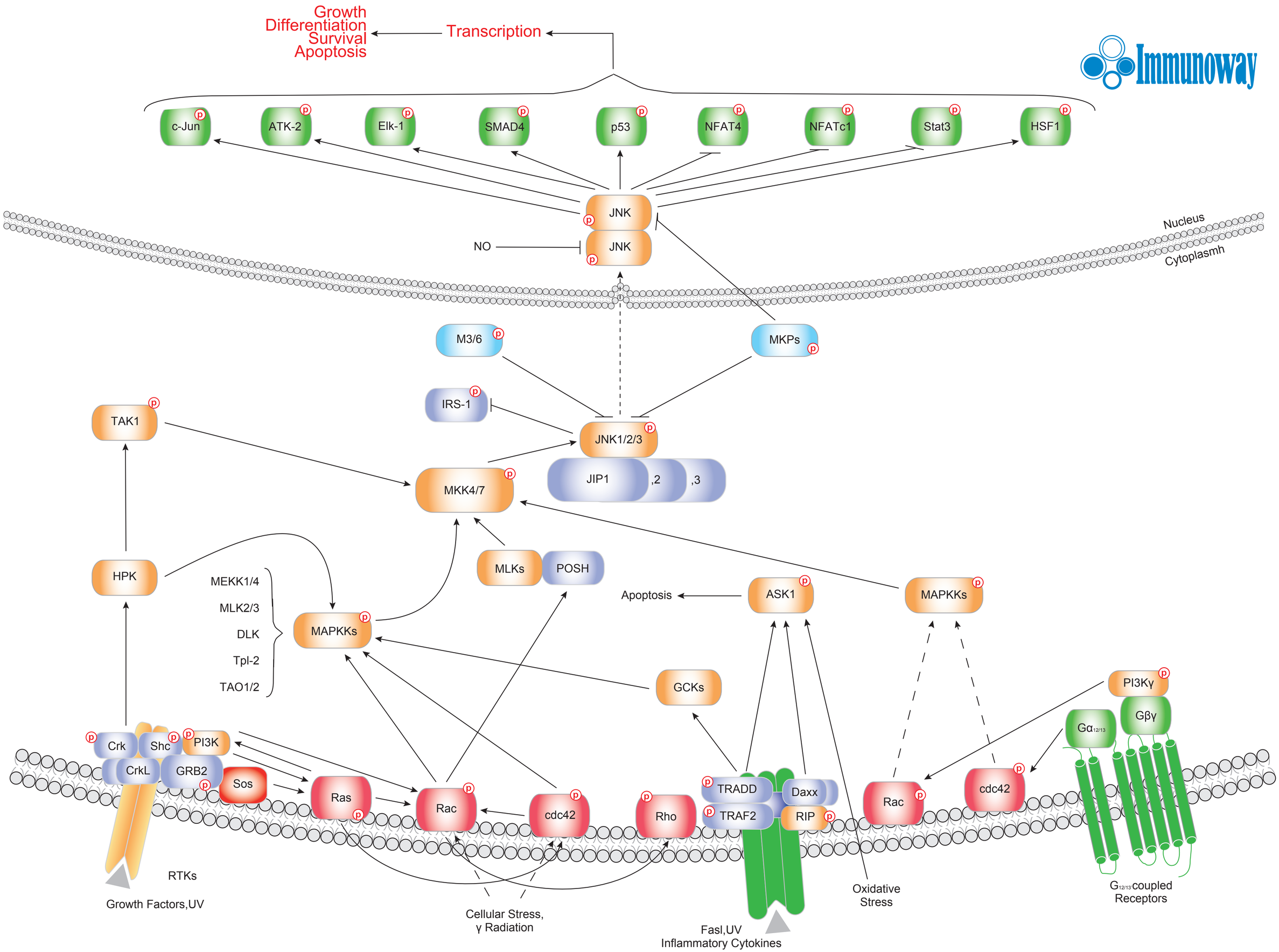
Growth
Differentiation
Survival
Apoptosis
Transcription
Immunoway
c-Jun
ATK-2
Elk-1
SMAD4
p53
NFAT4
NFATc1
Stat3
HSF1
JNK
JNK
NO
Nucleus
Cytoplasmh
M3/6
MKPs
IRS-1
TAK1
JNK1/2/3
JIP1
,2
,3
MKK4/7
HPK
MLKs
POSH
MEKK1/4
MLK2/3
DLK
Tpl-2
TAO1/2
MAPKKs
Apoptosis
ASK1
MAPKKs
GCKs
PI3Kγ
Gβγ
Gα12/13
Crk
Shc
PI3K
CrkL
GRB2
Sos
Ras
Rac
cdc42
Rho
TRADD
Daxx
TRAF2
RIP
Rac
cdc42
RTKs
Growth Factors,UV
Cellular Stress,
γ Radiation
Fasl,UV
Inflammatory Cytokines
Oxidative
Stress
G12/13-coupled
Receptors