

# Preliminary Efficacy and Safety of the Bruton Tyrosine Kinase Degradar BGB-16673 in Patients With Relapsed or Refractory CLL/SLL: Results From the Phase 1 BGB-16673-101 Study

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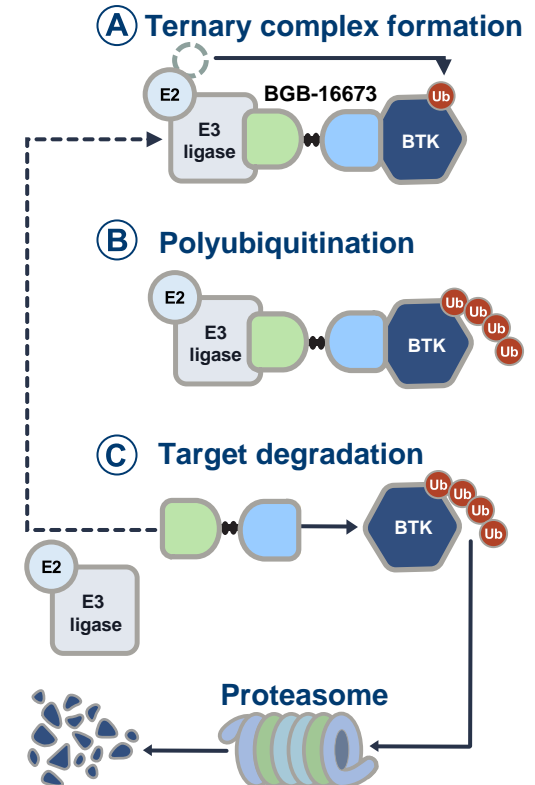
## Disclosures for Constantine S. Tam

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# BGB-16673: A Chimeric Degradation Activating Compound (CDAC)

- Many patients with CLL/SLL experience disease progression after BTK inhibitors<sup>1-3</sup>
- BGB-16673, a CDAC, is a bivalent molecule comprising a BTK-binding moiety + linker + E3 ligase binder that induces BTK degradation via polyubiquitination<sup>4</sup>
- In preclinical models, BGB-16673 degraded both wild-type and mutant BTK resistant to covalent and noncovalent BTK inhibitors,<sup>a</sup> leading to tumor suppression<sup>4,5</sup>
- BGB-16673 led to substantial reductions in BTK protein levels in peripheral blood and tumor tissue in the first-in-human study<sup>6</sup>
- Here, the updated safety and efficacy results are presented from patients with R/R CLL/SLL in the ongoing CaDAnCe-101 study



<sup>a</sup> Covalent BTK inhibitor-resistant mutations including C481S, C481F, C481Y, L528W, and T474I; non-covalent BTK inhibitor-resistant mutations including V416L, M437R, T474I, and L528W. CDAC, chimeric degradation activating compound; ub, ubiquitin.

1. Tam CS, et al. *Blood Cancer J.* 2023;13(1):141-143; 2. Woyach JA, et al. *N Engl J Med.* 2014;370:2286-2294; 3. Wang E, et al. *N Engl J Med.* 2022;386:735-743;

4. Feng X, et al. EHA 2023. Abstract P1239; 5. Wang H, et al. EHA 2023. Abstract P1219; 6. Seymour JF, et al. ASH 2023; Abstract 4401.

# Study Design

- CaDAnCe-101 (BGB-16673-101, NCT05006716) is a phase 1/2, open-label, dose-escalation and dose-expansion study evaluating BGB-16673 in adults with R/R B-cell malignancies

## Key eligibility criteria for CLL/SLL

- Meets iwCLL 2018 criteria for treatment
- ≥2 prior therapies, including cBTKi if approved for disease
- ECOG PS 0-2 & adequate end-organ function

## Key study objectives for part 1

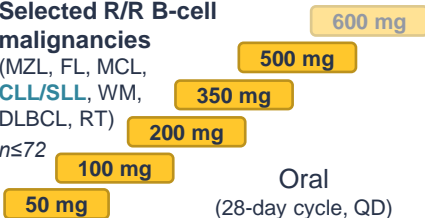
- Primary:** safety<sup>c</sup> and tolerability, MTD, and RP2D
- Secondary:** PK, PD, and preliminary antitumor activity<sup>d</sup>

## Part 1: Monotherapy dose finding<sup>a</sup>

### Part 1a: Dose escalation<sup>b</sup>

**Selected R/R B-cell malignancies**  
(MZL, FL, MCL, CLL/SLL, WM, DLBCL, RT)

*n*≤72



### Part 1b: Safety expansion

**Selected R/R B-cell malignancies**  
(MZL, MCL, CLL/SLL, WM)  
*n*≤120

≤20 patients at doses cleared in part 1a: dose escalation and recommended for additional evaluation by the SMC

### Part 1c: Additional safety expansion

**Selected R/R B-cell malignancies**  
(MZL, WM, RT, DLBCL, FL)  
*n*≤40

After part 2 opened, ≤40 patients in ≤3 dose levels as recommended by the SMC

**Determination of BGB-16673 RP2D**

## Phase 2

**Cohort 1:**  
Post-BTK inhibitor,  
R/R CLL/SLL

**Cohort 2:**  
Post-BTK inhibitor,  
R/R MCL

**Cohort 3:**  
Post-BTK inhibitor,  
R/R WM

**Cohort 4:**  
Post-BTK inhibitor,  
R/R MZL

**Cohort 5:**  
R/R FL

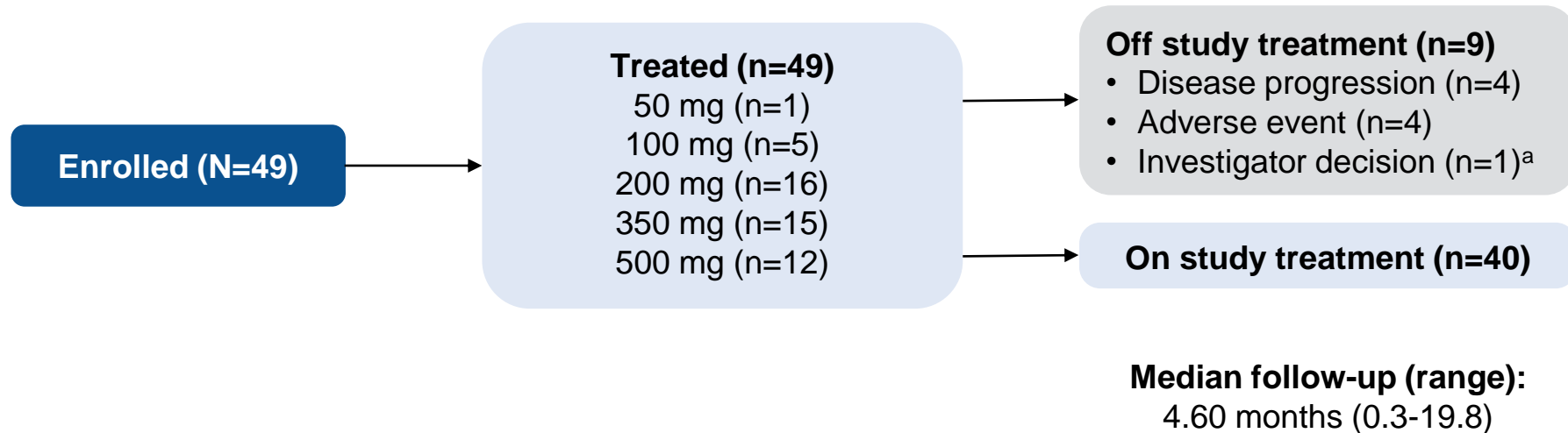
**Cohort 6:**  
R/R non-GCB  
DLBCL

**Cohort 7:**  
Post-BTK inhibitor,  
R/R RT

<sup>a</sup> Data from grey portions of figure are not included in this presentation. <sup>b</sup> Bayesian optimal interval design with 6 dose levels (50-600 mg orally QD). <sup>c</sup> Safety was assessed according to CTCAE v5.0 in all patients and iwCLL hematologic toxicity criteria in patients with CLL; DLTs were assessed during the first 4 weeks. <sup>d</sup> Response was assessed per iwCLL 2018 criteria after 12 weeks for patients with CLL.<sup>1</sup> GCB, germinal center B-cell; RT, Richter transformation. 1. Hallek M, et al. *Blood*. 2018;131:2745-2760.

# Patient Disposition

- As of February 14, 2024, 49 patients with R/R CLL/SLL enrolled in part 1A/1B and received BGB-16673
- Forty patients (82%) remained on treatment



<sup>a</sup> Patient had ongoing low-grade arthralgia that did not otherwise meet the criteria for discontinuation.

# Patient Characteristics

- Patients had a median of 4 (range, 2-10) prior lines of therapy
- Of patients with available data, high-risk characteristics were prevalent, such as:
  - Unmutated IGHV locus (82%)
  - Del(17p) or *TP53* mutation (60%)
  - Complex karyotype (47%)

	Total (N=49)
<b>Age, median (range), years</b>	70 (50-91)
<b>Male sex, n (%)</b>	31 (63)
<b>ECOG PS, n (%)</b>	
1	19 (39)
2	1 (2)
<b>CLL/SLL risk characteristics at study entry, n/N (%)</b>	
Binet stage C	23/46 (50)
Unmutated IGHV	32/39 (82)
del(17p) or <i>TP53</i> mutation	28/47 (60)
Complex karyotype (≥3 abnormalities)	15/32 (47)

	Total (N=49)
<b>Mutation status, n/N (%)</b>	
<i>BTK</i> mutation present	15/47 (32)
<i>PLCG2</i> mutation present	6/47 (13)
<b>No. of prior lines of therapy, median (range)</b>	4 (2-10)
<b>Prior therapy, n (%)</b>	
Chemotherapy	38 (78)
cBTK inhibitor	45 (92)
ncBTK inhibitor	11 (22)
BCL2 inhibitor	42 (86)
cBTK + BCL2 inhibitors	37 (76)
cBTK + ncBTK + BCL2 inhibitors	11 (22)
<b>Discontinued BTK inhibitor due to PD, n/N (%)</b>	40/45 (89)

# Overall Safety Summary

- One DLT was reported (200-mg dose; grade 3 maculopapular rash)<sup>a</sup>
- None of the 3 TEAEs that led to death were considered related to treatment by the investigator

Patients, n (%)	Total (N=49)
<b>Any TEAE</b>	47 (96)
Any treatment-related	30 (61)
Grade ≥3	27 (55)
Treatment-related grade ≥3	13 (27)
Serious	21 (43)
Treatment-related serious	6 (12)
Leading to death <sup>b</sup>	3 (6)
Treatment-related leading to death	0
Leading to treatment discontinuation <sup>c</sup>	6 (12)
Treatment-related leading to treatment discontinuation	1 (2)
Leading to treatment modification	18 (37)
Dose interruption	18 (37)
Dose reduction	3 (6)

<sup>a</sup> DLTs were only assessed during the first 4 weeks of part 1a. <sup>b</sup> (1) Septic shock (350 mg); (2) aspergillosis (350 mg); (3) pneumonia (200 mg) in the context of PD. <sup>c</sup> (1) Aspergillosis and cerebral aspergillosis (350 mg); (2) general physical health deterioration (350 mg) in the context of PD; (3) septic shock (350 mg); (4) pneumonia (200 mg) in the context of PD; (5) subdural hemorrhage (350 mg); (6) thyroid carcinoma (200 mg).

# Most Frequent Adverse Events

Patients, n (%)	Total (N=49) <sup>a</sup>	
	All Grade	Grade ≥3
Fatigue	16 (33)	1 (2)
Contusion	14 (29)	0
Anemia	11 (22)	1 (2)
Diarrhea	11 (22)	0
Neutropenia/neutrophil count decreased	11 (22)	10 (20)
Pneumonia	8 (16)	6 (12)
COVID-19	7 (14)	0
Cough	7 (14)	0
Dyspnea	7 (14)	0
Amylase increased <sup>b</sup>	6 (12)	0
Lipase increased <sup>b</sup>	6 (12)	1 (2)
Pyrexia	6 (12)	0
Thrombocytopenia/platelet count decreased	6 (12)	0
Arthralgia	5 (10)	0
Decreased appetite	5 (10)	0
Nausea	5 (10)	0
No cases of atrial fibrillation or grade ≥3 hypertension were reported		

<sup>a</sup> All grade TEAEs in ≥10% of patients. <sup>b</sup> All events were lab findings and were transient, mostly occurring during the first 1-3 cycles of treatment, with no clinical pancreatitis.



# Overall Response Rate

- The ORR was 72% (31/43) in response-evaluable patients with CLL/SLL
- The ORR for the 200-mg group was 88%, with 2 patients achieving CR

	50 mg (n=1)	100 mg (n=5)	200 mg (n=16)	350 mg (n=14)	500 mg (n=7)	Total (N=43)
<b>Best overall response, n (%)<sup>a</sup></b>						
CR	0	0	2 (13)	0	0	2 (5)
PR	1 (100)	4 (80)	10 (63)	6 (43)	1 (14)	22 (51)
PR-L	0	0	2 (13)	2 (14)	3 (43)	7 (16)
SD	0	1 (20)	1 (6)	2 (14)	3 (43)	7 (16)
PD	0	0	1 (6)	1 (7)	0	2 (5)
Discontinued prior to first assessment	0	0	0	3 (21)	0	3 (7)
<b>ORR, n (%)<sup>b</sup></b>	<b>1 (100)</b>	<b>4 (80)</b>	<b>14 (88)<sup>c</sup></b>	<b>8 (57)</b>	<b>4 (57)</b>	<b>31 (72)</b>
<b>Disease control rate, n (%)<sup>d</sup></b>	<b>1 (100)</b>	<b>5 (100)</b>	<b>15 (94)</b>	<b>10 (71)</b>	<b>7 (100)</b>	<b>38 (88)</b>
<b>Follow-up time, median, months</b>	<b>19.8</b>	<b>7.2</b>	<b>6.3</b>	<b>3.9</b>	<b>3.3</b>	<b>4.6<sup>e</sup></b>
<b>Time to first response, median (range), months<sup>f</sup></b>	<b>2.9 (2.9-2.9)</b>	<b>4.2 (2.8-6.2)</b>	<b>2.8 (2.6-4.1)</b>	<b>2.8 (2.6-5.6)</b>	<b>2.8 (2.6-2.8)</b>	<b>2.8 (2.6-6.2)</b>

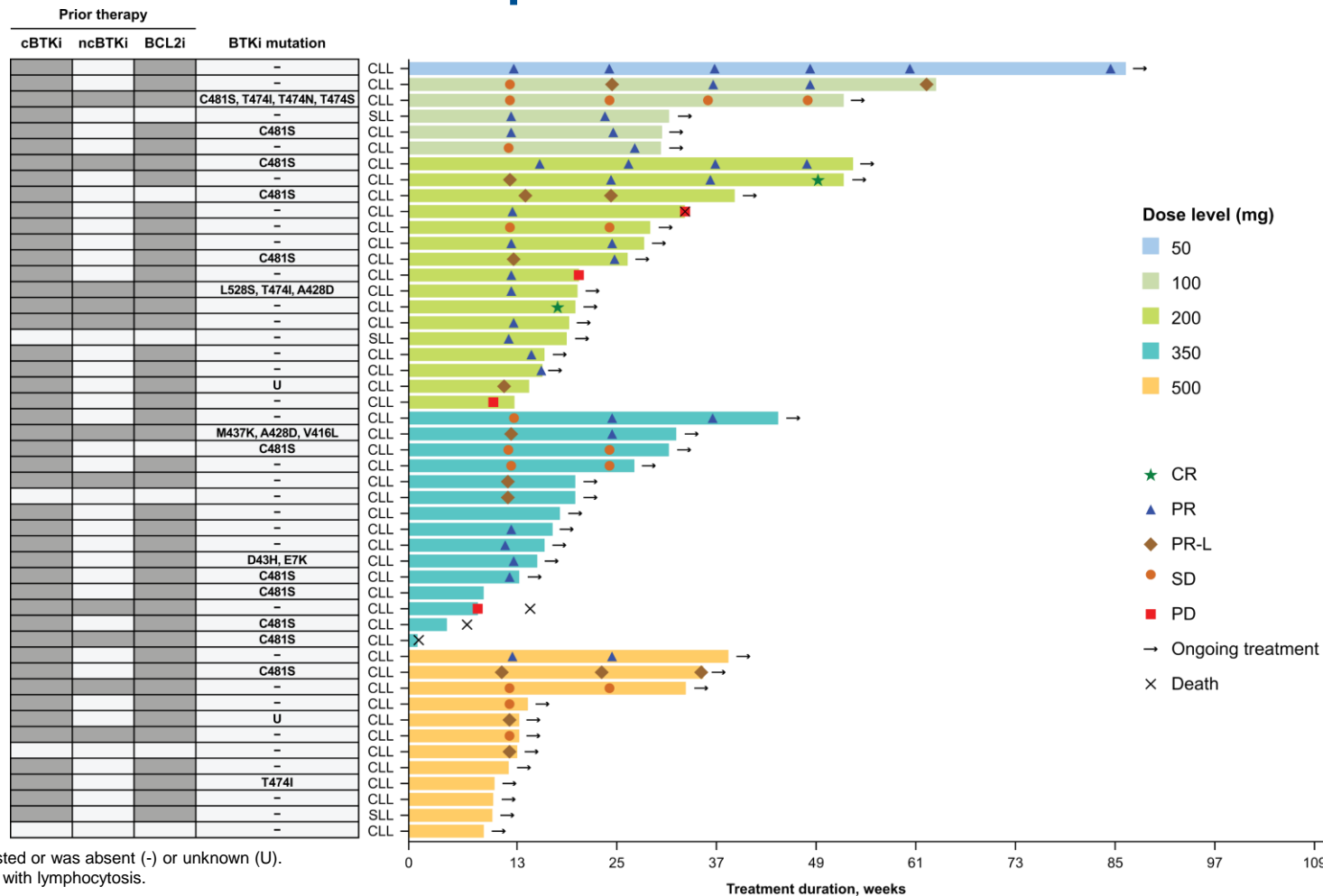
<sup>a</sup> Percentages may not sum to 100 due to rounding. <sup>b</sup> Proportion of patients who achieved a best overall response of PR-L or better. <sup>c</sup> One additional patient reported response after the February 14, 2024 data cut, indicating a 94% ORR (15/16 patients) in the 200-mg dose group. <sup>d</sup> Proportion of patients who achieved a best overall response of SD or better. <sup>e</sup> Study follow-up enrolled set N=49. <sup>f</sup> Time to first qualifying response in patients with a best overall response better than SD. PR-L, partial response with lymphocytosis.

# Overall Response Rate

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- The ORR was similar in patients who had:
  - Previously received cBTK + BCL2 inhibitors (70%)
  - Del(17p) or *TP53* mutation (68%)
  - Complex karyotype (67%)
- Responses have been observed in patients with C481S, T474I, and/or L528S *BTK* mutations, as well as patients with *PLCG2* mutations

# Treatment Duration and Response



BTK mutation status listed or was absent (-) or unknown (U).  
PR-L, partial response with lymphocytosis.

# Conclusions

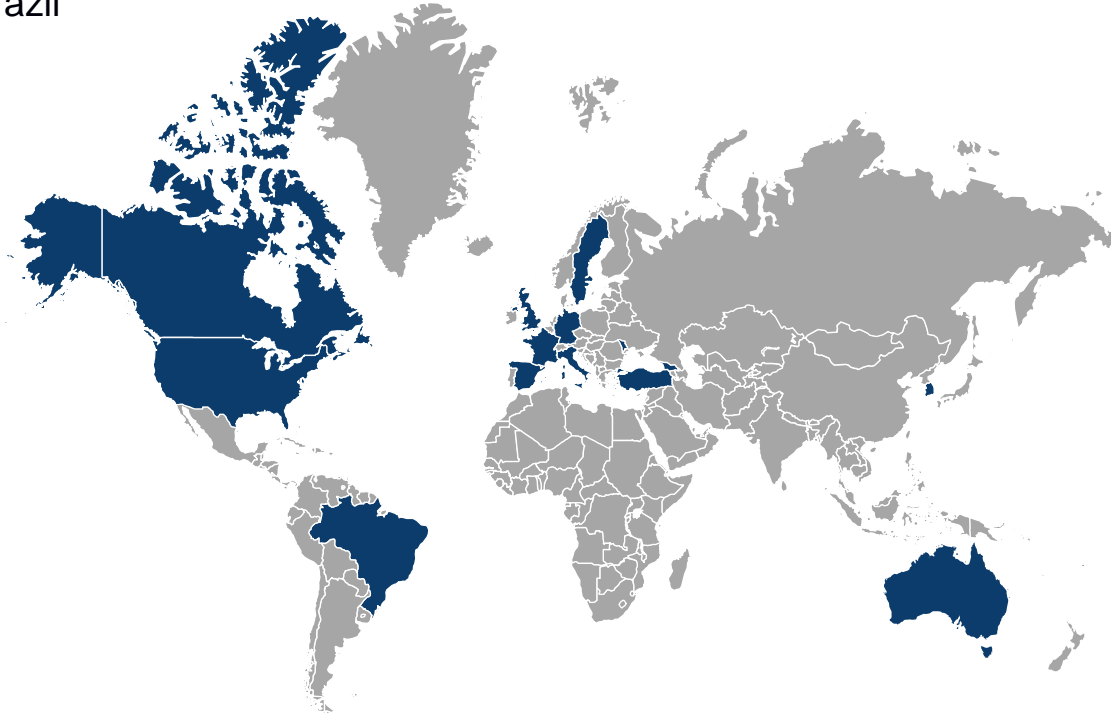
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- In results from this ongoing first-in-human study, the novel BTK degrader BGB-16673 showed a generally well tolerated safety profile in this heavily pretreated CLL population
  - One DLT was reported and MTD was not reached
  - No atrial fibrillation or grade  $\geq 3$  hypertension has been reported so far
- There was promising antitumor activity, including in patients with BTK inhibitor–resistant mutations and those previously exposed to cBTK inhibitors, ncBTK inhibitors, and BCL2 inhibitors
  - ORR was 72% (31/43) with an 88% ORR in the 200-mg group, including 2 CRs<sup>a</sup>
  - Median time to first response was 2.8 months
  - Responses may continue to evolve as the study continues beyond the median 4.6-month follow-up
- A phase 2 cohort of patients with CLL/SLL exposed to both a cBTK inhibitor and BCL2 inhibitor is now enrolling
- These data support promising clinical activity of BGB-16673 in treatment of patients with CLL/SLL

<sup>a</sup> One additional patient reported response after the February 14, 2024 data cut, indicating a 94% ORR (15/16 patients) in the 200-mg dose group.  
cBTK, covalent BTK; ncBTK, noncovalent BTK.

## CaDAnCe-101 Study Sites (Recruiting)

- Enrollment for the CaDAnCe-101 study part 1c and phase 2 is ongoing at 90 of 115 planned study sites across the US, Canada, UK, France, Georgia, Germany, Italy, Moldova, Spain, Sweden, Turkey, Australia, South Korea, and Brazil



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# Thank you