

### Supplementary Figures Legends

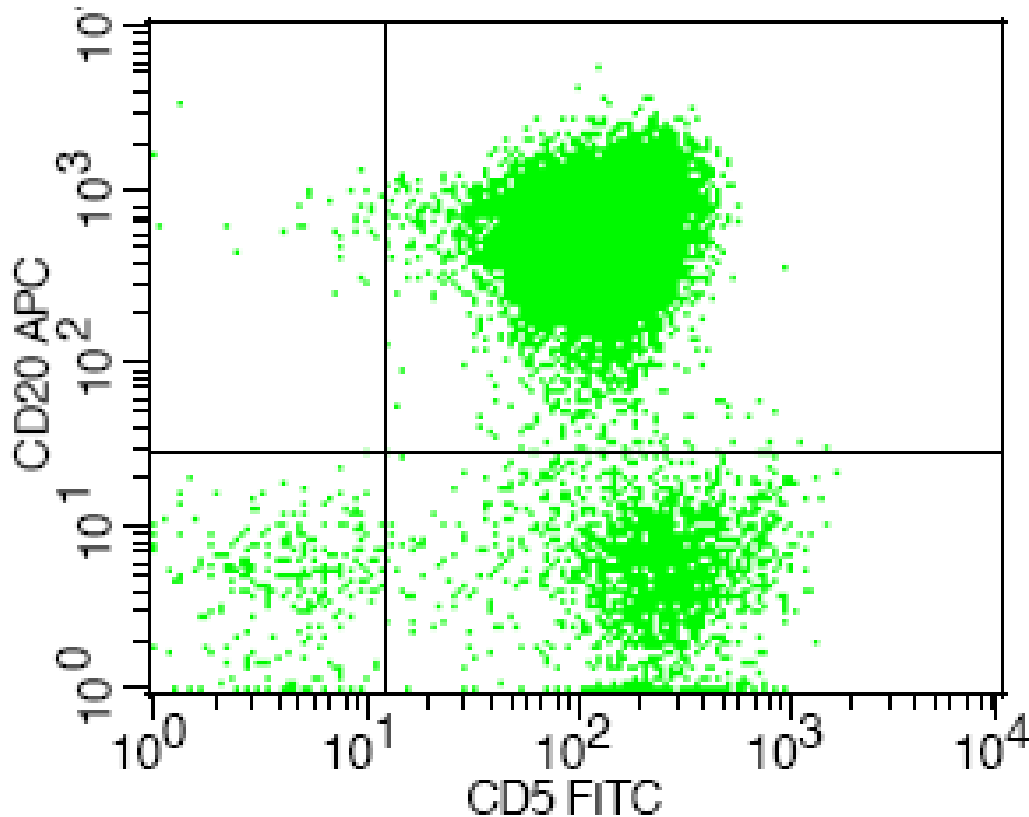
**Supplementary Figure 1:** Analysis of a representative Ficoll-density purified CLL blood sample. Using 4 color flow cytometry, the majority of cells, 85%, show dual staining for both CD5 and CD20.

**Supplementary Figure 2:** Western blotting analyses of 4 representative CLL patient cells for ROR-1 expression.

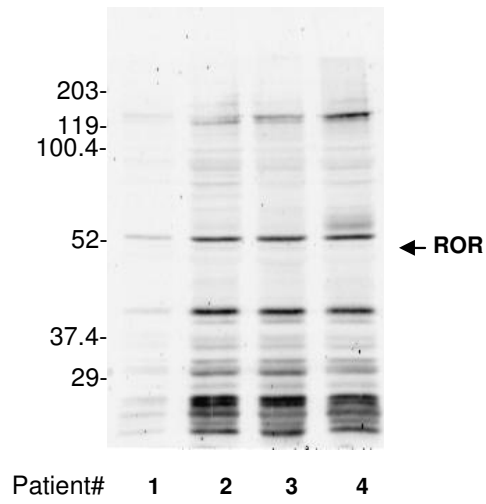
**Supplementary Figure 3:** Real time RT-PCR analysis of 20 CLL patients cells for FLT-3 expression.

**Supplementary Figure 4:** Quantitative real time RT-PCR on 21 low stage CLL patients for ZAP-70 and p53. ZAP70 is over-expressed and p53 is down regulated in low stage CLL.

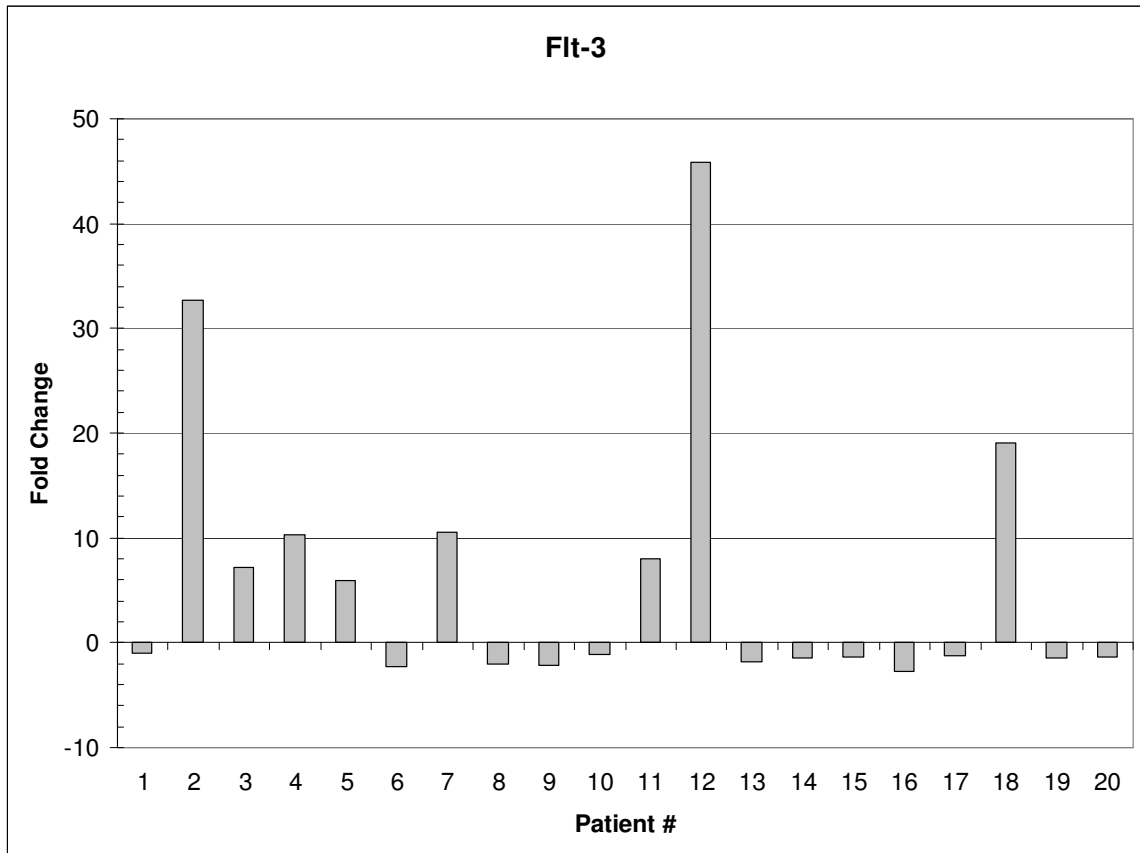
Supplementary Figure 1



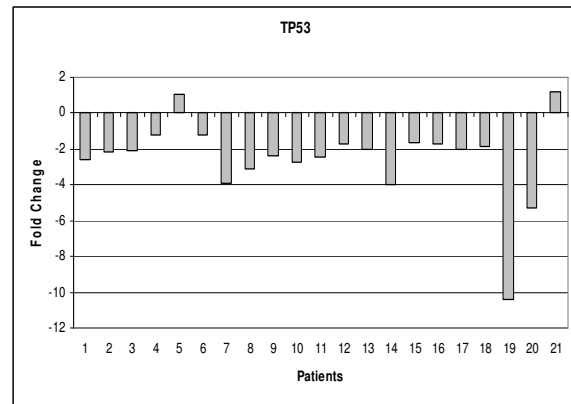
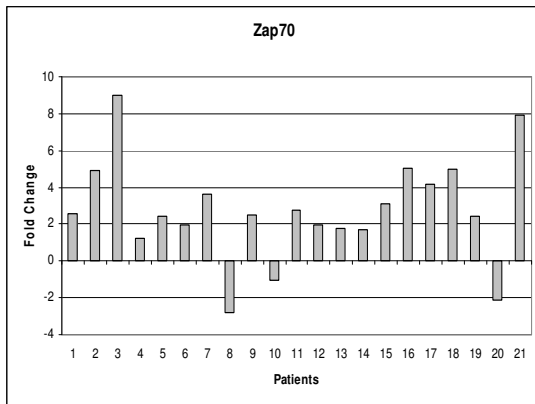
Supplementary Figure 2



Supplementary Figure 3



Supplementary Figure 4



Supplementary Table 1: **Differential GEP of low stage CLL cells at 0-Hr Vs 24-Hr in Culture**

Affy ID	Fold Change	Gene Title
214974_x_at	119.7	Chemokine (C-X-C motif) ligand 5
204614_at	75.36	Serine (or cysteine) proteinase inhibitor, member 2
216598_s_at	38.32	Chemokine (C-C motif) ligand 2
207850_at	37.40	Chemokine (C-X-C motif) ligand 3
211506_s_at	29.48	Homo sapiens interleukin 8 C-terminal variant (IL8) mRNA
39402_at	26.02	Interleukin 1, beta
201110_s_at	24.98	Thrombospondin 1
202859_x_at	24.34	Interleukin 8
204470_at	24.30	Chemokine (C-X-C motif) ligand 1
209774_x_at	20.14	Chemokine (C-X-C motif) ligand 2
205067_at	18.29	Interleukin 1, beta
201109_s_at	15.20	Thrombospondin 1
205476_at	13.62	Chemokine (C-C motif) ligand 20
210118_s_at	11.85	Interleukin 1, alpha
205114_s_at	10.26	Chemokine (C-C motif) ligand 3
205207_at	8.896	Interleukin 6
Affy ID	Fold Change	Gene Title
203865_s_at	-5.847	Adenosine deaminase, RNA-specific, B1
206641_at	-6.024	Tumor Necrosis factor receptor superfamily, member 17
209189_at	-6.451	V-fos FBJ murine osteosarcoma viral oncogene homolog
205237_at	-6.944	Ficolin (collagen/fibrinogen domain containing) 1
221841_s_at	-8.064	Kruppel-like factor 4 (gut)
213975_s_at	-10.020	AV711904 DCA Homo sap cDNA clone DCAAIE08 5' sequence

Supplementary Table 2: **Differential GEP of low stage CLL cells treated with thalidomide at 24-Hr in culture.**

Affy ID	Fold Change	Gene Title
207852_at	2.502	Chemokine ligand 5
201367_s_at	2.377	Zinc finger protein 36
214971_s_at	2.157	Sialytransferase 1
204805_s_at	2.137	H1 histone family member X
213887_s_at	2.113	Polymerase (ma) II polypeptide E
208621_s_at	2.11	Villin 2
213986_s_at	2.096	Chromosome 19 open reading frame 6
217234_s_at	2.096	Villin 2
201109_s_at	-2.212	Thrombospondin 1
204439_at	-2.283	Chromosome 1 open reading frame 29
203153_at	-2.309	Interferon-induced protein with tetratricipeptide repeats 1
201110_s_at	-2.404	Thrombospondin 1