

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

&
(VICEBROL®)

!::04:

4VNG0 @5G>28=0: vinpocetine;

1 B01;5B:0

4>?>28=8: ;0:B>78 <=>3V4@0B, F5;N;>70 :@8AB0;VG=0, :@>E<0;L ?@565;0B8=V7>20=89, <03=VN
AB50@0B.

V:0@AL:0 D>@<0. "01;5B:8.

A=>2=V DV78:>-EVABV: :@C3;V 42>>?C:;V B01;5B:8 1V;>3> :>;L>@C.

\$0@<0:>B5@0?52B8G=0 3@C?0.

A8E>AB8>B@>?>V 70A>18. >4 "% N06B X18.

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

\$0@<0:>48=0

V=?>F5B8= ?@54AB02;OT A>1>N 7T4=0==O 7 :< 4VW, I> G8=8BL A?@8OB;8289 5D5:B =0<5B01>;V7
< C 3>;>2=>

V=?>F5B8= ?@>O2;OT =59@>?@>B5:B82=V 5D5:B8: ?@5?0@0B ?>A;01;NT H:V4;82C 4VN
F8B>B>:A8G=8E @50:FV9, A?@8G8=5=8E AB8:8A;>B0<8. @5?0@0B V=3V1CT ?>B5=FV0;-70;56=V Na+
- V Ca2+:-:0=0;8, 0 B0:>6 @5F5?B>@8 NMDA V AMPA. @5?0@0B ?>A8;NT =59@>?@>B5:B82=89 5D5:B
045=>78=C.

V=?>F5B8= AB8: ?@5?0@0B 71V;LHCT 70E>;5==O 3;N:>78 V :8A=N V A?>6820==O F8E @5G>28=
B:0=8=>N 3>;>2=>3> <>7:C. @5?0@0B ?V428ICT ABV9:VABL 3>;>2=>3><>7:C 4> 3V?>:AVW;
71V;LHCT B@0=A?>@BC20==O 3;N:>78 28=OB:>2>3> 465@5;0 5=5@3VW 4;O 3>;>2=>3> <>7:C G5@57
35<0B>5=F5D0;VG=89 10@T@; 7AC20T <5B01>;V7< 3;N:>78 2 1V: 5=5@35B8G=> 1V;LH
A?@8OB;82>3> 05@>1=>3> H;OEC; 281V@:>2> V=3V1CT Ca2+:-:0;L<>4C;V=-70;56=89 D5@<5=B F\$-
D>AD>4V5AB5@07C (\$); ?V428ICT @V25=L F\$ V F\$ C 3>;>2=>@04@5=0;V=C V A5@>B>=V=C C
3>;>2=>@04@5=5@3VG=C A8AB5;>4VT 0=B8>:A840=B=>N 0:B82=VABN; C @57C;LB0BV 4VW 2AVE
?5@5@0E>20=8E 2815 5D5:BV2 2V=?>F5B8= =040T F5@51@>?@>B5:B82=C 4VN.

V=?>F5B8= ?>:@0ICT F8@:C;OFVN C 3>;>2=> ?@5?0@0B V=3V1CT 03@530FVN B@<<1>F8BV2, 7
<5=HCT ?0B>;>3VG=> ?V42815=C 2O7:VABL :@>2V, ?V428ICT 45D>@<>20=VABL 5@8B@>F8BV2 B0
V=3V1CT 70E>;5==O 045=>78=C, ?>:@0ICT B@0=A?>@BC20==O :8A=NC B:0=8=0E H;OE><
7=865==O 0DDV=VB5BC :8A=N 4> 5@8B@>F8BV2.

V=?>F5B8= A5;5:B82=> 71V;LHCT :@>2>BV: C 3>;>2=> ?@5?0@0B 71V;LHCT F5@51@0;L=C
D@0:FVN A5@F52>3> 28:84C; 7=86CT AC48==89 >?V@ C 3>;>2=>N ?5@DC7VTN («72>@>B=V9 5D5:B
>1:@040==O»).

\$0@<0:>:V=5B8:0.

A<>:BC20==O. V=?>F5B8= H284:> 2A<>:BCTBLAO, <0:A8<0;L=0 :>=F5=B@0FVO C ?;072V
4>AO30TBLAO G5@57 1 3>48=C ?VA;O ?5@>@0;L=>3> 70AB>AC20==O. A=>2=8<
>7?>4V;. # 4>A;V465==OE 7 ?5@>@0;L=8< 22545==O< ?@5?0@0BC C IC@V2 @04V>0:B82=>-
;N48=8: 72O7C20==O 7 1V;:0<8 :@>2V AB0=>28BL 66 %. 1A>;NB=0 1V>4>ABC?=VABL 2V=?>F5B8=C
?@8 ?5@>@0;L=>28BL 7 %. 1 T< @>7?>4V;C AB0=>28BL 246,7±88,5 ;, I> >7=0G0T 28@065=5
72O7C20==O @5G>28=8 C B:0=8=0E. =0G5==O ;;V@5=AC 2V=?>F5B8=C (66,7 ;/3>4) C ?;072V
?5@528ICT 9>3> 7=0G5==O C ?5GV=FV (50 ;/3>4), I> 2:07CT =0 ?>70?5GV=>289 <5B01>;V7<
7T4=0==O.

5B01>;V7 A=>2=8<<5B01>;VB<< 2V=?>F5B8=C T 0?>2V=:020 :8A;>B0 (), O:0 C ;N459 CB2>@NTBLAO
2 25-30 %. VA;O ?5@>@0;L=>3> 70AB>AC20==O ?;>I0 ?V4 :@82>N <<:=F5=B@0FVO-G0A» C 2 @078
?5@528ICT B0:C ?VA;O 2=CB@VH=L>25==>3> 22545==O ?@5?0@0BC, I> 2:07CT =0 CB2>@5==O C
?@>F5AV ?@5A8AB5<=>3> <5B01>;V728;0 ;8H5 :V;L:0 2V4A>B:V2 2V4 ?@89=OB>W 4>78
?@5?0@0BC.

06;82>N V 7=0GCI>N 2;0AB82VABN 2V=?>F5B8=C T 2V4ACB=VABL =5>1EV4=>ABV A?5FV0;L=>3>
?V41>@C 4>78 ?@5?0@0BC C ?0FVT=BV2 V7 70E2>@N20==O<8 ?5GV=:8 01> =8@>;, 72060NG8 =0
<5B01>;V7< ?@5?0@0BC V 2V4ACB=>ABV :C?8G5==O).

82545==O. @8 1030B>@07>2>@0;L=>AC20==V ?@5?0@0BC C 4>7V 5 <3 V 10 <3 2V=?>F5B8= 45
<=>AB@CT ;V=V9=C :V=5B8:C ; @V2=>206=V :>=F5=B@0FVW C ?;072V AB0=>2;OBL 1,2±0,27 =3/
<; V 2,1±0,33 =3/<; 2V4?>2V4=>. 5@V>4 =0?V2282545==O C ;N48=8 AB0=>28BL 4,83± 1,29 3>48=8. #
4>A;V465==OE, ?@>2545=8E 7 28:>@8AB0==O< @04V>0:B82=>3> 7T4=0==O, 1C;> 28O2;5=>, I>
>A=>2=89 H;OE 282545==O 74V9A=NTBLAO G5@57 =8@:8 V :8H5G=8: C A?V22V4=>H5==V 60:40 %.
5;8:0 :V;L:VABL @04V>0:B82=>W10: 28O2;O;0AO 2 6>2GV, 0;5 VAB>B=>W 5=B5@>35?0B8G=>W
F8@:C;OFVW =5 2V47=0G0;>AO. ?>2V=:020 :8A;>B0 284V;OTBLAO G5@57 =8@:8 H;OE< ?@>AB>W
::C1>G:>2>W DV;LB@0FVW, ?5@V>4 =0?V2282545==O FVTW @5G>28=8 72V4 4>78 V A?>A>1C
70AB>AC20==O 2V=?>F5B8=C.

ABV AC?CB=VE 70E2>@N20=L). A:V;L:8 2V=?>F5B8= ?>:070=89 4;O B5@0?VW ?5@5206=>
?0FVT=BV2 ;VB=L>3> 2V:C, C O:8E A?>AB5@V30TBLAO 7AC20==V. 57C;LB0B8 B0:8E 4>A;V465=L
?@>45<=>AB@C20;8, I> :V=5B8:0 2V=?>F5B8=C C ;N459 ;VB=L>3> 2V:C ACBBT2> =5
2V4@V7=OTBLAO 2V4 :V=5B8:8 2V=?>F5B8=C C <>;>48E ;N459, V, :@V< FL>3>, 2V4ACB=O :C
@CH5==V DC=:FVW ?5GV=:8 01> =8@>; <>6=0 70AB>A>2C20B8 728G09=V 4>78 ?@5?0@0BC,
>A:V;L:8 2V=?>F5B8= =5 =0:>?8GCTBLAO 2 >@30=V7 4>72>;OT B@820;89 G0A ?@89<0B8 ?@5?0@0B.

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

>:070==O.

52@>;>3VO. ;O ;V:C20==O @V7=8E D>@< F5@51@>20A:C;O@=>W ?0B>;>3VW: AB0=8 ?VA;O
?5@5=5A5=>3> ?>@CH5==O <>7:>2>3> :@>2>>1V3C (V=AC;LBC), 25@B51@>1078;O@=>W
=54>AB0B=>ABV, AC48==>W 45<5=FVW, F5@51@0;L=>3> 0B5@>A:;5@>7C, ?>ABB@02<0B8G=>W V
3V?5@B=>VG=>W 5=F5D0;>?0BVW. !?@8OT 7<5=H5==N ?A8EVG=>W V =52@>;>3VG=>W A8<0B8:8
?@8 F5@51@>20A:C;O@=V9 ?0B>;>3VW.

DB0;L<>;>3VO. ;O ;V:C20==O E@>=VG=>W AC48==>W ?0B>;>3VW E>@V>V45W (AC48==>W
>1>;>=:8 >:0) B0 AVB:V2:8.

B>@8=>;0@8=3>;>3VO. ;O ;V:C20==O AB0@5G>W BC3>2CE>ABV ?5@F5?B82=>3> B8?C, E2>@>18
5=LT@0 B0 HC

@>B8?>:070==O.

V?5@GCB;82VABL 4> 0:B82=>W @5G>28=8 01> 4> 1C4L-O:>W 7 4>?>28=.

03VB=VABL, ?5@V>4 3>4C20==O 3@C44N.

0AB>AC20==O ?@5?0@0BC 4VBO< ?@>B8?>:070=> (G5@57 2V4ACB=VABL 40=8E 2V4?>2V4=8E
::V=VG=8E 4>A;V465=L).

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

4=>G0A=5 70AB>AC20==O 2V=?>F5B8=C 7 β-1;>:0B>@0<8 (:;>@0=>;>;<, ?V=4>;>;<), :;>?0<,
3;V15=:;0<, 483>:A8=><, 0F5=>:C<0@>;< 01> 3V4@>E;>@>BV0784<< C ;;V=VG=8E 4>A;V465==OE =5
AC?@>2>46C20;>AO 1C4L-O:>N 270T<>4VTN

4=>G0A=5 70AB>AC20==O 2V=?>F5B8=C B0 α-<5B8;4>?8 V=>4V A?@8G8=O;> 450:5 ?>A8;5==O
3V?>B5=782=>3> 5D5:BC, B>AC20==O FVTW :<1V=0FVW ?@5?0@0BV2 =5>1EV4=89 @53C;O@=89
:=>B@>;L 0@B5@V0;L=>3> B8A:C. 572060NG8 =0 2V4ACB=VABL 40=8E ;;V=VG=8E 4>A;V465=L,
O:V ?V4B25@46CNBL <>6;82VABL 270T<>4VW, @5:>5=4CTBLAO ?@>O2;OB8 >15@56=VABL ?@8
>4=>G0A=> F5=B@0;L=C =5@2>2C A8AB56 C 28?04:C AC?CB=L>W 0=B80@8BW B0
0=B8:>03C;O=B=>W B5@0?VW.

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

002=VABL A8=4@>=>3>20=>3> V=B5@20;C QT V ?@89< ?@5?0@0BV2, I> A?@8G8=ONBL
?>4>265==O QT, 28<030NBL ?@>2545==O ?5@V>48G=>3> :=B@>;N .
@8 =002=>ABV C ?0FVT=B0 ?V428I5=>3> 2=CB@VH=L>G5@5?=>3> B8A:C, 0@8B A8=4@>
4>265=>3> V=B5@20;C QT, 0 B0:>6 =0 B;V 70AB>AC20==O 0=B80@8B< <>6=0 @>7?>G8=0B8 BV;L:8
?VA;O @5B5;L=>3> 0=0;V7C :>@8ABV B0 @878;V2, ?>2'O70=8E V7 70AB>AC20==O< ?@5?0@0BC.
&59 ;V:0@AL:89 70AV178 <=>3V4@0B. 0FVT=B0< 7 B0:8<8 @V4:VA=8<8 A?04:>28<8 70E2>@N20==O
<8 O: =5?5@5=>A878, 45DVF8B ;0:B078 0?0 01> ?>@CH5==O <0;L01A>@1FVW 3;N:>78-30;0:B>78 =5
A;V4 ?@89<0B8 F59 ?@5?0@0B.

0AB>AC20==O C ?5@V>4 203VB=>ABV 01> 3>4C20==O 3@C44N.
0AB>AC20==O ?@5?0@0BC C ?5@V>4 203VB=>ABV 01> 3>4C20==O 3@C44N ?@>B8?>:070=>.
03VB=VABL. V=?>F5B8= ?@>=8:0T G5@57 ?;0F5=B0@=89 10@T@, ?@8 FL>=F5=B@0FVO
?@5?0@0BC C ?;0F5=BV 9 C :@>2V ?;>40 =86G0, =V6 C :@>2V 203VB=>W. "5@0B>35==C 4VN
?@5?0@0BC =5 28O2;5=>. # 4>;V=VG=8E 4>A;V465==OE 7 25;8:8<8 4>70<8 ?@5?0@0BC C 45O:8E
28?04:0E 28=8:0;0 :@>2>B5G0 7 ?;0F5=B8 V A?>=B0==5 ?5@5@820==O 203VB=>ABV, 2V@>3V4=>, C
@57C;LB0BV ?>A8;5==O ?;0F5=B0@=>3> :@>2?>AB0G0==O.
>4C20==O 3@C44N. V=?>F5B8= ?@>=8:0T C 3@C4=5 <>;>:. # E>4V 4>A;V465=L V7 70AB>AC20==O
< @04V>0:B82=>3> V7>B>?C @04V>0:B82=VABL 3@C4=>3><>;>:0 2 10 @07V2 ?5@528IC20;0 B0:C 2
:@>2V 4>@>A;>W B20@8=8. 0AB>AC20==O 2V=?>F5B8=C C ?5@V>4 3>4C20==O 3@C44N
?@>B8?>:070=> G5@57 ?@>=8:=5==O 2V=?>F5B8=C C 3@C4=5 <>;>: V 2V4ACB=>ABV
4>AB0B=L>W :V;L:>ABV ;V=VG=8E A?>AB5@565=L I>4> 157?5:8 ?@5?0@0BC 4;O 3@C4=8E 4VB59.
VA;O ?@89>4=VTW 4>78 2V=?>F5B8=C ?@>B03<< 3>48=8 2 3@C4=5 <>;>: ?@>=8:0T 0,25 %
?@89=OB>W 4>78 ?@5?0@0BC.

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.
5<0T 40==8E ?@> 2?;82 2V=?>F5B8=C =0 740B=VABL :5@C20B8 02B>B@0=A?>@B< 01> ?@0FN20B8
7 <5E0=V7<0<8, 0;5 A;V4 4>B@815@56=>ABV, 2@0E>2CNG8 V<>2V@=VABL 28=8:=5==O ?V4 G0A
70AB>AC20==O ?@5?0@0BC A>;82>ABV, 70?0<>@>G5==O.
!>AV1 70AB>AC20==O B0 4>78.
0AB>A>2C20B8 2=CB@VH=L> ?VA;O ?@89>1>20 4>70 4>@>A;8< AB0=>28BL 15-30 <3 (3 @078 =0
4>1C ?> 5-10 <3). "@820;VABL ;V:C20==O 287=0G0T ;V:0@ V=482V4C0;L=>.
0FVT=B0< V7 70E2>@N20==O<8 =8@>: 01> ?5GV=:8 =5 ?>B@V1=0 :>@5:FVO 4>7C20==O.

VB8.
VBO< ?@5?0@0B =5 70AB>A>2CNBL (G5@57 2V4ACB=VABL ;V=VG=8E 40=8E).

5@54>7C20==O.
!8<8 ?5@54>7C20==O =52V4>4=>@07>289 ?@89>< 360 <3 2V=?>F5B8=C =5 AC?@>2>46C202AO
@>728B:<< =V :0@4V>20A:C;O@=8E, =V V=H8E ?>1VG=8E 5D5:BV2.

>1VG=V @50:FVW.
I>:C A8AB5<8 :@>2V B0 ;VW A8AB5<8: ;59:>?5=VO, B@><1>F8B>?5=VO, 0=5F8BV2.
I>:C VW A8AB5<8: 3V?5@GCB;82VABL.
I>:C <5B01>;V7 3V?5@E>;5AB5@8=5@5:AVO, FC:@>289 4V015B.
I>:C ?A8EV:8: 157A==O, ?>@CH5==O A=C, =5A?>:V9, 71C465==O, 59D>@VO, 45?@5AVO.
I>:C =5@2>2>W A8AB5<8: 3>;>2=89 1V;L, 70?0<>@>G5==O, 48A3527VO, ABC?>@, 35=;82VABL, 0
<=57VO, B@5<>@, AC4<8.
I>:C >@30=V2 7>@C: =01@O: A>A:0 7>@>2>3> =5@20, 3V?5@5=N=:B828.
I>:C >@30=V2 A;CEC B0 ;01V@8=BC: 25@B83>, 3V?5@0:C7VO, 3V?>0:C7VO, HC<C 2CE0E.
I>:C A5@F52>-AC48==>W A8AB5<8: VH5:0@40, AB5=>:0@4VO, 1@048:0@4VO, B0EV:0@4VO,
5:AB@0A8AB>;VO, 2V4GCBBO A5@F518BBO, 0@8BB5=7VO, 0@B5@V0;L=0 3V?5@B5=7VO,
?@8?;828, B@><1>D;51VB, :>;820==O 0@B5@V0;L=>3> B8A:C.
I>:C B@02=>3> B@0:BC: 48A:>@B C 682>BV, ACEVABL C @>BV, =C4>B0, 1V;L C 682>BV, 70?>@,
4V0@50, 48A?5?AVO, 1;N20==O, 48AD03VO, AB<0B8B.

1>:C H:V@8 B0 ?V4H:V@=>W ;:VB:>28=8: 5@8B5<0, 3V?5@3V4@>7, A25@1V6, :@>?82O=:0, 28A8?0==O, 45@<0B8B.

030;L=V?>@CH5==O: 0AB5=VO, A;01:VABL, 2V4GCBBO 60@C, 48A:>@B C 3@C4=V9 ;:VBFV, 3V?>B5@

01>@0B>@=V?>:07=8:8: 7=865==O 0@B5@V0;L=>3> B8A:C, ?V428I5==O 0@B5@V0;L=>3> B8A:C, ?V428I5==O @V2=O B@83;VF5@84V2 C :@>2V, 45?@5AVO A53-5=B0 ST =0 5;5:B@>:0@4V>3@0ABV ?5GV=:>28E D5@<5=BV2, 71V;LH5==O/7<5=H5==O :V;L:>ABV ;59:>F8BV2, 7<5=H5==O :V;L:>ABV 5@8B@>F8BV2, 7<5=H5==O ?@>B@<1V=>2>3> G0AC, 71V;LH5==O <0A8 BV;0.

"5@ABV.3 @>:8.

#<>28 715@V30==O.

15@V30B8 ?@8 B5! . 15@V30B8 2 =54>ABC?=>

#?0:>2:0.

> 10 B01;5B>: C 1;VAB5@V; ?> 5 1;VAB5@V2 C :0@B>==V9 :>@>1FV.

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

8@>1=8:.

V>D0@< B4.

VAF57=0E>465==O 28@>1=8:0 B0 9>3> 04@5A020465==O 4VO;L=>ABV: C; . 0;168A:0 13, 60-198 >7=0=L, >;LI0.