Title:
Updated Efficacy and Safety of Pralsetinib in Chinese Patients with Advanced RET Fusion+ Non-Small Cell Lung Cancer

Authors:
Q. Zhou1, Y.-L. Wu1, J. Zhao2, J. Chang3, H. Wang3, Y. Fan4, K. Wang5, G. Wu6, W. Nian7, Y. Gong7, Y. Sun8, M. Sun8, X. Wang9, H. Shi9, X. Zheng10, M. Qin11, X. Duan 11, Z. Shen11, S. Yao11, J. Yang11

External author	Internal author	Affiliations
Qing Zhou	Mengmeng Qin	1. Guangdong Lung Cancer Institute, Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Guangzhou, China; 2. Beijing Cancer Hospital, Beijing, China 3. Fudan University Shanghai Cancer Center, Shanghai, China; 4. Zhejiang Cancer Hospital, Hangzhou, China; 5. West China Hospital Sichuan University, Chengdu, China; 6. Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China; 7. Chongqing Cancer Hospital, Chongqing, China; 8. Jinan Central Hospital, Jinan, China; 9. First Affiliated Hospital of Gannan Medical University, Ganzhou, China; 10. Tianjin Medical University Cancer Institute & Hospital, Tianjin, China; 11. CStone Pharmaceuticals (SuZhou) Co., Ltd., Suzhou, China
Yi-Long Wu	Xiaoxue Duan	
Jun Zhao	Zhenwei Shen	
Jianhua Chang	Sheng Yao	
Huijie Wang	Jason Yang	
Yun Fan		
Ke Wang		
Gang Wu		
Weiqi Nian		
Yi Gong		
Yuping Sun		
Meili Sun		
Xiangcai Wang		
Huaqiu Shi		
Xiangqian Zheng		

Introduction:
Pralsetinib is a potent, selective Rearranged during Transfection (RET) inhibitor targeting oncogenic RET alterations and is the first RET inhibitor approved in China. ARROW is a global phase I/II registrational study to evaluate the safety and efficacy of pralsetinib in a variety of advanced RET altered solid tumors including non-small cell lung cancer (NSCLC). Here we present updated results of the ARROW study in Chinese patients with advanced RET fusion+ NSCLC.

Methods:
RET fusion+ Chinese NSCLC patients with or without prior platinum-based chemotherapy were enrolled and administered with pralsetinib 400 mg QD. The primary endpoints were objective response rate (ORR) by blinded independent central review per RECIST v1.1 and safety.

Results:
As of 4 Mar 2022, 68 Chinese patients with RET fusion+ NSCLC received pralsetinib. Amongst 37 patients who were previously treated with platinum-based chemotherapy, ORR was 66.7% (22/33; 95% CI 48-82; 1 CR, 21 PR) in 33 patients with measurable lesions at baseline; median PFS (95% CI) was 11.7 months (8.7; -) and 24-month PFS rate was 37.5%. Amongst 31 patients

who were treatment-naïve, ORR was 83.3% (25/30, 95% CI 65-94; 2 CR, 23 PR) in 30 patients with measurable lesions at baseline; median PFS (95% CI) was 12.7 months (8.9; -) and 18-month PFS rate was 36.2%. The most frequently reported treatment-related adverse events (TRAEs) in all (N=68) NSCLC patients were aspartate aminotransferase increased (82%), neutrophil count decreased (79%), anaemia (72%), white blood cell count decreased (62%), and alanine aminotransferase increased (57%). 11.8% of patients discontinued pralsetinib due to TRAEs.

Conclusions:
With longer follow-up, pralsetinib continues to demonstrate deep and durable response and long-term clinical benefit in RET fusion+ NSCLC Chinese patients with or without prior platinum-based chemotherapy. Updated results are consistent with previously reported results from the global population in the ARROW trial. Pralsetinib in Chinese patients has a manageable safety profile, with no new safety signals detected. Overall, pralsetinib showed a favorable benefit-risk profile, offering a transformative medicine to Chinese RET-fusion driven advanced NSCLC patients.