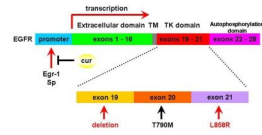
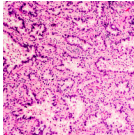


## Molecular Analysis for Non-Small-Cell Lung Cancer

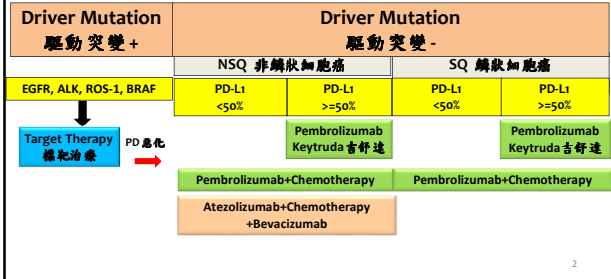
### 非小細胞肺癌的分子生物學分析

李麗娜醫師 輔大醫院檢驗醫學科 胸腔內科



1

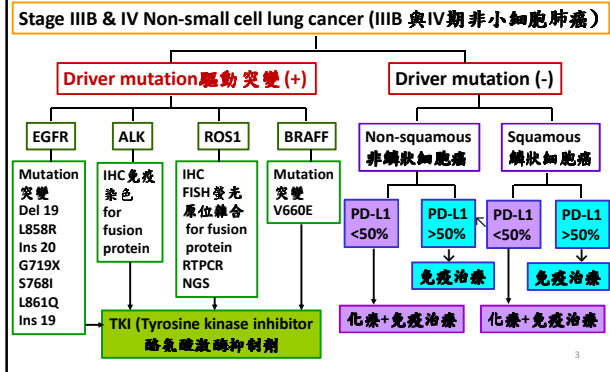
## Current Treatment Algorithm For Advanced NSCLC (晚期非小細胞肺癌治療流程)



2

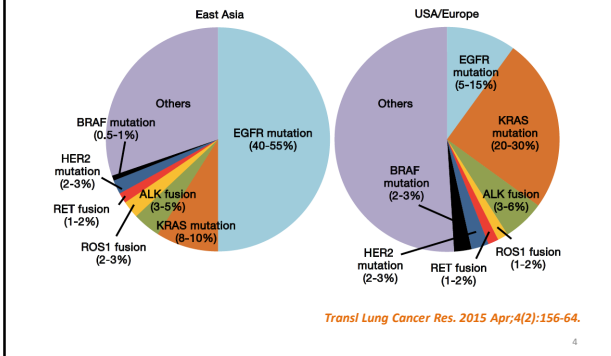
## Non-Small Cell Lung Cancer: Molecular Analysis

### 非小細胞肺癌分子生物學檢測



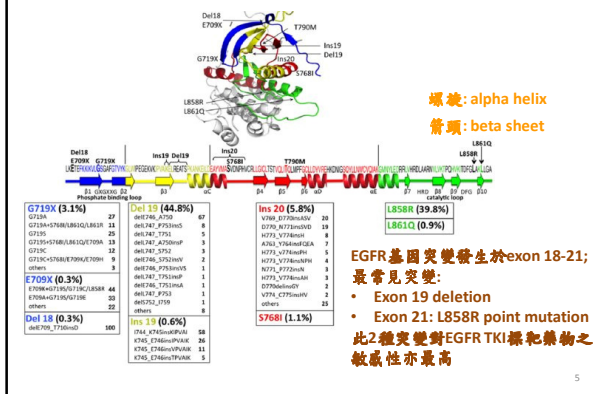
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## Molecular Epidemiology of Lung Adenocarcinoma 肺腺癌分子流行病學



4

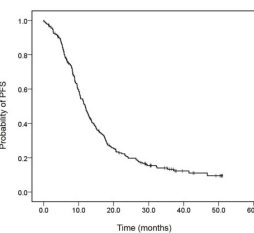
## EGFR 蛋白結構以及肺腺癌EGFR基因突變之種類與頻率



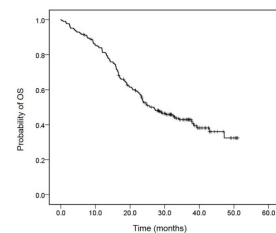
5

## OS after First-line Gefitinib Reimbursement in NTUH (since June, 2011) 健保第一線給付艾瑞莎後第4期肺癌存活期

Median PFS (中位無惡化存活期):  
11.9 months

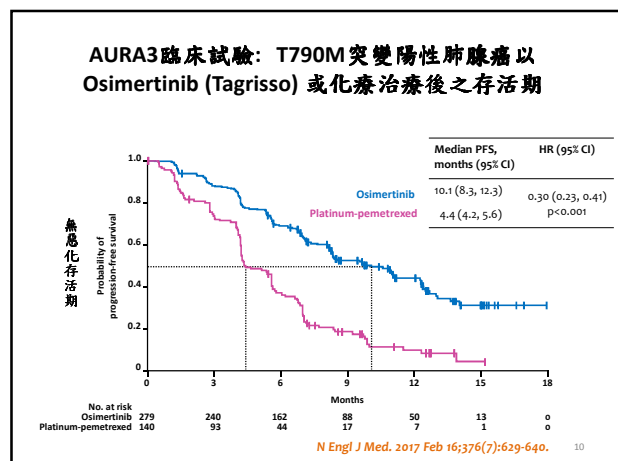
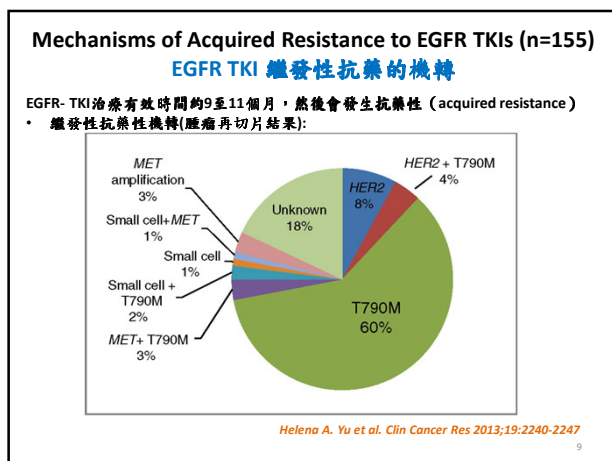
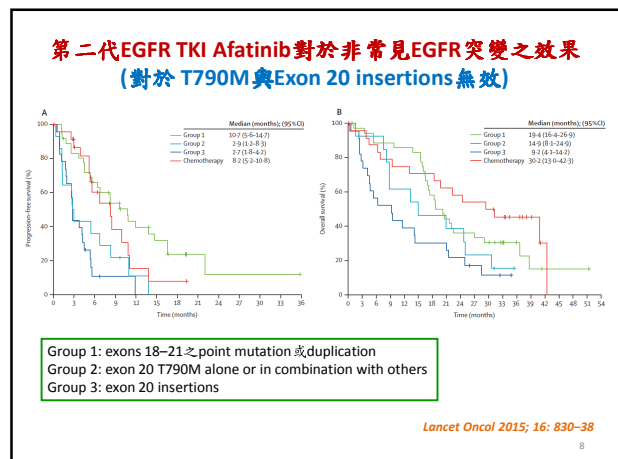
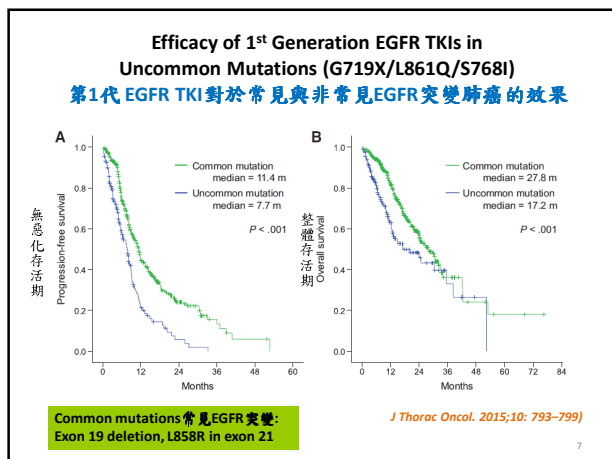


Median OS (中位整體存活期):  
26.9 months

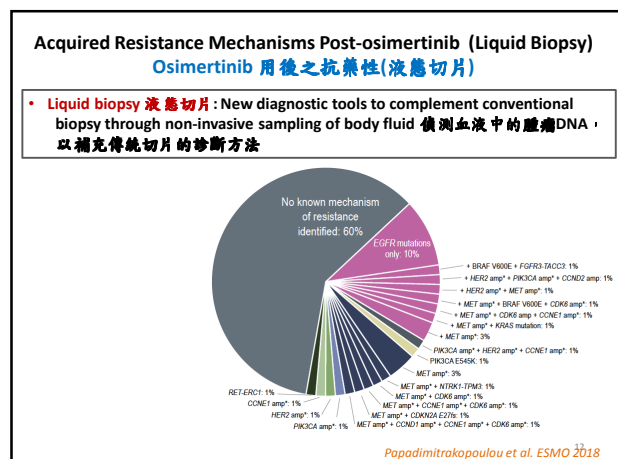


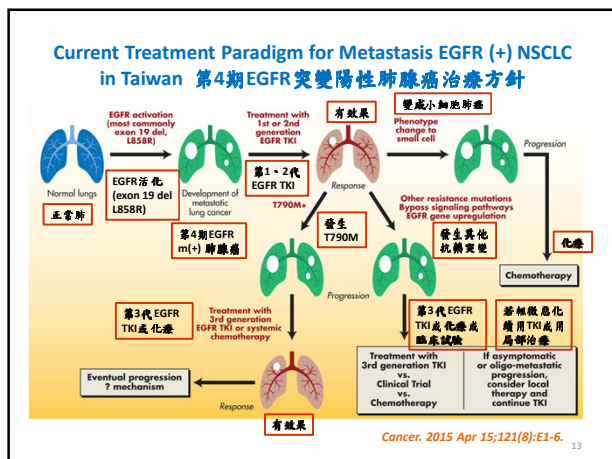
Oncologist. 2017 Sep;22(9):1075-1083.

6

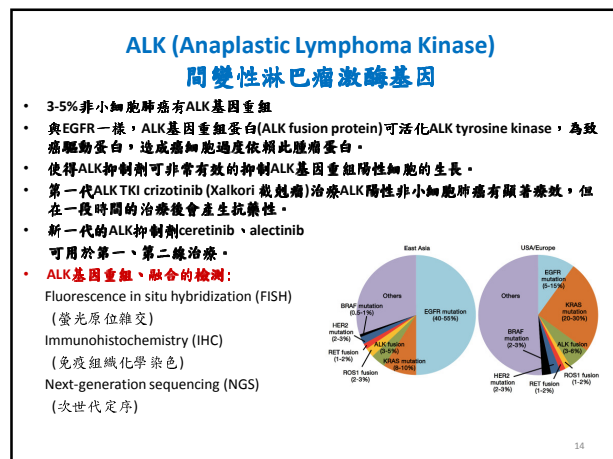


Exon	Mutation	Effective tyrosine kinase inhibitor (TKI)
Exon 19	Exon 19 deletions	Gefitinib 艾瑞莎(第一代TKI) Erlotinib 得舒緩(第一代TKI) Afatinib 妥復克(第二代TKI)
Exon 20	T790M	Osimertinib 塔格瑞斯(第三代TKI)
Exon 20	Exon 20 insertions	(-)
Exon 20	C797S	? 第四代TKI
Exon 21	L858R	Gefitinib 艾瑞莎(第一代TKI) Erlotinib 得舒緩(第一代TKI) Afatinib 妥復克(第二代TKI)

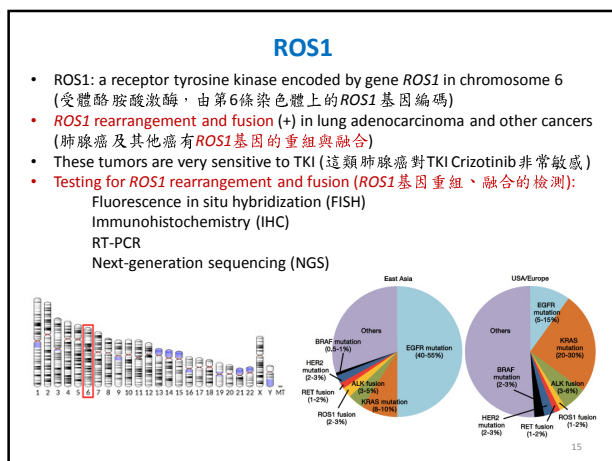




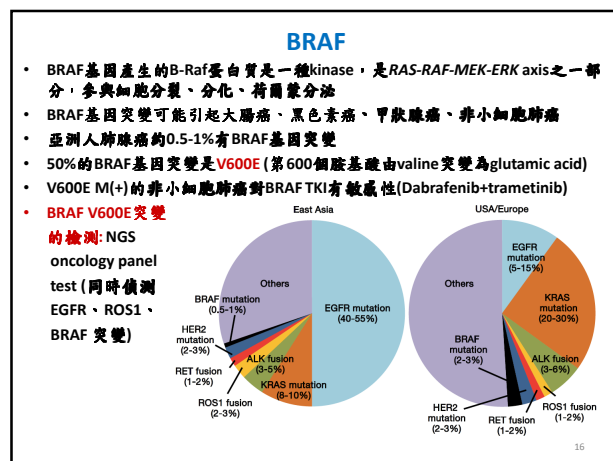
13



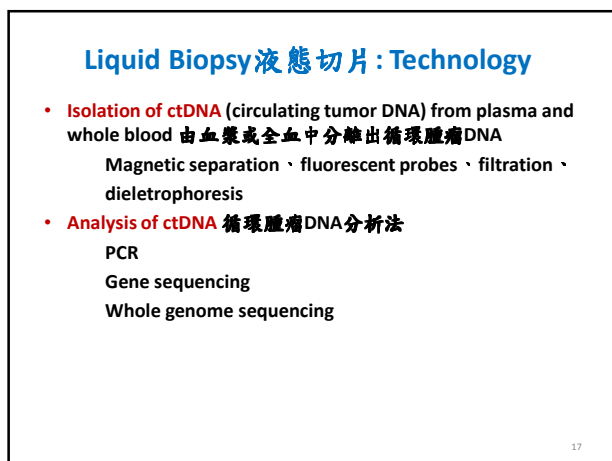
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非小細胞肺癌的免疫治療:  
Immune Checkpoint Inhibitors 免疫檢查點抑制劑

- **免疫檢查點:** 免疫系統的關鍵蛋白，當被刺激時，可抑制免疫系統。
- 有些癌細胞可以藉著刺激免疫檢查點，達到抑制免疫系統、躲過免疫攻擊的目的。
- **免疫檢查點抑制劑:** 抑制檢查點，恢復免疫系統功能，讓T細胞攻擊癌細胞。
- PD-1/PD-L1 (Programmed cell-death protein 1 / ligand) 途徑可抑制T細胞活化
- **PD-1/PD-L1的單株抗體(Pembrolizumab, Keytruda)**可抑制PD-1/PD-L1途徑，對於PD-L1表現陽性的黑色素瘤、膀胱癌、非小細胞肺癌有免疫治療效果。
- 非小細胞肺癌免疫治療法有關之檢測: PD-L1 的 IHC (免疫組織化學染色)

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