I. Evaluation

1. The ROI result

Algorithm / ROI	AUC	AC	SN	SP	PR	FM
Literal Femur (LF)	0.816	0.585	0.585	0.849	0.618	0.577
Medial Femur (MF)	0.822	0.569	0.569	0.849	0.58	0.553
Literal Tibia (LT)	0.828	0.592	0.592	0.833	0.635	0.563
Medial Tibia (MT)	0.871	0.654	0.654	0.907	0.691	0.658

Table1. The ROI best result comparison.

2. The Best feature descriptor result

Algorithm / Texture Descriptor	AUC	AC	SN	SP	PR	FM
1st Level GLCM	0.647	0.496	0.496	0.776	0.418	0.408
CLBP	0.789	0.569	0.569	0.836	0.58	0.553
Gabor	0.772	0.523	0.523	0.833	0.537	0.514
Haralick	0.644	0.454	0.454	0.801		0.416
LBP	0.871	0.654	0.654	0.907	0.678	0.658
LBP_hf	0.682	0.438	0.438	0.801	0.418	0.416
LBP_ri	0.682	0.477	0.477	0.815	0.478	0.45
LCP	0.747	0.515	0.515	0.834	0.509	0.503
LTP	0.741	0.508	0.508	0.824	0.532	0.492
RLBP	0.817	0.585	0.585	0.856	0.578	0.559

Table2. Texture Descriptor Result Comparison

3. The Best learning algorithm

Algorithm / Learning Algorithm	AUC	AC	SN	SP	PR	FM
J48	0.628	0.446	0.446	0.798	0.41	0.425
J48 binary tree	0.659	0.438	0.438	0.832	0.46	0.445

AODE	0.848	0.562	0.562	0.82	0.573	0.518
Bayes network	0.858	0.615	0.615	0.834	0.635	0.583
Naïve bay	0.854	0.623	0.623	0.827	0.691	0.583
SVM	0.612	0.469	0.469	0.772	0.415	0.353
Logistic	0.871	0.654	0.654	0.907	0.671	0.658
SMO	0.762	0.577	0.577	0.846	0.678	0.646
Multilayer	0.842	0.654	0.654	0.864	0.678	0.646

Table 4. The best learning algorithm result comparison