Figure S1

	Genotype			KIR genes															
				Group-A haplotype associated					Group-B haplotype associated									number of	
			Bx				***2DS4***						***2DL5***						
	*	**Hgroup**	**Subset**	***2DL1***	***2DL3***	***3DL1***	***del***	***ins***	***2DS2***	***2DL2***	***2DS3***	***A***	***B***	***3DS1***	***2DS5***	***2DS1***	***aKIR***	***iKIR***
Healthy Subjects	F3	AA		■	■	■	■	■									1	3
	F24	AA		■	■	■	■	■									1	3
	M13	AA		■	■	■	■	■									1	3
	M26	AA		■	■	■	■	■									1	3
	F13	AA		■	■	■	■										0	3
	F17	AA		■	■	■	■										0	3
	M18	AA		■	■	■	■										0	3
	M22	AA		■	■	■	■										0	3
	FA1	AA		■	■	■	■										0	3
	FA5	AA		■	■	■	■										0	3
	A12	AA		■	■	■	■										0	3
	F15	AB	C4T4	■	■	■		■	■	■	■	■	■	■	■	■	6	6
	FA34	AB	C4T4	■	■	■	■		■	■	■	■	■	■	■	■	6	6
	FA3	AB	C4T4	■	■	■	■		■	■	■	■	■	■	■	■	5	6
	FA8	AB	C4T4	■	■	■	■		■	■	■	■	■	■	■	■	5	6
	M32	BB	C4T4	■		■	■		■	■	■	■	■	■	■	■	5	5
	FA15	BB	C4T4	■					■	■	■	■	■	■	■	■	5	4
	F2	BB	C4T4	■	■				■	■	■	■	■	■	■	■	4	5
	F23	AB	C4TX	■	■	■	■		■	■	■	■	■	■		■	4	6
	F12	AB	C4TX	■	■	■	■	■	■	■	■	■	■				3	6
	FA22	AB	C4TX	■	■	■	■	■	■	■	■		■				3	5
	M19	AB	C4TX	■	■	■		■	■	■	■		■				3	5
	F21	AB	C4TX	■	■	■	■		■	■	■		■				2	5
	M40	AB	C4TX	■	■	■	■		■	■	■		■				2	5
	FA4	BB	C4TX	■		■		■	■	■	■	■	■	■		■	5	5
	F19	BB	C4TX	■		■	■		■	■	■	■	■	■		■	4	5
	FA6	BB	C4TX	■		■	■	■	■	■	■		■				3	4
	F22	AB	CXT4	■	■	■	■		■	■		■	■	■	■	■	4	6
	A25	AB	CXT4	■	■	■	■		■	■		■	■	■	■	■	4	6
	M5	AB	CXT4	■	■	■		■				■	■	■	■	■	4	5
	M28	AB	CXT4	■	■	■		■				■	■	■	■	■	4	5
	FA14	AB	CXT4	■	■	■		■				■		■	■	■	4	4
	M44	AB	CXT4	■	■	■	■					■	■	■	■	■	3	5
	A36	AB	CXT4	■	■	■	■					■	■	■	■	■	3	5
	M48	AB	CXT4	■	■	■	■	■									1	3
	FA33	AB	CXT4	■	■							■	■	■	■	■	3	4
	FA17	AB	CXTX	■	■	■	■		■	■			■		■	■	3	5
	FA30	AB	CXTX	■	■	■	■			■		■	■	■		■	2	6
	FA2	AB	CXTX	■	■	■	■	■	■	■							2	4
	FA10	AB	CXTX	■	■	■	■	■	■	■							2	3
	FA16	AB	CXTX	■	■	■		■		■							1	4
	FA26	AB	CXTX	■	■	■	■			■			■				0	5
	M33	BB	CXTX			■		■	■	■							2	2
	FA27	BB	CXTX	■		■	■		■	■			■				1	4
	FA39	BB	CXTX	■	■	■		■			■				■		1	3
Adenoma	A11	AA		■	■		■	■									1	2
	A44	AB	C4T4	■	■	■	■		■	■	■	■	■	■	■	■	5	6
	A10	AB	C4TX	■	■	■	■		■	■	■	■	■	■	■	■	4	6
	A47	AB	CXTX	■	■	■	■	■	■	■							2	4
	A4	AB	CXTX	■	■	■	■		■	■							1	4

Figure S1 KIR gene-content genotype in our groups of healthy and adenoma subjects.

Hgroup: Haplogroup; *Acronym that identifies the subject

Figure S2

	Genotype			KIR genes														number of	
				Group-A haplotype associated					Group-B haplotype associated										
							2DS4						*2DL5*						
	*	**Hgroup**	**Bx Subset**	***2DL1***	***2DL3***	***3DL1***	***del***	***ins***	***2DS2***	***2DL2***	***2DS3***	***A***	***B***	***3DS1***	***2DS5***	***2DS1***	***aKIR***	***iKIR***
Tumor Patients	**P70**	AA		■	■	■	■	■									1	3
	PE3	AA		■	■	■	■	■									1	3
	PE5	AA		■	■	■	■	■									1	3
	P14	AA		■	■	■	■										0	3
	P43	AA		■	■	■	■	■									0	3
	P45	AA		■	■	■	■										0	3
	P59	AA		■	■	■	■										0	3
	P64	AA		■	■	■	■										0	3
	P74	AA		■	■	■	■										0	3
	PE9	AA		■	■	■	■										0	3
	PE12	AA		■	■		■										0	2
	P55	AB	C4T4	■	■	■		■	■	■	■	■	■	■	■	■	6	6
	P60	AB	C4T4	■	■	■		■	■	■	■	■	■	■	■	■	6	6
	PE13	BB	C4T4	■		■		■	■	■	■	■	■	■	■	■	6	5
	P51	BB	C4T4	■		■			■	■	■	■	■	■	■	■	5	5
	P30	BB	C4TX	■		■		■	■	■	■		■				3	4
	P31	BB	C4TX	■			■		■	■	■		■				2	3
	PE6	BB	C4TX	■		■	■		■	■	■		■				2	4
	P39	AB	CXT4	■	■	■	■		■	■	■	■		■	■	■	5	5
	P62	BB	CXT4	■	■		■					■	■	■	■	■	3	4
	P56	AB	CXTX	■	■	■	■	■	■	■	■						3	4
	P42	AB	CXTX	■	■	■	■	■	■	■							2	4
	P34	AB	CXTX	■	■	■	■	■	■	■							2	4
	P61	AB	CXTX	■	■	■	■			■		■	■		■	■	2	6
	PE7	AB	CXTX	■	■	■	■			■		■	■		■	■	2	6
	P18	AB	CXTX	■	■	■	■		■	■							1	4
	PE1	AB	CXTX	■	■	■	■			■			■				0	5
	PE8	AB	CXTX	■	■	■	■			■			■				0	5
	P67	BB	CXTX	■	■		■		■	■		■	■	■	■		3	5
	P50	BB	CXTX	■		■	■	■	■	■							2	3
	P57	BB	CXTX	■		■	■	■	■	■			■				2	4
	P73	BB	CXTX	■	■		■			■			■				0	4
	PE2	BB	CXTX	■	■		■			■			■				0	4

Figure S2 KIR gene-content genotype in our group of tumor patients.

Hgroup: Haplogroup; *Acronym that identifies the subject

Figure S3

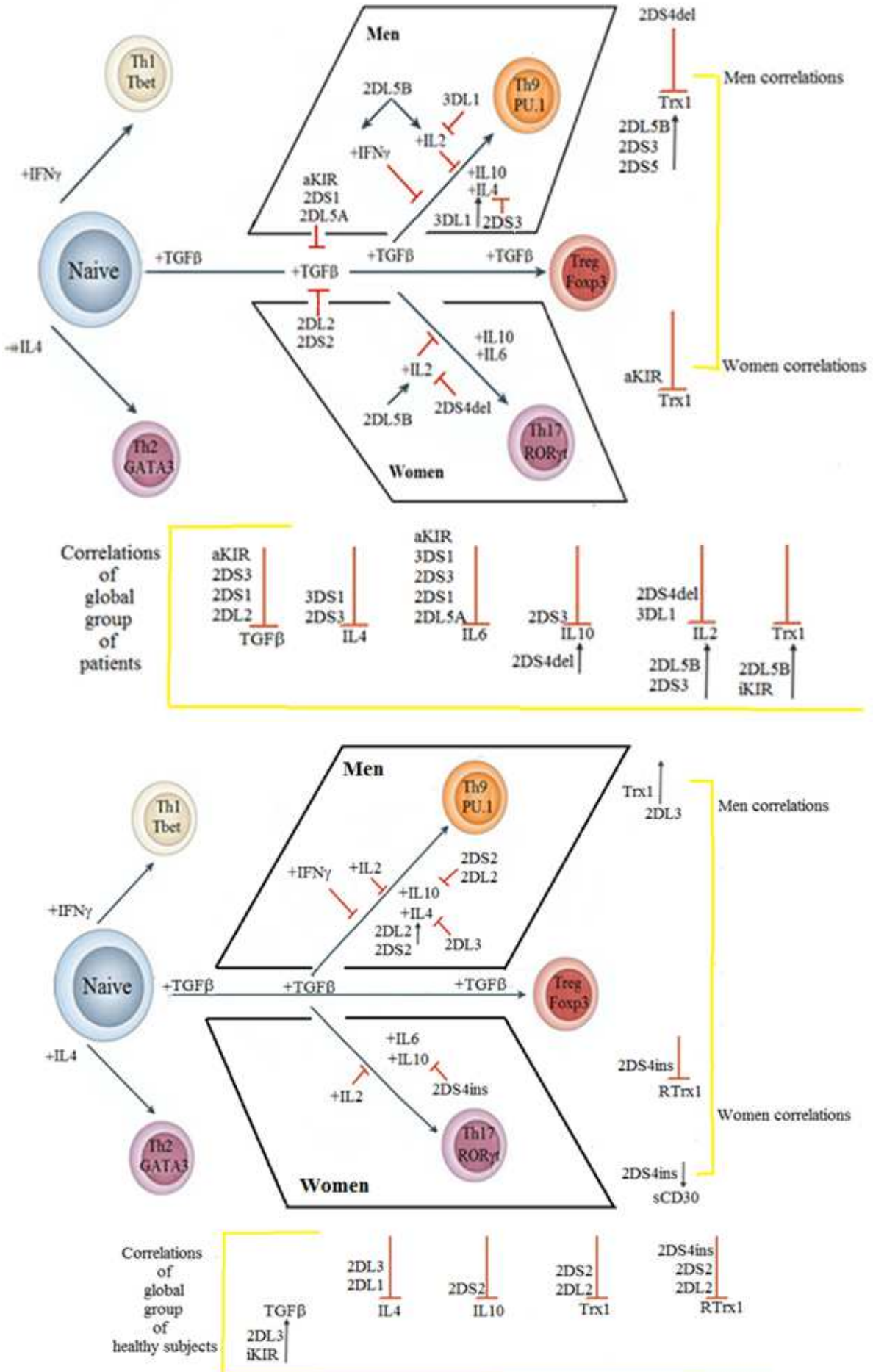
Men
Th1
Tbet
+IFNγ
2DL5B
3DL1
Th9
PU.1
+IL2
+IFNγ
+IL10
+IL4
aKIR
2DS1
2DL5A
3DL1
2DS3
Naive
+TGFβ
+TGFβ
+TGFβ
+TGFβ
Treg
Foxp3
2DL2
2DS2
+IL10
+IL6
+IL2
2DS4del
2DL5B
Th17
RORγt
Women
→IL4
Th2
GATA3
2DS4del
Trx1
Men correlations
2DL5B
2DS3
2DS5
aKIR
Trx1
Women correlations
Correlations
of
global
group
of
patients
aKIR
2DS3
2DS1
2DL2
TGFβ
3DS1
2DS3
IL4
aKIR
3DS1
2DS3
2DS1
2DL5A
IL6
2DS3
IL10
2DS4del
2DS4del
3DL1
IL2
2DL5B
2DS3
Trx1
2DL5B
iKIR
Men
Th1
Tbet
Th9
PU.1
Trx1
2DL3
Men correlations
+IFNγ
+IL2
2DS2
2DL2
+IL10
+IFNγ
+IL4
2DL2
2DS2
2DL3
Naive
+TGFβ
+TGFβ
+TGFβ
Treg
Foxp3
+IL6
+IL10
+IL2
2DS4ins
2DS4ins
RTrx1
Women correlations
Th2
GATA3
Th17
RORγt
2DS4ins
sCD30
Women
Correlations
of
global
group
of
healthy subjects
TGFβ
2DL3
iKIR
2DL3
2DL1
IL4
2DS2
IL10
2DS2
2DL2
Trx1
2DS4ins
2DS2
2DL2
RTrx1

Figure S3 The Trx1/CD30 controls the redox immunological homeostasis.

The Trx1/CD30 controls the redox immunological homeostasis of the TGFβ, IL6, IL10, IL2, IFNγ and IL4 cytokine pathway interactions, which are specific to each sex, and the loss of this control generates the pathological polarization of T cell subsets. KIR polymorphisms are valid classification parameters for the individual risk of losing the physiological redox immunological homeostasis between the Th1, Th2, Treg, Th9, Th17 cells that are all regulated by the Trx1/CD30. For this reason, they are suitable as early prognostic biomarkers of the individual risk of disease (healthy subjects) or of its progression (patients). In the patient group we found a negative correlation in the male group between: *3DL1* and IL2; *2DS3* and IL4; and between the aKIR number, *2DS1*, 2DL5A and TGFβ. A positive correlation was found between: *3DL1* and IL4; *2DL5B* and IL2, IFNγ. In the female group we found a negative correlation between: *2DS4del* and IL2 and *2DL2*, *2DS2* and TGFβ; and a positive correlation between *2DL5B* and IL2. In the healthy subject group we found negative correlations in the male group between: *2DL2*, *2DS2* and IL10; and between *2DL3* and IL4. There was a positive correlation between *2DL2*, *2DS2* and IL4. In the female group, we found a negative correlation between *2DS4ins* and IL10.

Table S1 Clinical and Histophatological Data of Patients with Colorectal Cancer

	Stage (*n* of patients = 147)							
Location	I (*n* = 32)		II (*n* = 59)		III (*n* = 34)		IV (*n* = 22)	
Rectum/colon sigmoideum		4		2		3		1
Transverse colon		2		6		3		2
Descending colon		6		7		2		1
Ascending colon		3		20		8		4
Sigmoid		5		9		8		7
Rectum		12		15		8		5
Cecum						2		2
pTNM	T2N0M0	23	T3N0M0	51	T2N1M0	1	T1N1M1	2
	T1N0M0	9	T4N0M0	8	T3N1M0	14	T3N1M1	7
					T3N2M0	8	T3N3M1	2
					T3N3M0	3	T4N1M1	3
					T4N1M0	5	T4N2M1	2
					T4N3M0	3	T4N3M1	6

Table S1 Clinical and Histophatological Data of Patients with Colorectal Cancer