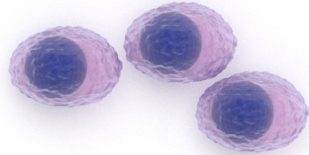


# Four genes predict high risk of progression from smoldering to symptomatic multiple myeloma (SWOG S0120)

105 patients with smoldering myeloma  
prospective observational trial SWOG S0120

Gene expression profiling  
of plasma cells



Evaluation of

- ➔ baseline clinical data
- ➔ bone marrow data
- ➔ cytogenetic data
- ➔ radiologic data

4 genes gene signature (GEP4)  
RRM2 (2p25-p24), DTL (1q32), TMEM48 (1p32.3) and ASPM(1q31)

Binary cut-point  $\geq 9.28$



14 patients (13%)  
with 2-year therapy risk of 85.7%

Binary cut-point  $< 9.28$   
&  
baseline monoclonal protein  $< 3$  g/dl  
&  
baseline albumin  $\geq 3.5$  g/dl



61 patients (58%)  
with 2-year therapy risk of 5.0%