ESMO VIRTUAL ADVANCED COURSE PROGRAMME
NTRK GENE FUSION:
A NEW TARGET IN PRECISION TREATMENT OF CANCER

6-7 December 2021

CO-CHAIRS: 
Tsuyoshi Saito, Japan
Silvia Stacchiotti, Italy
Iain Bee Huat Tan, Singapore

SPEAKERS: 
Cristina Antonescu, United States
Jean-Yves Blay, France
Tom Wei-Wu Chen, Taiwan
Yuhki Koga, Japan
Laura Locati, Italy
Makoto Tahara, Japan
Winette T.A. van der Graaf, Netherlands

LEARNING OBJECTIVES

- Acquire knowledge of the TRK family members and their roles in ontogenesis
- Understand the mechanisms of gene fusion and the different fusion partners involved
- Learn how TRK receptors are structured and how their activation impacts signal transduction
- Review the epidemiology of NTRK gene fusion in human tumors
- Understand the methodology to identify NTRK gene fusion and the challenges of testing
- Update knowledge on the present outcome obtained with NTRK inhibitors, their toxicities and clinical management

All timings are to be considered GMT+ 8 (Singapore local time 15:00)
(Local time in Tokyo: 04:00 pm, Lugano/Italy: 08:00 am CET)

Monday, 6 December 2021

15:00-15:05  Welcome and introduction
5’
Tsuyoshi Saito, JP
Silvia Stacchiotti, IT
Iain Bee Huat Tan, SG

15:05-15:35  Session 1
20’
Advances in NTRK-fused tumors classification and diagnosis
Cristina Antonescu, US

10’
Discussion

15:35-16:00  Session 2
15’
Epidemiology and distribution of NTRK gene fusion in human tumors
Iain Bee Huat Tan, SG

10’
Discussion
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| 16:00-16:25| Session 3 | Structure and function of TRK and NTRK in ontogenesis and which are the molecular alterations of interest to consider a treatment with NTRK inhibitors  
Tsuyoshi Saito, JP |
| 16:25-16:40| Break     |                                                                      |
| 16:40-17:30| Session 4 | Clinical data on larotrectinib: activity, efficacy and safety  
Makoto Tahara, JP |
|            |           | Clinical data on entrectinib: activity, efficacy and safety  
Winette T.A. van der Graaf, NL |
| 17:30-18:15| Session 5 | Clinical cases; how to treat NTRK-fused tumors  
15' Pediatric NTRK rearranged tumor  
Yuhki Koga, JP  
15' Adult NTRK rearranged sarcoma, preoperative  
Silvia Stacchiotti, IT  
15' Adult head and neck  
Laura Locati, IT  
15' Discussion |

**Tuesday, 7 December 2021**

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<th>Time</th>
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| 15:00-15:30| Session 6 | NTRK-fused tumors: when to treat and when not to treat with NTRK inhibitors  
Tom Wei-Wu Chen, TW |
| 15:30-16:10| Session 7 | Acquired resistance to NTRK inhibitors and development of inhibitors targeting resistance mutations  
Jean-Yves Blay, FR |
| 16:10-16:25| Break     |                                                                      |
16:25-17:55  Workshop sessions
Two parallel workshop sessions with around 30 delegates in each group
(1 dedicated workshop for medical oncologists & 1 dedicated workshop for pathologists)

Workshop 1  Workshop for Medical Oncologists
90’
Tom Wei-Wu Chen, TW
Tsuyoshi Saito, JP
Makoto Tahara, JP

Structure:
• Presentation of 3 clinical cases by speakers (3 different NTRK tumours type)
• Discussion & questions

Workshop 2  Workshop for Pathologists
90’
Cristina Antonescu, US
Iain Bee Huat Tan, SG
Silvia Stacchiotti, IT

Structure:
• Technical aspects of NTRK diagnosis technics (theoretical aspects, methods)
• Discussion & questions

17:55-18:10  Synthesis and wrap-up
15’

18:10-18:25  Conclusion and farewell
15’
Tsuyoshi Saito, JP
Silvia Stacchiotti, IT
Iain Bee Huat Tan, SG