



MUSC3801

7 fYUhj Y`Dfc YWg`jb`DYfZcfa UbW`UbX`7 ca dcg]hcb

HYfa`Hk c`#`&\$&\$

GWcc`cZH Y`5ftg`UbX`A YXJU`#`I BGK`..5ftg`UbX`GcWU`GwYbWg

7 ci fgY`Cj Yfj]Yk

GHJZZ`7cbHJW`8YHU]`g

7cbj Ybcfg

B Ua Y	9a Uj`	5j Uj`UV]`]m	@cWJhcb	D\cbY
? ja `6i fk Y`	_`Vi fk Y`4 i bgk "YXi "Ui	D`YUgY`Ya Uj`Zcf`Ub Uddc]bha Ybh	K YVghYf`%%\$	

@YWH fYfg

B Ua Y	9a Uj`	5j Uj`UV]`]m	@cWJhcb	D\cbY
8 Ua]Ub`6UfVY`Yf	X`VUfVY`Yf4 i bgk "YXi "Ui	D`YUgY`Ya Uj` VUfVY`Yf4 a UWWta Zcf`Ub`Uddc]bha Ybh		

GWcc`7cbHJW`bZcfa Uhjcb

GWcc`cZH`Y`5fmg`UbX`A`YX]U

Fcca`" `%&ž@Yj`Y`" žF`cVYfhK`YVghYf`6i`]X]b[`ifl`%{Ł

D\cbY.`f\$&Ł`-`,`,) `(,`)*

9a Uj]: [gUa 4 i bgk "YXi "Ui](#)

K YVg]hY: [k.k.k "Ufmg"i bgk "YXi "Ui #gUa](#)

H\Y`GWcc`cZH`Y`5fmg`UbX`A`YX]U`k`ci`X`_]`Y`hc`F`YgdYWw`m5W_bck`YX[`Y`h`Y`HfUX]hcbU`7i`gfcX]Ubgž`h`Y`6YXY[`U`fP`Ybg]b[`hcb`Wla`di`glž;`UX][`U`fP`]m`UbX`5fhi`8Yg][`b`7`Ua`di`gYgŁ`UbX`h`Y`B[`i`bbUk`U`dYcd`Y`fbi`ghfU]Ub`8YZYbWV: `cfW`5WUXYa`m]b`7`UbVYffUŁ`cZH`Y`UbXg`k`YfY`YUW`Wla`di`g`cZI`BGK`]g`cWJhYX"

7 ci fgY'8YHJ`g

7 fYX]hDc]bhtg '*`

Gi a a UfmicZ\hY'7 ci fgY

Gi VYWh5fYU.'? ge[U

⊕`h]g`Y`YW]j Y`Zcf`hY`7 fYU]j Y`DfUW]W`a U`cf`cZ`hY`6A i gž`mci`k`]`dUfh]W]dU]h`]b`k`cf`g`cdg`UbX`
gYa`]bUfg`hc`XYg][bž`XYj Y`cd`UbX`fYU`]gY`U`WYU]j Y`dfc`YWh`dfYgYbhYX`]b`U`di`V`]W`
dYfZ`fa UbW`#`a dcg]h]cb`Yj Ybh`Mci`k`]`U`gc`k`cf`_`k`]h`dYYfg`gdYW]U`]g]b[`]b`]bghf` a YbhU`cf`j`cW`
dYfZ`fa UbW`cf`W`a dcg]h]cb`hc`dfYgYbhU`ga U`[fci`d`dYfZ`fa UbW`dfc`YWh`]bW`X]b[`dYYf`a`Ybhcf]b[` "⊕`
UXX]h]cbž`mci`k`]`Yb[U[Y`k`]h`]bbcj`U]j`Y`a`cXY`g`cZ`dYfZ`fa UbW`!`a`U`_`b[`Y`a`d`cmYX`Vmk`cf`X`g`Y`UX]b[
Ufhg`dfUW]h]cbYfg`UbX`cf[Ub]gU]h]cbg`hc`dfYgYbh`a`i`g]WcZ`dUgh`UbX`dfYgYbh`

7 ci fgY`@YUfb]b[`Ci hW`a Yg

%` :` cfa`i`U`h`g`cd`\\]g]W]hYX`Ufh]gh]WcV`Y`W]j Yg`UbX`fYU`]gY`h`Ya`]b`dYfZ`fa UbW`
&` "5fh]W`U`h`W`a`d`YI`]XYUg`fY`Yj`Ubh`hc`h`Y`W`b`W`dh`U`]gU]h]cb`UbX`fYU`]gU]h]cb`cZU`WYU]j`Y`dfc`YWh`
'` "5dd`miUXj`UbW`X`W`c`U`V`cfU]h]cb`UbX`Y`UXYfg`\\]d`g_]`U`W`fcgg`U`j`Uf]Y`micZ`dYfZ`fa`U]j`Y`W`b`hY`I`hg`

HYUW]b[`GhfU]h[]Yg`

⊕`cfXYf`hc`XYj Y`cd`\\][`Yj`Y`W`b`W`dh`U`]gU]h]cb`UbX`dYfZ`fa`UbW`g_]`g`fYei`]fYX`hc`gi`W`W`ggZ` `mXYj`]gY`
UbX`fYU`]gY`Ub`Ufh]gh]Wdfc`Y`Wh`]b`di`V`]WdYfZ`fa`UbW`ž`gh`XYbhg`k`]`VY`gi`ddcfhYX`V`m` *` `ci`fg`cZ`]b!`WUgg`
W`b`hUW]h]bW`X]b[`a`UghYf`WUggYgž`k`cf`g`cdg`UbX`gYa`]bUfg`"H`]g`k`]`Ugg]gh]b`fYZ]b[`]bX]j`]Xi`U`
dYfZ`fa`UbW`cf`W`a`dcg]h]cb`g_]`gž`Yb`UbW`W`c`U`V`cfU]h]j`Y`g_]`g`Z`c`ghYfYX`]b`h`Y`D`Y`f`Z`fa`UbW`@`U`V`c`f`U`h`c`f`m`
gYei`YbW`ž`Z`cf[Y`WYU]j`]mi`UbX`cf[]bU`]micZ`h]b_]b[ž`UbX`XYj`Y`cd`g_]`g`]b`XcW`a`YbhU]h]cb`UbX`Ufh]W`U]h]cb`
cZ`W`a`d`YI`]XYUg`UbX`W`b`W`d`hg`"

5ggYgga Ybh

5ggYgga Ybh' . 'A U'cf'dfc YVh

GHUfhXUHy .'

@Yb[h. '&\$'a]bi hYg

8YHU]`g.

F Yei]fYg'hY'dfYdUfUj]cb'cZU'dYfZcfa UbW' d'fc YVhUhl B.GK 'cf']b'Ubc'hYf'Uddfcj YX'j Ybi Y''H\Y
dYfZcfa UbW'a UmY]hYf'VY'gc'c'cf']bj c'j Y'W'U'V'c'f'U'c'f'g'Ug'bYVW'ggUfm'

5XX]h]cbU'XYHU]`g.

H\Y'h]a]b['Zcf'h]g'dYfZcfa UbW']g'U'bca]bU'Z] [i fY. 'U'dfc[fUa a Y'cZ%) !&\$'a]bi hYg'k]''VY'YI dYVW'Xz'Vi h
h]g'k]''VY'bY[c]h]U'hX'k]h'W'c'i fgY'h h'c'f'g'Xi f]b['hY'hYfa z'UbX'k]''XYdYbX'cb'hY'bUhi fY'UbX'gi VghUbW'cZ
hY'a U'hYf]U'dfYgYbhYX"

DYfZcfa UbW'g'UfY'YI dYVW'X'h'c'hU_Y'd'UW'Xi f]b['k YY_ '%\$'fVY[]bb]b['' '5i [i ghz'Vi h'h]g'k]''VY'W'c'bZ]fa YX
UbX'bY[c]h]U'hX'Xi f]b['hY'hYfa "

5 hYbXUbW F Yei]fYa Ybhg

Gh XYbhg UFY gfhcb[mYbWci fU[YX hc UHhYbX U WUggYg UbX fYj]Yk YWfi fY fYWcfX]b[g"

7 ci fgY GWYXi Y

[J Yk WUgg ha YhUVY](#)

H]a YhUV Y

8 UhY	HmdY	7 cbhYbh
K YY_% '%>i bY!') '>i bY	C b]bY'5Wj]]hm	# <g` W U" ` b hfcXi W]cb`hc`h\Y`Wci fgYžUggYgga Ybhž fYgci fWg/`hc`g" V" `D\8`fYgYUfW`]b`a i g]WdYfZcfa UbW`Ubl]Ym fhgUVY`U`A UnnUfc`cŁ W" `bdi h/`X]gW gg]cb.`F ZW` SfgdWaXUdWsf[h[fk S` V bWad`S` UW X" `K cf_g\cd`YI YfWgY" Y" `HUg_gYhZcfk YY_`&ždfYdUf]b[`Zcfk cf_g\cdg]b k YY_g" /`('
K YY_&`,`>i bY!`%&>i bY	<ca Yk cf_	* <g` W Di V`]W\c`]XUm`XYHJ]g`hc`VY`dfcj]XYX`]b`WUgg`fk YY_%&`UbX`cb`a ccX`Y"
K YY_'.`%`>i bY!`%>i bY	C b]bY'5Wj]]hm	#' <g` W U" `bdi h/`X]gW gg]cb`fP 6Ł`H[egS^SebWUfe aX _ge[US^bWad`S` UW V" `; fci d`5`k cf_g\cd`fY`]b!WUgg`dYfZcfa UbW`g" W" `bdi h/`X]gW gg]cb`fB 6Ł`F WJZ` [US^SebWUfe aX a`↑`WbWad`S` UW X" `; fci d`6`k cf_g\cd`fY`]b!WUgg`dYfZcfa UbW`g"
K YY_(`.`&&>i bY!`&*>i bY	C b]bY'5Wj]]hm	\$\$ <g` W U" `bdi h/`X]gW gg]cb`fP 6Ł`I`df[`Y`STagf`_ge[U, UdWsf[hWbcaYcS`_`W`afMe` V" `; fci d`6`k cf_g\cd`fY`]b!WUgg`dYfZcfa UbW`g" W" `bdi h/`X]gW gg]cb`fB 6Ł`5`dWsf[h[fk`XdUgcSface S`V`Ua`STacSface

Gi Va]gg]cb 'cZ5ggYgga YbhiHUg_g

Hi fb]h]b 'Gi Va]gg]cb

Ʒmci 'YbWci bHYf'U'dfcV'Ya 'k \Yb'UH'Ya dh]b['hc'gi Va]hmc i f'Ugg][ba YbhiH'fci [\ 'Hi fb]h]bž'd'YUgY
HY'Yd\cbY'9I HYfbU'Gi ddcfhcb'-',) "' ' ' %cf'Ya U]'H'Ya 'cb'YI HYfbU'HY'f'gi ddcfh4 i bgk "YXi "Ui "'Gi ddcfh
\ci fg'UfY', .\$\$Ua '—%\$.\$\$da 'cb'k YY_XUmg'UbX'-. \$\$Ua '—) .\$\$da 'cb'k YY_YbXg'fI *) 'XUmg'U'm'YUfI" Ʒmci
UfY'i bUV'Y'hc'gi Va]hmc i f'Ugg][ba YbhiXi Y'hc'U'Zi 'hk]H'Hi fb]h]b'mci 'a UmUdd'm'Zc'f'Ub'YI HYbg]cbž'Vi hmc i
a i ghfYHU]b'mci f'h]W_Yhbi a VYf'Z'ca '9I HYfbU'Gi ddcfhfU'cb['k]H'UbmcH'Yf'f'Yj UbhXcW a Yb'f'g'hc
]bWi XY'Ug'Yj]XYbVW'hc'gi ddcfhmc i f'YI HYbg]cb'Udd']W]h]cb" Ʒmci 'Ya U]'9I HYfbU'Gi ddcfhmc i 'k]
Ui 'ca UH]W]m'f'YW]j Y'U'h]W_Yhbi a VYfž'Vi h]Zmci 'HY'Yd\cbY'mci 'k]'b'Y'X'hc'gd'Y'W]W]m'Ug_'Zc'f'cbY"
Hi fb]h]b'U'gc'dfcj]XYg'i dXUH'g'cb'H'Y]f'gm'g'Ya 'g'H'U'g'cb'Hk]H'Y'f"

; YbYfU'mž'UggYgga YbhiHUg_g'a i ghVY'gi Va]H'Y'X'Y'Y'W'f'cb]W]m'j]U'Y]H'Y'f'Hi fb]h]b'cf'U'A ccX'Y
Ugg][ba YbH' 'b]bg'f'U'V'W'g'k \Y'f'Y'hc'g'g'bc'h'd'c'g'g]V'Y'ž'hk]'V'Y'g'H'Y'X'cb'mci f'W'ci fgY'g'A ccX'Y'g]H'k]H
U'HY'fbUH] Y'gi Va]gg]cb'XYHU]g"

: cf]bZ'fa UH]cb'cb'\ck 'hc'gi Va]hUgg][ba Yb'f'g'cb]b'Y'j]U'A ccX'Y. \H'hd'g.#g'h XYb'hi bgk "YXi "Ui #ck!
gi Va]hUgg][ba Yb'f'a ccX'Y

5 WUXYa]W< cbYgmiUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i g]b[`hY`k cfXg`cf`]XYUg`cZc`hYfg`UbX`dfYgYbh]b[`hYa `Ug`mci f`ck b``#WUb`hU`Y`a Ubm
Zcfa gZ`Zca `XY`]VYfUHY`WXYUH]b[`hc`UWV]XYbhU`mWc`dm]b[`Zca `U`gci fW`k]h`ci hUW`bck `YX[Ya Ybh`

I BGK `[fci dg`d`U[]Uf]ga `]bhc`hY`Zc`ck]b[`WUHY[cf]Yg.

7 cdm]b[.`i g]b[`hY`gUa Y`cf`j Yfmg]a]Uf`k cfXg`hc`hY`cf][]bU`hYI hcf`]XYU`k]h`ci hUW`bck `YX[]b[`hY

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5W'WdhUV'Y'I gY'cZ I BGK '⇒H'F'Ygci f'W'g'Dc`]W'h
- VY'Uk UfY'cZ'U'g'U'bx'Uf'X'g'c'Z'V'Y'\U'j]ci f'Y'I d'Y'W'X'c'Z'Y'j Y'f'm'c'b'Y'']b'U'Y'I BGK 'W'c'a'a'i'b]m
- 'c'W'U'h'g'Y'f'j]W'g'U'bx'j'b'Z'c'f'a U'h'c'b'U'V'c'i h'l BGK 'U'bx'I BGK '@]V'f'U'f'm

Gca Y'cZ'U'g'Y'U'f'Y'U'g'k]''V'Y'Z'J'a]]U'f'U'c'm'c'i ž'c'h'Y'f'g'k]''V'Y'b'Y'k "; U]b]b['U'g'c'X'i bXYfghUbx]b['cZU''U'Y'f'Y'U'h'X'U'gd'Y'W'g'c'Z'9@-G'9'k]''\Y'd'm'c'i 'a U_Y'U'Y'a c'g'h'c'Z'm'c'i f'g'h X]Y'g'U'hl BGK ""

[\h'c'.#\]j' V'Y'W'f'i \]X'Y'g'' \]V'f'U'f'm'i b'g'k "Y'X'i "U'i #' \]g'Y'#\]V'c'i h' \]g'Y](#)

5 WUXYa]W**⊖**Zcfa Uh]cb

: cf`YggYbh]U`ghi XYbh]bZcfa Uh]cb`fY`Uh]b[`tc.