabe, MD, National Cancer Center Hospital, Tokyo, Japan, concluded the Plenary Session with a discussion about how advances in CT screening have led to increased detection of early-stage, small (2 cm or less) tumors and a corresponding need to develop different surgical approaches to the management of these pulmonary nodules. Dr. Watanabe noted that since several subsolid tumors can be found within both lungs of the same patient, lobectomy, the standard surgical approach, may not be the optimal surgical strategy for these patients. He stated that sublobar resection is an alternative and identified several ongoing trials examining the use of sublobar resection in patients with pulmonary nodules detected on CT.

"Ongoing randomized trials will clearly define the role of sublobar resection for screen-detected early-stage tumors in the future," concluded Dr. Watanabe. ●

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Opening Ceremony Features Japanese Royalty and Dignitaries

By Mary Nishikawa

Opening ceremonies in Japan commonly begin with the rhythmic throbbing of Taiko, and the IASLC 18th WCLC was no exception. Taiko is an ancient Japanese form of percussion involving the use of large drums, and the drum beats lent an air of distinguished formality in the entrance of Your Imperial Highness the Crown Prince of Japan, as Hisao Asamura, MD, Conference Co-President, escorted him to the stage. The Crown Prince welcomed delegates from all over the world and said it was encouraging to hear about all the recent advances in science, especially molecular biology and immunology, the driving forces in advances in the field.

Several Japanese officials also welcomed WCLC delegates and talked about progress in lung cancer in their country. Mizuho Onuma, Parliamentary Vice Minister of Health, Labour and Welfare, pointed out that so much has happened since the WCLC was last held in Japan, in Tokyo, 17 years ago. For example, she said that it is remarkable to think about cancer prevention and early detection now, which was almost unthinkable then. She added that the newly established

see **Opening Ceremony**, page 11

Smoking Cessation

Continued from page 1

Dr. Evans and colleagues compared a base case of organized screening with no smoking cessation to various scenarios of screening with cessation incorporating various modeling assumptions. Cost-effectiveness was estimated across a person's lifetime (lifetime horizon), health system perspective, and 1.5% discount rate. Costs are in 2016 Canadian dollars.

Dr. Evans reported that smoking cessation within a screening program with 60% recruitment and 70% rescreening (adherence) would cost approximately $76 million (undiscounted) per year for 2017-2036 or 8% of the total cost of screening, treatment, and cessation (Figure). Compared with screening with no cessation, approximately 110 fewer incident cases and 50 fewer lung cancer deaths would occur on average per year for 2017-2036 and cost $14,000/quality-adjusted life year (QALY) (lifetime horizon). He noted that 90% recruitment and 80% rescreening would result in 260 fewer deaths and cost $24,000/QALY. At a doubled permanent quit rate of 10%, screening with smoking cessation would cost $6,000/QALY. A 50% increase in the cost of the smoking cessation intervention would decrease cost-effectiveness to $22,000/QALY.

Based on the OncoSim-LC model, a smoking cessation program within an organized LDCT screening program would cost well under $50,000/QALY even over multiple quit attempts. Dr. Evans concluded that robust smoking cessation initiatives that allow multiple quit attempts within a CT screening program could save lives while costing $14,000/QALY.

Discussant Anthony van der Wekken, MD, PhD, University Medical Center Groningen, the Netherlands, emphasized that what is considered cost effective differs from country to country. He noted that whereas $81,000/QALY is considered cost effective according to US standards, the same may not be true in other countries. One way to make screening more cost effective might be to exclude certain patients, such as persistent smokers who refuse to quit, and to stop screening patients once they have stopped smoking for more than 7 years, Dr. van der Wekken suggested. ●

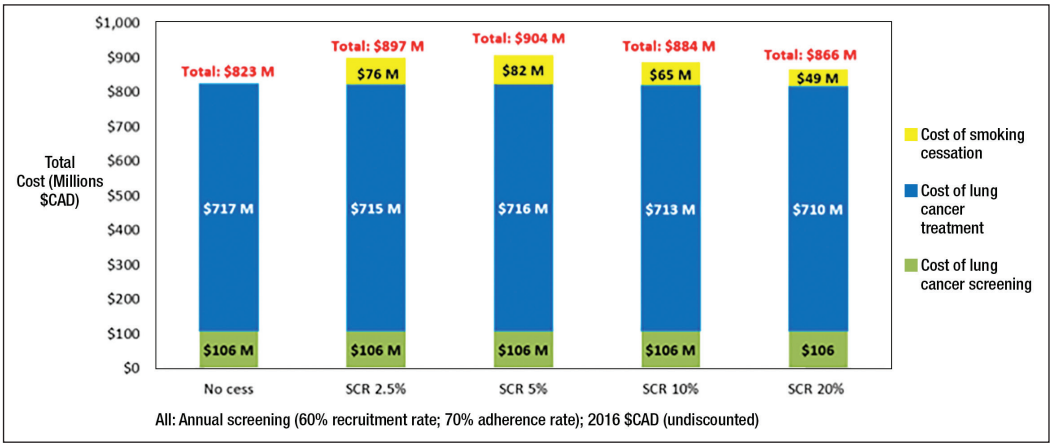


Figure. Average total annual cost of LDCT screening and management according to varying smoking cessation success rates (SCRs), 2017-2036. CAD = Canadian dollars.

Tasuka Honjo: Plenary Keynote Speaker

By Cynthia L. Kryder, MS

The keynote speaker in Wednesday morning's Plenary Session, Japanese immunologist Tasuka Honjo, MD, PhD, has made substantial contributions to the field of cancer immunotherapy. Dr. Honjo, Professor of Immunology and Genomic Medicine, Kyoto University, Japan, is perhaps best known for the discovery of the role of programmed cell death protein 1 (PD-1) in the immune response, for which he earned the inaugural Tang Prize in Biopharmaceutical Science in 2014. He is also credited with the identification of cytokines IL-4 and IL-5, and the discovery of the activation-induced cytidine deaminase enzyme, an essential component for class switch recombination and somatic hypermutation.

Tasuka Honjo, MD, PhD

Dr. Honjo received his doctor of medicine degree in 1966 from Kyoto University with a specialty in biochemistry. He was a postdoctoral fellow at the Carnegie Institution for Science, Washington, DC, USA, and Visiting Fellow and Associate at the Laboratory of Molecular Genetics with the National Institute of Child Health and Human Development, Bethesda, USA.

In 1992, he and his research team at Kyoto University accidentally discovered the PD-1 protein expressed on activated T-cells and found that the molecule acts as a brake in the immune system. Ten years later, he and his colleagues reported that PD-1 inhibition could be an effective treatment for cancer in animal models. In 2014, after 22 years of study, the first anti-PD-1 antibody therapy was approved by the US Food & Drug Administration to treat melanoma. Studies have since shown that checkpoint inhibitors are also effective in advanced lung cancer, and research is ongoing to further evaluate their efficacy in earlier stages of disease.

Over the course of his distinguished 50-year career, Dr. Honjo has received numerous awards, including the Order of Culture, the Robert Koch Prize, and the Imperial Prize of the Japan Academy. In addition, Dr. Honjo was the 2016 Kyoto Prize Laureate for Basic Sciences. The Kyoto Prize is an international award to honor those who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind.

Dr. Honjo is a foreign associate of the US National Academy of Sciences and a member of the Japanese Society for Molecular Biology, the Japanese Biochemical Society, the Human Genome Organization, and an honorary member of the American Association of Immunologists. He serves as Editor for the *Journal of Experimental Medicine* and *Trends in Immunology*.

Dr. Honjo is currently focusing his research on the development of novel cancer immunotherapy combinations to overcome lack of response. In addition, he is investigating whether it is possible to detect biomarkers that will predict response or resistance to treatment in individuals with lung cancer. ●

Plenary Session: Immunology in Lung Cancer Update 2017
Wednesday, 8:15-9:45 | Plenary Hall (Exhibit Hall D)

Plenary Session to Focus on Immunology and Immunotherapies for Lung Cancer

The Plenary Session on Wednesday morning will focus on immunology and immunotherapies for lung cancer. Tasuku Honjo, MD, PhD, Kyoto University, Japan, will kick off the session with his keynote lecture, "Serendipities of Acquired Immunity." Other speakers include Naiyer Rizvi, MD, Columbia University Medical Center, New York, USA, who will discuss biomarkers in immuno-oncology therapy; Ming Sound Tsao, MD, Princess Margaret Cancer Centre, Toronto, Canada, who will present the results of Blueprint 2, a programmed death ligand 1 (PD-L1) immunohistochemistry comparability study; and Martin Reck, MD, PhD, Lung Clinic Grosshansdorf, Germany, who will give his perspective on the current status and future of immunotherapy in lung cancer.

Serendipities of Acquired Immunity

The discovery in 1992 by Dr. Honjo and his colleagues that PD-1 acts as a brake in the immune system was the catalyst for additional research that has led to breakthrough immunotherapy that is changing the treatment landscape for patients with cancer. In his keynote lecture, Dr. Honjo will discuss how the success in cancer treatment via PD-1 inhibition brought about the realization that immunity, a weapon against infectious diseases, could also serve as a shield against cancer.

"I believe that, just as a number of antibiotics developed in the wake of the discovery of penicillin now protect humans against threats of infectious diseases, this discovery will play a leading role in the advancement of cancer immunotherapy so that in the future the fear of dying from cancer will cease to exist," says Dr. Honjo.

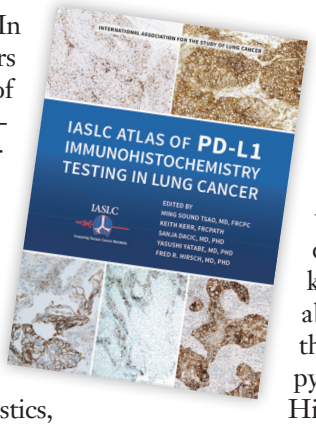
As he will explain in his lecture, anti-PD-1 therapies can produce durable effects in many different cancers and are, in fact, approved for use in melanoma, lung cancer, renal cancer, Hodgkin lymphoma, head and neck cancers, and urothelial cancer. He will also address current issues in PD-1 blockade therapy, including the need for biomarkers to predict response and the use of combination immunotherapy for patients who do not have a response. ●

New IASLC Atlas Helps Lung Cancer Clinicians Better Understand PD-L1 Testing

Although programmed cell death ligand-1 (PD-L1) protein expression, as detected by immunohistochemistry (IHC) testing, is widely used as a predictive biomarker assay for anti-PD-1/PD-L1 therapies, physicians, thoracic pathologists, and clinical researchers are unclear about interpretation of testing, assay usage, and potential interchangeability. Recognizing the importance and timeliness of this topic, the IASLC convened an expert panel of authors to present current information about the emerging PD-L1 IHC assays. The *IASLC Atlas of PD-L1 Immunohistochemistry Testing in Lung Cancer*, published earlier this year, is the result.

"The authors of the atlas have approached this topic with a wider lens, looking at the changing landscape of laboratory testing in general, as well as detailing the specifics of each assay and the current controversies regarding PD-L1 expression testing in lung cancer," says Ming Sound Tsao, MD, FRCPC, an editor of the atlas. Other editors include Keith M. Kerr, MB ChB, FRCPath, FRCPE; Sanja Dacic, MD, PhD; Yasushi Yatabe, MD, PhD; and Fred R. Hirsch, MD, PhD, IASLC CEO.

The atlas is the first publication to collectively evaluate all five of the currently available PD-L1 assays. In addition to chapters devoted to each of these assays, the atlas addresses tumor immunology, immunotherapy for lung cancer, alternative assays and laboratory-developed tests, complementary and companion diagnostics, assay harmonization, implementation of PD-L1 testing for personalized therapy for lung cancer, and future perspectives.



"Ultimately, we hope that through the creation of this atlas, patients with lung cancer will receive the most contemporary and well-suited treatment options based on up-to-date evidence and will feel more confident and knowledgeable regarding their therapy," says Dr. Hirsch.

The print version of the atlas is available in English, and a mobile app is also available. Copies of the atlas are available at the IASLC Booth (#2404) and can be viewed and downloaded as a PDF from the IASLC website (www.iaslc.org). ●

Grand Rounds Session Focuses on Treatment for *EGFR*-Mutant NSCLC

By Mary Nishikawa

A new session format at this year's WCLC is Grand Rounds, where typical case scenarios are presented, followed by a discussion by invited expert panelists and a question-and-answer period. The first Grand Rounds session was held on Monday and featured the presentation of a case of *EGFR*-mutant lung cancer and a discussion of first-line treatment and options for treatment after disease progression.

Case Presentation

Dong-Wan Kim, MD, PhD, Seoul National University Hospital, Seoul, Korea, described the case of a 38-year old woman who had had dyspnea for 1 month before the time of initial evaluation in September 2013.

The details of the case were as follows.

- *ECOG PS: 1*
- *CXR: Left pleural effusion*
- *Pleural fluid cytology: Metastatic adenocarcinoma*
- *CT chest: 23 mm left lower lobe mass (LLL), enlargement of mediastinal lymph nodes, pleural effusion*
- *PET scan: Uptake in LLL, mediastinal lymph nodes, and pleura*
- *Brain MRI: (-) for brain metastasis*
- *FOB/EBUS: Adenocarcinoma, TTF-1 (+), ALK (+), and EGFR (+) for microdeletion in exon 19*

Initial Treatment

Dr. Kim asked, "What is the best treatment option?" offering choices of cytotoxic chemotherapy; a first-, second-, or third-generation EGFR tyrosine kinase inhibitor (TKI); or a programmed cell death 1 (PD-1) or programmed cell death-ligand 1 (PD-L1) inhibitor.

Prof. Li Zhang, Sun Yat-Sen University Cancer Center, Guangzhou, China, discussed recent evidence supporting EGFR TKIs as first-line management of advanced NSCLC tumors harboring actionable *EGFR* mutations (exon 19 deletions or exon 21 [L858R] substitutions) based on improvements in progression-free survival, objective response rate, and quality of life compared with chemotherapy.

Prof. Zhang cited several studies that have demonstrated that the first-generation EGFR TKIs gefitinib and erlotinib have comparable efficacy. In randomized head-to-head trials with gefitinib, second-generation afatinib and dacomitinib have been associated with improved progression-free survival, although the results were associated with increased rates of grade 3 or higher adverse events such as rash and diarrhea, often requiring dose reduction. Recently, the third-generation TKI, osimertinib, showed comparable efficacy with first-generation EGFR TKIs in the FLAURA study (*see page 3*).

Currently, about 90% of the targeted mutations are covered, but the remaining 10% represents a heterogeneous group of molecular alterations that have had an inconsistent response to current EGFR TKIs, said Prof. Zhang. Tumors with uncommon mutations, such as G719X, L861Q, and S768I, have had objective responses to afatinib, but tumors with Thr790Met and exon 20 insertion mutations were insensitive to the drug in post hoc analyses. In a preclinical study, tumors with multiple exon 20 insertion mutations responded to osimertinib.

Despite initial response to EGFR TKIs, the development of clinical resistance in *EGFR*-mutant NSCLC is almost always inevitable.

Treatment with a first-generation EGFR TKI was started in October 2013. Disease initially responded to treatment. However, at the time of repeat evaluation in November 2014, the patient had recurrent dyspnea, but no headache and no neurologic symptoms. The ECOG performance status was 1. CT images of the chest showed increased left pleural effusion with atelectasis. MRI of the brain demonstrated newly developed enhancing nodules in the left frontal, left insula, and left thalamic areas. Examination of a biopsy specimen obtained by endobronchial ultrasound (11L LN) indicated metastatic adenocarcinoma positive for EGFR deletion 19 missense mutation in exon 20 (T790M).

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Grand Rounds Sessions

Management of Immunotherapy-Related Adverse Events

Tuesday, 11:00-12:30 | Main Hall

Treatment Options for Early Stage Lung Cancer Patients with Limited Pulmonary Reserve

Wednesday, 11:00-12:30 | F205 + F206 (Annex Hall)

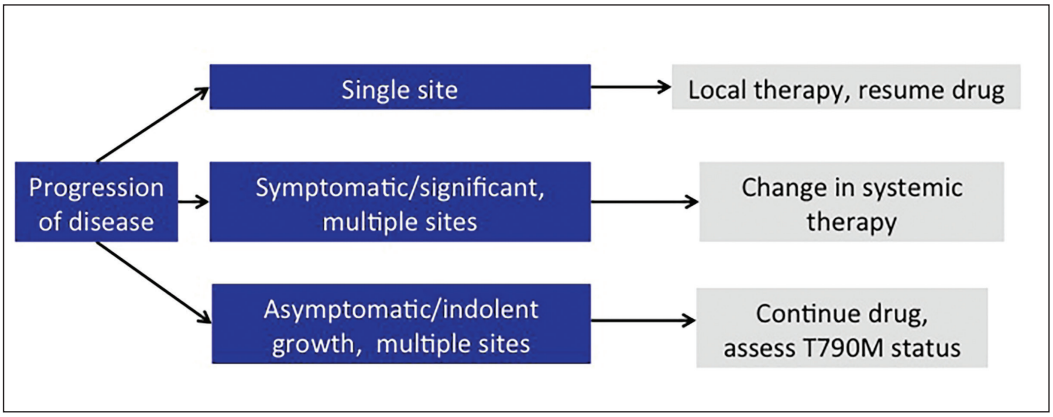

Figure 1. Therapeutic strategies in acquired resistance to first- and second-generation EGFR tyrosine kinase inhibitors.

Grand Rounds

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Therapeutic Strategies for Acquired Resistance

In discussing therapeutic strategies for resistance to targeted therapy, Gregory J. Riely, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, USA, indicated that the pattern of progression dictates the approach to management. He presented treatment strategies for three scenarios of disease progression: patients who have cancer localized to a single site, symptomatic patients who have significant multi-site lesions, and asymptomatic patients with indolent growth in multiple sites (see Figure 1 page 10). Dr. Riely noted that it is important to understand the mechanisms of resistance to EGFR TKIs. In approximately 60% of patients, resistance is due to a T790M mutation, and these patients will benefit from EGRF TKIs. However, approximately 40% of tumors will have a mutation other than T790M (Figure 2).

In December 2014, the patient was enrolled in a clinical trial of a third-generation EGFR TKI. No local treatment was given for the brain metastasis. A partial response was achieved in both the lung and brain sites. However, at the time of repeat evaluation in March 2017, the recurrent dyspnea had developed and the ECOG performance status was 1. CT of the chest showed increased left pleural effusion and pleural seeding. MRI of the brain showed no evidence of an abnormal enhancing nodule. Results of pleural fluid cytology again revealed metastatic NSCLC. The patient was treated with four cycles of pemetrexed and cisplatin, and another partial response was achieved; she is currently receiving maintenance therapy with single-agent pemetrexed. ●

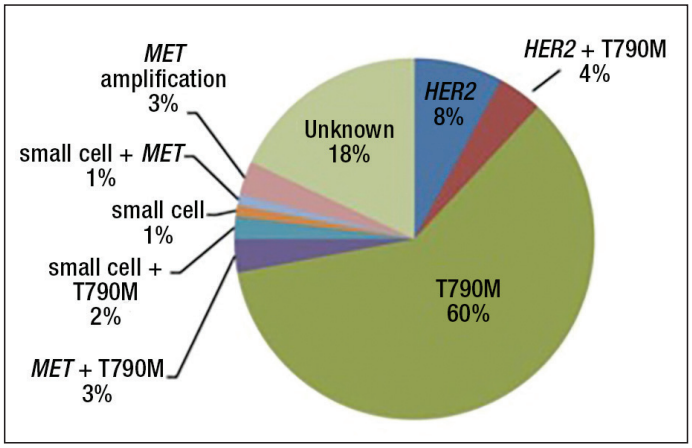

Figure 2. Mechanisms of resistance to EGFR tyrosine kinase inhibitors. [Yu et al. CCR 2013].

Opening Ceremony

Continued from page 7

Japan Agency for Medical Research and Development (AMED) provides support for the basic sciences. Yuji Kuroiwa, Governor of Kanagawa Prefecture, noted that an ion-beam Radiation Oncology Center (i-ROCK) was established in his prefecture in December 2015, and Fumiko Hayashi, the Mayor of Yokohama, said that the color lavender has been used all over Yokohama to stress cancer awareness.

The Parliamentary Vice Minister of Cabinet Office, Yuhei Yamashita, spoke about the importance of patient advocacy and indicated that the strength of the IASLC lies not only in basic science that leads to advances but in its inclusion of nurses and patient advocates.

David Carbone, MD, PhD, IASLC President, introduced Annie Cacciato, one of this year's IASLC Patient Advocacy Award recipients. Annie spoke briefly, reminding attendees to stay focused on the patient. "We must keep our anchor down and believe in our dream to end lung cancer," she said

Fred Hirsch, MD, PhD, IASLC CEO, echoed the importance of patient advocates and the multidisciplinary team in IASLC. "Our membership includes not only investigators but also nurses and patient advocates, all working together to help eradicate cancer."

Dr. Hirsch reminded attendees that next year will mark 40 years since the first WCLC was held in the United States. "Since then, we have met to collaborate on studies, but we also meet to develop friendships," said Dr. Hirsch, emphasizing both the scientific and social benefits of the IASLC. ●

Stereotactic Radiotherapy Offers Survival Benefit in Stage I NSCLC

By Lori L. Alexander, MTPW, ELS, MWC

Stereotactic radiotherapy (SABR) increases time to local failure and survival compared with conventional radiotherapy for patients with inoperable, peripheral stage I NSCLC, according to CHISEL, a phase III randomized trial designed to evaluate the efficacy of hypofractionated radiotherapy.

Although SABR is well established as a treatment for stage I NSCLC, there is limited evidence that SABR is as or more effective than conventional fully fractionated radiotherapy. In addition, no trial has shown improved survival, mainly because of the difficulty in demonstrating a survival benefit for patients who have other diseases or characteristics that make them unfit for an operation and at risk of dying from other causes, said David Ball, MB BS, MD, FRANZCR, Peter MacCallum Cancer Centre, Melbourne, Australia, who presented the findings. The trial was conducted in Australia and New Zealand through the Trans Tasman Radiation Oncology Group (TROG) and the Australasian Lung Cancer Clinical Trials Group.

Dr. Ball noted that all patients had T1-T2a N0 disease staged by positron emission tomography; unlike in other trials, the diagnosis of cancer was confirmed by biopsy in all patients. Eligibility criteria included an ECOG performance status of 0 or 1, inoperable tumor (or patient refusal of surgery), and a peripheral lesion, defined as one more than 2 cm from the bifurcation of the lobar bronchi. Patient characteristics were similar for both groups.

A total of 66 patients were randomly assigned to SABR and 35, to conventional radiotherapy. SABR was given in three (54 Gy) or four (48 Gy) fractions over 2 weeks, and conventional radiotherapy was given in 20 (50 Gy) or 33 (66 Gy) fractions over 4 to 6 weeks. The primary endpoint was freedom from local failure, and other endpoints included overall survival and toxicities.

David Ball, MB BS, MD, FRANZCR

Dr. Ball reported that freedom from local failure and overall survival were significantly better for patients who received SABR (Figure). Treatment was well tolerated, with grade 4 toxicity (dyspnea) in one patient. Grade 3 toxicities included cough in two patients and dyspnea, fatigue, pain, lung infection, hypoxia, and weight loss in one patient each. Among patients who received conventional radiotherapy, two patients had grade 3 pain.

"Standard radiotherapy has been used for many decades and is not as technically demanding as SABR," said Dr. Ball. "It may therefore still be used in some departments that lack the advanced hardware necessary for SABR. However, our trial indicates, for the first time, that conventional radiotherapy is not just an inconvenient alternative, but is associated with a decreased chance of survival. The CHISEL trial confirms that SABR should now be regarded as the standard of care for this patient group."

Discussant Jin-Hee Kim MD, PhD, Keimyung University, Dongsan Medical Center, Daegu, Korea, noted that CHISEL is the first randomized trial to demonstrate a survival benefit of SABR compared with conventional radiotherapy. Three earlier retrospective studies and a meta-analysis have also indicated a survival benefit. Dr. Kim pointed out that, according to CEPO recommendations, SABR should be used for medically inoperable patients with stage T1-2 N0 M0 NSCLC or medically operable patients who refuse surgery (grade B recommendation) [Boily G, et al. *J Thorac Oncol.* 2015;10(6): 872-882]. ●

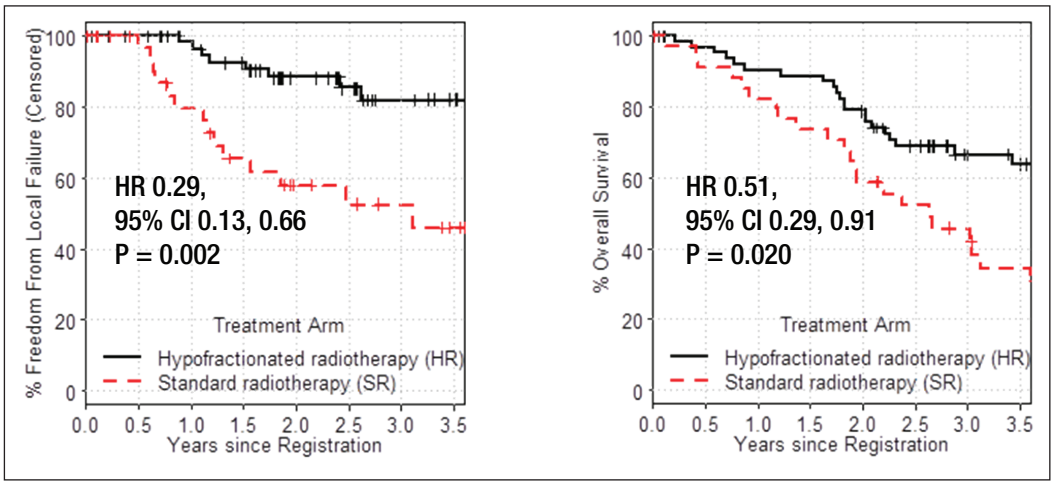

Figure. Freedom from local failure and overall suvival in CHISEL.

Lorlatinib Demonstrates Benefit in *ALK*-Positive and *ROS1*-Positive NSCLC

By Lori L. Alexander, MTPW, ELS, MWC

Lorlatinib, a selective, potent, brain-penetrant ALK/ROS1 tyrosine kinase inhibitor (TKI), confers a clinically meaningful benefit in patients with advanced *ALK*-positive or *ROS1*-positive NSCLC who are treatment naïve or who have been previously treated with ALK inhibitors with or without chemotherapy. Lorlatinib is also well tolerated, with primarily mild to moderate adverse events that appear to be manageable.

The phase II study was designed to evaluate efficacy (overall and intracranial) according to prior treatment, as well as safety. The study was built on a phase I study in which lorlatinib demonstrated robust clinical activity among patients with *ALK*-positive or *ROS1*-positive NSCLC, most of whom were heavily pretreated and had central nervous system (CNS) metastases.

The study included 275 patients with advanced *ALK*-positive or *ROS1*-positive NSCLC with or without asymptomatic CNS metastases. At baseline, 165 patients had CNS metastases. The patients were enrolled in six expansion cohorts according to mutation and previous treatment. The cohorts for patients with *ALK*-positive disease included (1) no prior treatment, (2) prior crizotinib only, (3) prior crizotinib plus chemotherapy, (4) one prior ALK inhibitor other than crizotinib (eg, alectinib) with or without chemotherapy, (4) two prior ALK inhibitors with or without chemotherapy, and (5) three prior ALK inhibitors with or without chemotherapy. The remaining cohort included patients with *ROS1*-positive disease who had exposure to any prior therapy. Patients were treated with lorlatinib, 100 mg once daily.

The primary objective was overall response rate and intracranial response by independent central review. Secondary endpoints included safety and tolerability, patient-reported outcomes, and molecular profiling.

Benjamin J. Solomon, MD, Peter MacCallum Cancer Centre, Melbourne, Australia, reported that the overall response rate was 90% and the intracranial response rate was 75% in the cohort of treatment-naïve patients (Table). For patients who had previously received crizotinib—either alone or with chemotherapy—the pooled overall response rate was 69% and the intracranial response rate was 68%. The resistance mutation G1202R was detected in 19 of the patients with *ALK*-positive disease who had received prior therapy; response was confirmed in 11 (58%).

Dr. Solomon also noted that global quality of life improved from baseline according to the results of EORTC qualify-of-life questionnaires Core-30 and the Lung Cancer Module, and this improvement was maintained over time. In addition, key lung cancer symptoms, including pain, dyspnea, cough, and fatigue, improved from baseline.

Grade 3 or 4 treatment-related adverse events occurred in 114 of 275 (41%). The most common events were hypercholesterolemia (81%) and hypertriglyceridemia (60%), which was grade 3 in 14% and 13%, respectively. Edema occurred in 43% (grade 3, 2%), and peripheral neuropathy developed in 30% (grade 3, 2%). Cognitive effects were observed in 18%, but only 1% were grade 3. Toxicities were managed with dose delay (30%), dose reduction (22%), or discontinuation of the drug (3%).

Benjamin J. Solomon, MD

"The overall response rate for patients previously treated only with non-crizotinib TKIs with or without chemotherapy, for patients previously treated with two or more prior ALK TKIs, and for patients with hard-to-treat resistance mutations (eg, G1202R) suggests lorlatinib addresses an important unmet need," said Dr. Solomon. ●

Table. Outcomes in Phase II Study of Lorlatinib for Advanced ALK-Positive or ROS1-Positive NSCLC According to Prior Treatment

	ALK-Positive NSCLC				*ROS1*-Positive NSCLC
Outcome	None (n = 30)	Crizotinib ± Chemotherapy[a] (n = 59)	Non-crizotinib TKI ± Chemotherapy (n = 27)	Two or Three ALK TKIs ± Chemotherapy[b] (n = 111)	Any (n = 47)
Overall response rate (%, 95% CI)	90 (74-98)	69 (56-81)	33 (16-54)	39 (30-49)	36 (23-52)
Intracranial response rate (%, 95% CI)	75 (35-97)	68 (50-82)	42 (15-72)	48 (37-59)	56 (35-76)
Median duration of response (mos., 95% CI)	NR (10.2-NR)	NR (11.1-NR)	NR (4.1-NR)	NR (5.5-NR)	13.8 (11.1-NR)
Median progression-free survival (mos., 95% CI)	NR (11.4-NR)	NR (12.5-NR)	5.5 (2.9-9.0)	6.9 (5.4-9.5)	9.6 (4.7-NR)

[a]Pooled data for the cohort of patients who received prior crizotinib only and the cohort of patients who received prior crizotinib and chemotherapy.
[b]Pooled data for the cohort of patients who received two prior ALK TKIs with or without chemotherapy and the cohort of patients who received three prior inhibitors with or without chemotherapy.
TKI = tyrosine kinase inhibitor, NR = not reached.

New IASLC Foundation Award Recognizes Outstanding Cancer Care Teams

The IASLC Foundation Cancer Care Team Award, proposed by a lung cancer survivor and her husband, recognizes outstanding patient care by honoring multidisciplinary teams that provide the highest quality care. Five cancer care teams in four regions of the world received the award in this inaugural year.

"Patient care is critically important to the health of people with lung cancer," says Matthew Holman, PhD, whose wife, Marilyn, received exceptional care during cancer treatment at Johns Hopkins Medicine, Sidney Kimmel Comprehensive Cancer Center, Baltimore, USA. Factors such as compassion, trust, empathy, access, detailed explanations, shared decision-making, and educational resources make a remarkable difference, he adds.

When the Holmans learned that there was no award to recognize outstanding lung cancer patient care, they approached the

see **Cancer Care Teams**, page 15

2017 IASLC Foundation Cancer Care Team Award Recipients

North America

Johns Hopkins Medicine, Sidney Kimmel Comprehensive Cancer Center, *Baltimore, USA*

- Christine Hahn, MD, PhD
- Russell Hales, MD
- Hanika Rodavia, RN, BSN, MSN
- Amy Vance, CRNP

Rush University Medical Center, *Chicago, USA*

- Sarah Anderson, RN, OCN, WCC
- Susana Banda, RN
- Philip Bonomi, MD, MS
- Aidnag Diaz, MD, MPH
- Pen Faber, MD
- Mary Jo Fidler, MD
- Irene Haapoja, RN, MSN
- Mary Ellen Hand, RN, BSN
- Jeanne Kapturski
- Michael Liptay, MD
- Gaurav Marwaha, MD
- Palmi Shah, MD
- David Sher, MD
- Emily Rubenstein, RN

Latin America

Neo Torax, Grupo Oncologia D'Or, *Rio de Janeiro, Brazil*

- Bruna Carvalho
- Carlos Gil Ferreira, PhD
- Giselle Fraga
- Tatiane Montella, MD
- Juliana Vasconcellos

Europe

Institute of Lung Diseases and Tuberculosis and Lung Diseases; Department of Pneumonology and Allergology, Medical University of Warsaw; Oncology-Center-Institute, Skłodowskiej-Curie, *Warsaw, Poland*

- Dariusz Kowalski
- Rafał Krenke, MD, PhD
- Maciej Krzakowski, MD, PhD
- Renata Langfort
- Tadeusz Orlowski

Asia/Rest of World

Guangdong Lung Cancer Institute, *Guangzhou, China*

- Yi-Long Wu, MD
- Hong-Hong Yan, MD
- Jinji Yang, MD, PhD
- Xuchao Zhang, MD, PhD
- Wenzhao Zhong, MD, PhD
- Qing Zhou, MD, PhD

IASLC Webinars Provide Valuable Education

WCLC 2017 delegates can extend their education beyond the conference by taking advantage of the IASLC's robust program of webinars. Just as with WCLC sessions, the webinars are led by experts in the field of thoracic malignancies. Live webinars are interactive, with ample time for a question-and-answer period after didactic presentations. The webinars are typically 1-hour, and are presented at various times of the day, for the convenience of participants in different parts of the world. Recordings of the webinars are also archived for later participation.

The webinar series is designed to provide up-to-date education on evolving treatment for thoracic oncology, and AMA PRA Category 1 Credit™ can be earned for each completed webinar. Since January 2017, 18 webinars have been made available on the IASLC website (www.iaslc.org), as follows.

- Three Optima for ALK Positive Lung Cancer
- Radiotherapy Options in Patients with Brain Metastases from NSCLC
- Screening for Lung Cancer – What Clinicians Need to Know
- Management of Squamous Cell Carcinoma of the Lung
- Proton Therapy for Lung Cancer
- Management of Immunotherapy Side Effects
- PD-L1 Assessment and Biomarkers for Immunotherapy
- Advances in the Treatment of Lung Cancer: ASCO 2017 Update
- Biology and Treatment of Thoracic Neuroendocrine Tumors
- Adjuvant Therapy of Lung Cancer: New Perspectives
- Immunotherapy: A New Standard of Care in NSCLC
- Locally Advanced NSCLC: Where Are We, Where Do We Go From Here?
- Is There An Oligometastatic State in NSCLC?
- NSCLC: Management of Brain Metastases
- Side Effects of Immune Checkpoint Inhibitors
- Management of Squamous Cell Carcinoma of the Lung
- Immunotherapy for NSCLC: What's Next?
- IASLC 17th World Conference on Lung Cancer: Main Highlights

The IASLC offers new webinars regularly, so be sure to check the IASLC website for additional educational opportunities. ●

IASLC Publications Available at IASLC Booth

Recently, the IASLC has published several vital resources for clinicians involved in the treatment of individuals with lung cancer. The highly regarded publications have been developed through the contribution of experts from around the world. WCLC 2017 delegates can review these resources at the IASLC Booth (#2404) in the Exhibit Hall.

IASLC Atlas of EGFR Testing in Lung Cancer. Available for the first time at WCLC 2017, this atlas focuses on topics such as therapeutic perspectives; sample acquisition, processing, and diagnostic procedures; *EGFR* mutations; types of testing assays; reporting of results, interpretation, and quality assurance; and access to testing guidelines and algorithms. In addition to the print version of the atlas, a mobile application is available for handheld devices. The atlas can also be viewed and downloaded as a PDF from the IASLC website (www.iaslc.org).

IASLC Atlas of PD-L1 Immunohistochemistry Testing in Lung Cancer. This atlas was also published earlier this year. It addresses such issues as tumor immunology, immunotherapy for lung cancer, specific immunohistochemistry assays, alternative assays and laboratory-developed tests, complementary and companion diagnostics, and testing for personalized therapies. The print version of the atlas is available in English and a mobile app is also available. The atlas can be viewed and downloaded as a PDF from the IASLC website.

IASLC Atlas of ALK and ROS1 Testing in Lung Cancer, 2nd edition. This 2016 publication is a follow-up to the first edition of the atlas, which focused only on ALK testing. The atlas discusses selecting appropriate candidates for testing; sample acquisition, processing, and diagnostic procedures; various assay platforms; cytologic analysis; reporting of results; algorithms; guidelines; and standardized studies. The print version of the atlas is available in English, Chinese, and Japanese; and the app for mobile devices is also available in multiple languages. The atlas can be viewed and downloaded as a PDF from the IASLC website.

IASLC Thoracic Oncology, 2nd edition. The new edition of this essential resource updates large sections of the first edition of the textbook, which was released in 2014. These updates highlight the explosion in the science surrounding the diagnosis and treatment of lung cancer and other thoracic malignancies since the first edition, especially the significant changes in genomic phenotyping, staging, histologic classification, and immunotherapeutic strategies. The textbook is available in both print and digital formats and can be ordered from www.IASLC.org.

Staging Manual in Thoracic Oncology, 2nd edition. This updated classification, published in 2016, underscores a data-driven approach to the staging of lung cancer that includes several innovations that have led to changes in clinical practice. These changes were informed by an analysis of data from 70,967 evaluable patients with NSCLC and 6,189 with small cell lung cancer. The manual, and its abridged handbook version, as well as the convenient reference cards, are available at the IASLC Booth and the Lilly Oncology Booth (#100). ●

Cancer Care Teams

Continued from page 14

IASLC with their proposal.

"We wanted broader awareness of good patient care," says Dr. Holman. "Now, less than a year after our initial contact with IASLC, the award is being given." Mrs. Holman nominated her care team and shared her artistic skills in designing the award. The award garnered substantial attention, with approximately 50 cancer teams nominated.

The nomination form asks patients and families to comment on the integral factors Dr. Holman mentioned and to share their heartfelt experience in their own words. The award was open to nominations from patients and/or families worldwide (North America, Latin America, Europe, and Asia/Rest of World), and an international committee selected the recipients. The IASLC Foundation administers and supports the award, which will continue to be offered annually. ●

Question of the Day

What has been the most interesting topic or session for you at the conference so far?

"I was most interested in the session on the New TNM and WHO Classification. As a pathologist, I am interested in learning about the new classifications because they have changed a lot. I especially wanted to learn how to evaluate and classify the end-stage tumor."

Ping-Li Sun, MD, PhD, Associate Professor, Department of Pathology, The Second Hospital of Jilin University, Jilin, China

"Some of the sessions that were particularly striking were Carolyn Dresler's talk in the Plenary Session on Prevention, Screening, and Management of Screen-Detected Lung Cancer, Yu Shyr's talk on Is "Big Data" the solution to the Complex Therapeutic Landscape, and a brief talk focusing on small-cell lung cancer and the biology. These were all striking and different in their own way."

Emily Stone, MD, St. Vincent's Hospital, Australia

"My favorite today was the early morning session on the pathology of lung cancer because I am a molecular biologist, so the topic is brand new to me. When pathologists look at cells they don't just look at the markers; they look at the size and appearance of cells. They then decide that these are cancer cells."

Dr. Yuen Yee Cheng, Molecular Biologist, Asbestos Diseases Research Institute, The University of Sydney, Australia

"The most interesting session so far was the one on clinical issues of immune checkpoint inhibitors because I am studying the topic and reading many publications about combination therapy as a future strategy in patients who have metastatic lung cancer."

Haowen Hsein, Pharmacist/Master, Medical Science Liaison, Astra Zeneca, Taiwan

"My favorite session was the one where I received the Young Investigator Scholarship, but besides that one, I also enjoyed the mesothelioma session on challenges for new treatment. I am a molecular biologist, and it's nice to get a clinical perspective."

Marissa Williams, PhD candidate, Asbestos Diseases Research Institute, The University of Sydney