

!" #&/
4;O <548G=>3> 70AB>AC20==O ;V:0@AL:>3> 70A>1C

5B0;>: >:
(Betalloc® Zok)

!,:04:

4VNG0 @5G>28=0: <5B>?@>;>;C AC:F8=0B;
1 B01;5B:0 <5B>?@>;>;C AC:F8=0BC, I> 2V4?>2V40T 25 <3, 01> 50 <3, 01> 100 <3 <5B>?@>;>;C
B0@B@0BC;
4>?>28=8: 5B8;F5;N;>70, 3V4@>:A8?@>?V;F5;N;>70, 3V?@>×5;>70, F5;N;>70 :@8AB0;VG=0,
?0@0DV=, <0:@>3>;, :@5<=VN 4V>:A84 :>;>W4=89 1572>4=89, =0B@VN AB50@8;DC<0@0B, B8B0=C
4V>:A84 (E 171).

V:0@AL:0 D>@<0. "01;5B:8, 2:@8BV ?;V2:>2>N >1>;>=:>N, 7 C?>2V;L=5=8< 282V;L=5==O
A=>2=V DV78:>-EVABV:

25 <3: 1V;0 01> <0965 1V;0, >20;L=0, 42>>?C;:0, 2:@8B0 ?;V2:>2>N >1>;>=:>N B01;5B:0, 7 @8A:>N
=0 >1>E 1>:0E B0 3@02V@C20==O< =0 >4=>FV;
50 <3: 1V;0 01> <0965 1V;0, :@C3;0, 42>>?C;:0, 2:@8B0 ?;V2:>2>N >1>;>=:>N B01;5B:0, 7 @8A:>N
=0 >4=>FV B0 3@02V@C20==O< =0 4@C3>FV;
100 <3: 1V;0 01> <0965 1V;0, :@C3;0, 42>>?C;:0, 2:@8B0 ?;V2:>2>N >1>;>=:>N B01;5B:0, 7 @8A:>N
=0 >4=>FV B0 3@02V@C20==O< =0 4@C3>FV.

\$0@<0:>B5@0?52B8G=0 3@C?0. !5;5:B82=V 1;>:0B>@8 15B0-04@5=>@5F5?B>@V2.
>4 ""!0702.

\$0@<0:>;>3VG=V 2;0AB82>ABV.

\$0@<0:>48=0

5B>?@>;>; A5;5:B82=89 1;>:0B>@ 15B01-04@5=>@5F5?B>@V2. 5B>?@>;>; 2?;820T =0 15B01-
@5F5?B>@8 A5@FO C =86G8E 4>70E, =V6 ?>B@V1=> 4;O 2?;82C =0 15B02-@5F5?B>@8
?5@8D5@8G=8E AC48= B0 1@>=EV2. !5;5:B82=VABL 5B0;>: >: T 4>7>70;56=>N, >A:V;L:8 <0:A8
<0;L=0 :>=F5=B@0FVO C ?;072V ?@8 70AB>AC20==V ;V:0@AL:>W D>@<8 7 C?>2V;L=5=8<
282V;L=5==O< 7=0G=>=86G0=V6 ?@8 ?@89>W 6 A0<>W 4>78 C D>@W B01;5B:8. V;LH 28A>:89
ABC?V=L 15B01-A5;5:B82=>ABV 4>AO30TBLAO 7024O:8 4>7C20==N C ;V:0@AL:V9 D>@:..
5B>?@>;>; =5 <0T 15B0-AB83> 5D5:BC V 28O2;OT =57=0G=89 <5<1@0=>AB8:0B>@8 15B0-
@5F5?B>@V2 G8=OBL =530B82=89 V=>B@>?=89 B0 E@>=>B@>?=89 5D5:B.
V:C20==O <5B>?@>;>;< 7<5=HCT 4VN :0B5E>;05<>FV9=>48BL 4> 7<5=H5==O G0AB>B8 A5@F528E
A:>@>G5=L, A5@F52>3> 28:84C, 0 B0:>6 7=86CT ?V428I5=89 0@B5@V0;L=89 B8A:. # AB@5A>28E
A8BC0FVOE, I> AC?@>2>46CNBLAO ?V428I5=8< 282V;L=5==O< 04@5=0;V=C 7 =04=8@:>28E 70;>7,
<5B>?@>;>; =5 ?5@5H:>460T =>@<0;L=>;>3VG=>7H8@5==N AC48=. # B5@0?52B8G=8E 4>70E
<5B>?@>;>; <5=H5 2?;820T =0 <078 1@>=EV2, =V6 =5A5;5:B82=V 15B0-1;>:0B>@8. &O 2;0AB82VABL
70157?5GCT C<>28 4;O ;V:C20==O ?0FVT=BV2 7 1@>=EV0;L=>N 0AB<>N 01> V=H8<8 28@065=8<8
>1AB@C:B82=8<8 70E2>@N20==O<8 ;535=L <5B>?@>;>;< C ?>T4=0==V 7V AB8@0<8 15B02-
@5F5?B>@V2. 5B>?@>;>; <5=H>N N 2?;820T =0 282V;L=5==O V=AC;V=C V 2C3;52>4=89 >1:0B>@8,
>B65, 2V= <>65 1CB8 B0:>6 ?@87=0G5=89 ?0FVT=B0< 7 FC:@>28< 4V015B>?@>;>; <5=H5 2?;820T =0
A5@F52>-AC48==C @50:FVN 2 C<>20E 3V?>3;V:5 V ?>25@=5==O @V2=O FC:@C 2 :@>2V 4>=>@
<0;L=8E 7=0G5=L 2V41C20TBLAO H284H5, =V6 C @07V 70AB>AC20==O =5A5;5:B82=8E 1;>:0B>@V2
15B0-@5F5?B>@V2.

@8 0@B5@V0;L=V9 3V?5@B5=7VW 5B0;>: >: ACBBT2> 7=86CT 0@B5@V0;L=89 B8A: ?@>BO3<
1V;LH5 24 3>48=, O: C ?>;>65==V ;560G8, B0: V 2 ?>;>65==V AB>OG8, 0 B0:>6 ?V4 G0A DV78G=>3>
=020=B065==O. 0 ?>G0B:C ;V:C20==O <5B>?@>;>;< A?>AB5@V30TBLAO ?V428I5==O
?5@8D5@8G=8E AC48=. @>B5 ?@8 B@820;>3> B8A:C <>65 2V41C20B8AO H;OE< 7<5=H5==O
7030;L=>3> ?5@8D5@8G=>3> >?>@C AC48= =0 B;V =573> A5@F52>3> 28:84C.
4-B86=52>A;V465==V 7 CG0ABN 144 ?0FVT=BV2 2V:< 2V4 6 4> 16 @>:V2 7 5A5=V0;L=>N
0@B5@V0;L=>N 3V?5@B5=7VTN 5B0;>: >: C 4>70E 1 V 2 <3/:3 7=86C202 2V4:>@83>20=89 2V4=>A=>

?;0F51> A8AB>;VG=89 0@B5@V0;L=89 B8A: =0 4-6 << @B.AB. V0AB>;VG=89 0@B5@V0;L=89 B8A:
?>:0702 2V4:>@83>20=5 2V4=>A=> ?;0F51> 7=865==O ?>:07=8:V2 =0 5 << @B.AB. ?@8 70AB>AC20==V
1V;LH 28A>:8E 4>7 ?@5?0@0BC, 0 B0:>6 4>7>70;56=5 7=865==O ?>:07=8:V2 B8A:C ?@8
70AB>AC20==V ?@5?0@0BC 2 4>70E 0,2, 1 V 2 <3/:3. 0@BV C2038 2V4ABV <, ?>:07=8:0<8 H:0;8
"0==5@0 (H:0;0 DV78G=>3> @>728B:C ?V4;VB:V2) 01> @0A>N =5 28O2;5=V.
5B>?@>;> 7=86CT @878: A5@F52>-AC48==8E ;5B0;L=8E =0A;V4:V2 C G>;>2V:V2 7 ?>N/BO6:>N
0@B5@V0;L=>N 3V?5@B5=7VTN. >@CH5==O 7 1>:C 5;5:B@>;VB=>3> 10;0=AC =5 A?>AB5@V30;8AO.
D5:B ?@8 E@>=VG=V9 A5@F52V9 =54>AB0B=>ABV: C 4>A;V465==V MERIT-HF (4>A;V465==V
286820=>ABV, 2 O:>II-IV NYHA) B0 7=865=>N D@0:FVTN 28:84C (≤ 40)), 5B0;>: >: ?>:0702 ?V428I5==O
?>:07=8:V2 286820=>ABV B0 7<5=H5==O :V;L:>ABV 28?04:V2 3>A?VB0;V70FVW. @8 B@820;>AO30;8
7030;L=>3> ?>:@0I5==O A8
@V< B>3>, 1C;> ?>:070=>, I> ;V:C20==O ?@5?0@0B< 5B0;>: >: 71V;LHCT D@0:FVN 28:84C B0 7
<5=HCT :V=F5289 A8AB>;VG=89 V :V=F5289 4V0AB>;VG=89 >1T<8 ;V2>3> H;C=>G:0.
@8 B0EV0@8BW A8;VB8G=>W 0:B82=>ABV 1;>:CTBLAO, V F5 ?@872>48BL 4> 1V;LH =87L:>W
G0AB>B8 A5@F528E A:>@>G5=L, ?5@H 70 2A5 70 @0EC=>: 7=865==O 02B<0B8G=>W DC=:FVW 2
:;VB8=0E 2>4VO @8B6 70 @0EC=>: ?>4>265=>3> G0AC AC?@025=B@8:C;O@=>W ?@>2V4=>ABV.
5B>?@>;> 7=86CT @878: ?>2B>@=>3> V=D0@:BC B0 ;5B0;L=>3> =0A;V4:C, >A>1;82> @0?B>2>3>
?VA;O V=D0@:BC :0@40.
\$0@<0:>:V=5B8:0.
"01;5B:0 5B0;>: >: 7 C?>2V;L=5==8< 282V;L=5==O< A:;040TBLAO 7 :0?AC;,, I> <5B>?@>;>C
AC:F8=0BC, V :>6=0 :0?AC;0 T>:@5<>N >48=8F5N 26=0 :0?AC;0 2:@8B0 ?>;V<5@=>N <5<1@0=>N,
O:0 :>=B@>;NT H284:VABL 282V;L=5==O ?@5?0@0BC. "01;5B:0 H284:> @C9=CTBLAO ?@8 :>=B0:BV
7 @V48=>N, V ?VA;O FL>3> :0?AC;8 @>7?>4V;ONBLAO ?> 7=0G=V9 ?>25@E=V B@02=>3>
B@0:BC. 82V;L=5==O =5 70;568BL 2V4 @=02:>;8H=L>W @V48=8 V B@820T <0965 7 ?>ABV9=>N
H284:VABN ?@>BO3<< 20 3>48=. &O D>@<0 4>7C20==O ?@5?0@0BC 70157?5GCT @V2=>
=F5=B@0FVN <5B>?@>;>C AC:F8=0BC C ?;072V B0 B@820;VABL 4VW ?@>BO3< 24 3>48=.
5B0;>: >: ?>2=VABN 2A<>:BCTBLAO ?VA;O ?5@>@0;L=>3> ?@89>28=0 01A>@1CTBLAO 274>26
CAL>3> B@02=>3> B@0:BC, 0 B0:>6 C B>2ABV9 :8HFV. V>4>ABC?=VABL ?@5?0@0BC 5B0;>: >:
AB0=>28BL 30-40 %. 5B>?@>;> <5B01>;V7CTBLAO C ?5GV=FV, ?5@5206=> 70 4>?><>3>N CYP2D6.
C;8 287=0G5=V B@8 >A=>2=8E <5B01>;VB8, E>G0 6>45= V7 =8E =5 <0T :;V=VG=> 7=0GCI>3> 15B0-
1;>:CNG>3> 5D5:BC. @81;87=> 5 % <5B>?@>;>C 282>48BLAO C =57 G5@57 =8@:8, @5HB0 4>78
282>48BLAO C 283;04V <5B01>;VBV2.
\$0@<0:>:V=5B8:0 <5B>?@>;>C C 4VB59 V ?V4;VB:V2 (6-17 @>:V2) =0304CT D0@<0:>:V=5B8:C C
4>@>A;8E. ;V@5=A ?@8 ?5@>@0;L=>CL/F) 71V;LHCTBLAO 7 ;V=V9=>N 70;56=VABN 2V4=>A=>
<0A8 BV;0.

;V=VG=V E0@0:B5@8AB8:8.

>:070==O.

- ☐ @B5@V0;L=0 3V?5@B5=7VO.
- ☐ !B5=>:0@4VO.
- ☐ !B01V;L=0 A8<0B8G=0 E@>=VG=0 A5@F520 =54>AB0B=VABL 7 ?>@CH5==O< A8AB>;VG=>V
DC=:FVW ;V2>3> H;C=>G:0.
- ☐ >?5@5465==O A5@F52>W A<5@BV B0 ?>2B>@=>3> V=D0@:BC ?VA;O 3>AB@>W D078
V=D0@:BC :0@40.
- ☐ !5@F52V 0@8BB8 A:>@>G5==O H;C=>G:V2 ?@8 DV1@8;OFVW ?5@54A5@4L B0 H;C=>G:>28E
5:AB@0A8AB>;.
- ☐ \$C=:FV>=0;L=V ?>@CH5==O A5@F52>W 4VO;L=>ABV, I> AC?@>2>46CNBLAO A5@F518BBO
- ☐ @>DV;0:B8:0

@>B8?>:070==O.

0@4V>35==89 H>:.. !8=4@< A;01:>ABV A8=CA>2>3> 2C7;0. B@V>25=B@8:C;O@=0 1;>:040B0
ABC?5=O. !5@F520 =54>AB0B=VABL C AB04VW 45:> (=01@O: ;535=L, 3V?>?5@DC7VO 01>
0@B5@V0;L=0 3V?>B5=7VO); B@820;0 01> ?5@V>48G=0 V=>B@>?>0 B5@0?VO, A?@O<>20=0 =0
AB8@V2. !8<0B8G=0 1@048:0@4VO 01> 0@B5@V0;L=0 3V?>B5=7VO. 5;V:>20=0 D5>E@<<F8B><0.
5B01>;VG=89 0F84>7.

5B>?@>;>=5 A;V4 ?@87=0G0B8 ?0FVT=B0< 7 ?V4>7@>N =0 3>AB@89 V=D0@:B :0@40 ?@8
G0AB>BV A5@F528E A:>@>G5=L < 45 C4/E2.,P-Q V=B5@20;V > 0,24 c, A8AB>;VG=>100 << @B.AB.,
A5@F52V9 1;>:04V ABC?5=O, 01>/B0 BO6:V9 A5@F52V9 =54>AB0B=>ABV. # 28?04:C =002=>ABV A8
W =54>AB0B=>ABV AB0= ?0FVT=BV2 7 ?>2B>@N20=8<8 ?>:07=8:0<8 0@B5@V0;L=>3> B8A:C =86G5
100 << @B.AB. C ?>;>65==V ;560G8 ?5@54 ?>G0B:>< ;V:C20==O =5>1EV4=> ?>2B>@=> >FV=8B8.
!5@9>7=5 70E2>@N20==O ?5@8D5@8G=8E AC48= V7 703@>7>N 30=3@5=8. V428I5=0 GCB;82VABL
4> 1C4L-O:>3> 7 :>=5=BV2 ?@5?0@0BC 01> 4> V=H8E 15B0-1;>:0B>@V2.

70T<>4VO 7 V=H8<8 ;V:0@AL:8<8 70A>10<8 B0 V=HV 2848 270T<>4V9.

5B>?@>;> T AC1AB@0B< D5@<5=BC CYP 2D6. 0 :>=F5=B@0FVN <5B>?@>;>;C C ?;072V <>6CBL
2?;820B8 ?@5?0@0B8, I> V=3V1CNBL CYP 2D6, =0?@8;;04, T EV=V48=, B5@1V=0DV=, ?0@>:A5B8=,
D;C>:A5B8=, A5@B@0;V=, F5;5:>:A81, ?@>?0D5=>= B0 48D5=3V4@0G0B:C ;V:C20==O F8<8
?@5?0@0B0<8 <>65 1CB8 =5>1EV4=> 7<5=H8B8 4>78 5B0;>: >:..
!;V4 C=8:0B8 >4=>G0A=>3> ?@89>?@5?0@0BC 5B0;>:C >: 7 =0ABC?=8<8 ;V:0@AL:8<8 70A>10<8
>EV4=V 10@1VBC@>2>W :8A;>B8: 10@1VBC@0B8 (4>A;V465=> 4;O ?5=B>10@1VB0;C) AB8
@>?0D5=>=: C G>B8@L>E ?0FVT=BV2, O:V >B@8?0D5=>=C :>=F5=B@0FVW <5B>?@>;>;C C ?;072V
71V;LHC20;8AO C 2-5 @07V2, 0 C 42>E ?0FVT=BV2 28=8;;8 ?>1VG=V 5D5:B8, B8?>2V 4;O
<5B>?@>;>;C. 70T<>4VO 1C;0 ?V4B25@465=0 C 2>AL<8 74>@>28E 4>1@>2>;LFV2. &O 270T<>4VO,
<>6;82>, ?>OA=NTBLAO B8<, I> ?@>?0D5=>=, ?>4V1=> 4> EV=V48=C, ?@83=VGCT <5B01>;V7<
<5B0?@>;>;C G5@57 A8AB5E@>P450 2D6. 57C;LB0B B0:>W :><1V=0FVW, V<>2V@=>,
=5?5@5410GC20=89, >A:V;L:8 ?@>?0D5=>= B0:>6 <0T 15B0-1;>:CNGV 2;0AB82>ABV.
5@0?0: C :><1V=0FVW 7 15B0-1;>:0B>@0<8 (>?8A0=> 4;O 0B5=>;>;C, ?@>?@0=>;>;C B0 ?V=4>;>;C)
25@0?0:0B>@8 <0NBL 048B82=C V=3V1VB>@=C 4VN =0 0B@V>25=B@8:C;O@=C ?@>2V4=VABL B0
DC=:FVN A8=CA=>3> 2C7;0.
4=>G0A=5 70AB>AC20==O ?@5?0@0BC 5B0;>: >: 7 =0ABC?=8<8 ?@5?0@0B0<8 <>65 ?>B@51C20B8
:>@53C20==O 4>7
40@>=: ?>2V4><;5==O ?@> ;V=VG=V 28?04:8 ?V4B25@46CT B5, I> C ?0FVT=BV2, O:V ?@89<0NBL 0
40@>=, <>65 @>728=CB8AO 28@065=0 A8=CA>20 1@048:0@4VO C @07V >4=>G0A=>3>
70AB>AC20==O ?@5?0@0BC 7 <5B>?@>;>;>40@>= <0T =04728G09=> B@820;89 ?5@V>4
=0?V2282545==O (?@81;87=> 50 4V1), F5 >7=0G0T, I> 270T<>4VO <>65 28=8:0B8 ?@>BO3<<
B@820;>3> G0AC ?VA;O 2V4> ?@5?0@0BC.
=B80@8BI: 0=B80@8B18 I :;0AC B0 15B0-1;>:0B>@8 <0NBL 048B82=C =530B82=C V=>B@>?=C 4VN, I>
<>65 ?@872>48B8 4> A5@9>7=8E 35<>48=01VG=8E 5D5:BV2 C ?0FVT=BV2 7 ?>@CH5=>N DC=:FVTN
;V2>3> H;C=>G:0. "0:>6 A;V4 C=8:0B8 70AB>AC20==O FVTW :><1V=0FVW ?@8 A8=4@>ABV
A8=CA>2>3> 2C7;0 B0 ?>@CH5==V 0B@V>25=B@8:C;O@=>W ?@>2V4=>ABV. "0:0 270T<>4VO
=09:@0I5 >?8A0=0 4;O 487>?V@0
5AB5@>W4=V ?@>B870?0;L=V/?@>B8@52<0B8G=V ?@5?0@0B8 () : ?>:070=>, I> ?@>B84VNBL
0=B83V?5@B5=782=V9 4VW 15B0-1;>:0B>@V2. □>;>2=8< G8=><, 282G0;8 V=4<<5B0F8=. <>2V@=>, I>
FO 270T<>4VO =5 2V41C20TBLAO 7 AC;V=40:>A;V465==O =530B82=>W 270T<>4VW 1C;> ?@>2545=>
7 48;>D5=0:>
;V:>7848 =0?5@ABO=:8: >4=>G0A=89 ?@89>< 3;V:>784V2 =0?5@ABO=:8 V 1;>:0B>@V2 15B0-
@5F5?B>@V2 <>65 71V;LHC20B8 G0A 0@B@V>25=B@8:C;O@=>W ?@>2V4=>ABV B0 A?@8G8=8B8
1@048:0@4VN.
8D5=3V4@0: 48D5=3V4@0CYP 2D6 2 >AV1, O:V <0NBL H284:C 3V4@>:A8;OFVN. D5:B8 <5B>?@>;>;C
?>A8;NNBLAO.
8;BV075 48;BV075< B0 1;>:0B>@8 β-@5F5?B>@V2 <0NBL 048B82=C V=3V1CNGC 4VN =0
0=B@V>25=B@8:C;O@=C ?@>2V4=VABL B0 DC=:FVN A8=CA>2>3> 2C7;0. @8 ;V:C20==V 48;BV075<>
< A?>AB5@V30;0AO (?>2V4><;5==O ?@> 28?04:8) 28@065=0 1@048:0@4VO.
?V=5D@8=: ?VA;O 22545==O 5?V=5D@8=C (04@5=0;V=C) ?0FVT=B0<, O:V 70AB>A>2C20;8
=5A5;5:B82=V 1;>:0B>@8 15B0-@5F5?B>@V2 (2;;NG0NG8 ?V=4>;>; B0 ?@>?@0=>;>;), @>72820;0AO
28@065=0 0@B5@V0;L=0 3V?5@B5=7VO B0 1@048:0@4VO (?@81;87=>
10 ?>2V4><;5=L). @V< B>3>, 1C;> 7@>1;5=> ?@8?CI5==O, I> 5?V=5D@8=, O:89 7=0E>48BLAO 2
0=5AB5B8:0E W 4VW, <>65 A?@>2>:C20B8 @>728B>: F8E @50:FV9 C 28?04:C
2=CB@VH=L>AC48==>3> 22545==O ?@5?0@0BC. 878:, V<>2V@=>, T <5=H8< C 28?04:C
70AB>AC20==O 7 :0@4V>A5;5:B82=8<8 1;>:0B>@0<8 15B0-@5F5?B>@V2.

\$5=V;?@>?0=>;0: D5=V;?@>?0=>;0@5D54@8=) C @07>2V9 4>7V 50 <3 <>65 ?@872>48B8 4>
?0B>;>3VG=>3> 71V;LH5==O 4V0AB>;VG=>3> 0@B5@V0;L=>3> B8A:C C 74>@>28E 4>1@>2>;LFFV2.
@>?@0=>;>; 7030;< ?@>B84VT ?V428I5==N 0@B5@V0;L=>3> B8A:C D5=V;?@>?0=>;0B5 1;>:0B>@8
15B0-@5F5?B>@V2 <>6CBL ?@>2>:C20B8 ?0@04>:A0;L=V 3V?5@B5=782=V @50:FVW C ?0FVT=BV2,
O:V 70AB>A>2CNBL 28A>:V 4>78 D5=V;?@>?@0=>;0E 28?04:0E 1C;> >?8A0=> 3V?5@B5=782=89 :@87
?V4 G0A ;V:C20==O BV;L:8 D5=V;?@>?0=>;0
%V=V48=: EV=V48= V=3V1CT <5B01>;V7< <5B>?@>;>;C C B0: 720=8E H284:8E <5B01>;V70B>@V2
(1V;LH5 90 % C (25FVW) 7V 7=0G=8< ?V428I5==O< @V2=V2 C ?;072V B0, 2=0A;V4>: FL>3>,
?>A8;5==O< 1;>;:048 15B0-@5F5?B>@V2. V4?>2V4=0 270T<>4VO <>65 A?>AB5@V30B8AO 7 V=H8<8
15B0-1;>:0B>@0<8, I> <5B01>;V7CNBLAO B8< A0<8< D5@<5=B>< (F8B>E@< P450 2D6).
;>=V48=: 15B0-1;>:0B>@8 <>6CBL ?>B5=FDN20B8 3V?5@B5=782=C @50:FDN ?@8 @0?B>2V9 2V4
=V48=C. # 28?04:C, :>;8 =5>1EV4=> 2V4=V48=><, 15B0-1;>:0B>@ A;V4 2V4 2V4=V48=C.
8D0: @8D065 AB82V.
0FVT=B8, O:V >B@84=>G0A=> 7 <5B>?@>;>;< V=HV 15B0-1;>:0B>@8 (=0?@8;;04, >G=V :@0?;V) 01>
V=3V1VB>@8 <=>0:A84078 (), ?>28==V 7=0E>48B8AO ?V4 @5B5;L=8< A?>AB5@565==O:0B>@0<8
15B0-@5F5?B>@V2, ?>A8;NT :0@4V>45?@5A82=89 5D5:B. # ?0FVT=BV2, O:V >B@8:0B>@8, <>65
28=8:=CB8 =5>1EV4=VABL C ?>2B>@=>@83C20==V 4>78 ?5@>@0;L=8E ?@>B84V015B8G=8E
70A>1V2. >=F5=B@0FVO <5B>?@>;>;C C ?;072V <>65 71V;LH8B8AO, O:I> >4=>G0A=> 22>48B8 F8
<5B848= 01> 3V4@0;078=.
>=F5=B@0FVO <5B>?@>;>;C C ?;072V <>65 71V;LH8B8AO, O:I> >4=>G0A=> 26820B8 0;>3>;L.
0FVT=B8, O:V >B@84=>G0A=> 7 <5B>?@>;>;< 1;>:0B>@8 A828==V 7=0E>48B8AO ?V4 @5B5;L=8<
A?>AB5@565==O
5B>?@>;>; <>65 ?>@CHC20B8 5;V:0W=C.
5>1EV4=> 7 >15@56=VABN ?@87=0G0B8 <5B>?@>;>; ?0FVT=B0<, O:V 70AB>A>2CNBL AB8@8
15B02-@5F5?B>@V2 B0 15B01-@5F5?B>@V2, 0 B0:>6 483V4@>?V@848=8.
>65 28=8:=CB8 ?>B@510 C 4>40B>2V9 :>@5:FVW 4>78 V=AC;V=C 2 ?0FVT=BV2, O:V >B@8:0B>@8.
!;V4 28O2;OB8 >15@56=VABL C @07V >4=>G0A=>3> 70AB>AC20==O<5B>?@>;>;C 7 5@3>B0
>B@V1=> 7 >15@56=VABN :<1V=C20B8 <5B>?@>;>; 7 V=H8<8 ?@5?0@0B0<8 V7
0=B83V?5@B5=782=8< 5D5:B>

A>1;82>ABV 70AB>AC20==O.

0FVT=B0<, O:V >B@8:0B>@0<8, =5 A;V4 22>48B8 2=CB@VH=L>25==> 25@0?0
5B>?@>;>; <>65 ?@872>48B8 4> ?>@CH5==O ?5@8D5@8G=>3> 0@B5@V0;L=>3> :@>2>>1V3C, B0:V
O: ?5@5 A5@9>7=8<8 3>AB@8<8 AB0=0<8 B0 ?0FVT=B0<, O:V >B@8<1V=>20=5 ;V:C20==O
?@5?0@0B0<8 =0?5@ABO=:8, A;V4 ?@84V;OB8 >A>1;82C C203C.
?0FVT=BV2 7V AB5=>:0@4VTN @8=F<5B0;0 G0AB>B0 V BO6:VABL =0?04V2 AB5=>:0@4VW<>65
71V;LH8B8AO 2=0A;V4>: >?>A5@54:>20=>3> 0;LD0-@5F5?B>@0<8 72C65==O :>@>=0@=8E AC48=. ">
1-1;>:0B>@8 A;V4 70AB>A>2C20B8 7 >15@56=VABN.
@8 ;V:C20==V E2>@8E 7 1@>=EV0;L=>N 0AB<>N 01> 7 V=H8<8 >1AB@C:B82=8<8 70E2>@N20==O<8
;535=L A;V4 >4=>G0A=> ?@87=0G8B8 045:20B=C 1@>=E>;VB8G=C B5@0?VN. >6;82>, 1C45
=5>1EV4=8< 71V;LH5==O 4>78 AB8@V2 15B02-@5F5?B>@V2.
V4 G0A ;V:C20==O <5B>?@>;>;< @878: 2?;82C =0 <5B01>;V7< 2C3;52>4V2 01> @878: 28=8:=5==O
?@8E>20=>W 3V?>3;V:5
C65 @V4:> AB0= ?0FVT=BV2 7 ?>@CH5==O< 0B@V>25=B@8:C;O@=>W ?@>2V4=>ABV
A5@54=L>3> ABC?5=O BO6:>ABV <>65 ?>3V@H8B8AO (<>6;82>, 4> 0B@V>25=B@8:C;O@=>W
1;>:048).
"5@0?VO 15B0-1;>:0B>@0<8 <>65 ?>3V@HC20B8 5D5:B82=VABL ;V:C20==O 0=0DV;0:B8G=>W
@50:FVW. V:C20==O 04@5=0;V=< C 728G09=8E 4>70E =5 702648 ?@872>48BL 4> >GV:C20=>3>
B5@0?52B8G=>3> 5D5:BC.
%2>@8< =0 D5>E@<>F8B>: >: =5>1EV4=> >4=>G0A=> ?@87=0G8B8 0;LD0-1;>:0B>@.
0=V :>=B@>;L>20=8E ;V=VG=8E 4>A;V465=L 7 5D5:B82=>ABV B0 157?5:8 70AB>AC20==O
?@5?0@0BC C ?0FVT=BV2 7V BO6:>N AB01V;L=>N A8<0B8G=>N A5@F52>N =54>AB0B=VABN (:;0A
IV 70 NYHA) >1<565=V. V:C20==O B0:8E ?0FVT=BV2 ?>28==V ?@>2>48B8 ;8H5 ;V:0@V 7V
A?5FV0;L=8<8 =028G:0<8 B0 4>A2V4>< (482. @>74V; <!?!>AV1 70AB>AC20==O B0 4>78)).
0FVT=B8 7 A8<0B8G=>N A5@F52>N =54>AB0B=VABN, I> AC?@>2>46CTBLAO 3>AB@8< V=D0@:B>

< :0@40 B0 =5AB01V;L=>N AB5=>:0@4VTN, 1C;8 28;;NG5=V V7 4>A;V465==O, 2 O:>2;N20;8
<>6;82VABL 70AB>AC20==O ?@5?0@0BC ?@8 A5@F52V9 =54>AB0B=>ABV. B65, 5D5:B82=VABL B0
157?5:0 ;V:C20==O 3>AB@>3> V=D0@:BC:0@40, I> AC?@>2>46CTBLAO A5@F52>N
=54>AB0B=VABN, =5<0T 4>:C<5=B0;L=>3> ?V4B25@465==O. @>B8?>:070=> 70AB>A>2C20B8 5B0;>:
>: ?@8 =5AB01V;L=V9, =5:>20=V9 A5@F52V9 =54>AB0B=>ABV.
0?B>20 2V4:0B>@V2 T =5157?5G=>N, >A>1;82> C ?0FVT=BV2 3@C?8 28A>:>3> @878:C, B0 <>65
?>3V@HC20B8 E@>=VG=C A5@F52C =54>AB0B=VABL, 0 B0:>6 ?V428IC20B8 @878: @>728B:C
V=D0@:BC :0@40 B0 @0?B>2>3> ;5B0;L=>3> =0A;V4:C. "< 5B0;>: >: 7 1C4L-O:8E ?@8G8=
=5>1EV4=>, ?> <>6;82>ABV, ?>ABC?>2>, ?@>BO3< =5 <5=H5 2 B86=V2, :>;8 4>70 ?@5?0@0BC =0
:>6=> B01;5B:8 25 <3). AB0==N 4>7C A;V4 ?@89<0B8 ?@>BO3< ?@8=09<=V 4-E 4V1 4> ?>2=>W 2V4
=>2;5==O A8<5=4CTBLAO A?>2V;L=8B8 7=865==O 4>78.
@07V EV@C@3VG=>3> 2B@CG0==O =5>1EV4=> ?>?5@548B8 0=5AB57V>;>30, I> ?0FVT=B ?@89
<0T 5B0;>: >:. 0FVT=B0<, O:8< <0T 1CB8 ?@>2545=> EV@C@3VG=5 2B@CG0==O, ?@8?8=OB8
;V:C20==O 15B0-1;>:0B>@0<8 =5 @5:><5=4CTBLAO. /:I> 2V4"5@2>3> V=VFN20==O 70AB>AC20==O
28A>:8E 4>7 <5B>?@>;>;C 2 ?0FVT=BV2, O:V ?5@5=5A;8 =5A5@F52V EV@C@3VG=V 2B@CG0==O,
A;V4 C=8:0B8, >A:V;L:8 F5 ?>2O70=> 7 @>728B:< 1@048:0@4VW, 0@B5@V0;L=>W 3V?>B5=7VW B0
V=AC;LBC, 2;;NG0NG8 ;5B0;L=V =0A;V4:8 C ?0FVT=BV2 V7 A5@F52>-AC48==8<8 D0:B>@0<8
@878:C.
4=0:, C 45O:8E ?0FVT=BV2 T 1060=8< 28:>@8AB0==O 15B0-1;>:0B>@V2 O: ?@5<548:0FVW. # B0:8E
28?04:0E =5>1EV4=> >18@0B8 0=5AB5B8: 7 =57=0G=8< =530B82=8< V=>B@>?=8< 5D5:B<< 7 <5B>N
ABV :0@4C.
!;V4 @5B5;L=> :>=B@>;N20B8 35<>48=07@N20=8< 01> 287=0G5=8< V=D0@:B<< :0@4C.
0AB>AC20==O <5B>?@>;>;C <>65 A?@8G8=8B8 ?>3V@H5==O <5=H BO6:8E ?>@CH5=L
?5@8D5@8G=>3> :@>2>>1V3C.
?0FVT=BV2 V7 A5@F52>N =54>AB0B=VABN 2 0=0<=57V 01> 7 1V4=8< A5@F528< @575@2>< A;V4
2@0E>2C20B8 ?>B@51C 2 AC?CB=V9 B5@0?VW 4VC@5B8:0<8.
0AB>AC20==O <5B>?@>;>;C <>65 ?@825AB8 4> @>728B:C 1@048:0@4VW C ?0FVT=BV2.
!;V4 7>15@56=VABN ?@87=0G0B8<5B>?@>;>; ?0FVT=B0< V7 A5@F52>N 1;>:04>N ABC?5=O.
5B>?@>;>; <>65 <0A:C20B8 @0==V A8<8 3>AB@>W 3V?>3;V:56 A8<8 B8@5>B>:A8:>7C.
!;V4 ?@84V;OB8 A5@9>7=C C203C ?0FVT=B0< V7 ?A>@V07>
@8 70AB>AC20==V <5B>?@>;>;C C ?0FVT=BV2 V7 ;01V;L=8< B0 FC:@>28< 4V015B<< B8?C <>65
28=8:=CB8 ?>B@510 C :>@5:FVW 3V?>3;V:5W 4>78.

0AB>AC20==O C ?5@V>4 203VB=>ABV 01> 3>4C20==O 3@C44N.

03VB=VABL

5B0;>: >: =5 A;V4 70AB>A>2C20B8 C ?5@V>4 203VB=>ABV B0 3>4C20==O 3@C44N, O:I> ;V:0@ =5
22060T, I> :>@8ABL ?5@52060T <>6;82C H:>4C 4;O ?;>40/48B8=8. 5B0-1;>:0B>@8 7<5=HCNBL
?;0F5=B0@=89 :@>2>BV:, I> <>65 ?@825AB8 4> 2=CB@VH=L>CB@>1=>W 703815;V ?;>40,
=57@V;>ABV B0 ?5@54G0A=8E ?>;>3V2.

>4C20==O 3@C44N

@C4=5 283>4>2C20==O =5 @5:><5=4CTBLAO. V;L:VABL<5B>?@>;>;C, I> ?>B@0?;OT 7 3@C4=8<
<>;>:×, =5 ?>28==0 ?@825AB8 4> 7=0G=8E 15B0-1;>:CNG8E 5D5:BV2 C =>2>=0@>465=8E, O:I> <0B8
70AB>A>2CT 728G09=V B5@0?52B8G=V 4>78.

**40B=VABL 2?;820B8 =0 H284:VABL @50:FVW ?@8 :5@C20==V 02B>B@0=A?>@B<< 01> V=H8<8
<5E0=V7<0<8.**

V4 G0A ;V:C20==O ?@5?0@0B< 5B0;>: □>: <>65 28=8:=CB8 70?0<>@>G5==O B0 AB<;N20=VABL.
0FVT=BV2, 4VO;L=VABL O:8E ?>2O70=0 7=0?@C65==O< C2038, 0 A0<5: :5@C20==O 02B<<1V;5<
B0 @>1>BV 7 <5E0=V7<0<8, A;V4 ?>?5@548B8 ?@> <>6;82VABL 28=8:=5==O B0:8E 5D5:BV2.

!>AV1 70AB>AC20==O B0 4>78.

5B0;>: >: 70AB>A>2C20B8 1 @07 =0 4>1C, 1060=> 7@0=:C. "01;5B:8 7 C?>2V;L=5=8< 282V;L=5==O<
<>6=0 4V;8B8, 0;5 WE =5 A;V4 @>76>2C20B8 01> :@8H8B8. "01;5B:8 A;V4 70?8B8 I>=09<5=H5 0,5
A;;O=:8 @V48=8. 4=>G0A=89 ?@89<< W6V =5 2?;820T =0 1V>4>ABC?=VABL ?@5?0@0BC.

>7C ?V418@0B8 V=482V4C0;L=>, I>1 C=8:=CB8 @>728B:C 1@048:0@4VW, 4>7C ?@5?0@0BC A;V4
:>@83C20B8. 5:><5=4CTBLAO =0ABC?=5 4>7C20==O
@B5@V0;L=0 3V?5@B5=7VO
50-100 <3 1 @07 =0 4>1C. /:I> 4>70 100 <3 T =54>AB0B=L>N 4;O 4>AO35==O B5@0?52B8G=>3>
5D5:BC, ?@5?0@0B <>6=0 :<1V=C20B8 7 V=H8<8 0=B83V?5@B5=782=8<8 ;V:0@AL:8<8 70A>10<8,
1060=> 4VC@5B8:0<8 B0 0=B03>=VAB0<8 :0;LFVN 483V4@>?V@848=>2>3> B8?C, 01> 6 71V;LH8B8
4>7C ?@5?0@0BC.
!B5=>:0@4VO
100-200 <3 1 @07 =0 4>1C. # @07V =5>1EV4=>ABV 5B0;>: >: <>6=0 :<1V=C20B8 7 =VB@0B0<8 01>
71V;LH8B8 4>7C.
>40B:>20 B5@0?VO ?@8 ;V:C20==V V=3V1VB>@0 0=3V>B5=78=?5@5B2>@N20;L=>3> D5@<5=BC,
4VC@5B8:V2 V, <>6;82>, ?@5?0@0BV2 =0?5@ABO=:8 C @07V AB01V;L=>ABV A8<0B8G=>W
A5@F52>W =54>AB0B=VABV.
0FVT=B8 ?>28==V 7=0E>48B8AO C AB04VW AB01V;L=>W E@>=VG=>W A5@F52>W
=54>AB0B=>ABV 157 5?V7>4V2 45:>BO3<< I>=09<5=H5 6 B86=V2 B0 157 ACBBT28E 7W B5@0?VW
?@>BO3<< >AB0==VE 2 B86=V2.
V:C20==O A5@F52>W =54>AB0B=>ABV 15B0-1;>:0B>@0<8 <>65 ?@8725AB8 4> B82>3> ?>3V@H5==O
A8N A5@F52>N =54>AB0B=VABN (V DC=:FV>=0;L=89 ;;0A 70 ;;0A8DV:0FVTNNYHA) @>7G8=0B8
B5@0?VN 5B0;>: >: ?>28=5= ;8H5 4>A2V4G5=89 A?5FV0;VAB.
!B01V;L=0 A5@F520 =54>AB0B=VABL, DC=:FV>=0;L=89 ;;0A.
5:><5=4>20=0 ?>G0B:>20 4>70 5B0;>: >: C ?5@HV 420 B86=V AB0=>28BL 25<3 1 @07 =0 4>1C. VA;O 2
B86=V2 4>7C <>6=0 71V;LH8B8 4> 50<3 1 @07 =0 4>1C, V 40;V 4>7C <>6=0 ?>42>N20B8 :>6=V 2
B86=V. ?L>20 4>70 5B0;>: >: 4;O B@820;>3> ;V:C20==O AB0=>28BL 200<3 1 @07 =0 4>1C.
!B01V;L=0 A5@F520 =54>AB0B=VABL, III-IV DC=:FV>=0;L=89 ;;0A.
5:><5=4>20=0 ?>G0B:>20 4>70 AB0=>28BL 12,5<3 (?>;>28=0 B01;5B:8 25<3) 1 @07 =0 4>1C. >70
?@5?0@0BC :>@83CTBLAO V=482V4C0;L=>. # ?5@V>4 71V;LH5==O 4>78 ?0FVT=B ?>28=5=
?5@51C20B8 ?V4 @5B5;L=8<=03;04<< ;V:0@O, >A:V;L:8 C 45O:8E ?0FVT=V2 A8<8 A5@F52>W
=54>AB0B=>ABV <>6CBL ?>3V@H8B8AO. VA;O 1-2 B86=V2 ?@89>: >: 4>7C ?@5?0@0BC <>6=0
71V;LH8B8 4> 25<3 1 @07 =0 4>1C. '5@57 2 B86=V 4>70 ?@5?0@0BC <>65 1CB8 71V;LH5=0 4> 50<3 1
@07 =0 4>1C. 0FVT=B0<, O:V 4>1@5 ?5@5=>AOBL 28IV 4>78, <>6=0 ?>42>N20B8 4>7C :>6=V 2 B86=V
4> 4>AO3=5==O <0:A8<0;L=>W 4>78 200<3 =0 4>1C.
28?04:C 0@B5@V0;L=>W 3V?>B5=7VW B0/01> 1@048:0@4VW <>65 28=8:=CB8 =5>1EV4=VABL 7
<5=H8B8 4>7C AC?CB=L>3> ?@5?0@0BC 01> 7<5=H8B8 4>78 5B0;>: >:.. @B5@V0;L=0 3V?>B5=7VO
=0 ?>G0B:C B5@0?VW =5 >1>2O7:>2> 2:07CT =0 B5, I> 4>7C 5B0;>: >: =5>1EV4=> 7<5=HC20B8. 4=0:
4>7C =5 A;V4 ?V428IC20B8, ?>:8 AB0= ?0FVT=B0 =5 AB01V;V7CTBLAO. "0:>6<>65 28=8:=CB8
=5>1EV4=VABL @5B5;L=> :>=B@>;N20B8 DC=:FVW =8@>:..
!5@F520 0@8B
100-200 <3 1 @07 =0 4>1C. # @07V =5>1EV4=>ABV 4>7C <>6=0 71V;LH8B8.
V4B@8:0@40.
5:><5=4>20=0 ?VB@870 AB0=>28BL 200<3 1 @07 =0 4>1C.
\$C=:FV>=0;L=V ?>@CH5==O A5@F52>W 4VO;L=>ABV, I> AC?@>2>46CNBLAO A5@F518BBO
100<3 1 @07 =0 4>1C. # @07V =5>1EV4=>ABV 4>7C <>6=0 71V;LH8B8.
@>DV;0:B8:0
100-200<3 1 @07 =0 4>1C.
0FVT=B8 7 ?>@CH5==O<8 DC=:FVW =8@>:..
>@83C20==O 4>78 ?@5?0@0BC =5 ?>B@V1=>, >A:V;L:8 H284:VABL 282545==O =57=0G=8< G8=><
70;568BL 2V4 DC=:FVW =8@>:..
0FVT=B8 7 ?>@CH5==O<8 DC=:FVW ?5GV=:8.
0728G09 5B0;>: >: ?0FVT=B0< V7 F8@>7>< ?5GV=:8 A;V4 ?@87=0G0B8 C BV9 A07V, I> 9 ?0FVT=B0<
7 =>@<0;L=>N DC=:FVTN ?5GV=:8. "V;L:8 C 28?04:C 4C65 BO6:>3> ?>@CH5==O DC=:FVW ?5GV=:8
(=0?@8;:04, C ?0FVT=V2 ?VA;O >?5@0FVW HC=BC20==O) <>65 7=04>18B8AO 7<5=H5==O 4>78.
0FVT=B8 ;VB=L>3> 2V:C.
>@83C20==O 4>78 =5 ?>B@V1=5.

VB8.

57?5:0 B0 5D5:B82=VABL ?@5?0@0BC 5B0;>: >: C ;V:C20==V 4VB59 ?@8 ?>:070==OE =0 40=89 G0A I5
=5 287=0G5=V. 0=V 2V4ACB=V.

5@54>7C20==O.

">:A8G=VABL: C 4>@>A;>W ;N48=8 ?@89>< 4>78 7,5 3 AB02 ?@8G8=>N ;5B0;L=>W V=B>:A8:0FVW.
@89>< 100 <3 ?@5?0@0BC 5-@VG=>N 48B8=>N =5 AC?@>2>46C202AO A8<0<8 V=B>:A8:0FVW
?VA;O ?@>820==O H;C=:0. >:A8:0FVN A?@8G8=8;0 4>70 450 <3 C 12-@VG=>W 48B8=8 B0 4>70 1,4 3
C 4>@>A;>W ;N48=8, A5@9>7=C V=B>:A8:0FVN C 4>@>A;>W ;N48=8 A?@8G8=O;0 4>70 2,5 3, 0 4>70
7,5 3 4C65 A5@9>7=C V=B>:A8:0FVN.
!8<8: =09206;82VH8<8 T A5@F52>-AC48==V A8<8, ?@>B5 C 45O:8E 28?04:0E, >A>1;82> C 4VB59 B0
>AV1 <>;4>3> 2V:C, <>6CBL ?5@52060B8 A8<8 7 1>:C F5=B@0;L=>W =5@2>2>W A8AB5<8 B0
?@83=VG5==O 48E0==O. @048:0@4VO, 0B@V>25=B@8:C;O@=0 1;>:040 I-IABC?5=O, ?>4>265==O
V=B5@20;C QT (28=OB>:289 28?04>:), 0A8AB>;VO, 7=865==O 0@B5@V0;L=>3> B8A:C, =54>AB0B=O
?5@8D5@8G=0 ?5@DC7VO, A5@F520 =54>AB0B=VABL, :0@4V>35==89 H>:. @83=VG5==O 48E0==O,
7C?8=:0 48E0==O. =HV: AB<;N20=VABL, A?;CB0=VABL A2V4>>ABV, 2B@0B0 A2V4>>ABV,
4@V1=>@>7<0H8AB89 B@5<>@, AC4<>8, ?>BV==O, ?0@5AB57VW, 1@>=E>A?07<, =C4>B0,
1;N20==O, <>6;82>, A?07< AB@02>E>4C, 3V?>3;V:5A>1;82> C 4VB59) 01> 3V?5@3;V:5289 G0A=5
26820==O 0;>3>;N, 3V?>B5=782=8E ?@5?0@0BV2, EV=V48=C 01> 10@1VBC@0BV2 <>65 ?>3V@H8B8
AB0= ?0FVT=B0. 5@HV >7=0:8 ?5@54>7C20==O <>6CBL A?>AB5@V30B8AO G5@57 20 E28;8= 2
3>48=8 ?VA;O ?@89>
V:C20==O: C @07V =5>1EV4=>ABV ?@><820==O H;C=:0, ?@89>< 0:B82>20=>3> 2C3V;;O. B@>?V=
(0,25-0,5 <3 2=CB@VH=L>25==> 4>@>A;8<, 10-20 4> ?@><820==O H;C=:0 (G5@57 @878: 203CA=>W
AB865 7=04>18B8AO V=BC10FVO B0 28:>@8AB0==O 0?0@0BC HBCG=>3> 48E0==O; 045:20B=5
2V4=>2;5==O >1T78; <=>VB>@C20==O ; ?>2B>@=5 2=CB@VH=L>25==5 22545==O 0B@>?V=C 1-2 <3
(3>;>2=8< G8=>< ?@8 203CA=8E A8<0E). # @07V ?@83=VG5==O DC=:FVW :0@40: V=DC7VO 4>1CB0
4>?0=0BC 9 <3/<;, 10-20 <;. >6=0 225AB8 3;N:03>= 50-150 25==> ?@>BO3>< 1 E28;8=8 7 =0ABC?=>N
V=DC7VTN, 0 B0:>6 0<@8=>=. # 45O:8E 28?04:0E 1C;> 5D5:B82=8< 4>4020==O 5?V=5D@8=C
(04@5=0;V=C). =DC7VO =0B@VN (E;>@84C 01> 1V:0@1>=0BC) C @07V ?>4>265==O QRS-:>6=0
28:>@8AB0B8 :0@4V>AB8@. # @07V 7C?8=:8 :@>2>>1V3C <>6CBL 1CB8 ?>B@V1=V 70E>48 7 @50=V
<0FVW ?@>BO3>< :V;L>E 3>48=. @8 1@>=E>A?07

>1VG=V @50:FVW.

>1VG=V @50:FVW A?>AB5@V30NBLAO ?@81;87=> C 10 % ?0FVT=BV2, 70728G09 2>=8 T
4>7>70;56=8<8. >1VG=V @50:FVW, ?>2O70=V V7 70AB>AC20==O< <5B>?@>;;C, =02545=V =86G5
70;56=> 2V4 ;:0AC >@30=V2 V G0AB>B8. '0AB>B8 287=0G0NBLAO =0ABC?>8< G8=> (> 1/10); G0AB>
(> 1/100 - < 1/10); =5G0AB> (> 1/1000 - < 1/100); @V4:>
(> 1/10000 - < 1/10000); 4C65 @V4:> (< 1/10000); G0AB>B0 =52V4><0 (=5 <>65 1CB8 >FV=5=0, 28E>4OG8
7=0O2=8E 40=8E).

>7;048 7 1>:C :@>2V B0 ;VW A8AB5<8	
V4:>	"@><1>F8B>?5=VO
A8EVG=V @>7;048	
5G0AB>	5?@5AVO, =VG=V :>H<0@8, ?>@CH5==O A=C
V4:>	>@CH5==O ?0<'OBV, A?;CB0=VABL A2V4>>ABV, 30;NF8=0FVW, =5@2>7=VABL, B@82>6=VABL,
'0AB>B0 =52V4><0	A;01;5==O :>=F5=B@0FVW C2038
>7;048 7 1>:C F5=B@0;L=>W B0 ?5@8D5@8G=>W =5@2>2>W A8AB5<8	
C65 G0AB>	B><;N20=VABL
'0AB>	0?0<>@>G5==O, 3>;>2=89 1V;L
5G0AB>	0@5AB57VW
V4:>	>@CH5==O A<0:C
'0AB>B0 =52V4><0	O7>2V AC4><8
>7;048 7 1>:C >@30=V2 7>@C	
V4:>	>@CH5==O 7>@C, ACEVABL B0/01> ?>4@07=5==O >G59
'0AB>B0 =52V4><0	!8<8, I> =0304CNBL :>= N=:B82VB

>7;048 7 1>:C >@30=V2 A;CEC B0 @V2=>2038 V4:>		72V= C 2CE0E
!5@F52V @>7;048		
'0AB>	%>;>4=V :V=FV2:8, 1@048:0@4VO, 2V4GCBBO A5@F518BBO	
5G0AB>	"825 ?>3V@H5==O A8W =54>AB0B=>ABV, :0@4V>35==89 H>: C ?0FVT=BV2 7 3>AB@8< V=D0@:B>< :0@40	
V4:>	>4>265==O 0B@V>25=B@8:C;O@=>W ?@>2V4=>ABV, A5@F520 0@8B	
'0AB>B0 =52V4><0	0=3@5=0 C ?0FVT=BV2 7 BO6:8<8 ?>@CH5==O<8 ?5@8D5@8G=8E AC48=	
>7;048 7 1>:C 48E0;L=>W A8AB5<8		
'0AB>	048H:0 ?@8 DV78G=V9 0:B82=>ABV	
5G0AB>	@>=E>A?07< C ?0FVT=BV2 7 1@>=EV0;L=>N 0AB<>N 01> 0AB<0B8G=8<8 ?@>1;5<0<8	
'0AB>B0 =52V4><0	8=VB	
>7;048 7 1>:C H;C=:>2>-.8H:>2>3> B@0:BC		
'0AB>	14>B0, 1;N20==O, 4V0@5O, 70?>@	
'0AB>B0 =52V4><0	!CEVABL C @>BV	
>7;048 7 1>:C ?5GV=:8 B0 6>2G>282V4=>W A8AB5<8		
V4:>	V428I5==O @V2=V2 B@0=A0	
'0AB>B0 =52V4><0	5?0B8B	
>7;048 7 1>:C H:V@8 B0 ?V4H:V@=8E B:0=8=		
5G0AB>	50:FVW 3V?5@GCB;82>ABV H:V@8	
V4:>	03>AB@5==O ?A>@V07C, D>B>A5=A81V;V70FVO, 3V?5@3V4@>7, 28?040==O 2>;>AAO	
>7;048 7 1>:C A:5;5B=><O7>2>W A8AB5<8 B0 A?>;CG=>W B:0=8=8		
'0AB>B0 =52V4><0	@B@0;3VO	
>7;048 7 1>:C @5?@>4C:B82=>W A8AB5<8 B0 <>;>G=8E 70;>7		
V4:>	2>@>B=0 48ADC=:FVO ;V1V4>	
030;L=V @>7;048		
5G0AB>	V;L C 3@C4=V9 ;:VBFV, =01@O:8, 71V;LH5==O<0A8 BV;0	

"0:>6 ?@8 70AB>AC20==V <5B>?@>;>;C <>6CBL A?>AB5@V30B8AO 157A>==O, A>=;82VABL, 0
<=57VO, A5@F520 1;>:040 ABC?5=N, ?>3V@H5==O VA=CNG>W AV-1;>:048, ?>ABC@0;L=V @>7;048
(4C65 @V4:> V7 A8=:>?5), D5=><5= 59=>, ?>A8;5==O A8W :C;L302>ABV, 28A8? (C D>@@V0B8D>@
<=>W :@>?82O=:8 B0 48AB@>DVG=8E C@065=L H:V@8), VB5=FVO/A5:AC0;L=0 48ADC=:FVO,
?@5:0@4V0;L=89 1V;L, ?>O20 0=B8=C;;50@=8E 0=B8BV; (=5 ?>2O70=8E V7 A8AB5<=8< G5@2>=8<
2>2G0:><).

"5@ABV.3 @>:8.

#<>28 715@V30==O. 15@V30B8 C =54>ABC?=>

#?0:>2:0. "01;5B:8 ?> 25 <3 ?> 14 B01;5B>: C 1;VAB5@V, ?> 1 1;VAB5@C 2 :0@B>==V9 :>@>1FV;
B01;5B:8 ?> 50 <3 01> ?> 100 <3 ?> 30 B01;5B>: C D;0:>=V, ?> 1 D;0:>=C 2 :0@B>==V9 :>@>1FV.

0B53>@VO 2V4?CA:C. 0 @5F5?B>

8@>1=8:. AB@05=5:0 , (25FVO/AstraZeneca AB, Sweden.

VAf57=0E>465==O 28@>1=8:0 B0 9>3> 04@5A020465==O 4VO;L=>ABV. 5@BC=52535=, 151 85
!>45@B0;T, (25FVO/ Gartunavagen, 151 85 Sodertalje, Sweden.