## Figure S1

Absolute CLL count prior to venetoclax therapy (t1), after 1 year (t2) of venetoclax therapy, at MRD progression on venetoclax therapy (t3), and at two consecutive time points after MRD progression (t4-t5) of 7 patients on continued venetoclax therapy (CLL1-7). The first sample collection (SC1), prior to the start of venetoclax therapy (V-Rx), and after more than 1 year of venetoclax therapy (second sample collection 2 (SC2) are indicated above.

## Figure S2

(A) GSEA on the transcriptomes of 24 CLL samples evaluating for ROR1<sup>Hi</sup> versus ROR1<sup>Lo</sup> differences in the expression of ROR1-regulated target genes. Gene-set size (SIZE), enrichment score, normalized ES (NES), nominal p value (NOM p-val), and FDR q value (FDR q) are indicated. (B) Volcano plot showing differences in gene expression between ROR1<sup>Hi</sup> versus ROR1<sup>Lo</sup>. The log2 of the fold change (log2 Fold Change) is on the X axis, and the negative log10 of p-value (-log10 p-Value) is on the Y axis. Vertical dashed lines indicate fold change of 1.2 and -1.2 respectively. Horizontal dashed line indicates a p-value of 0.05. Each dot represents a gene within the comparison performed. The coloring on the dots reflects whether each gene is significantly overexpressed (green) or underexpressed (purple) in ROR1<sup>Hi</sup> versus ROR1<sup>Lo</sup>, and those in black are genes that were not significantly overexpressed or underexpressed in ROR1<sup>Hi</sup> versus ROR1<sup>Lo</sup>. The significant overexpression of *BCL2L1* in ROR1<sup>Hi</sup> is indicated.

## Figure S3

BCL-XL protein expression levels assessed by immunoblot analysis on MEC1 or MEC1-ROR1 cells following transfection with  $BCL2^{WT}$  or each of the BCL2 variants, as indicated. The membranes were probed with a monoclonal antibody specific for BCL-XL or tubulin, as indicated on the left margin. The density of the  $\beta$ -actin band was used to normalize band density

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for BCL-XL in each sample. The IOD ratios of the band densities of BCL-XL/ $\beta$ -actin for each sample are indicated at the bottom of BCL-XL immunoblots.