

### Novità dal Meeting della Società Americana di Ematologia

Bologna Palazzo Re Enzo 13-15 Febbraio 2025

COORDINATORI Angelo Michele Carella Pier Luigi Zinzani BOARD SCIENTIFICO Paolo Corradini Mauro Krampera Fabrizio Pane Adriano Venditti



#### 3° SESSIONE – LEUCEMIA LINFATICA CRONICA: Terapie di salvataggio

Lydia SCARFO' Università Vita Salute e IRCCS Ospedale San Raffaele, Milano



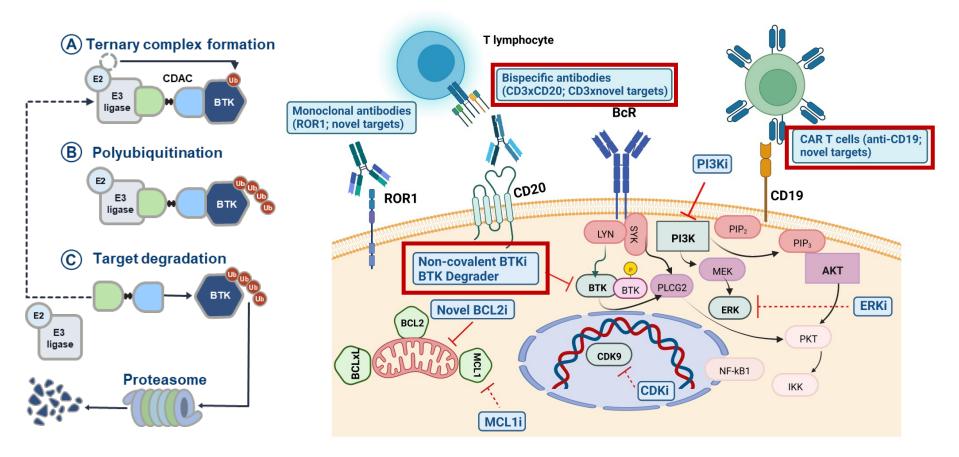
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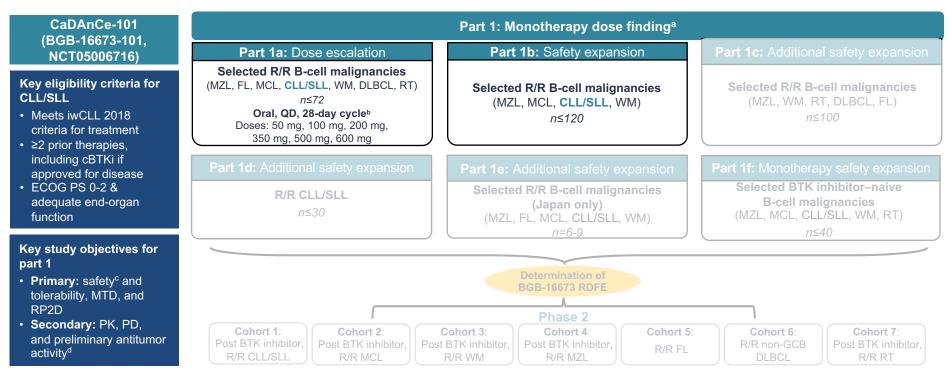
#### **Disclosures of Lydia Scarfò**

| Company name | Research<br>support | Employee | Consultant | Stockholder | Speakers<br>bureau | Advisory<br>board | Other |
|--------------|---------------------|----------|------------|-------------|--------------------|-------------------|-------|
| AbbVie       |                     |          | х          |             |                    | X                 |       |
| AstraZeneca  |                     |          | x          |             |                    | x                 |       |
| BeiGene      |                     |          | x          |             |                    | x                 |       |
| 181          |                     |          | x          |             |                    | x                 |       |
| Lilly        |                     |          |            |             |                    | x                 |       |
| Merck        |                     |          | х          |             |                    |                   |       |

#### Is there hope for the future?



#### CaDAnCe-101: Phase 1/2, Open-Label, Dose-Escalation/ Expansion Study in R/R B-Cell Malignancies



<sup>a</sup> Data from gray portions of the figure are not included in this presentation. <sup>b</sup>Treatment was administered until progression, intolerance, or meeting other criteria for treatment discontinuation. <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 of part 1a. <sup>d</sup> Response was assessed per iwCLL 2018 criteria after 12 weeks in patients with RT.

GCB, germinal center B cell; RT, Richter transformation.

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# **Baseline Patient Characteristics**

Heavily pretreated, with high-risk CLL features

|  | Total<br>(N=60) |   | Total<br>(N=60) |
|--|-----------------|---|-----------------|
| Age, median (range), years                 | 70 (50-91)      | Mutation status, n/N (%)                      |                 |
| Male, n (%)                                | 39 (65.0)       | BTK mutation present                          | 18/54           |
| ECOG PS, n (%)                             |                 | Brit mutation present                         | (33.3)          |
| 0  | 34 (56.7)       | PLCG2 mutation present                        | 8/54 (14.8)     |
| 1  | 25 (41.7)       | No. of prior lines of therapy, median (range) | 4 (2-10)        |
| 2  | 1 (1.7)         |   | 4 (2-10)        |
| CLL/SLL risk characteristics at study entr | ry,             | Prior therapy, n (%)                          | 40 (74 7)       |
| n/N with known status (%)                  |                 | Chemotherapy                                  | 43 (71.7)       |
| Binet stage C                              | 27/56 (48.2)    | cBTK inhibitor                                | 56 (93.3)       |
| Unmutated IGHV                             | 38/46 (82.6)    | ncBTK inhibitor                               | 13 (21.7)       |
| del(17p) and/or <i>TP53</i> mutation       | 40/60 (66.7)    | BCL2 inhibitor                                | 50 (83.3)       |
| Complex karyotype (≥3 abnormalities)       | 19/38 (50.0)    | cBTK + BCL2 inhibitors                        | 38 (63.3)       |
|  |                 | cBTK + ncBTK + BCL2 inhibitors                | 12 (20.0)       |

Discontinued prior BTK inhibitor due to PD, 50/56 n/N (%)<sup>a</sup> (89.3)

Data cutoff: September 2, 2024.

<sup>a</sup> Remaining 6 patients discontinued prior BTK inhibitor due to toxicity (n=3), treatment completion (2), and other (n=1).

cBTK, covalent BTK; ncBTK, noncovalent BTK.

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# Safety Summary and All-Grade TEAEs in ≥10% of All Patients

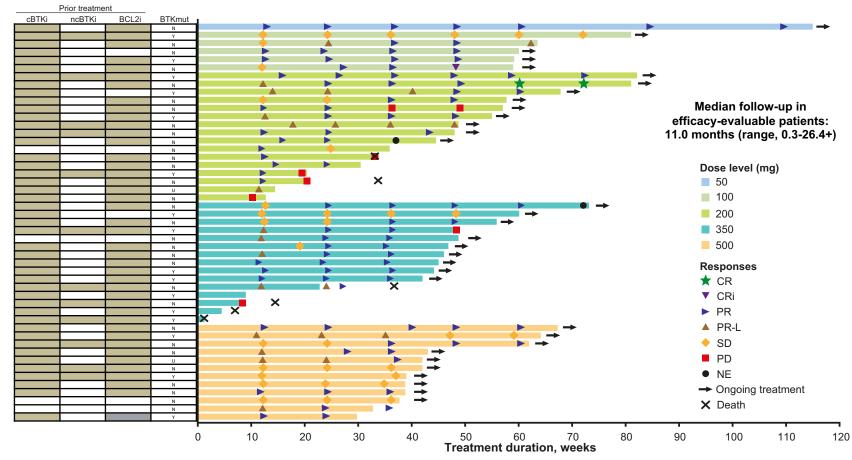
- No atrial fibrillation
- No pancreatitis
- Major hemorrhage<sup>b</sup>: 3.3% (n=2; grade 1 subarachnoid hemorrhage [n=1] and grade 3 subdural hemorrhage [n=1])
- Febrile neutropenia: 1.7% (n=1; in the context of COVID-19 pneumonia and norovirus diarrhea)

| Fatigue 18 (30.0) 1 (1.7)   Contusion (bruising) 17 (28.3) 0   Neutropenia <sup>c</sup> 15 (25.0) 13 (21.7)   Diarrhea 14 (23.3) 1 (1.7)   Anemia 11 (18.3) 0   Lipase increased <sup>a</sup> 10 (16.7) 2 (3.3)   Cough 9 (15.0) 0   Pneumonia 8 (13.3) 5 (8.3)   Pyrexia 8 (13.3) 0   Arthralgia 7 (11.7) 0   COVID-19 7 (11.7) 0   Pspipheral edema 7 (11.7) 0   Thrombocytopenia <sup>d</sup> 7 (11.7) 2 (3.3)   Amylase increased <sup>a</sup> 6 (10.0) 0                               |                                | Total (   | N=60)     |
|---|--------------------------------|-----------|-----------|
| Contusion (bruising)   17 (28.3)   0     Neutropenia <sup>c</sup> 15 (25.0)   13 (21.7)     Diarrhea   14 (23.3)   1 (1.7)     Anemia   11 (18.3)   0     Lipase increased <sup>a</sup> 10 (16.7)   2 (3.3)     Cough   9 (15.0)   0     Pneumonia   8 (13.3)   5 (8.3)     Pyrexia   8 (13.3)   0     Arthralgia   7 (11.7)   0     COVID-19   7 (11.7)   0     Pspnea   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0 | Patients, n (%)                | All Grade | Grade ≥3  |
| Neutropenia <sup>c</sup> 15 (25.0)   13 (21.7)     Diarrhea   14 (23.3)   1 (1.7)     Anemia   11 (18.3)   0     Lipase increased <sup>a</sup> 10 (16.7)   2 (3.3)     Cough   9 (15.0)   0     Pneumonia   8 (13.3)   5 (8.3)     Pyrexia   8 (13.3)   0     Arthralgia   7 (11.7)   0     COVID-19   7 (11.7)   0     Dyspnea   7 (11.7)   0     Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0     | Fatigue                        | 18 (30.0) | 1 (1.7)   |
| Diarrhea 14 (23.3) 1 (1.7)   Anemia 11 (18.3) 0   Lipase increased <sup>a</sup> 10 (16.7) 2 (3.3)   Cough 9 (15.0) 0   Pneumonia 8 (13.3) 5 (8.3)   Pyrexia 8 (13.3) 0   Arthralgia 7 (11.7) 0   COVID-19 7 (11.7) 0   Dyspnea 7 (11.7) 0   Peripheral edema 7 (11.7) 0   Amylase increased <sup>a</sup> 6 (10.0) 0   | Contusion (bruising)           | 17 (28.3) | 0         |
| Anemia 11 (18.3) 0   Lipase increased <sup>a</sup> 10 (16.7) 2 (3.3)   Cough 9 (15.0) 0   Pneumonia 8 (13.3) 5 (8.3)   Pyrexia 8 (13.3) 0   Arthralgia 7 (11.7) 0   COVID-19 7 (11.7) 0   Dyspnea 7 (11.7) 0   Peripheral edema 7 (11.7) 0   Thrombocytopenia <sup>d</sup> 7 (11.7) 2 (3.3)   Amylase increased <sup>a</sup> 6 (10.0) 0   | Neutropenia <sup>c</sup>       | 15 (25.0) | 13 (21.7) |
| Lipase increased <sup>a</sup> 10 (16.7)   2 (3.3)     Cough   9 (15.0)   0     Pneumonia   8 (13.3)   5 (8.3)     Pyrexia   8 (13.3)   0     Arthralgia   7 (11.7)   0     COVID-19   7 (11.7)   0     Dyspnea   7 (11.7)   0     Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0  | Diarrhea                       | 14 (23.3) | 1 (1.7)   |
| Cough   9 (15.0)   0     Pneumonia   8 (13.3)   5 (8.3)     Pyrexia   8 (13.3)   0     Arthralgia   7 (11.7)   0     COVID-19   7 (11.7)   0     Dyspnea   7 (11.7)   0     Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   0     Amylase increased <sup>a</sup> 6 (10.0)   0  | Anemia                         | 11 (18.3) | 0         |
| Pneumonia   8 (13.3)   5 (8.3)     Pyrexia   8 (13.3)   0     Arthralgia   7 (11.7)   0     COVID-19   7 (11.7)   0     Dyspnea   7 (11.7)   0     Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0   | Lipase increased <sup>a</sup>  | 10 (16.7) | 2 (3.3)   |
| Pyrexia   8 (13.3)   0     Arthralgia   7 (11.7)   0     COVID-19   7 (11.7)   0     Dyspnea   7 (11.7)   0     Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0  | Cough                          | 9 (15.0)  | 0         |
| Arthralgia   7 (11.7)   0     COVID-19   7 (11.7)   0     Dyspnea   7 (11.7)   0     Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0     Nausea   6 (10.0)   0   | Pneumonia                      | 8 (13.3)  | 5 (8.3)   |
| COVID-19 7 (11.7) 0   Dyspnea 7 (11.7) 0   Peripheral edema 7 (11.7) 0   Thrombocytopenia <sup>d</sup> 7 (11.7) 2 (3.3)   Amylase increased <sup>a</sup> 6 (10.0) 0   Nausea 6 (10.0) 0   | Pyrexia                        | 8 (13.3)  | 0         |
| Dyspnea   7 (11.7)   0     Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0     Nausea   6 (10.0)   0   | Arthralgia                     | 7 (11.7)  | 0         |
| Peripheral edema   7 (11.7)   0     Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0     Nausea   6 (10.0)   0  | COVID-19                       | 7 (11.7)  | 0         |
| Thrombocytopenia <sup>d</sup> 7 (11.7)   2 (3.3)     Amylase increased <sup>a</sup> 6 (10.0)   0     Nausea   6 (10.0)   0  | Dyspnea                        | 7 (11.7)  | 0         |
| Amylase increased <sup>a</sup> 6 (10.0)   0     Nausea   6 (10.0)   0   | Peripheral edema               | 7 (11.7)  | 0         |
| Nausea 6 (10.0) 0   | Thrombocytopenia <sup>d</sup>  | 7 (11.7)  | 2 (3.3)   |
|   | Amylase increased <sup>a</sup> | 6 (10.0)  | 0         |
| <b>Sinusitis</b> 6 (10.0) 0   | Nausea                         | 6 (10.0)  | 0         |
|   | Sinusitis                      | 6 (10.0)  | 0         |

Median follow-up: 10.2 months (range, 0.3-26.4+).

<sup>a</sup> All events were lab findings and were transient, mostly occurring during the first 1-3 cycles of treatment, with no clinical pancreatitis. <sup>b</sup> Grade ≥3, serious, or any central nervous system bleeding. <sup>c</sup> Neutropenia combines preferred terms *platelet count decreased* and *neutropenia*.

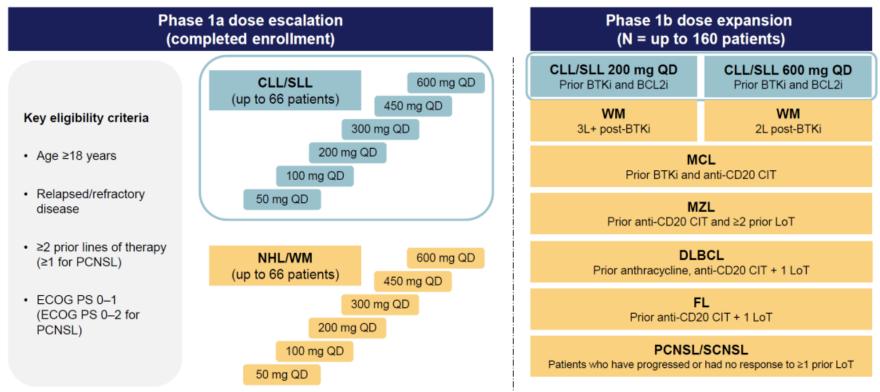
#### **Treatment Duration and Response**



Data cutoff: September 2, 2024. Efficacy-evaluable patients. First response assessment after 12 weeks.

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#### NX5948-301: Trial design



BCL2i, BCL2 inhibitor, BTKi, BTK inhibitor, CIT, chemo-immunotherapy, CLL, chronic lymphocytic leukemia; DLBCL, diffuse large 8-cell lymphoma; ECOG PS, Eastern Cooperative Oncology Group performance status; FL, follicular lymphoma; LoT, lines of treatment; MCL, mantle cell lymphoma; MZL, marginal zone lymphoma; NHL, non-Hodgkin's lymphoma; PCNSL, primary CNS lymphoma; QD, once daily; SCNSL, secondary CNS lymphoma; SLL, small lymphocytic lymphoma; WM, Waldenstrom's macroglobulinemia

#### NX5948-301: Patient characteristics

| Characteristics   | Patients with CLL/SLL <sup>a</sup><br>(n=60)  |
|---|---|
| ECOG PS, n (%)<br>0<br>1  | 24 (40.0)<br>36 (60.0)  |
| CNS involvement, n (%)  | 5 (8.3)   |
| Median prior lines of therapy (range)   | 4.0 (1–12)  |
| Previous treatments <sup>b</sup> , n (%)<br>BTKi<br>cBTKi<br>ncBTKi <sup>c</sup><br>BCL2i<br>BTKi and BCL2i<br>CAR-T therapy<br>Bispecific antibody<br>PI3Ki<br>Chemo/chemo-immunotherapies (CIT) | 59 (98.3)<br>59 (98.3)<br>17 (28.3)<br>50 (83.3)<br>49 (81.7)<br>3 (5.0)<br>4 (6.7)<br>18 (30.0)<br>43 (71.7) |
| Mutation status <sup>d</sup> (n=57), n (%)<br>TP53<br>BTK<br>PLCG2<br>BCL2  | 23 (40.4)<br>22 (38.6)<br>7 (12.3)<br>6 (10.5)  |

<sup>a</sup>Baseline disease characteristics in CLL cohort were comparable to those in the overall population; <sup>b</sup>Patients could have received multiple prior treatments; <sup>c</sup>All patients who received ncBTKi have also previously received cBTKi; <sup>d</sup>Mutations presented here were centrally sequenced.

BCL2, B-cell lymphoma 2; BCL2i, BCL2 inhibitor; BTK, Bruton's tyrosine kinase; BTKi, BTK inhibitor; cBTKi, covalent BTKi; CAR-T, chimeric antigen receptor T-cell; CLL, chronic lymphocytic leukemia; CNS, central nervous system; ECOG PS, Eastern Cooperative Oncology Group (ECOG) performance status; ncBTKi, non-covalent BTKi; PI3Ki, phosphoinositide 3-kinase inhibitor; PLCG2, phospholipase C gamma 2; SLL, small lymphocytic lymphoma Data cutoff: 10 Oct 2024

#### NX5948: Safety Profile

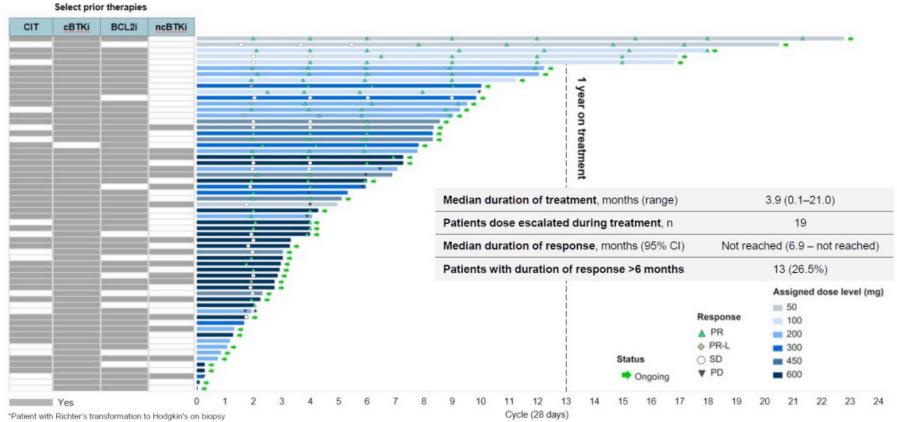
|                                   | Patients  | with CLL/SLL | (n=60)  | Overall population (N=125) |           |         |
|-----------------------------------|-----------|--------------|---------|----------------------------|-----------|---------|
| <b>TEAEs,</b> n (%)               | Any grade | Grade ≥3     | SAEs    | Any grade                  | Grade ≥3  | SAEs    |
| Purpura/contusion <sup>a</sup>    | 22 (36.7) | -            | -       | 42 (33.6)                  | -         | -       |
| Fatigue <sup>b</sup>              | 16 (26.7) | -            | -       | 29 (23.2)                  | 2 (1.6)   | -       |
| Petechiae                         | 16 (26.7) | -            | -       | 28 (22.4)                  | -         | -       |
| Thrombocytopeniac                 | 10 (16.7) | 1 (1.7)      | -       | 26 (20.8)                  | 7 (5.6)   | -       |
| Rash <sup>d</sup>                 | 14 (23.3) | 1 (1.7)      | 1 (1.7) | 24 (19.2)                  | 2 (1.6)   | 1 (0.8) |
| Neutropeniae                      | 14 (23.3) | 11 (18.3)    | -       | 23 (18.4)                  | 18 (14.4) | -       |
| Anemia                            | 11 (18.3) | 4 (6.7)      | -       | 21 (16.8)                  | 10 (8.0)  | -       |
| Headache                          | 10 (16.7) | -            | -       | 21 (16.8)                  | 1 (0.8)   | 1 (0.8) |
| COVID-19 <sup>f</sup>             | 10 (16.7) | -            | -       | 19 (15.2)                  | 2 (1.6)   | 2 (1.6) |
| Diarrhea                          | 12 (20.0) | 1 (1.7)      | -       | 18 (14.4)                  | 1 (0.8)   | -       |
| Cough                             | 9 (15.0)  | -            | -       | 16 (12.8)                  | 1 (0.8)   | -       |
| Pneumoniag                        | 4 (6.7)   | 2 (3.3)      | 2 (3.3) | 10 (8.0)                   | 6 (4.8)   | 6 (4.8) |
| Lower respiratory tract infection | 3 (5.0)   | 1 (1.7)      | 1 (1.7) | 9 (7.2)                    | 3 (2.4)   | 2 (1.6) |
| Fall                              | 1 (1.7)   | 1 (1.7)      | 1 (1.7) | 8 (6.4)                    | 2 (1.6)   | 2 (1.6) |
| Hypertension                      | 2 (3.3)   | 1 (1.7)      | -       | 7 (5.6)                    | 5 (4.0)   | -       |
| Hyponatremia                      | -         | -            | -       | 3 (2.4)                    | 2 (1.6)   | -       |
| Pulmonary embolism                | 1 (1.7)   | 1 (1.7)      | 1 (1.7) | 2 (1.6)                    | 2 (1.6)   | 2 (1.6) |
| Subdural hematoma                 | 1 (1.7)   | -            | 1 (1.7) | 2 (1.6)                    | 1 (0.8)   | 2 (1.6) |

- Tolerable safety profile consistent with prior disclosures
- 1 case of Grade 1 AFib in a CLL patient with pre-existing AFib
- 6 TEAEs resulted in drug discontinuation (1 CLL; 5 NHL)
- 2 Grade 5 AEs (1 pulmonary embolism; 1 case pending) deemed not related to NX-5948

\*Purpura/contusion includes episodes of contusion or purpura; \*Fatigue was transient; \*Aggregate of 'thrombocytopenia' and 'platelet count decreased'; \*Aggregate of 'rash' and 'rash maculopapular' and 'rash pustular'; \*Aggregate of 'neutrophil count decreased' or 'neutropenia'; \*Aggregate of 'COVID-19' and 'COVID-19' pneumonia'; \*Aggregate of 'pneumonia' and 'pneumonia' ind 'pneumonia' ind 'pneumonia'; \*Aggregate of 'neutrophil count decreased' or 'neutropenia'; \*Aggregate of 'COVID-19' and 'COVID-19' pneumonia'; \*Aggregate of 'pneumonia' ind 'pneumonia' ind 'pneumonia'; \*Aggregate of 'pneumonia'; \*Aggregate

AE, adverse event; AFib, atrial fibrillation; CLL, chronic lymphocytic leukemia; NHL, non-Hodgkin's lymphoma; SAE, serious adverse event; SLL, small lymphocytic lymphoma; TEAE, treatment emergent AE Data cutoff: 10 Oct 2024

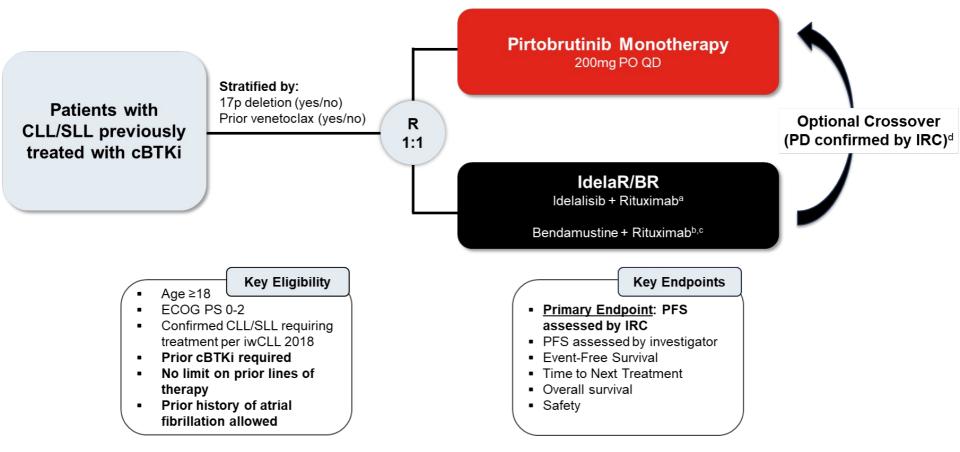
#### **NX5948: Duration of treatment**



BCL21, BCL2 inhibitor; BTKi, BTK inhibitor; BTKi, covalent BTK; CIT, chemo/chemo-immunotherapies; ncBTKi, non-covalent BTKi; PD, progressive disease; PR, partial response; PR-L, PR with rebound lymphocytosis; SD, stable disease; CI, confidence interval Data cutoff: 10 Oct 2024 10

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# **BRUIN CLL-321: Study Design**



## **BRUIN CLL-321: Baseline characteristics**

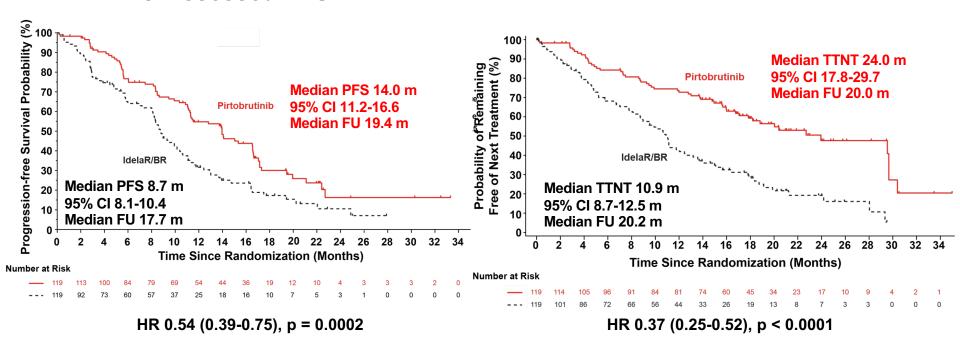
| Characteristics                            | Pirtobrutinib<br>n=119 | ldelaR/BR<br>n=119 | Characteristics                       | Pirtobrutinib<br>n=119 | ldelaR/BR<br>n=119 |
|--|------------------------|--------------------|---------------------------------------|------------------------|--------------------|
| Median age, years (range)                  | 66 (42-90)             | 68 (42-85)         | Median lines of prior systemic        | 2 (1 12)               | 2 (1 11)           |
| Male, n (%)                                | 83 (70)                | 83 (70)            | therapy, n (range)                    | 3 (1-13)               | 3 (1-11)           |
| Region, n (%)                              |                        |                    | Prior therapy, n (%)                  |                        |                    |
| North America                              | 24 (20)                | 39 (33)            | cBTKi                                 | 119 (100)              | 119 (100)          |
| Europe                                     | 76 (64)                | 63 (53)            | Ibrutinib                             | 100 (84)               | 106 (89)           |
| Asia                                       | 14 (12)                | 15 (13)            | Acalabrutinib                         | 17 (14)                | 20 (17)            |
| Australia                                  | 5 (4)                  | 2 (2)              | Zanubrutinib                          | 10 (8)                 | 7 (6)              |
| Histology, n (%)                           |                        |                    | Other <sup>c</sup>                    | 5 (4)                  | 3 (3)              |
| CLL  | 109 (92)               | 108 (91)           | >1 Prior cBTKi                        | 17 (14)                | 18 (15)            |
| SLL  | 10 (8)                 | 11 (9)             | BCL2 inhibitor <sup>d</sup>           | 60 (50)                | 62 (52)            |
| ECOG PS, n (%)<br>0-1                      | 107 (00)               | 114 (06)           |                                       |                        |                    |
| 2  | 107 (90)<br>12 (10)    | 114 (96)           | Chemotherapy                          | 81 (68)                | 83 (70)            |
| Rai stageª, n (%)                          | 12 (10)                | 5 (4)              | Anti-CD20 Antibody                    | 86 (72)                | 83 (70)            |
| 0-   | 58 (49)                | 62 (52)            | PI3K inhibitor                        | 11 (9)                 | 11 (9)             |
| III-IV                                     | 56 (47)                | 54 (45)            | Immunomodulator                       | 2 (2)                  | 3 (3)              |
| High-risk molecular features (Central La   |                        | 0.1(10)            | Autologous Stem Cell Transplant       | 1 (1)                  | 0 (0)              |
| 17p deletion and/or TP53 mutation          | 51/94 (54)             | 53/98 (54)         | Allogeneic Stem Cell Transplant       | 2 (2)                  | 1 (1)              |
| IGHV unmutated                             | 90/97 (93)             | 74/93 (80)         | Reason for any prior cBTKi discontinu |                        |                    |
| Complex karyotype <sup>b</sup>             | 53/74 (72)             | 44/75 (59)         | Disease progression                   | 85 (71)                | 87 (73)            |
| Molecular Characteristics, n/n available ( | %)                     |                    |                                       |                        |                    |
| BTK C481S                                  | 37/99 (37)             | 36/94 (38)         | Toxicity                              | 20 (17)                | 22 (18)            |
| PLCy2                                      | 15/99 (15)             | 11/94 (12)         | Other                                 | 14 (12)                | 8 (7)              |

Poor prognosis (e.g., >50% del(17p) and/or *TP53 mutation* and complex karyotype) and heavily pre-treated population (e.g., 33% received ≥ 4 prior lines of therapy, ~50% received prior BCL2i)

#### BRUIN CLL-321: IRC-Assessed PFS (Primary Endpoint) and TTNT or Death

**IRC-Assessed PFS** 

TTNT or Death



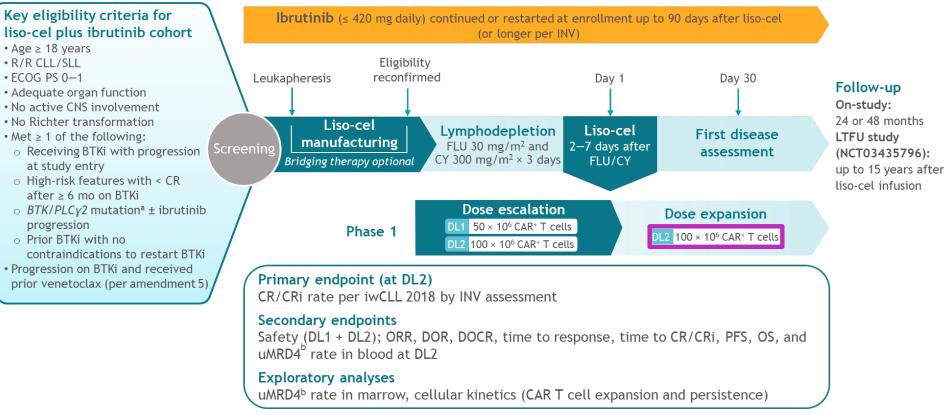
Cross-over rate: 50/66 (76%)  $\rightarrow$  OS follow-up limited and confounded by high rate of post-progression crossover

#### **BRUIN CLL-321: Safety Exposure Adjusted Incidence Rate**

| Treatment-Emergent Adverse Event<br>(Any Grade) | Pirtobrutinib<br>(n=116)<br>IRª | ldelaR or BR<br>(n=109)<br>IRª | IRR (95% CI)⁵    | p-value <sup>c</sup> |
|---|---------------------------------|--------------------------------|------------------|----------------------|
| Infections <sup>d</sup>                         | 94.5                            | 125.5                          | 0.75 (0.53-1,07) | 0.11                 |
| Pneumonia <sup>e</sup>                          | 20.4                            | 19.5                           | 1.04 (0.54-2.03) | 0.90                 |
| COVID-19  | 11.1                            | 33.4                           | 0.33 (0.17-0.65) | 0.001                |
| Anemia  | 18.5                            | 30.3                           | 0.61 (0.33-1.12) | 0.11                 |
| Neutropenia <sup>f</sup>                        | 26.4                            | 66.5                           | 0.40 (0.25-0.64) | <0.001               |
| Cough   | 14.3                            | 30.8                           | 0.47 (0.25-0.88) | 0.02                 |
| Diarrhea  | 15.3                            | 63.7                           | 0.24 (0.14-0.42) | <0.001               |
| Pyrexia   | 11.1                            | 52.4                           | 0.21 (0.11-0.40) | <0.001               |
| Fatigue   | 9.5                             | 34.2                           | 0.28 (0.14-0.55) | <0.001               |
| Nausea  | 9.8                             | 38.3                           | 0.26 (0.13-0.51) | <0.001               |
| Vomiting  | 5.8                             | 29.6                           | 0.19 (0.08-0.44) | <0.001               |
| ALT increased                                   | 2.8                             | 33.6                           | 0.08 (0.03-0.25) | <0.001               |
| Weight decreased                                | 2.8                             | 28.5                           | 0.10 (0.03-0.29) | <0.001               |

When adjusting for exposure, the incidence rates of TEAEs was lower with pirtobrutinib than with IdelaR/BR

# **TRANSCEND 004 Ibrutinib cohort: Study Design**



<sup>a</sup>Per local laboratory assessment; <sup>b</sup>MRD was assessed by next-generation sequencing using a clonoSEQ assay. Undetectable MRD was defined as < 1 CLL cell per 10,000 leukocytes at ≥ 1 time point after infusion (uMRD4). CY, cyclophosphamide; DOR, duration of response; DOCR, duration of continued CR after initial CR; FLU, fludarabine; INV, investigator; iwCLL, International Workshop on Chronic Lymphocytic Leukemia; LTFU, long-term follow-up; uMRD4, undetectable minimal residual disease at < 1 in 10<sup>-4</sup> leukocytes.

#### **TRANSCEND 004 Ibrutinib cohort: Baseline Characteristics**

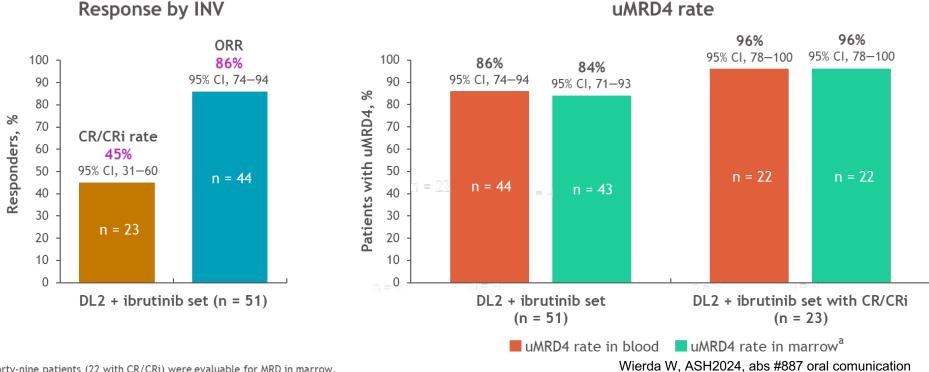
|  | DL2 + ibrutinib set<br>(n = 51) | Total liso-cel + ibrutinib combination set<br>(n = 56) |
|--|---------------------------------|--|
| Median (range) age, y  | 65 (44–77)                      | 65 (44-77)   |
| Median (range) prior lines of systemic therapy                           | 5 (1-13)                        | 5 (1-13)   |
| $\leq$ 3 prior therapies, n (%)  | 19 (37)                         | 20 (36)  |
| Prior BTKi, n (%)  | 51 (100)                        | 56 (100)   |
| Prior venetoclax, n (%)  | 39 (76)                         | 42 (75)  |
| Prior BTKi and venetoclax, n (%)   | 39 (76)                         | 42 (75)  |
| BTKi progression/venetoclax failure,ª n (%)                              | 28 (55)                         | 31 (55)  |
| High-risk cytogenetics, n (%)  | 50 (98)                         | 55 (98)  |
| Del(17p)   | 23 (45)                         | 25 (45)  |
| Mutated TP53   | 23 (45)                         | 24 (43)  |
| Unmutated IGHV   | 37 (73)                         | 39 (70)  |
| Complex karyotype <sup>b</sup>   | 25 (49)                         | 29 (52)  |
| Bulky disease (≥ 5 cm) per INV before LDC, <sup>c</sup> n (%)            |                                 |  |
| Yes  | 18 (35)                         | 18 (32)  |
| Unknown  | 4 (8)                           | 5 (9)  |
| Median (range) SPD per INV before LDC, <sup>d</sup> cm <sup>2</sup>      | 29 (1-218)                      | 27 (1-218)   |
| LDH $\geq$ ULN before LDC, n (%)   | 22 (43)                         | 24 (43)  |
| Received bridging therapy (in addition to ibrutinib), <sup>e</sup> n (%) | 13 (25)                         | 16 (29)  |

- Median (range) ibrutinib exposure was 34 days (15-188) before and 95 days (6-1517) after liso-cel in the total combination-treated set
- Liso-cel was manufactured for 63/65 (97%) patients in the leukapheresed set
  - Median (range) time from leukapheresis to liso-cel availability was 25 (17-79) days (n = 62)

alncludes patients who progressed on a BTKi and met 1 of the following criteria: 1) discontinued venetoclax due to disease progression or intolerability and the patient's disease met indications for further treatment per iwCLL 2018 criteria or 2) failed to achieve an objective response within 3 months of initiating therapy; bAt least 3 chromosomal aberrations; cAt least 1 lesion with a longest diameter  $\geq$  5 cm; dForty-seven patients at DL2 and 51 patients in the total combination-treated set had SPD measurements; eIncluded other anticancer therapies in addition to concurrent ibrutinib treatment given for disease control during liso-cel manufacturing. IGHV, immunoglobulin heavy-chain variable region; LDC, lymphodepleting chemotherapy; SPD, sum of the product of perpendicular diameters. Wierda W, ASH2024, abs #887 oral comunication

# **TRANSCEND 004 Ibrutinib cohort: Response and MRD**

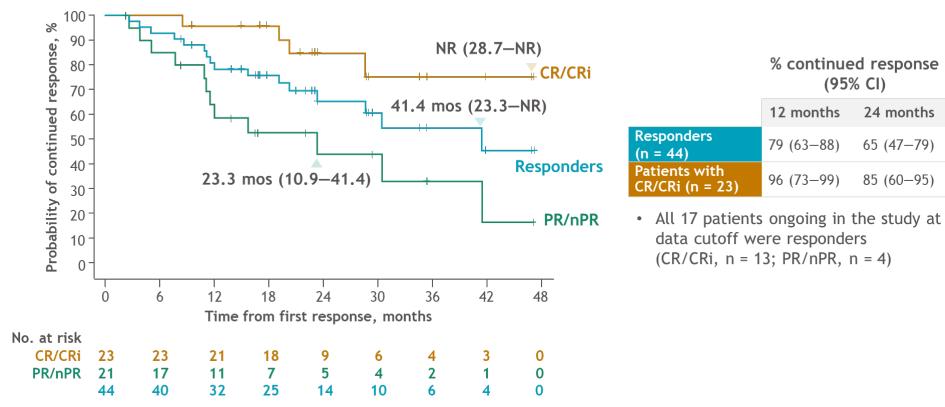
Median (IQR) on study follow-up: 24.8 m (14.2-34.6) Median (range) time to first response: 1 m (0.9-6.0) Median (range) time to CR/CRi: 3 m (0.9-12.1)



<sup>a</sup>Forty-nine patients (22 with CR/CRi) were evaluable for MRD in marrow.

#### **TRANSCEND 004 Ibrutinib cohort: DOR by best response at DL2**

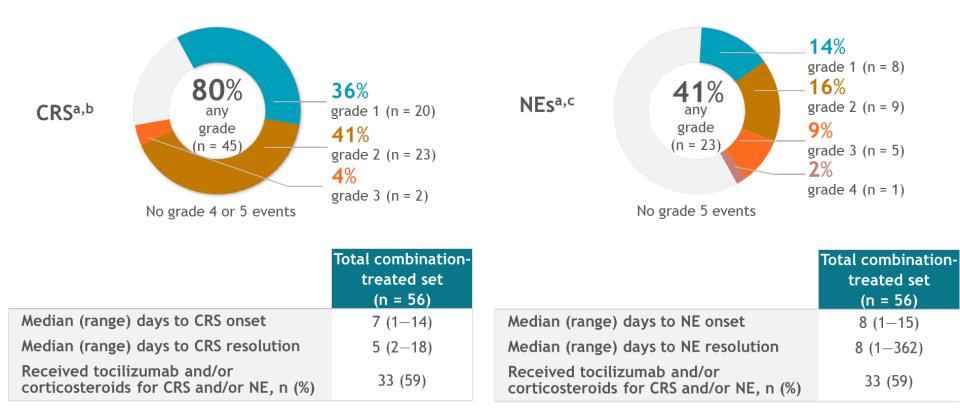




Data on KM curves are expressed as median (95% CI). No formal landmarking analyses were conducted. NR, not reached.

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### **TRANSCEND 004 Ibrutinib cohort: Safety**



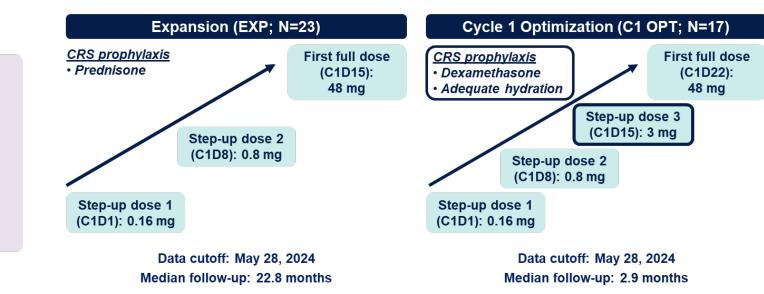
aSummed percentages for grouped grades within each graph may not equal the any-grade percentage due to rounding; bCRS was graded based on Lee 2014 criteria; cNEs were defined as -INVidentified neurological AEs related to liso-cel.

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# **EPCORE 101: study design**

Key inclusion criteria

- CD20<sup>+</sup> R/R CLL
- ≥2 prior lines of systemic therapy
- ECOG PS 0–2
- Measurable disease with ≥5×10<sup>9</sup>/L B lymphocytes (expansion only)
- No prior allogeneic HSCT

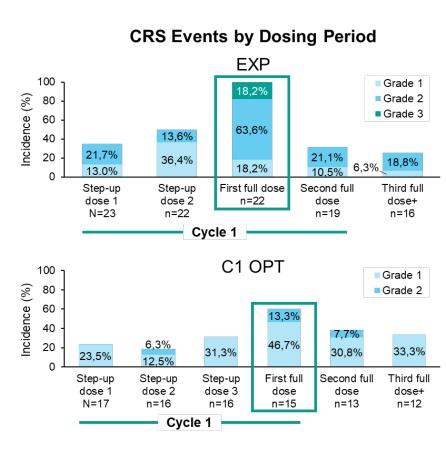


- Primary endpoint (EXP): Overall response rate
- Primary endpoint (C1 OPT): Incidence and severity of CRS, ICANS, and clinical TLS
- Key secondary endpoints (EXP): CR rate, time to response, MRD (PBMCs using the clonoSEQ<sup>®</sup> assay), and safety/tolerability

 To ensure patient safety and better characterize CRS, inpatient monitoring was required for at least 24 hours after each epcoritamab dose in C1

# **EPCORE 101: Safety Optimization**

|   | EXP<br>N=23 | C1 OPT<br>N=17 |
|---|-------------|----------------|
| CRS, n (%)                                  | 22 (96)     | 14 (82)        |
| Grade 1                                     | 2 (9)       | 12 (71)        |
| Grade 2                                     | 16 (70)     | 2 (12)         |
| Grade 3                                     | 4 (17)      | 0              |
| Treated with tocilizumab, n (%)             | 20 (87)     | 6 (35)         |
| Leading to treatment discontinuation, n (%) | 0           | 0              |
| CRS resolution, n/n (%)                     | 22/22 (100) | 14/14 (100)    |
| Median time to resolution, days (range)     | 3 (1–16)    | 3.5 (1–7)      |
| ICANS, n (%)                                | 3 (13)      | 0              |
| Grade 1                                     | 1 (4)       | 0              |
| Grade 2                                     | 2 (9)       | 0              |
| Clinical TLS, n (%)                         | 1 (4)       | 0              |
| Grade 2                                     | 1 (4)       | 0              |



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## **EPCORE 101: Efficacy data**

|                               |                              |                               | EXP<br>mFU: 22.8 month            | S                                |                            | C1 OPT<br>mFU: 2.9 months     |
|-------------------------------|------------------------------|-------------------------------|-----------------------------------|----------------------------------|----------------------------|-------------------------------|
| Response, n (%)               | Full Analysis<br>Set<br>N=23 | Response<br>Evaluable<br>n=21 | <i>TP53</i><br>Aberration<br>n=15 | <i>IGHV</i><br>Unmutated<br>n=16 | Double<br>Exposedª<br>n=19 | Response<br>Evaluable<br>n=10 |
| Overall response <sup>b</sup> | 14 (61)                      | 14 (67)                       | 10 (67)                           | 10 (63)                          | 10 (53)                    | 6 (60)                        |
| Complete response             | 9 (39)                       | 9 (43)                        | 5 (33)                            | 7 (44)                           | 7 (37)                     | 1 (10)                        |
| Partial response              | 5 (22)                       | 5 (24)                        | 5 (33)                            | 3 (19)                           | 3 (16)                     | 5 (50)                        |
| Stable disease                | 4 (17)                       | 4 (19)                        | 2 (13)                            | 3 (19)                           | 4 (21)                     | 2 (20)                        |
| Progressive disease           | 1 (4)                        | 1 (5)                         | 1 (7)                             | 0                                | 1 (5)                      | 1 (10)                        |

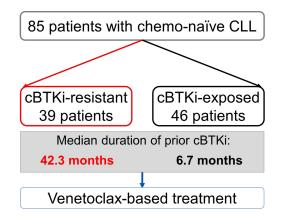
- With limited follow-up, the C1 OPT regimen does not appear to affect epcoritamab efficacy
- uMRD4 in PBMCs was observed in most responders, including all patients with CR who were tested for MRD

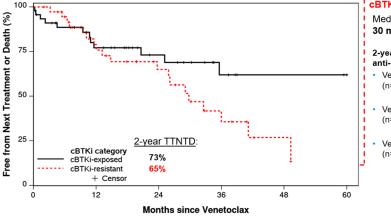
| EXP MRD Negativity, n/n (%)°  | uMRD4     | uMRD6 <sup>d</sup> |
|-------------------------------|-----------|--------------------|
| Overall response <sup>b</sup> | 9/12 (75) | 8/12 (67)          |
| Complete response             | 7/7 (100) | 6/7 (86)           |
| Partial response              | 2/5 (40)  | 2/5 (40)           |
| Full analysis set             | 9/23 (39) | 8/23 (35)          |

Four patients (*TP53* aberration, n=2; *IGHV* unmutated, n=3; double exposed, n=4) in EXP and 1 in C1 OPT shown above were not evaluable or had no assessment, including 3 in EXP (*TP53* aberration, n=2; *IGHV* unmutated, n=2; double exposed, n=3) and 1 in C1 OPT who died without postbaseline assessment. <sup>a</sup>Patients previously treated with both a BTK inhibitor and a BCL-2 inhibitor. <sup>b</sup>Response assessment according to iwCLL criteria. <sup>c</sup>Patients evaluated for MRD had at least 1 on-treatment MRD result and were not MRD negative at baseline. MRD was only evaluated in patients with CR or PR. <sup>d</sup>Two of 3 evaluated patients had uMRD6 in bone marrow at or shortly after the first CR assessment. mFU, median follow-up.

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#### Outcomes with Venetoclax-Based Treatment in Patients with Covalent Bruton Tyrosine Kinase Inhibitor (cBTKi)-Treated, Chemotherapy-Naïve Chronic Lymphocytic Leukemia (CLL): An International Retrospective Study





| Ра   | Number (%) or<br>Median [IQR]  |                                     |                 |
|--|--|-------------------------------------|-----------------|
| Total patients   |  | 85                                  |                 |
| Age, years   | 69 [62, 77]  |                                     |                 |
| Males  |  | 59 (69)                             |                 |
| Prior lines of therapy   |  | 1 [1, 2]                            |                 |
|  | Prior anti-CD20 mAb  | 32 (38)                             |                 |
|  | Two prior cBTKi  | 8 (9)                               |                 |
| Combination with anti-CD20 mAb   | Rituximab  | 45 (53)                             |                 |
|  | Obinutuzumab   | 27 (32)                             |                 |
|  | None/Venetoclax Monotherapy  | 13 (15)                             |                 |
| <i>IGHV</i> status*, n=56  | Unmutated  | 46 (82)                             |                 |
| Complex karyotype*, n=37   | Complex (≥3 abnormalities)   | 15 (41)                             |                 |
| <i>TP53</i> disruption*, n=73  | Present (Abnormal)   | 33 (45)                             |                 |
| Median TTNTD:<br>30 months<br>2-year TTNTD estimates by<br>anti-CD20 mAb combo<br>• Venetoclax monotherapy<br>(n=5): 53% | otal Cohort<br><u>TTNTD</u> : only <i>TP53</i> disrug<br>CI 1.02-4.87; P=0.04)<br><u>OS</u> : only older age with H<br><b>BTKi-Resistant Subgroup</b><br><u>TTNTD</u> : only <i>TP53</i> disrupt<br>CI 1.51-29.46; P=0.01)<br><u>OS</u> : only <i>TP53</i> disruption<br>1.02-61.97; P=0.04) | R 1.05 (P=0.02)<br>otion with HR 6. | <b>.68</b> (95% |

Hampel P, ASH2024, abs #1856 poster presentation



# Thank you

Novità dal Meeting della Società Americana di Ematologia

#### Bologna, 13-15 Febbraio 2025

#### **Prof Paolo Ghia**

Strategic Research Program on CLL Elisa Albi, Francesca Martini, Emanuela Sant'Antonio, Fabrizio Mavilia, Antonella Capasso, Maria Colia, Catalina Combi, Virginia Sgarlato, Eloise Scarano

#### Laboratory of B Cell Neoplasia

Silvia Heltai, Michela Frenquelli, Pamela Ranghetti, Eleonora Perotta, Francesca Gandini, Jessica Bordini, Athanasios Pseftogkas, Chiara Lenzi, Daniela Belloni, Alessandro Campanella, Silvia Bonfiglio

Malignant B cells biology and 3D modelling Unit Cristina Scielzo, Federica Barbaglio

CERTH and Papanicolau Hospital, Thessaloniki Anastasia Hadzidimitrious, Andreas Agathangelidis, Anna Vardi, Thomas Chatzikonstantinou, Niki Stavroyianni, Kostas Stamatopoulos Laboratory of Lymphocyte Activation Ilenia Sana, Elena Mantioni, Marta Muzio

Karolinska Institutet, Stockholm Viktor Ljungstrom, Richard Rosenquist











OSPEDALE SAN RAFFAELE