

# **MUSC2116**

Gci bXž'GcWJYhm'UbX'GY`Z]b'K cfX'A i g]W

HYfa 'H\fYY''##'&\$&\$

# 7ci fgY<sup>·</sup>Cj Yfj ]Yk

# GhJZZ 7 cbhJWh 8 YhJ] `g

7cbj Ybcfg

B Ua Y	9a U]`				

## 7ci fgY 8YHJ] g

### 7 fYX]hDc]bhg \*

### Gi a a UfmcZh\Y 7ci fgY

A i g]W]g'dUffhcZh\Y``]ZY'cZdYcd`Y'Yj Yfmk \YfYž'UbX'Ug'; Ycf[Y'9`]chcbW'gU]Xž'h\YfY`]g'bc'ZYY`]b[žYI WYdh h\Y'YI ffYa Yg'cZZYUf'UbX'[f]YZ'h\UhXcYg'bchZ]bX'fY`]YZ]b'a i g]W'i b]j YfgU``thci [\'th\YgY'ffi th\g'a][\h UddYUf'hc'VYž'h\Y'j Uf]ci g'a i g]WU``YI dfYgg]cbg'cZh\Y'k cfX'g'dYcd`Yg'UfY'Ug'X]j YfgYž'i b]ei Yž'UbX gca Yfja Yg'glfUb[Yž'Ug'N\Y'bUti fU``UbX'W\`ti fU``k cfXg'th\Uha U\_Y'th\Ya"'HcXUmk Y'WUb'UVWYgg'th\Uh a i g]WU``X]j Yfg]lmYUg]`m''K Y'WUb'Vi m]tiXck b`cUX']ti']DcX']th'6i h\gth\ck a i W\'Xc'k Y'\_bck 'UVci hth\Y dYcd`Ygž'\]ghcf]Ygž'gYbfja Ybfgž'UbX``]j Yg'cZth\Y'a i g]WJbg'UbX'g]b[Yfg'th\Uha i g]W3'K\UhWUb'k Y'`YUfb'th\Uh k]``XYYdYb'ci f'UddfYWJUfjcbži bXYfgHUbX]b[ž'UbX'dYf\Udg'dYfZcfa UbW''cZth\Y'a Ubma i g]WJ``YI dfYgg]cbg Uj U]`UVY'hc'i q'hcXUm8

H\]g`K cfX`A i g]\Wci fgY`gi fj Ymg`UbX`YI Ua ]bYg`h\Y`fY`Uh]cbg\]dg`VYhk YYb`a i g]\Wch\Y`gc\\Ymi]b`k\]\\\]\ |g`dYfZcfa YXz`UbX`]bX]j ]Xi U``gY`j Yg"'=nYI d`cfYg`Vch\`ffUX]h]cbU``UbX`\\chiYa dcfUfma i g]\WcZ5Vcf][ ]bU` 5i glfU`]Uz`Gci h\!YUgh5g]\Uz`7 YbhfU``5g]\U`UbX`h\Y`A ]XX`Y`9 Ughz`K Ygh5Zf]\W'UbX`h\Y`7 Uf]\VYYUbz`UbX a Uf[ ]bU``9i fcdY"'=nYI Ua ]bYg`\ck 'a i g]\WU``dfU\M]\Wg`YI dfYggz`g\UdYz`UbX`U``ck 'Zcf`h\Y`]bX]j ]Xi U``UbX \\chi``Y\Mjj Y`\\chi\gbrack 'a i g]\WU``dfU\M]\Wg`YI dfYggz`g\UdYz`UbX`U``ck 'Zcf`h\Y`]bX]j ]Xi U``UbX \\chi``Y\Mjj Y`\\chi\gbrack 'bY[ ch]\Uh]cb`cZ]\Ybh]\mz`Yh\b]\Mmz`[ YbXYfz`gd]f]hi U`]\mu\bX`\W\gg"'=n]bj Ygh][ UhYg\ck 'hfUbgZcfa Uh]cbg`]b`a i g]\Wch\`Ug`gc\\U``dfU\M]\W``UbX`Ug`gci bX`\W\UfhfYgdcbgYg`hc`a cXYfb]\mz`ghUhY ]bhYfj Ybh]cbz`[ `cVU`]gUh]cbz`\WcbZ]\Wz`X]gdcggYgg]cb`UbX`a ][ fUh]cb"`H\Y`\\ci fgY`U`gc`ZcghYfg`X]fY\\h\Y I dYf]Yb\W`cZa i g]\W]cX]j YfgY`W` hi fU``\\chi\h\fi [\chi\hci [\\Z]Y`X`k cf\_"

## 7ci fgY @YUfb]b[ 'Ci hWca Yg

%" @cWUhY 'X]j YfgY [ YbfYg cZk cf'X a i g]Wk ]h\]b '\]ghcf]WU`žgcW]c!W `hi fU`ž'UbX`[ `cVU``WcbhYl hg"
&" F YWc[ b]nY 'X]j YfgY [ YbfYg cZk cf'X a i g]Wcb VUg]g cZh\Y]f 'UYgh\Yh]WX]ZYfYbWYg"
' " 5 bU`mgY k cf'X a i g]Wž']b 'hYfa g cZgci bXž'hYl hž'UbX dYfZcfa Uhjj Y 'X]a Ybg]cbgž'Ug gcW]U``UbX 'W `hi fU`
VY\Uj ]ci f"

## HYUWX]b[ 'GhfUhY[]Yg'

Ghi XYbhgʻUhhYbXʻUʻk YY\_`mik c!\ci f``YWh fYʻUbXʻcbY!\ci fʻh hcf]U`''@YWh fYgʻUfYʻUi [a YbhYX`k]h\j]XYcgž Zj`a žg`]XYgžgci bXʻfYWcfX]b[gžUbX`dck Yfdc]bhdfYgYbhUhJcbg"·Hi hcf]U`gʻ]bj c`j Y`X]gWi gg]cbgʻcZfYUX]b[gž Ui fU``UbU`mg]gʻcZgY`YWhYX`a i g]WJ``Yl Ua d`Ygž`XYa cbghfUhJcbgž'UbX`\UbXg!cb`dfUWJWU``k cf\_"'GYhfYUX]b[g UbX``]ghYb]b[ 'fYei ]f]b[ 'ghi XYbhgʻfYgdcbgYgʻk]```VY`X]fYWhYX`hck UfXg`\]ghcf]WJ`žgcWJU`žW``hi fU`ž'UbX UYgh\YhJWX]ZYfYbWYgʻ]b`h\Y`k cfX`a i g]W[YbfYgʻghi X]YX"'Ghi XYbhgʻk]```a U]bhU]b`U`fYZYWhJj Y`ci fbU``cf`V`c[ hc`fYWcfX`h\Y]f`fYgdcbgYgʻhc`gYhfYUX]b[gʻUbX``]ghYb]b[`UbX`fYWcfX`h\Y]f`fYgdcbgYgʻhc`gYhfYUX]b[gʻUbX``]ghYb]b[`UbX`fYWcfX`h\Y]f`ghi XYbhgʻhc`Wc``UVcfUhY`cb`]bj YghJ[UhJb[`UbX XcW`a YbhJb[`Wca a i b]hm\VUgYX`a i g]Wa U\_]b[`]b``a i `hJ!W``hi fU``WcbhYl hg`]b`GmXbYm'

# 5ggYgga Ybh

## 5ggYgga Ybh'HUg\_g'

5ggYgga Ybh'hUg_	K Y][\h	8i Y'8UHY	Gh XYbh@YUfb]b[ Ci hWca Ygʻ5ggYggYX
9h\bc[fUd\]WfYgYUfW\ dfc\YW#dfYgYbHJhcb	(\$1	&*#/%#&\$&\$^\$).\$\$^DA	%ž&Ž
8 ]gW gg]cb 'V'c[ '	' \$1	Bch5dd`]WUV`Y	% <u>*</u> &ž
@]gh/b]b[ 'HYgh'	' \$1	Bch5dd`]WUV`Y	% <u>*</u> &ž

# 5ggYgga Ybh'8YHJ]`g

 $5\,ggYgga\ Ybh\%\ '9h\ bc[\ fUd\ ]WfYgYUfW\ 'dfc\ YWHdfYgYbhJh]cb$ 

GHJfh'XUHY.

8YHJ]`g.

g]a ]`Uf]hmfYdcfhg"

5ggYgga Ybh& 8]gW gg]cb V`c[

GhUfh XUhY.

8YHJ]`g.

Gh XYbhg k]``VY fYei]fYX hc gi Va]hhh fYY V`c[g cZ) \$\$ k cfXg YUW Uhha Yg gdYWZYX"

 $Gh~XYbhg~k~]``~VY~[~]j~Yb~ZYYXVUW\underline{~}~cb~V~c[~g~UZhYf~h\ Ym\ Uj~Y~VYYb~dcghYX"$ 

5ggYgga Ybh' @]ghYb]b[ HYgh

GhUfhXUhY. Bch5dd`]WUV`Y

8YHJ]`g.

 $H\g`UggYgga\YbhhUg\_`Wcbg]ghg`cZhk\c`hYghg`cZYei\U``k\Y][\h]b[\"`HYghg`k\]``VY`'\$`a\]bg`YUW\`]b`Xi\fUh]cb" \\ H\g`]g`h\Y`Z]bU``UggYgga\YbhhUg\_"$ 

HYghdUdYfg'k]``VY'fYh fbYX'k]h\a Uf\_g'UbX'Wta a Ybhg'Ug'bYWYggUfm'

## 5 https://bxubww.Fyei]fyaybhg

 $\hbox{Ghi XYbhg'UfY'ghfcb[`mYbWci fU[YX'hc'UhhYbX'U```WUggYg'UbX'fYj]Yk ``YWhi fY'fYWcfX]b[g''] }$ 

# 7ci fgY'GWXYXi `Y

## J]Yk 'WUgg'hja YhUV'Y

## H]a YtUV`Y

8 UhY	HmdY	7 cbhYbh
K YY_'%'%('GYdhYa VYf'! % 'GYdhYa VYf		±blfcXi Whob. Ghi Xmb[ / ``]ghYb]b[ 'hc'k cf'X'a i g]W a i g]W/ 'gcWjYm''9h\bc[ fUd\]WA Yh\cXg"'A i g]WUbX \mVf]X]mža i g]WUbX']XYbhJm''Ch\Yf'WcbW'dhg. W`hi fU``fY`Uh]j ]ga ža i `h]W`hi fU`]ga ž Wcga cdc`]hUb]ga ž]bhYfW`hi fU`]ga žgcWjU``Z bWhJcbž gY`Z\ccX"'Hi hcf]U``fYUX]b[ g'k]``VY'Ubbci bWYX']b'h\Y `YWhi fY"
	Hi hcf]U`	8]gW gg]cb cZa Yh\cXg'/ 'WcbW'dhgž'UbX'[fci dfygYUfW.'dfc YWh[fci d'gY`Z fYgYUfW.'dfc YWg"'F YgYUfW.'dfc YWh[fci d'gY`Z gY`YW]cb hc 'VY`Z]bU`]nYX'Vmghi XYbhg"'8]gW gg]cb cZ dchYbh]U``fYgYUfW.'dfc YWhg"
K YY_'&.'&%'GYdhYa VYf'! &)'GYdhYa VYf	@YWi fY	H\Y'6`UW_'5hUbh]W%-HfUX]h]cbU``Aig]WZfca; \UbUZ'GYbY[U` %" +bhfcXi Wh]cb'hc'K Ygh'5Zf]WUb aig]Wg"'9ZS`S[S` fc\$V[f[a`e, 7i W9SZgZ 8U[UUVU'4Si SS

		_

5ggYgga Ybh	FYj]Yk gY`YWgcbg Zfca : Y`U'? i f] Zj`a " E i ]n'' "'GW\YXi <b>%</b> X Zc <b>f</b> kzYd_')†' Hc'dfYdUfY Zcf'E i ]n'' fYUX. K]``]Ua 'K Ug\UVUi [\f\f\-) E"fH\Y'dc`]fJWg'cZ dUgg]cb]cb]cb]cb]cb]cb]cb]cb]cb]cb]cb]cb]cb]	o]cb]cb]c

		E i ]n <sup>-</sup> ("
	Hi hcf]U`	Gi Va ]gg]cb`UbX`X]gW gg]cb`cZ(\$\$!k cfX`fYgYUfW UVglfUWg"
		5bU`mg]gʻcZXSVa Zcfa "
		8 ]gW gg]cb cZE i ]n ( "
K_YY', .`&'Bcj Ya VYf'!'* Bcj Ya VYf	@YWhifY	H\Y`6`UW_`5hUbhJWfbfUn]`Ł
		5S`Va_TW/eS_TS` fdab[US/[S
	Hi lcf]U`	DfUWJWU`k cf_g\cd.'i bXYfgHUbX]b[ 'UbX'd`Um]b[ 'H\Y' ea` 'UbX'dg_ TS WUj Y"
K YY_''-'Bcj Ya VYf'! % 'Bcj Ya VYf	@YWn fY	@]ghYb]b[ 'HYgh'&"
		H\Y'; cb['7\]a Yg'cZGci h\YUgh5g]U.
		H\Y`±bXcbYg]Ub`[ S_ WS`
	Hi hcf]U`	bXYfgrUbX]b[ 'UbX'd`Um]b[ 'eS_ TS  TSfgUSVS'f\mt\a g"
K YY_'%\$.'%* 'Bcj Ya VYf'!		J]ffi U`9h\bc[fUd\midfcYWidfYgYbHJh]cbg
&\$`Bcj Ya VYf	Hi hcf]U`	±bHYfUWfj Y`6U`]bYgY`[ Ua Y`Ub`k cf_g\cd`

## FYgci fWyg

### DfYgWf]VYX F Ygci fWfg

 $HYYY']g'U'FYgcifWYg'gYW]cb']b'AccX'Y'h\Uh'WcbhU]bg'h\Y'Zc``ck]b[.$ 

#### 5"F Yaci fWg Zcfa UbXUlcfmWci faY ``]ahYb]b[ 'UbX'fYUX]b[.

- %" F YUX]b[ ``]ghi g]b[ '@Y[ Ubhc"'H\]g'YbUV`Yg'YUgm'UWW'gg'hc'U``'Wci fgY'a UhYf]U`g'cb'Ubm'XYj ]\W'ž h\fci [\'U`q]b[ `Yž]bhi ]h]; Y'i qYf']bhYfZUW'''
- &" @gh/b]b[ '@gh':H\]g:YbUV:Yg:UWW/gg:hc:U```5J 'a Uh/f]U`g'i gYX:]b:h\Y:`YWi fYg"
- ' " A i g]W; `cggUfm'':H\]g'j U`i UV`Y`fYgci fW'dfcj ]XYg'XYZ|b]h]cbg'UbX``]b\_g'hc'ch\Yf'fYgci fW'gžk \YfY Uddfcdf]UhYž''cZ\_YmhYfa g'UbX'WcbW'dhg'i gYX']b'h\Y'Wci fgY"'=i]g'ghfcb[`mfYWca a YbXYX'h\Uhmci Wcbgi `hih\]g'`]gh''

#### 6": ]`a g'k ]h\ ``]b g'hc'cb`]bY'j ]Yk ]b[.

%" 6i YbU'J ]gHJ'GcWJU`7`i V &" CfZYi 'BY[fc ' " 7 UdUg'BY[fUq

#### 7 "DYfZcfa UbWY F Ygci fWYg.

%''; Ub[c\_i] %! di  $`gY'gYjYb'glfc_Y'dUlflYfb$ 

&" Gcb WUj Y

' " GU`gU

("GUa VU'VUh WUXU

) " 6U`]bYgY [ Ua Y`Ub. [ ]`U\_'hcdYb[

- \* " 6U`]bYgY [ Ua Y`Ub. [ ]`U\_.'VUf]g
- +" Xck b`cUXUV`Y`qWcfYq`cZh\Y`UVcjY

 $H Y f Y ^{1}g' U' @ ] g h Y b ] b [ ^{5} Wh] j ] h Y g ^{2} g Y Wh] c b ^{1}b ^{2} A c c X Y ^{1}h U h W c b h U] b g ^{1}] g h Y b ] b [ ^{1}d f U Wh] W ^{1}e i ] nn Y g ^{2} X Y g ] [ b Y X ^{1}c U g g ] g h m c i ^{1}b ^{2}d f Y d U f] b [ ^{1}d f Y d U f$ 

#### FYWca a YbXYX FYgci fWyg

GYY'h\Y'@Y[Ubhc'FYUX]b['@]gh]b'h\Y'Wci fgY'AccX`Y'g]hY"

### 7ci fgY 9j U`i Uh]cb UbX 8Yj Y`cda Ybh

Ghi XYbhg`\Uj Y`h\Y`cddcfhi b]hmhc`dfcj ]XY`Yj U`i Uhj Y`ZYYXVUW\_`cb`h\Y`Wci fgY`h\fci [\`I BGK fg`7ci fgY UbX`HYUW\]b[`9j U`i Uhjcb`UbX`\a dfcj Ya Ybhfl75H9\Z`DfcW\gg"`Ghi XYbhZYYXVUW\_`]g`]a dcfhUbhUbX dfcj ]XYg`cbY`a YUbg`Zcf`]a dfcj ]b[`h\Y`Wci fgY`Zcf`gi VgYei YbhWc\cfng"

Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g Hi fb]h]b Gi Va ]gg]cb

## 5 WUXYa ]W<cbYghmUbX D`U[]Uf]ga

D`U[]Uf]ga `]g`i g]b[ 'h\Y`k cfXg`cf`]XYUg`cZch\Yfg`UbX`dfYgYbh]b[ 'h\Ya `Ug`mci f`ck b"`±hWJb`hU\_Y`a Ubm Zcfa gžZfca `XY`]VYfUhY`W\YUh]b[ 'hc`UWW]XYbhJ``mWcdm]b[ 'Zfca `U`gci fWY`k ]h\ci hUW\_bck `YX[ Ya Ybh'

IBGK [fcidg'd'U[]Uf]ga ]bhc'h\Y'Zc``ck]b[ 'WUhY[cf]Yg.

 $7 \text{ cdm}b[...i g]b[...h\Y.gUa Y.cf.j Yfmig]a] \Uf'k cfXg'hc'h\Y.cf][]bU''hYl h'cf']XYU'k]h\ci h'U\V_bck `YX[]b[...h\Y.cf][]bU''hYl h'cf']XYU'k]h'cf']$ 

- i bXYfgfUbX mci f'f][\hg'UbX'fYgdcbg]V]`]hJYg'Ug'U'gh XYbhUhl BGK
- VY`Uk UfY`cZd`U[]Uf]ga ž`Wcdmf][\hz'l BGK `Gh XYbh7cXY`cZ7cbXi WhUbX`5VWWdhUV`Y`l gY`cZ I BGK `=\forall H`F Ygci f\W\g`Dc`]\m\m
- VY 'Uk UfY 'cZh\Y 'ghUbXUfXg 'cZVY\Uj ]ci f'Yl dYWYX 'cZYj YfmcbY ']b 'h\Y 'l BGK 'Wca a i b]hm
- `cWUHY 'gYfj ]WYg'UbX ']bZcfa UH]cb'UVci hI BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh\YgY'UfYUg'k]``VY'ZJa]`]Uf'hc'mci ž'ch\Yfg'k]``VY'bYk"'; U]b]b['U'gc`]X'i bXYfgHJbX]b['cZU``h\YfY`UhYX'UgdYWng'cZ9@+69'k]``\Y`d'mci 'a U\_Y'h\Y'a cghicZmci f'ghi X]Yg'UhI BGK "'\\hd.##qi VYWfi |XYg"`]VfUfm'i bqk "YXi "Ui #\`]qY#JVci hY`]qY