Statistical tests for over (or under) representation:

Build a contingency table categorizing genes by D.E. and GO

lion"		Differential NO	ly Expressed YES
GO term "cell wall modificat present?	NO	32,710	950
	YES	290	50

 Use a (modified) Fisher's Exact Test to look for unequal ratios (is 32710:290 different from 950:50)?

Promoter Motif Analysis