

Efficacy of RLY-4008

Efficacy of RLY-4008, a highly selective FGFR2 inhibitor in patients with an *FGFR2* fusion or rearrangement, FGFR inhibitor-naïve cholangiocarcinoma: ReFocus trial

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Declaration of Interests

Dr. Antoine Hollebecque declares participation on safety monitoring or consulting and advisory boards for Amgen, Basilea, BMS, Incyte, Servier, QED Therapeutics, Relay Therapeutics, and Taiho



Cholangiocarcinoma and Oncogenic FGFR2 Fusions

Cholangiocarcinoma (CCA) is a rare FGFR2 fusions/rearrangements drive malignancy with a dismal prognosis¹ ~10-15% of intrahepatic cholangiocarcinoma² lg-1 lg-2 lg-3 Exon 18 Y ΥY ΥY 770 780 784 806 813 FGFR2 IIIb C1/WT/FL Grb2-binding Intrahepatic CCA Υ L D 770 773 Y Y Y 770 780 784 Perihilar CCA FGFR2 IIIb C2 D 770 773 FGFR2 IIIb C3 Fusion partner Gallbladder cancer DIMERIZATION FGFR2 IIIb Fusions **Distal CCA ΔE18** 1st Line: Gemcitabine/Cisplatin +/- Durvalumab mOS ~1 year³⁻⁴ 2nd Line Emerging pan-FGFRi: 2nd Line: FOLFOX mOS ~6m⁵ Infigratinib, Pemigatinib, Futibatinib Off-isoform toxicities; On-target resistance mutations⁶⁻¹³

1.Banales JM, et al. Nature Rev Gastroenterol Hepatol. 2020;17b(9):557-588. 2. Jusakul A, et al. Cancer Discov. 2017;7(10):1116-1135. 3. Valle J, et al. N Eng J Med. 2010;362:1273-81. 4. Imfinzi (durvalumab) [package insert]. Wilmington. DE AstraZeneca; 2022. 5. Lamarca A, et al. Lancet Oncol. 2021;2(2):630-701. 6. Yu J, et al. OncoTargets Ther. 2021:14:5145-5160. 7. About -Alfa GK. et al. Lancet Oncol. 2020;21: 671-684. 8. Javle M. et al. Lancet Gastroenterol Hepatol. 2021;6:803-815. 9. Meric-Bernstam F.et al. Cancer Discov. 2021;21:2402-415. 10.Silverman IM. et al. Cancer Ther. 2021;9:8047-857.



RLY-4008: The First Highly Selective FGFR2 Inhibitor



1. Schönherr H. et al. Presented at MedChem GRC meeting; August 7-12,2022. 2. Goyal L. et al. Presented at AACR Annual Meeting; April-9-14;2021. 3. Truseltiq(infigratinib) [package insert]. Brisbane, CA QED Therapeutics; 2021. 4. Pemazyre(pemigatinib) [NDA]. Wilmington, DE;2019. www.accessdata.fda.gov/drugsatfda_docs/nda/2020/213736Orig1s000ChemR.pdf Accessed August 25,2022. 5. Sootome H. et al. Cancer Res. 2020;80(22):4986-4997.

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ReFocus: A Global, Seamless Phase 1/2 Open Label Study



Key objectives

Phase 1: Maximum tolerated dose and Recommended Phase 2 Dose (RP2D), safety, PK and preliminary efficacy **Phase 2**: Objective response rate (ORR) and duration of response (DoR) by independent review committee

Preliminary data, data cut August 1, 2022 (response investigator assessed)



Phase 2 Expansion (initiated Dec 2021)

Patient Characteristics

| Developmenter | CCA, Fusion+, FGFRi-naïve* | | | |
|--|----------------------------|------------------|-------------------------------|--|
| Parameter | RP2D, 70 mg QD (N=17) | All doses (N=38) | Overali ^{®®} (N=195) | |
| Age (years), median (range) | 57 (36 to 81) | 58 (33 to 81) | 59 (23 to 87) | |
| Female, % | 59 | 58 | 62 | |
| Race, % | | | | |
| White / Asian / Black / Unknown | 41 / 24 / 0 / 35 | 58 / 21 / 3 / 18 | 63 / 15 / 4 / 18 | |
| ECOG PS, % | | | | |
| 0 | 53 | 50 | 38 | |
| 1 | 47 | 50 | 58 | |
| 2 | 0 | 0 | 3 | |
| Prior lines of systemic therapy, % | | | | |
| 0 | 0 | 0 | 2 | |
| 1 | 41 | 47 | 20 | |
| 2 | 47 | 32 | 29 | |
| 3+ | 12 | 21 | 49 | |
| Baseline sum of target lesions (RECIST 1.1, mm), median (range) | 57 (10 to 157) | 63 (10 to 216) | 79 (10 to 274) | |

* Efficacy analysis includes patients who are FGFRi naïve CCA from Phase 1 and Phase 2. Patients with measurable disease who had opportunity for ≥2 tumor assessments to confirm response or discontinued treatment with <2 tumor assessments.

** Safety population includes patients who received ≥1 dose of RLY-4008 at any dose level.



RLY-4008 Provides Potent and Selective FGFR2 Inhibition





Radiographic Tumor Regression and Response per RECIST 1.1 Across All Doses



Radiographic Tumor Regression and Response per RECIST 1.1 at RP2D (70 mg QD)





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Confirmed ORR 82.4% 1/15 unconfirmed PR

RLY-4008 Induces Marked Radiographic Response per RECIST 1.1



56-year-old female with FGFR2-PLETHA4 rearrangement ICC

Refractory to Gemcitabine/Cisplatin

RLY-4008 70 mg QD

Ongoing confirmed partial response per RECIST 1.1 (-68%)



Courtesy A. Hollebecque, IGR.

Radiographic Response per RECIST 1.1

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| | Patients with <i>FGFR2</i> fusions or rearrangements, FGFRi-naïve | | |
|---|--|----------------------------|--|
| Parameter | RP2D, 70 mg QD (N=17) | All doses (N=38) | |
| Objective response rate (ORR), n (% [95% CI]) | 15 (88.2 [63.6 - 98.5]) | 24 (63.2 [46.0 - 78.2]) | |
| Confirmed ORR, n (% [95% CI]) | 14 (82.4 [56.6 - 96.2]) | 22 (57.9 [40.8 - 73.7]) | |
| Best overall response, % Partial response Unconfirmed partial response Stable disease Progressive disease | 82.4 5.9 11.8 — | 57.9 5.3 31.6 5.3 | |
| Response ongoing, n/N (%)* | 15/15 (100.0) | 19/24 (79.2) | |
| Disease control rate, n (% [95% Cl]) | 17 (100.0 [80.5 - 100.0]) | 36 (94.7 [82.3 - 99.4]) | |
| Remain on treatment, n (%) | 15 (88.2) | 26 (68.4) | |

* Includes 2 patients who came off treatment while still in response without disease progression.

Duration of Exposure and Responses Across All Doses



QDi = once daily dosing on an intermittent schedule; BID = twice daily dosing

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12/38 (32%) Discontinued - 1 resection (対 with curative intent, 8 PD, 1 AE, 2 withdrawal of consent.

Treatment-Related Adverse Events (TRAEs) ≥ 15%



| TRAE Dose Modification | RP2D, 70mg QD (N=89) | All Doses (N=195) |
|------------------------|----------------------|-------------------|
| Interruption, n (%) | 37 (42) | 92 (47) |
| Reduction, n (%) | 24 (27) | 65 (33) |
| Discontinuation, n (%) | 1 (1) | 2* (1) |

*1 hypersensitivity,1 retinal pigment epithelial detachment, both resolved

PPE: palmar plantar erythrodysesthesia syndrome; relatedness determined by investigator



Conclusions

RLY-4008 is the first highly selective, irreversible inhibitor designed to target oncogenic *FGFR2* driver alterations and resistance mutations

ReFocus validates this novel MOA and supports expedited development for the treatment of patients with FGFRi-naïve CCA harboring an *FGFR2* fusion or rearrangement

High response rates and encouraging durability confirm highly potent FGFR2 targeting

- At the RP2D 70 mg QD, ORR is 88% (15/17, 15 with response ongoing)
- Across doses, ORR is 63% (24/38, 19 with response ongoing)

PK/PD and differentiated safety profile confirm highly selective FGFR2 inhibition

- Robust target inhibition
- Most AEs are low grade, largely reversible on-target AEs
- No clinically significant off-isoform toxicity

Results suggest that RLY-4008 has potential to transform CCA treatment paradigm and strongly support seamless expansion of ReFocus with registrational intent



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