



; GA !Gi ddcfhi ``8cVfY[c 'DUghYfnU%\$&#) ž' % (%* ?fU_Clk
a cV]`Yž(, * \$, %\$+())žB=D` , % ' ') , * \$- `F 9; CB. %, %\$, %' ' (
k k k "[ga !gi ddcfh"bYh

G9 Hcc`'; i g]cb '6cl 'ž ' + ' UV`]ž ' UfhU 'hYghck U



G9Hcc` i g|cb`6cl`Z @ 9Hcc`Z`5bXfc]X`Z` + '_UV']hc`bU`bck gnU`k Yfg`U`GYHcc`U`n`ZUVfmWb`U`h_nk UW`5bXfc]X`cfUn@ 9Hcc`cfUn`nYghJk Ya` + '_UV']fk`hna`_UV`]Xc`bUdfUk m`VgnUfi`6cc`cUXYfE`Gdfn`hdfn`YnbU`Wcbm`Ygh`Xc`cVgU`[d`U`hZcfa m`G9Z@`z`GUa gi b`[`Dc`XWUg`k`[`frnk`Ub]U`cdfc`[`fua`ck`Ub]U`]`k`m`cbmk`Ub]U`k`gnmgh`_W`cdYfUW`jghb]Y`Y`a`c`_jk`c`dc`Xu`W`Yb]U`%*`h`YZcbCk`YY`Xbc`W`Y`b]Y"

? CAD@9'H'N'5? HMK 57 > '!H'"8N=5ú5> 'B5>BCK GN9'5? HI 5=@N57>9'fk ú Wb]Y'n'eí U'Wc a ĚCF5N
CHF NVA I >9A M8CGH D'8C'GI DDCF HI 'N': @5G<5A="K'dU_JWVY'U_hrk UWU'@'Hcc'X'U'a cXY']. '@'žGUa gi b[ž
<H7z'5'W'Hy'ž'6'UW VYffmž 8cfç'ž<i Uk Y]žA JWCa UI ž'A chcfç'UžDUb HyWV ž Gcbm9f]Wgcbž'G'Ufdž'G_m] NH9

I b'cW'dUH\W Ya'k 'hY'YZcbUW' 86&\$&\$& fli b'cW' 7=8(-#)%#)&#)' ' t
HYfUn' 'Yq\ck Ub'Y XV+&\$&& 'nU'ZfYY' ' ' ' !b'Y dcV\YfU' fYXnhDk

FUVUUhX'UghJUUmW_]_YbHbKk .E.k_W^i c[hfnnmaBbJU[nb] _]dfcgja mc '_cbHU_hY! a U] ! gU'Yq4 [ga !gi ddcf h'bYh

For more information about the study, please contact Dr. Michael J. Hwang at mhwang@ucla.edu.

Cvgu [Jk uby a cxy y.

GSM SUPPORT

- 86' &%%\$. '7) %\$ż7- \$%ż7- '\$ ż7- \$) ż; +\$) żH+% żK +\$) żK +%) żK --)

• 86' ') \$: >%\$S9@A ž>%\$, S7985F ž>+\$S<5N9@ŽI %%\$S5=BCŽI %%\$SM5F =ŽK &\$SNM€CŽL) SL D9F =5SDI F 9B 9GG

- CA 5D" (' \$. | %SG5H=CZI) SJ =J 5NzI , SJ =J 5N'DFCZ

- A GA +&&+. 9%\$SL %\$ A =B => 9%) SL D9F =5 L, z 9%* SL D9F =5 K, z A %S 5GD9B zI &\$SL %\$ A =B =DFC z

- A GA , L)) . :%G@S5? 5B9Z:@H%) S5F 7Z:@H% S5F 7SGZ A ?%* SDF C Z A H%) SB 9CZ F, \$\$SD@5M Z G? %+SA =B=DF C Z GH%) SA =B=Z GH%+S57H=J 9ZGH% SF 5M

- DBL(- %\$. 7?% SHL Hž 7?%) SHL HSDFC č' K H% SA - LSK 5@?A 5Bž
- DBL) &'. \$' K ') ž' K ', ž' N' %\$ž' N'))

- DBL *) %' . 'K %\$\$SGd]fcž'K %) \$SMWbXcž

- E G8, & \$ L%\$SL D9F 5ž

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@ghU'ni mWU'c[CK 'X'U'dcgnWY[(EbmW'a cXY]'! 'bU'dcXghUk] Y ghfcbm
\\hhd.##qiq ddcfH'gYhC ``bYH#gQck h fyUW" d\ d3% ! 7F 98 =HG! 7C BGI A DH=CB

DfnYX i b`cW]Ya N5K GN9 DF C G=A MGDF 5K 8N= '7 NM=@C 'DC 6=9F 5B M7< @C; é K 'B=9'1 @9; ú5 'NA =5B=9"

? F 98 MHM8C ?I D=9B =5 K B 5 GNMA G? @9D=9 HI H5>

G<5FD. 'G<+\$' G<\z'G<+\$' G<:\z'G<, \$%\z'G<, \$&\z'G<- \$&\z'G<- \$' G<

A c 'Jk c W'X'U'Gcbm9f]Wqcb.

! CXV`c_ck Ub]Y G%

! B UdfUk U`hchU`b]Y i gn_cXncbm\W dfc[f u a ck c'a cXY] 5& f\yff. '\$* \$%\$%
! K GNMGH? =9'G9A 7'5'& f\W(- z) %& ! a c 'l k c 'i b`c W U#bUdfUk m#na lUbmb Xca Ybm

! B UdfUk U'86&\$%& dcdfnYn hYghdc]bh! cVgú [

! B UdfUk U; 8: G`k `86&\$&\$ dcdfnYn `hYghdc]bh

! ! b 'c W \k gnmgh_JW\ k Yfg\} 7=8 .fP6* #&- # * #(-

! 'B UdfUk U'k gnmgh_]Wk Yfg] 7=8 'fP%* #&- # * #(- Ł

!`k [fnk Ub]Y`Xck c`bm\`dU_`Yh\`k nm_ck m\`k Y`k gnrgh_`W\`k Yfg`UW\`7=8`f\`%*`#&-`#`*`#(`-`
!`ZUg\`ck Ub]Y`]na]UbU`dU_`Yh\`k nm_ck m\`k Y`k gnrgh_`W\`7=8`UW\`

! i d[fUXY'ZUg\U'69N'NA =5BMdU_]Yh ^ nm_ck Y[c

!`cXWmhm'_cd]] nUdUgck Y^dUfUa YhfŒK ; 8: G`fg]a `cWž`VUhYf]Už_`_U]VfUWUŁ
!`nUd]g_`cd]] nUdUgck Y^dUfUa YhfŒK ; 8: G`fg]a `cWž`VUhYf]Už_`_U]VfUWUŁ
!`cXWmhdUa WžUg
!`gnmV_JYk [fnrk Ub]Y`d`_ŒK i nh_ck b]_UfIA D' ž nX^ WžUž Xnk cb]_ž'k]UXca c WžhY_ghck Y]hX"Ł
!`gi b] WžY`d`_ŒK _cbZ[i fUW] cdYfUhcfU fHjdYhUž dck]hUb]Yž gWž Ya UhŁ
!`cXWmhm_cXi UdUfUh
!`gi b] WžY`cX[ūcg]a][Uk _]
!`_Ugck Ub]Y`WžU_ŒK]hY[c`WžUgi fcna ŒK
!`bUdfUk U'i gn_cXncbmW`cVgnUfŒK ; 8: G
!`na]JbU`bi a Yf] 785
!`na]JbU`V`c_Uxm'dUga U
!`F YUXZ]Yž`]ghX]fž`]ghZ]Yg YhW
!`dfc[fUa ck Ub]Y`WmghmW`d`nh'k hY`YZcbUW`?) \$\$#? +\$\$#G+\$\$#N) \$\$
!`VUFXnc`gnmV_`Y`ZUg\ck Ub]Y`dcdfnYn'n WžY`I`G6`k gnmgħ_`JW`7-8ŒK`fP* #&- #` * #(- Ł
!`cVgđ [U`Xc %*`hY`YZcbŒK`bU`fUñ

! ?cbk Yfg\U hY\YZcbi \F 98 \bU\6FCK B]\cXk fc\h\Y
! \ b\cW_k gnmgh_\W Xcgh dbm\W k Yfg\]hY\YZcb\h\ @ '' ;
! \B UdfUk U'i gn_cXncbY[c cVgnUfi ' ; 8: G]d_\h\ gnmgh\Y a ck m\W
! \C XW\h\h\NUd]g\cVgnUfi ' ; 8: G
! \C XW\h\h\NUd]g\cVgnUfi \ZUg
! \K ma i gncbY\ZUg\ck Ub]Y\hY\YZcb\h\ @ '' ; \k \W\i \bUdfUk m \Y\dfnYZUg\ck Ubm\W\hY\gYf]]@ '' ;
! \W\ W\ck Y\k gdUfW\Y\X\U'i b\cW_U@ ' ; % \$#, ' ' \$ \h\i b\cW\cXVrk U'g] \dfnYn\hYgh\dc]bhnicfUn'nUb] Yb]Y\k Yfg\]cdfc[fUa ck Ub]U
! % , #, % \$
! \B UdfUk U'\=k Y\k gnmgh_\W \cVg\] []k Ubm\W a cXY\UV
! \ \h\U gnmh_\]Y\ZUg\ck Ub]Y\dfnYn'l G6

! 'I b\cW_`fk gnmgh\`Y\`k Yfg\`Y\`
! `B UdfUk U`cdfc[fUa ck Ub]U
! :`Ug\`]na]UbU^ nm_U
! C XW\`mth#NUd[g\`cVgnUf\` ; 8: G`fMUW_i d\`i ghUk \`Y\` .`nUVYnd]Y\`W\`Yb]U\`z VU\`Yf]`z _U]VfUW\`]hd"b
! C XW\`mth XUbm\`K
! C XVi Xck U`cVgnUf\` =A 9=
! 'hfU`gnmV\`Y\`ZUg\`ck Ub]Y\`dfnYn\`l G6

@ 9Hcc ``\ghd\Uhbma 'XcXUh_Ya 'X'U'G9 HCC@U\cdfUW\k Ubma 'dfnYn 'Y[c 'H\CEFW\k "Dcnk U'U'bU'cVg\ ['a cXY'] @ \zGu a gi b[\z <H7\z 5'W\hY\z 6'U\W\Yf\m\z 8'fc\z <i Uk Y\z A] W\cfa UI \z A chfc\U\z Dubh\Y\W\z Gcbm\z f\W\gcb\z G\Ufd\z G_m\z NH9 dcnk U'U^ W\fa 'bU i b\cW\#ZUg\#gYfk \jgck Ub\]Y h\Y\Zcb\k "Dcb] Y\^gn\W\Y[\CEck U'\z ghu'a cXY']] \z b\W"

CVgū []k UbY'a cXY'Y'hY'YZcbčk 'dfnYn'a cXi ū@ HCC@

• @,



5,) 'ł 9, I ł 9L %, ł 9L %- - 9L %%&ł 9L %) 9L %%* I 9L % % 9L %%&&ł 9L %(& 9L %%* I 9L %, 9L %%I 9L % - - 9L %% 9L %%& 7I 9L &&) 8I 9L &(&) 9L ('\$5ż 9L ('\$77ż 9L ('% I ż A 6) \$&I ż A 6) I ż A 6) %&I ż A 6) &\$I ż A 6) &) I ż A 6 *%& ż J 5+*F I ż K (- ; I ż K (% VŁK (% ; SGDż K (% ; I ż K +* \$I ż K L' () ż K L' (* I ż K L(%* I ż L'H', - 6ż L'H', - 7ż L'H', - 9ż L'H+&I ż N-I ż NB) I

- 5`WUhY`

- 6`UW\u201cVYffm



- Gcbm9f]Wggcb

G' %&ł ž'K %%\$Uł ž'K %\$\$]ł ž'K %) \$ł ž'K %) \$Uł ž'K %) \$]ł

- $\langle i \in \mathbb{U} \mid Y \rangle$

- A]Wca UI

A A L & \$ \$ \$ T l z A A L &) \$ T l z A A L ' \$ \$; t z A A L ' % \$; t z A A L ') \$; t z A A L ') & ; t z A A L ') t z A A L (\$ \$ F t z A A L * % \$! t

- G?M

5*) \$GżF (*\$?żF (+\$żF (+\$GżF) &\$ż'F) &\$Gż'G') \$ż'G' +\$ż'G' , \$?ż'G(%\$żG(%\$?żG) \$\$?żG)) \$GżI ((\$?żI (*\$?żI)' \$?żI) *\$?żI) +\$żI) +\$?żI ,) GżI) - \$Gż'K)) \$

- 8cfc

' () ; GA ſ ſ D\cbY9Ugm' () ſ ſ D\cbY9Ugm' (\$- ſ ſ D\cbY9Ugm' (\$- gl ſ ſ D\cbY9Ugm' (%\$! ſ ſ D\cbY9Ugm' (%\$gl ſ ſ D\cbY9Ugm'* %\$! ſ ſ D\cbY9Ugm'* %\$gl

- G\Ufd



- 5j j]c

Uj j]c` (%\$! ž'Uj j]c`gb) \$! ž'Uj j]c`gb+\$! ž'Uj j]c`h) %- ! ž'VXUh\cbY`gb) \$! ž'[hfUb`b%&\$! ž'[hfUb`b) %\$!

- DUbhYWW

7* \$\$! ž'7* %\$! ž'7+(\$`A Uhf]! t ž'7+- \$`5`UX]b`8i ct ž'7, %%`8i ct ž'7, &\$`A Uhf]! Dfc! ž'D%\$%\$! ž'D&\$\$`6fYYnY! ž'D&\$\$`9UgY! žD&\$`\$`6fYYnY! ---! ž'D) \$\$\$! ž'D* %%\$! ž'D+\$\$\$! =a dUVW! ž'D+\$! (\$`@]b_! ž'D+\$! (\$`@]b_! ž'D, \$\$\$`7fcggcj Yfl ž'D- \$&\$`Di fgi]H ž'D- \$) \$@UgYfl

! cnbUWcbY`a cXY`Y`cVgú []k UbY`g`hm_c`dfnYn`nXU`bmi b`cW

C_bc`Ud`_UW]dc`i fi VWca]Yb]i

@ hcc`k `hfmV]Y@` ; GA

@ hcc`k `hfmV]Y@` 78A 5`

9: G`Z`Y`YI d`cfYf`

@ hcc`k `hfmV]Y< H7`

@ hcc`k `hfmV]Y`G?M

@ hcc`k `hfmV]Y`A chcfc`U`

Dfc[fUa`Xc`nXU`bmW`_cX@K

GUa gi b[`GYfj]W`Hcc`

22 ?@=? B=>! @ghU`a cXY`cVgú []k UbmW`dfnYn@` 9`Hcc`

¥ &\$&&`k k k "[ga !gi ddcfh`bYh

Cd]g`hYb`b]Y`ghUbck`cZYfhmk`fcni a]Yb]i`?cXY_gi`7nk`bY[c"]; GA!Gi ddcfh`nUghfnY[U`gcV]Y`dfUk`c`Xc`a`c`]k mW`Vü X@K`k cd]g]Y`dfcXi`_hi"

Dfcgla`mc`k`YfmZ_UW`n`DU`grk`U`ghfcbmž`U`k`fUñ]Y`k`hd`]k`c`W`c`_cbhU_h"

; GA!Gi ddcfh

i`8cVfY[c`DUghYfnU`%\$&#)

'%(`%*`?fU_Clk

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hY`-*\$, %\$+(())

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