



# MUSC3807

A i g]7i `h fYg

GYa YghYf'C bY`##`&\$%

GWcc`cZH Y`5ftg`UbX`A YXJU`##`I BGK`..5ftg`UbX`GcWJU`GWYbWg



7ci fgY`Cj Yfj ]Yk

`GHZZ7cbhJWh8YHJ`g`

`7cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj`UVj]m	@cWjhcb	D\cbY
A Ubc`YH`A cfU	a "a cfU4 i bgk "YXi "Ui	K YXbYgXUmj. %%\$\$Ua !%&.\$\$da	F cca`%&( F cVYfh K YVghYf 6i ]X]b[	

## 5 WUXYa ]WbZcfa Uhcb`

: cfYggYbhU`ghi XYbh]bZcfa Uhcb`fY`Uh]b[ `hc. `fYei Yghg`Zcf`YI hYbg]cb/fYj ]Yk `cZa Uf\_g/cVW dUh]cbU``YU`h  
UbX`gUZ`m/YI Ua ]bUh]cb`dfcW`Xi fYg/gdYW]U`Wc]bg]XYfUh]cb`]b`h`Y`Yj Ybhcz]`bYgg`cf`a ]gUXj Ybh fY/  
ghi XYbhYeI ]mUbX`X]gUV]`]m`UbX`ch`Yf`YggYbh]U``UWUXYa ]W]bZcfa Uhcbž  
gYY`[\fhdg.##k k "Ufng"i bgk "YXi "Ui #W ffYbh\]ghi XYbh\]g#UWUXYa \]W\]bZcfa Uhcb#dfc\]cWc`gl`i \]XY`\]bYg#](#)

7 ci fgY'8YHJ]`g

7 fYX]hDc]bhr \*`

Gi a a UfmicZ`hY'7 ci fgY

Gi VYWh5fYU. ? ge[U

H\]g`Wci fgY`YI Ua ]bYg`hY`bUhi fY`cZa i g]WUg "hfUX]hcb"z]bj Ygh[ Uhb[ `X]gWci fgYgZj U'i Yg`UbX`i gYg`cZ  
a i g]W`h`U`h`Y`b`X`i fY`cf`V`U`b[ Y`U`h`U`X]Z`Y`f`Y`b`h`f`U`h`U`b`X`'b`X]Z`Y`f`Y`b`h`k`U`m`g`Z`f`c`a`'a`i`g]W`U`Z`c`f`a`g`h`Y`a`g`Y`j`Y`g`  
9I Ua ]b]b[ `h`Y`X`Y`j`Y`c`d`a`Y`b`h`c`Z`c`b`Y`c`f`a`c`f`Y`'a`i`g]W`U`W`'h`f`Y`g`z`h`Y`W`c`i`f`g`Y`'k`]'`X`Y`a`c`b`g`f`U`h`Y`'c`k`'[`Y`b`f`Y`g`z`  
k`c`f`\_`g`'U`b`X`'d`Y`f`Z`c`f`a`U`b`V`W`g`'Y`a`V`c`X`m`U`b`X`'[`Y`b`Y`f`U`h`Y`'a`Y`U`b]b[ `h`f`c`i`[`\`h`Y`]f`f`Y`U`h`c`b`g`\]d`h`c`'W`c`a`a`i`b]m]b  
gdY`W`Z`W`'g`h`c`f]W`U`Z`g`c`W`U`Z`U`b`X`'d`c`]h]W`U`W`c`b`h`Y`I`h`g`"5`Z`Y`W`h`U`b`X`'U`Y`g`h`Y`h]W`g`z`W`f`Y`U`h] ]m]U`b`X`'W`c`[`b]h`c`b`z`  
Y`a`V`c`X]a`Y`b`h`U`b`X`'a`Y`a`c`f`m`z`f`Y`W`d`h`c`b`'U`b`X`'f`U`b`g`a`]g`g]c`b`z`U`b`X`'d`Y`f`Z`c`f`a`U`b`V`W`'U`b`X`'f]h`U`'U`f`Y`'g`c`a`Y`'c`Z`h`Y`  
d`c`g`g]V`Y`'h`Y`a`Y`g`'h`U`h`Y`b`h`f`f`h`Y`'Y`I`U`a`]b`U`h`c`b`'c`Z`'c`k`'a`i`g]W`W`c`a`a`i`b]m]f`Y`U`h`c`b`g`\]d`g`'U`b`X`'b`h`f`f`Y`U`h`Y`X`  
a`Y`U`b]b[`g`'U`f`Y`'f`Y`U`]b`Y`X`'c`f`a`c`X]Z`Y`X`'b`'h`Y`'W`c`b`h`Y`I`h`g`'c`Z`a`c`X`Y`f`b]g`U`h`c`b`z`[`c`V`U`]g`U`h`c`b`'U`b`X`'a`][`f`U`h`c`b`"H`Y`  
W`c`i`f`g`Y`'b]j`Y`g`h[`U`h`Y`g`'c`k`'U`b`X`'k`'m`z`U`g`'b`Y`k`'Z`c`f`a`g`'U`f`Y`'X`Y`j`Y`'c`d`Y`X`z`g`c`a`Y`'V`Y`W`c`a`Y`'U`b`'Y`b`X`i`f]b[`'Z`Y`U`h`i`f`Y`'c`Z`U`  
a`i`g]W`U`W`'h`f`Y`z`k`\]Y`'c`h`Y`f`g`'U`f`Y`'i`g`Y`X`z`j`U`i`Y`X`z`h`Y`b`'f`U`g`'Y`X`'U`g`f`Y`X`i`b`X`U`b`h`

5 h`h`Y`W`c`b`W`i`g]c`b`'c`Z`h`]g`W`c`i`f`g`Y`'h`Y`'g`h`i`X`Y`b`h`k`]'`V`Y`'U`V`Y`'h`c`

- % " I`b`X`Y`f`g`h`U`b`X`'h`Y`'U`Z`Y`W`j`Y`'V`U`g`Y`g`'U`b`X`'\]g`h`c`f]W`U`Z`g`c`W]U`'U`b`X`'d`c`]h]W`U`W`c`b`h`Y`I`h`g`'c`Z`h`Y`'X`Y`j`Y`'c`d`a`Y`b`h`c`Z`  
c`b`Y`'c`f`a`c`f`Y`'a`i`g]W`W`'h`f`Y`g`"
- &" 5`d`d`'m`i`\_`b`c`k`'Y`X`[`Y`'c`Z`h`Y`'j`X`Y`U`g`'U`b`X`'j`X`Y`c`c`[`m`i`c`Z`h`f`U`X]h`c`b`'h`c`'h`Y`'g`h`i`X`m`c`Z`a`i`g]W`U`b`X`'h`c`  
W`'h`i`f`Y`'a`c`f`Y`'V`f`c`U`X`'m`"
- ' " 5`b`U`'m`g`Y`'U`b`X`'X]g`W`'g`g`'h`Y`'j`a`d`U`W`h`c`Z`a`c`X`Y`f`b]g`U`h`c`b`z`[`c`V`U`]g`U`h`c`b`'U`b`X`'a`][`f`U`h`c`b`'c`b`'h`Y`  
X`Y`j`Y`'c`d`a`Y`b`h`c`Z`a`i`g]W`U`'d`f`U`W`h`W`'U`b`X`'a`Y`U`b]b[`"

HYUW\]b[ `G`h`f`U`h`Y`[ ]Y`g`

H`Y`'W`c`i`f`g`Y`'k`]'`V`Y`'X`Y`'j`Y`f`Y`X`'h`f`c`i`[`\`U`'a`]I`h`f`Y`'c`Z`h`c`!\`c`i`f`'Y`W`h`f`Y`g`'U`b`X`'c`b`Y`!\`c`i`f`h`c`f]U`g`'h`U`h`k`]'`  
]b`W`i`X`Y`'U`i`X]c]j`]g`i`U`'d`f`Y`g`Y`b`h`U`h`c`b`g`z`W`c`g`Y`'f`Y`U`X]b[`'c`Z`h`Y`I`h`g`z`X]g`W`f`g]j`Y`'V`f`Y`U`\_`c`i`h`g`'U`b`X`'[`i`]X`Y`X`'[`f`c`i`d`'k`c`f`\_`  
U`W`h`j`]h`Y`g`"

## 5ggYgga Ybh

Q-YfY'mci 'WUbc'ci h]bY'UbmiFY'Yj Ubh]bZcfa Uh]cb'hUhk Ug'bc'h]bWl XYX'j]b'5 A G'Vi ha Umdfcj Y'\Y'dZ'`Zcf mci f'gh XYbhg": cfYI Ua d'Yžmci 'a ][ \hdfcj ]XY'XYfU]g'cb'hY'fYZfYbW]b[ 'gmgtYa ž'']b\_g'hc'dfYj ]ci g gh XYbhYI Ya d'Ufg'cf'hY'XYg][ bUH'X'k YY\_]b'hY'Wci fgY'hUhmc'ik ]'X]gW gg'hY'UggYgga YbhUh'Yb[ h" a dcfhUbhmž'h]g'gYW]cb:]g'Ub'UfYU'Zcf'mci 'hc'dfcj ]XY'j]bZcfa Uh]cb'hUhXcYg'bc'h[ c'h'fci [ \ 'hY'Uddfcj YX [ cj YfbUbW'ghfi Wñ fY"Q

5ggYgga YbhUg\_g' cY 'Ub cY \$

5ggYgga YbhUg_g'	K Y][ \h	8i Y'8UH'	Gh XYbh@YUfb]b[ Ci hWca Yg'5ggYggYX
Gma dcg]i a '	*\$i	Gma dcg]i a 'cfU'dfYgYbhUh]cb A Um' %/Gma dcg]i a 'k f]	

gñ XYbñŁZ`ck YX`Vmgh XYbh`YX`X]gW gg]cb`f) `a ]bŁ`

5ggYgga Ybh' . `!WUgg`UW]j ]hYg

GñfñXUñY. `Bch5dd`]WV`Y

Gi Va ]gg]cb`cZ5ggYgga YbhHUg\_g

Gh XYbhg`UfY`YI dYW`X`hc`di h`h`Y`f`b`Ua`Yg`UbX`gh`XYbhbi`a`VYfg`cb`Yj`YfmdU[`Y`c`Z`h`Y`f`Ugg][`ba`Ybhg`"

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

≠mci`YbWci`bhYf`U`dfcV`Ya`k`Yb`U`h`Ya`dh]b[`hc`gi`Va`]hmc`f`Ugg][`ba`Ybh`h`fci`[`h`Hi`fb]h]b`z`d`Y`UgY`h`Y`d`l`cb`Y`9I`h`fb`U`Gi`ddcfh`cb`-`,`)`''`'`%`cf`Ya`U`h`Ya`cb`[YI`h`fb`U`h`h`gi`ddcfh`i`bgk`"YXi`"Ui`"](#)Gi`ddcfh`l`ci`fg`UfY`,`.\$`\$Ua`-`%`\$`.\$`\$da`cb`k`YY`X`Umg`UbX`-`.\$`\$Ua`-`.)`.\$`\$da`cb`k`YY`YbXg`f`l`\*)`X`Umg`U`m`Y`Uf`l`≠mci`UfY`i`b`U`V`Y`hc`gi`Va`]hmc`f`Ugg][`ba`Ybh`Xi`Y`hc`U`Z`U`h`k`]h`Hi`fb]h]b`mci`a`Um`Udd`m`Z`f`Ub`YI`h`Y`bg]cb`z`Vi`hmc`a`i`gh`f`Y`h]b`mci`f`h]W`Y`h`bi`a`VYf`Z`ca`9I`h`fb`U`Gi`ddcfh`f`U`cb[`k`]h`Ub`m`c`h`Y`f`f`Y`j`Ub`h`X`c`W`a`Y`b`h`g`l`hc`]b`W`i`X`Y`U`g`Y`j`]X`Y`b`W`hc`gi`ddcfh`mci`f`YI`h`Y`bg]cb`Udd`]W`h]cb`≠mci`Ya`U`9I`h`fb`U`Gi`ddcfh`mci`k`]`Ui`h`ca`U`h]W`m`f`Y`W`]j`Y`U`h]W`Y`h`bi`a`VYf`z`Vi`h]Z`mci`h`Y`d`l`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z`W`m`Ug`Z`f`cb`Y`"

f`G][ b]Z]WbhmUZZYWhmci f`dYfZcfa UbWV`]b`UggYggUV`Y`k cf\_žVY`]hU`Zcfa U`YbX!cZgYa Yghf`YI Ua ]bUh]cbžU  
WUgg`hYghž`U`UVcfUhc fmi`hYghž`U`gYa ]bUf`dfYgYbUh]cb`cf`Ubmich`Yf`Zcfa`cZUggYgga`YbH`

: cf`Z`fh`Yf`XYhU]`g`]b`fY`Uh]cb`hc`GdYWU`7`cbg]XYfUh]cb`]bWi`X]b[``K`Yb`hc`5dd`mž`<`ck`hc`5dd`m`UbX  
`Gi`ddcfh]b[`8`cW`a`YbUh]cb`d`YUgY`fYZf`hc`h`Y`GdYWU`7`cbg]XYfUh]cb`k`YVgh]Y.`

[\hdg.#gh`XYbhi`bgk`YXi`"Ui`#gdYWU`!Wcbg\]XYfUh\]cb](#)



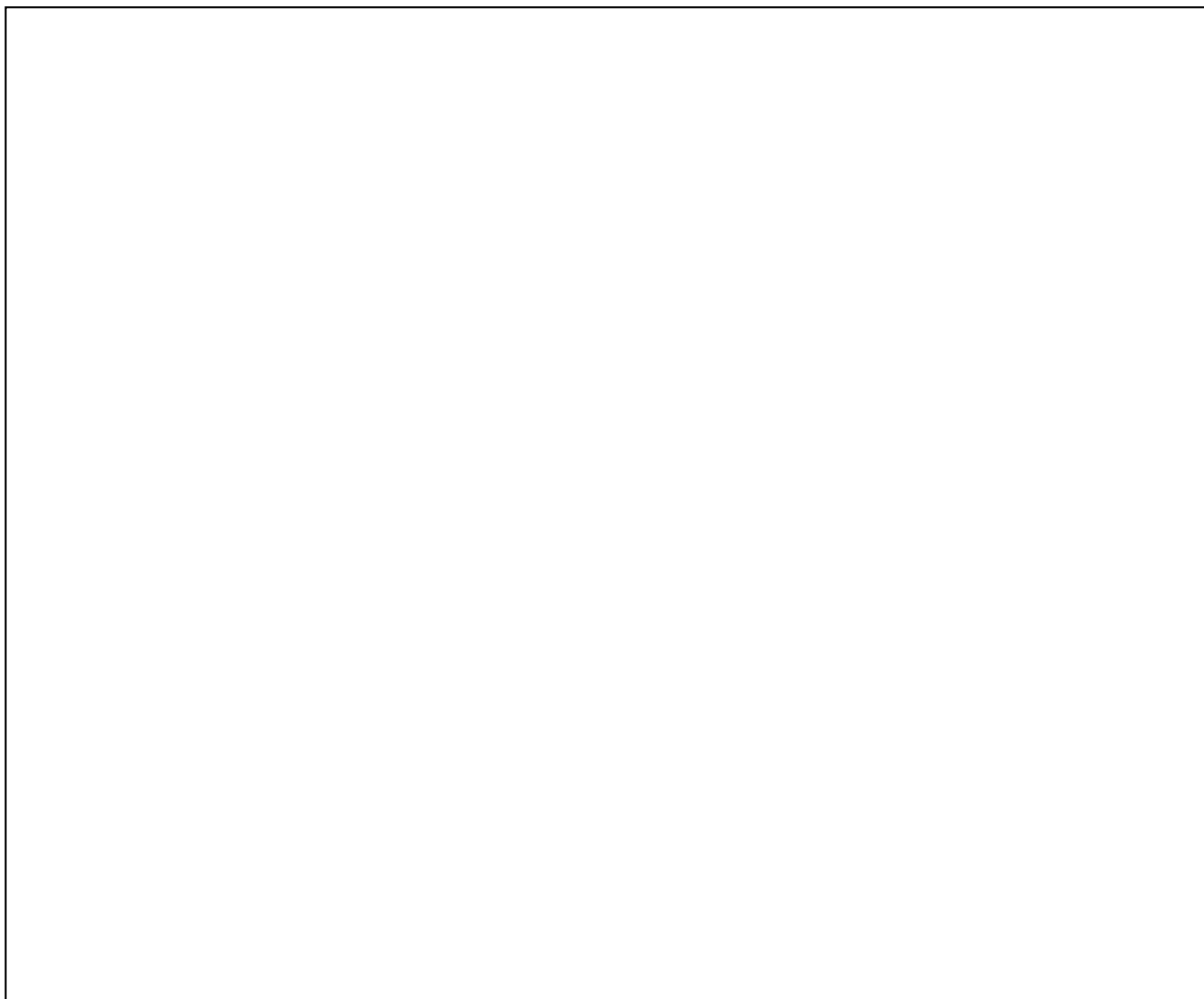
## 5 WUXYa ]W<c bYghmiUbX`D`U[ ]Uf]ga

D`U[ ]Uf]ga `]g`i g]b[ `hY`k cfXg`cf]XYUg`cZchYfg`UbX`dfYgYb]b[ `hYa `Ug`mci f`ck b" `hWUb`hU\_Y`a Ubm  
Zcfa gž Zca `XY`]VYfUHy`WXYU]b[ `hc`UWV]XYbU`miW`dm]b[ `Zca `U`gci fW`k ]hci hUW\_bck `YX[ Ya Yb]`

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

7cdm]b[ .`i g]b[ `hY`gUa Y`cf`j Yfmg]a ]Uf`k cfXg`hc`hY`cf][ ]bU`hYI hcf]XYU`k ]hci hUW\_bck `YX[ ]b[ `hY  
gci fW`cf`i g]b[ `ei ch]cb`a Uf\_g`H\]g`U`gc`Udd`Yg`hc`ja U[ YgžUfhUbX`XYg][ b`dfc`YWgžUg`k Y`Ug  
dfYgYb]h]cbg`k \Yfy`gca YcbY`dfYgYb]h]cbg`UbchYf`g:]XYUg`cf`k cfXg`k ]hci hWYX]hY[ cf]Yg.

- VYhYf'a UbU[ Y'mci f'h]a Y
  - i bXYfgHUbX'mci f'f][ \hg'UbX'fYgdcbg]V']hYg'Ug'U'gh XYbhUhl BGK
  - VY'Uk UfY'cZd'U[ ]Uf]ga ž'Vc'dmf][ \hž' BGK 'Gh XYbh7cXY'cZ7cbXi WñUbX'5WwdfUV'Y'l gY'cZ  
I BGK '⇒H'F Ygci fWg'Dc`]Wñ
-



F Ygci fWg

DfYgW]VYX F Ygci fWg

;`fWUgfgdS^? ge[U J c`\*`\*`dd"(% (%% ) "`&\$+\$`fWtdmUj U]UV`Y`cb`A ccX`Y`g]hY`f]gUa d`Yg`Uj U]UV`Y`cb`A ccX`Y`g]hY`f`

A cfUz`A Ubc`Yh`"Gfa\_ , Eg\_\_ a` [ Y FZWE b[d]f Z? ge[U;` FZWFITa f: WScf`S` V`"H\Y`K cfX fF m\_cX]gW#A ]W\_Ym< UfhGYf]YgE`A ]W\_Ym< Ufh`F YWcfXYX`UbX`DfcXi W`X`Vm`A Ubc`Yh`A cfU`"9I YW hj Y DfcXi W`f`A ]W\_Ym< Ufh`% - +"`

A cfUz`A Ubc`Yh`"H\Y`"Ugh\_]gg`UbX`hY`fYh` fb`UZfYf`a i fXYf.`5`WUgY`gh`XmcZa YUb]b[ `UbX`WcbhYI h]b ]bghf a YbH`U`dYfZcfa UbW`Ua cb[ `hY`Hfvc`]fD\`]dd]bYgE`"3`fZc`ba`hY[US^8adg\_`zJ c`\*`fI`z`dd" , )!' - (" % - %`"fUj U]UV`Y`cb!]bY`I BGK `@]VfUfnt`

A cfUz`A Ubc`Yh`"A i g]WU`7 cga cdc`]hUb]ga `]b`? Ydf].`Ub`YI`Ua `]bU]cb`cZ`cWU`UYgh`hYh`WfYgdcbgYg`hc gcWU`I`W`h`fU`h`fUbgZcfa U]cb`" `B`W`ad\_ [ Y ? S`Sk [ S`E\_`S`^`e`S` V`I` adV, A faV[VS] `3df]efe`S` V`fZW Ba`f[Ue`aX;VW`f]fk [ ;`Va`W`e[S`e`D[Sg`3dJZ]bWSYaž`f9Xg`"A`Uf[`UfYh?`Ufrc`a`]"`UbX`;`YcZfYm`6Yb`Ua`]bE`"B`cfX]W`bgh]h`h`cZ5g]Ub`Gh`X]Yg`DfYgg`fB`5G`DfYggE`":`cfh`W`e`a`]b[`"

G\Uhi`W`z`F`c[`Yf`"FZWTS`cgWf`kWSde , fZWadY[`e`aXfZWSHs`fYSdVW[`8dS`UW`#`\*`\*`fa`I`adV`I`Sd;`-`3`X`W`<Sdkt : W`d`DageeWSgt`7`d]`E`Sf[WWS`VO9g[`^Sg\_`W3ba`f`S[dW`F`Yj`YX`z`BYk`Mcf`z.`J`]bH[U`Y`6cc\_gz`%`\* , "`fk`][`\`I`gY`7`c`Y`W]cbzI`BGK`@]VfUfnt`

G\]gž9`"F`dSV[f]a`"@cbXcb.`: UVYfz`% , %`fk`][`\`I`gY`7`c`Y`W]cbzI`BGK`@]VfUfnt`

Gk`]fg\_]ž`DYh`f`"3`^DaSve`>WSV`fa`fZW3\_`Wd[US`5`[fk`"<cb[`?`cb[`.`<cb[`?`cb[`I`Dž`&\$+\$`"K`YV`"fUj`U]UV`Y`Ug`96cc\_]`b`I`BGK`@]VfUfnt`

HYbnYfz`A`]WUY`"3`S`kf[US^E`fgV]W`e`[`I`adV`?`ge[U`"C`I`ZcfX.`C`I`ZcfX`I`Dž`&\$+\$`%`m`h`