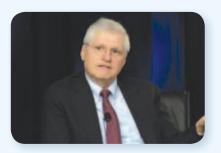
## New Biological Insights and Recent Therapeutic Advances in the Management of Lung Cancer

## Proceedings from a Clinical Investigator Think Tank



## FACULTY

David P Carbone, MD, PhD Mark G Kris, MD Corey J Langer, MD Geoffrey R Oxnard, MD David R Spigel, MD Anne S Tsao, MD



## MODERATOR

Neil Love, MD

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# New Biological Insights and Recent Therapeutic Advances in the Management of Lung Cancer

A Continuing Medical Education Audio Program

### OVERVIEW OF ACTIVITY

Lung cancer is increasingly being recognized as a heterogeneous group of tumors. Not long ago, it was clinically sufficient to make a differentiation between small cell lung cancer and non-small cell lung cancer (NSCLC). Individualized treatment decisions are increasingly driven by genetic biomarkers in addition to histological subtype and patient-specific characteristics. Determining which treatment approach is most appropriate in a given case requires careful consideration of patient characteristics, biomarkers and available health system resources. Oncology clinicians must possess a clear understanding of the benefits and risks of each of the various available options and how best to integrate emerging data and agents into the treatment algorithm. This CME program uses a roundtable discussion with leading clinical investigators to provide biological insights into the recent therapeutic advances in the management of lung cancer. By reviewing the available clinical trial data and relevant case scenarios, this initiative will help illustrate gaps in medical knowledge and illuminate treatment ambiguities pertinent to this disease.

### LEARNING OBJECTIVES

- Develop an evidence-based strategy for the treatment of localized NSCLC, exploring options for adjuvant systemic therapy.
- Devise an evidence-based approach to the selection of induction and maintenance biologic therapy and/or chemotherapy for patients with advanced pan-wild-type NSCLC.
- Employ an understanding of personalized medicine to individualize the use of available EGFR inhibitors in the treatment of NSCLC before and after disease progression on an EGFR tyrosine kinase inhibitor (TKI).
- Communicate the efficacy and safety of crizotinib, ceritinib and emerging ALK inhibitors to appropriate patients with NSCLC, considering the predictive utility of ALK and ROS1 mutation testing.
- Evaluate the emerging data from clinical trials of the third-generation EGFR TKIs rociletinib and AZD9291 in EGFR mutation-positive NSCLC.
- Describe emerging data on the efficacy and safety of tumor immunotherapy directed at the PD-1/PD-L1 pathway in lung cancer, and consider this information when counseling patients regarding current treatment options and clinical trial nextricination
- Recognize the results of recently completed Phase III trials examining the efficacy and safety of the novel monoclonal
  antibodies necitumumab and ramucirumab for patients with advanced NSCLC.

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Release date: October 2015; Expiration date: October 2016

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## Video Highlights from this Clinical Investigator Think Tank



Visit www.ResearchToPractice.com/LCUTT115/
Video to access a number of short video segments and corresponding transcripts from the Think
Tank featuring the faculty discussing and debating some of the key clinical management and research issues in the field of non-small cell lung cancer.

## TRACKS 1-22

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- Track 3 Activity and tolerability of the ALK inhibitor ceritinib
- Track 4 Case discussion: A woman with ALK-rearranged, advanced non-small cell lung cancer (NSCLC) receives full-dose ceritinib for 2 years
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  II trial of adjuvant erlotinib for resected
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- Track 45 Potential role of EGFR TKIs as adjuvant therapy for patients with sensitizing EGFR mutations

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Thatcher N et al. A randomized, multicenter, open-label, phase III study of gemcitabine-cisplatin (GC) chemotherapy plus necitumumab (IMC-11 F8/LY3012211) versus GC alone in the first-line treatment of patients with stage IV squamous non-small cell lung cancer. *Proc ASCO* 2014; Abstract 8008.

### POST-TEST

New Biological Insights and Recent Therapeutic Advances in the Management of Lung Cancer

## QUESTIONS (PLEASE CIRCLE ANSWER):

- Which of the following patient populations treated with ceritinib experienced high overall response rates on the Phase I ASCEND-1 trial for patients with locally advanced or metastatic ALK-positive NSCLC?
  - a. Those with ALK inhibitor-naïve disease
  - b. Those who previously received an ALK inhibitor
  - c. Those with previously treated brain metastases
  - d. Both a and c
  - e. All of the above
- 2. Results of a Phase I/II study of the novel ALK inhibitor alectinib for patients with crizotinib-resistant or crizotinib-intolerant locally advanced or metastatic NSCLC demonstrated
  - a. A response rate of more than 50% in the overall patient population
  - b. Responses in patients with CNS metastases
  - c. Both a and b
  - d. Neither a nor b
- 3. Adverse events associated with the novel ALK inhibitor ceritinib when used at the dose of 750 mg once daily include
  - a. Diarrhea
  - b. Nausea
  - c. Elevated transaminases
  - d. All of the above
- 4. A Phase II trial of erlotinib with or without bevacizumab as first-line therapy for patients with advanced nonsquamous NSCLC harboring EGFR mutations demonstrated a statistically significant improvement in progression-free survival with the addition of bevacizumab.
  - a. True
  - b. False

- 5. The Phase III IMPRESS trial evaluating gefitinib/chemotherapy versus placebo/chemotherapy for patients with EGFR mutation-positive NSCLC after disease progression on first-line gefitinib concluded that continuation of gefitinib in addition to cisplatin/pemetrexed was of \_\_\_\_\_\_\_\_\_clinical benefit for patients with acquired resistance to gefitinib.
  - a. No
  - b. Substantial
  - c. Marginal
- 6. The Phase I portion of the Phase I/II AURA trial of AZD9291, a selective EGFR TKI, for patients with advanced NSCLC after disease progression on prior therapy with an EGFR TKI demonstrated a(n) \_\_\_\_\_\_ overall response rate for patients with EGFR T790M mutation-positive NSCLC compared to those with EGFR T790M mutation-negative disease.
  - a. Higher
  - b. Lower
  - c. Equivalent
- 7. Results from the Phase III SQUIRE trial demonstrated a statistically significant improvement in \_\_\_\_\_\_ with the addition of necitumumab to gemcitabine/cisplatin as first-line treatment for Stage IV squamous NSCLC.
  - a. Overall response rate
  - b. Median overall survival
  - c. Both a and b
- 8. The Phase III OAK study is evaluating docetaxel versus MPDL3280A, an \_\_\_\_\_ for patients with locally advanced or metastatic NSCLC after disease progression on platinum-based therapy.
  - a. Anti-PD-1 antibody
  - b. Anti-PD-L1 antibody

## **EDUCATIONAL ASSESSMENT AND CREDIT FORM**

# New Biological Insights and Recent Therapeutic Advances in the Management of Lung Cancer

Research To Practice is committed to providing valuable continuing education for oncology clinicians, and your input is critical to helping us achieve this important goal. Please take the time to assess the activity you just completed, with the assurance that your answers and suggestions are strictly confidential.

## PART 1 — Please tell us about your experience with this educational activity

How would you characterize your level of knowledge on the following topics?

Clinical utility of NGS in the identification of actionable genomic alterations in the management of lung adenocarcinoma  Selection of treatment for patients with EGFR-activating mutations; correlation between EGFR mutation type and response  Efficacy and safety of the third-generation EGFR inhibitors AZD9291 and rociletinib in EGFR mutation-positive NSCLC  Emerging research, ongoing evaluation and clinical role of anti-PD-1/PD-L1
Selection of treatment for patients with EGFR-activating mutations; correlation between EGFR mutation type and response  Efficacy and safety of the third-generation EGFR inhibitors AZD9291 and rociletinib in EGFR mutation-positive NSCLC  Emerging research, ongoing evaluation and clinical role of anti-PD-1/PD-L1 antibodies in NSCLC  Activity and safety of ceritinib and investigational ALK inhibitors such as alectinib in patients with crizotinib-resistant ALK-rearranged NSCLC  Results of the Phase III SQUIRE trial of necitumumab with or without chemotherapy as first-line therapy in Stage IV squamous NSCLC  REVEL: A Phase III trial of ramucirumab with or without docetaxel as second-line therapy for patients with Stage IV NSCLC after disease progression on platinum-based therapy  Practice Setting:  Academic center/medical school  Government (eg, VA)  Other (please specify)  Approximately how many new patients with lung cancer do you see per year?  Was the activity evidence based, fair, balanced and free from commercial bias?  Please identify how you will change your practice as a result of completing this activity (select all that apply).  This activity validated my current practice  Create/revise protocols, policies and/or procedures
Efficacy and safety of the third-generation EGFR inhibitors AZD9291 and rociletinib in EGFR mutation-positive NSCLC  Emerging research, ongoing evaluation and clinical role of anti-PD-1/PD-L1 antibodies in NSCLC  Activity and safety of ceritinib and investigational ALK inhibitors such as alectinib in patients with crizotinib-resistant ALK-rearranged NSCLC  Results of the Phase III SQUIRE trial of necitumumab with or without chemotherapy as first-line therapy in Stage IV squamous NSCLC  REVEL: A Phase III trial of ramucirumab with or without docetaxel as second-line therapy for patients with Stage IV NSCLC after disease progression on platinum-based therapy  Practice Setting:  Academic center/medical school Community cancer center/hospital Group practice  Solo practice Government (eg, VA) Other (please specify).  Approximately how many new patients with lung cancer do you see per year?  Please identify how you will change your practice as a result of completing this activity (select all that apply).  Please identify how you will change your practice as a result of completing this activity (select all that apply).  Create/revise protocols, policies and/or procedures
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chemotherapy as first-line therapy in Stage IV squamous NSCLC  REVEL: A Phase III trial of ramucirumab with or without docetaxel as second-line therapy for patients with Stage IV NSCLC after disease second-line therapy for patients with Stage IV NSCLC after disease second-line therapy for patients with Stage IV NSCLC after disease second-line therapy for patients with Stage IV NSCLC after disease second-line therapy for patients with Stage IV NSCLC after disease second-line therapy for patients with Stage IV NSCLC after disease second-line therapy for patients with second seco
progression on platinum-based therapy  Practice Setting: Academic center/medical school Community cancer center/hospital Group practice Solo practice Government (eg, VA) Other (please specify).  Approximately how many new patients with lung cancer do you see per year?  Was the activity evidence based, fair, balanced and free from commercial bias? Yes No If no, please explain:  Please identify how you will change your practice as a result of completing this activity (select all that apply). This activity validated my current practice Create/revise protocols, policies and/or procedures
Academic center/medical school Community cancer center/hospital Group practice  Solo practice Government (eg, VA) Other (please specify)
Please identify how you will change your practice as a result of completing this activity (select all that apply).  This activity validated my current practice  Create/revise protocols, policies and/or procedures
Change the management and/or treatment of my patients     Other (please explain):
If you intend to implement any changes in your practice, please provide 1 or more examples:
The content of this activity matched my current (or potential) scope of practice.  — Yes — No If no, please explain:
Please respond to the following learning objectives (LOs) by circling the appropriate selection:
4 = Yes 3 = Will consider 2 = No 1 = Already doing N/M = LO not met N/A = Not applicable
As a result of this activity, I will be able to:  Develop an evidence-based strategy for the treatment of localized NSCLC, exploring options for adjuvant systemic therapy
<ul> <li>Devise an evidence-based approach to the selection of induction and maintenance biologic therapy and/or chemotherapy for patients with advanced pan-wild-type NSCLC4 3 2 1 N/M N/m</li> <li>Employ an understanding of personalized medicine to individualize the use of available</li> </ul>
EGFR inhibitors in the treatment of NSCLC before and after disease progression on an EGFR tyrosine kinase inhibitor (TKI)
Communicate the efficacy and safety of crizotinib, ceritinib and emerging ALK inhibitors to appropriate patients with NSCLC, considering the predictive utility of ALK and ROS1 mutation testing

EDUCATIONAL ASSESSMENT AND CRE	DIT FOR	M (c	ontinu	ıed)							
As a result of this activity, I will be able to:											
<ul> <li>Evaluate the emerging data from clinical trials of the third-generation EGFR TKIs rociletinib and AZD9291 in EGFR mutation-positive NSCLC.</li> <li>4 3 2 1 N/M N/A</li> <li>Describe emerging data on the efficacy and safety of tumor immunotherapy directed at the PD-1/PD-L1 pathway in lung cancer, and consider this information when counseling</li> </ul>											
patients regarding current treatment options and clinical trial participation											
with advanced NSCLC											
Please describe any clinical situations that you find difficult to manage or resolve that you would like to see addressed in future educational activities:											
Would you recommend this activity to a colleague?  Yes No If no, please explain:											
PART 2 — Please tell us about the faculty and moderator for this educational activity											
4 = Excellent 3 = Good	d 2 =	= Suboptimal									
Faculty	Knowledg	Effectiveness as an educator									
David P Carbone, MD, PhD	4	3	2	1		4	3	2	1		
Mark G Kris, MD	4	3	2	1		4	3	2	1		
Corey J Langer, MD	4	3	2	1		4	3	2	1		
Geoffrey R Oxnard, MD	4	3	2	1		4	3	2	1		
David R Spigel, MD	4	3	2	1		4	3	2	1		
Anne S Tsao, MD	4	3	2	1		4	3	2	1		
Moderator	Knowledge of subject matter							educato	or		
Neil Love, MD	4	3	2	1		4	3	2	1		
Please recommend additional faculty for future	activities:										
Other comments about the faculty and moderat	or for this a	activi	ty:								
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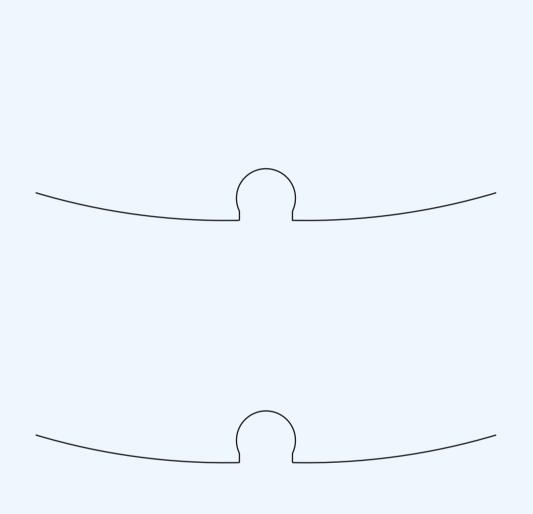
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