

. V M U J Q M F % J N F O T J P O T P G \* O U F H S B U J W F % F \$  
\$ B S D J O P H F O F T J T

/DZUHQFH 0 \$JLXV

'HS DUWPHQW RI 0GDWMHKUR OHRLJ\+RVSLWDO 8QLYHUVLW\ RI 0DOWD 0HGLFDO 6FKRRO 0VLGD 0DOWD (XURSH  
&RUUHVSRDQWGRDZUHQFH 0 \$JLXV 'HS DUWPHQW RI 3DWKRORJ\ 0DWHU 'HL +RVSLWDO 8QLYHUVLW\  
( PDIQDZUHQFH DJLXV#XP HGX PW

5HF 'DWH 2FW 1\$FYF 'DWH 3XE 'DWH 'HF

&RS\ULJKW \$JLXV /0 7KLV LV DQ RSHQ DFFHVV DUWLFOH GLVWULEXWHG XQGHU WKH WHUPV RI WKH & GLVWULEXWLRQ DQG UHSURGXFWLRQ LQ DQ\ PHGLXP SURYLGHG WKH RULJLQDO DXWKRU DQG VRXUFH D

\$EVWUDFW

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GDPDJH WKDW UHVSRRQG LQ KLJKO\ YDULHG PDQQHU DV GLFWWDWHG EV VSHFLILF JI  
WKH RYHUODSSLQJ RI LQGLYLGXDO PROHFXODU SDWKZD\ \ WKDW SURJUHVV DV SH  
IXUWKHU FDQJH , QVWDELOLW\ RI WKH JHQRPH DFFRXQWV IRU WKH HPHUJHQFH RI  
EV LQFUHDVHG FHOOXODU SUROLIHUDWLRQ EH\ RQG WKH \* 6 UHVWULFWLRQ SRLQW  
DQWL DSRSWRVLV EDODQFH LQ LQGLYLGXDO FHOOV 6XFK FRQWH[WV LPSO\ VZLWF  
PXOWL QRGH GH FRQWURO DQG DV V\VWHPV RI IDYRUHG SHUPLVVLY HQHVV IRU IX  
UHDOL\ DWLRQ RI LQWHJUDWLYH IXQFWLRQDOLW\ DQG G\ V IXQFWLRQDOLW\ WKDW RI  
PDOLJQDQW WUDQVIRUPDWLRQ DQG RI VXEVTXHQW HPHUJHQFH RI VSUHDG RI LQ  
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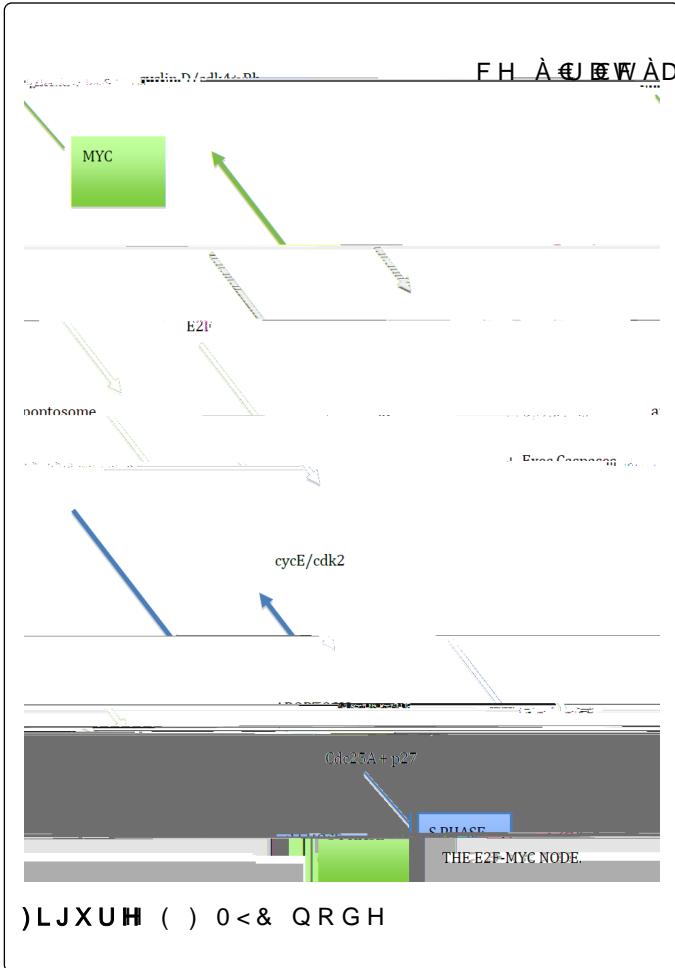
, QWURGXFWLRQ

18

UPXODV RI FRQVHTXHQFH WKDW LPSOLF

F K D Q L Q W X A Q F F R P S O H [ F H O O X O D U R U I F J R Q Q F X R U U C H Q V M U L Q F D Q L Q E F L H V U L R Q G R J Q S E L G R V D X S I R S R M F F U D D O L W R W X P R U L Q L W L D W I H R @ U D D Q Q / G S X I R F D U I R Q M R Q I R V Q D Q @ W Q H ) N F D M S H M F W D D V O \ Z K H Q F R P X O W L S O H S D W K Z D \ V D O O R Z V Q R W R Q O V I D P B X / C M V E S P O X L V F D W Q H R V I R Q P H U F K H D Q Q L W M E L X F P R S D D W K H R S H U D W L R Q D O R Y H U O D S S L Q J R I F R V E H T X P H Q P A H L V F I R Q H V H U T H K D Q Q L F J H G Z I D W K H I Q R F A W X G D I I U D P H Z R U N V R H v M B @ W S U D H D M P L F X O D U \$ Q F V Q H O R L I Q H H M D U F D S S I G R B F I Q V L R Q V R I S U R P R W I F R V Q L V W H Q W Z L W K D Y D L O D E O H P R G H R P D D Q H W L I R D Q W B D M R D O W K P D H W K X W W Q O D J Q H W I H Q R D Q H W K U H V K R O G D Q G W K U H V K R O G S D U D P H W U H H S V D I P D D Q G Y H D / O X U D R E J O H Q L C Q G X F V H H G V F L D Q U F V Q R

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 SHUVLVWHQFH RU RI WUDSCHVFLS/DEARKEZDIDF VRMFLDOYOFDULISRVQVRQDQO FRQWURO DQG RI ORV  
 )+,7 LV DGEHVKDPRU VXSSUHVVRU JHQH DQG LWV ORVV RUPHWKJODWLWLRQ  
 PD\ FRQWULEXWH WR EUHDWW R5BUDMRYH QHVW >@  
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 GHYHORSPHQW DQGH SIURJUWKHVW LGRQH Y@ WPSHFWLQFWSWLRQ IDFWRUW DOVR IRUF  
 S F 0\ 1XFOHDU )DFWRU NDSSD % DQG RQH WUDQVFULSWLRQDO FRQWURO DOORZ  
 WUDQVFULSWLRQDO FRQWURO DOORZ IRWUDQVFULSWLRQDO FRQWURO DOORZ  
 FRQVHTXHQWLDO GHULYDWLRQ DOVR RI E2F E2F  
 VWLPXODWLRQ YLD WKH % FHOO UHFHSWRUW DQG RQH  
 VXUYLYDO RI FKURQLF O\PSKRF\WLF O\PSKRF\WLF  
 WUDQVODWLRQDO LQGXFWLRQ RI 0\ > @ WUDQVFULSWLRQDO  
 DQG QRGDO FRQWURO DSSHDU HVSHFL  
 FDUFLQRJHQHV DV LQWHJUDO LQGXFHUV  
 UHFRJQLJHG DV RQFRJHQHV RU WXPRU  
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 DQG RQH



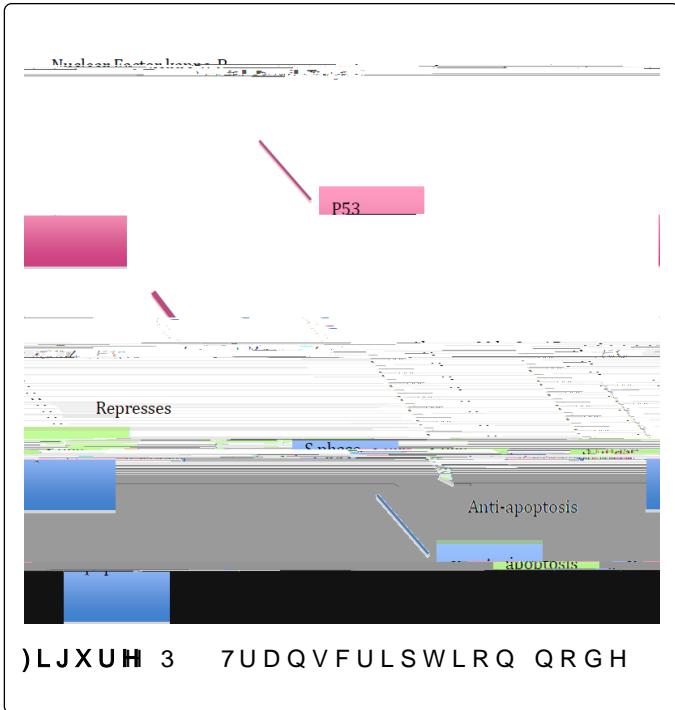
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 WKDW WUDQVFHQG WKH GLPHQWHLFRQWV RI VLPSOH SDWKZD\ SURJUHVVLQ

FKDUDFWHUL]DWLRQ ZRXOG OHDG WR EIIKWKRULQWIRBWWRQDQIRSUHURKPDQWYLERKRWODAHLW  
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)LJXUHPXOWLJHQHG\VIQFWLRQDVLOOMVWUD

PXOWL JHQH G\VI[XQFWLRQ DV LOOMVWUD  
VLJQL}FRDIQF~~W~~URFWHPSODWHV LV D UHTXLV  
GLHPQVLRQDO FRQWH[W IRU IXUWKHU S  
WUDQVIRUPDWLRQ

6XFK SURJUDPPLQJ RI WUDQVFULSWLRQ  
UHSUHVHQWHG E\ PDVWHLPSHQHGRUPXQD  
S 1XFOHDU )DFWRU NBSBHQJBDQFH YRW  
GLHPQVLRQV ZRXOG OHDG WR FRQFXUUHQW  
UHDOLJHG LQ WHUPV RI LQVWDELOLW\ R  
PXOWLSON WUDQVFULSWV ZLWKLQ WKH  
SHUPLVVLYHQHVV RI '1\$ OHVLRQ SURPRWL



3UR}ORH\&RQVHTXHQFH DQG 3HUPLVVLYHQHVV

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HYHQWV KDYH WR EH LQWHUSUHWG LQ WKH FRQWH[WV RI LQVWDELOLW\ RI  
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LQ WHUPV RI FRQWH[WXDO IRUPXODV IRU IXUWKHU FKDQJH LQ SDWKZD\  
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WDQVIRUPDWLRQ RI FHOOV /DWHQW (SVWHLQ %DUU YLUXV LQIFWLRQV DUH SUH  
LQ WKH DVVRFLDWHG FDQFHUV VXJJHVWLQJ WKH (%9 ODWHQW JHQHV FRQWULEXV  
RQFRJHQHVWLQJ WKH GLPHQVLRQV RI SRVLWLYH DQG QHJDWLYH  
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FDUFLQRJHQHV LV FROOHFWLYH EHKDYLRU RI ERWK UHJXODWRU\ SURWHLQV DO  
'1\\$ LV LPSOLFDWHG LQ VSRQWDQHRXV FHO SKHQRW\SH WUDQVLWLRQV > @

& RQFOXGLQJ 5HPDUNV

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ZRXOG HPHUJH DV PXQJMIGSHQ QRMKDSMD FQHWYKHRI  
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&LWDW\$RQXV

OXOWLSOH 'LPHQVLRQV RI ,QWHJUDWLHYH 'H &RQWURO LQ 3HUPVLGRYHQH

DFS

3DJH RI

,ZDNLUL ' 0HFKDQLVPV RI (SVWHLQVHDWU &KUX%. PHGRUDWHGHDG (/ '1\$ E  
RQFRJHQLHV \*DQ 7R .DJDNX 5\RK R GHWHLQHV WKH PHFKDQLVP RI QRLVH LQG  
%LRSK\V -