

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

&"  
(P RACETAM)

!,:04:

4VNG0 @5G>28=0: @iracetam;  
1 :0?AC;0 0,4 3;  
4>?>28=8: :0;LFFVN AB50@0B, <03=VN :0@1>=0B 206:89;  
65;0B8=>20 :0?AC;0

V:0@AL:0 D>@<0. 0?AC;8.

A=>2=V DV78:>-EVABV: B25@4V 65;0B8=>2V :0?AC;8 1, :>@?CA :0?AC;8 V :@8H5G:0  
1V;>3> :>;L>@C. @>H>: 1V;>3> 01> <0965 1V;>3> :>;L>@C.

\$0@<0:>B5@0?52B8G=0 3@C?0. A8E>AB8>B@>?=V 70A>18. >4 AT% N06B X03.

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

\$0@<0:>48=0

:B82=8< :>=5=B>< ?@5?0@0BC T ?V@0F5B0<, F8:;VG=5 ?>EV4=5 γ-0<0A;O=>W :8A;>B8. V@0F5B0< T  
=>>B@>?=8< 70A>1><, I> 4VT =0 <>7>:, ?>:@0ICNG8 :>3=VB82=V (?V7=020;L=V) DC=:FVW, B0:V O:  
740B=VABL 4> =02G0==O, ?0<OBL, C203C, 0 B0:>6 @>7C<>2C ?@0F5740B=VABL. 5E0=V7 =0  
F5=B@0;L=C =5@2>2C A8AB5ABV ?>H8@5==O 71C465==O 2 3>;>2=>F8@:C;OFVW H;OE<< 2?;82C =0  
@5>;>3VG=V E0@0:B5@8AB8:8 :@>2V, =5 A?@8G8=ONG8 ?@8 FL>@>7H8@N20;L=>W 4VW. >:@0ICT  
72'O7:8 1T:B82=> DV:ACNBLAO =0 5;5:B@>:0@4V>3@0A8;5==O α- B0 β-@8B9,6 3 7=86CT @V25=L  
DV1@8=>35=C V D0:B>@V2 V;51@0=40 =0 30-40 % B0 ?>4>26CT G0A :@>2>B5GV. V@0F5B0< G8=8BL  
?@>B5:B>@=C V 2V4=>2;N20;L=C 4VN ?@8 ?>@CH5==V DC=:FVW 3>;>2=>3> <>7:C 2=0A;V4>:  
3V?>:AVW, V=B>:A8:0FVW, 5;5:B@>:=>2C;LA82=>W B5@0?VW. V@0F5B0< 7=86CT A8;C B0  
B@820;VABL 25AB81C;O@=>3> =VAB03ABV <=>B5@0?VW 5D5:B82=89 ?@8 ;V:C20==V :>@B8:0;L=>W  
;>=VW.

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

0:A8<0;L=0 :>=F5=B@0FVO ?VA;O 2=CB@VH=L>25==>3> 22545==O 4>AO30TBLAO C :@>2V G5@57  
30 E28;8=, 0 C A?8==><>7>:2V9 @V48=V G5@57 5 3>48= V AB0=>28BL 40-60 0,6 ;/:3. 5@V>4  
=0?V2282545==O ?@5?0@0BC 7 ?;07<8 :@>2V AB0=>28BL 4-5 3>48= V 2V4?>2V4=> 8,5 3>48=8 7V A?8==>  
<>7>:2>W @V48=8. &59 ?5@V>4 <>65 ?>4>26CTBLAO ?@8 =8@:>2V9 =54>AB0B=>ABV. 5 72'O7CTBLAO  
7 1V;:0<8 ?;07<8 :@>2V, =5 <5B01>;V7CTBLAO 2 >@30=V748BLAO =8@:0<8 C =57< ;:C1>G:>2>W  
DV;LB@0FVW. 8@:>289 ;;V@5=A ?V@0F5B0@>28E 4>1@>2>;LFFV2 AB0=>28BL 86<;E28;8=C. \$0@  
<0:>:V=5B8:0 ?V@0F5B0@8E V7 ?5GV=:>2>N =54>AB0B=VABN. V@0F5B0< ?@>=8:0T G5@57 35  
<0B>5=F5D0;VG=89 V ?;0F5=B0@=89 10@T@8 V <5<1@0=8, I> 28:>@8AB>2CNBLAO ?@8 35<>4V0;V7V.  
@8 4>A;V465==V =0 B20@8=0E CAB0=>2;5=>, I> ?V@0F5B0< 281V@:>2> =0:>?8GCTBLAO C B:0=8=0E  
:>@8 3>;>2=>3> <>7:C, ?5@5206=> C ;>1=8E, BV<O=8E B0 ?>B8;8G=8E 7>=0E, <>7>G:C V 1070;L=8E  
30=3;VOE.

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

>:070==O.

;O 4>@>A;8E:

A8<0B8G=5 ;V:C20==O ?A8E>>@30=VG=>3> A8=4@> AC?@>2>46CTBLAO 7=865==O< ?0<OBV, 70?0  
<>@>G5==O<8, 7=865==O< :>=F5=B@0FVW C2038;

;V:C20==O :>@B8:0;L=>W ;>=VW O: <=>?@5?0@0B 01> C A:;04V :>W B5@0?VW.

;O 4VB59:

;V:C20==O 48A;5:AVW C ?>T4=0==V 7 V=H8<8 =0;56=8<8 <5B>40<8, 2;:;NG0NG8 ;>3>?54VN.

@>B8?>:070==O.

V42815=0 GCB;82VABL 4> ?V@0F5B0V=H8E ?>EV4=8E ?V@>;V4>=C, 0 B0:>6 4> V=H8E :>=5=V2  
?@5?0@0BC.

>AB@5 ?>@CH5==O <>7:>2>3> :@>2>>1V3C (35<>@03VG=89 V=AC;LB).  
"5@2>W =54>AB0B=>ABV (?@8 ;;V@5=AV :@50B8=V=C<5=H5 20 <;/E2).  
%>@5O %0=BV=3B>=0.

**70T<>4V0 7 V=H8<8 ;V:0@AL:8<8 70A>10<8 B0 V=HV 2848 270T<>4V9.**

@8 ACAC20==V 7 B8@5>W4=8<8 3>@<>=0<8 ("3+"4) <>6;820 ?V428I5=0 4@0BV2;82VABL,  
457>@VT=B0FVO V ?>@CH5==O A=C. 5 2V47=0G5=> 270T<>4VW 7 ;;>=075?0<<<, D5=VB>W=<<,  
D5=>10@1VB0;<<, 20;L?@>0B><< =0B@VN. ;V=VG=V 4>A;V465==O ?>:070;8, I> C E2>@8E 7 BO6:8<  
>5@51V3<< @5F8482CNG>3> B@><1>7C 70AB>AC20==O ?V@0F5B0:8E 4>70E (9,6 3/4>1C) =5 2?;820;>  
=0 4>7C20==O 0F5=>:C<0@>;C 4;O 4>AO3=5==O 7=0G5==O ?@>B@><1V=>2>3> G0AC (INR) 2,5-3,5, 0;5  
?@8 9>3> >4=>G0A=>AC20==V 2V4AO 7=0G=5 7=865==O @V2=O 03@530FVW B@><1>F8BV2, @V2=O  
DV1@8=>35=C, D0:B>@V2 V;;51@0=40 (VIII: C; VIII: vW: Ag; VIII: vW: Rco), 207:>ABV :@>2V V ?;07<8.  
<>2V@=VABL 71V2 =87L:0, >A:V;L:8 90 % ?@5?0@0BC 282>48BLAO C =57√ F8E 42>E CYP-V7><5@V2  
4>AB0B=V9 ?@8 75@528I5==V 1422 9<>2V@=0. 0AB>AC20==O ?V@0F5B07V 20 <3/4>1C =5 7 ?V: V  
:@82C @V2=O :>=F5=B@0FVW ?@>B85?V;5?B8G=8E ?@5?0@0BV2 C A8@>20BFV :@>2V (:0@10  
<075?V=, D5=VB>W=, D5=>10@1VB0;, 20;L?@>0B) C E2>@8E =0 5?V;5?AVN. !C< 7 0;:>3>;5< =5 2?;820T  
=0 @V25=L :>=F5=B@0FVW ?V@0F5B020BFV :@>2V V :>=F5=B@0FVO 0;:>3>;N 2 A8@>20BFV :@>2V  
=5 71,6 3 ?V@0F5B0

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

# 7207:C 7 B8<, I> ?V@0F5B0< 7=86CT 03@530FVN B@><1>F8BV2, =5>1EV4=> 7 >15@56=VABN  
?@87=0G0B8 ?@5?0@0B E2>@8< V7 ?>@CH5==O< 35<>AB07C, AB0=0<8, I> <>6CBL  
AC?@>2>46C20B8AO :@>2>28;820<8 (28@07:0 H;C=>2>--8H:>2>3> B@0:BC), ?V4 G0A 25;8:8E  
EV@C@3VG=8E >?5@0FV9 (2;:NG0NG8 AB<0B>;>3VG=V 2B@CG0==O), E2>@8< V7 A8<0<8 BO6:>W  
:@>2>B5GV 01> E2>@8<, O:V <0NBL 2 0=0<=57V 35<>@03VG=89 V=AC;LB; ?0FVT=B0<, O:V  
70AB>A>2CNBL 0=B8:>03C;O=B8, B@><1>F8B0@=V 0=B803@530=B8, 2;:NG0NG8 =87L:V 4>78  
0F5B8;A0;VF8;>2>W :8A;>B8.  
@8 ;V:C20==V E2>@8E =0 :>@B8:0;L=C ;;>=VN A;V4 C=8:0B8 @V7:>3> ?5@5@820==O ;V:C20==O, 1> F5  
<>65 A?@8G8=8B8 ?>=>2;5==O =0?04V2.  
@5?0@0B 282>48BLAO =8@:0<8, B>1EV4=> >A>1;82C C203C ?@84V;OB8 E2>@8< 7 =8@:>2>N  
=54>AB0B=VABN. @8 4>23>B@820;V9 B5@0?VW 4;O E2>@8E ;VB=L>3> 2V:C @5:>5=4CTBLAO  
@53C;O@=89 :>=B@>;L 70 ?>:07=8:0<8 DC=:FVW =8@>;, ?@8 =5>1EV4=>ABV A;V4 :>@53C20B8 4>7C  
70;56=> 2V4 @57C;LB0BV2 4>A;V465==O ;;V@5=AC :@50B8=V=C.  
@>=8:0T G5@57 DV;LB@C20;L=V <5<1@0=8 0?0@0BV2 4;O 35<>4V0;V7C.

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

@5?0@0B =5 70AB>A>2C20B8 C ?5@V>4 203VB=>ABV 01> 3>4C20==O 3@C44N.

**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 4>B@815@56=>ABV ?V4 G0A :5@C20==O 02B>B@0=A?>@B< 01> @>1>B8 7 V=H8<8 <5E0=V7<0  
<8, 72060NG8 =0 28=8:=5==O <>6;828E ?>1VG=8E @50:FV9 7 1>:C F5=B@0;L=>W =5@2>2>W A8AB5<8.

**!?!>AVI 70AB>AC20==O B0 4>78.**

@5?0@0B 70AB>A>2C20B8 ?5@>@0;L=>. "@820;VABL ;V:C20==O V 281V@ V=482V4C0;L=>W 4>78  
70;568BL 2V4 BO6:>ABV AB0=C E2>@>3> V H284:>ABV 72>@>B=>W 48=0W :0@B8=8 70E2>@N20==O.  
V:C20==O ?A8E>>@30=VG=>3> A8=4@>  
5:><5=4>20=0 4>1>20 4>70 AB0=>28BL 2,4-4,8 3. 0728G09 4>7C A;V4 @>7?>4V;OB8 =0 2-3 ?@89<8.  
V:C20==O :>@B8:0;L=>W ;;>=VW  
>G0B:>20 4>1>20 4>70 70728G09 AB0=>28BL 7,2 3, O:C ?@>BO3<< 3-4 4=V2 A;V4 4>2>48B8 4> 24 3 =0  
4>1C. >1>2C 4>7C @>7?>4V;OB8 =0 3-4 ?@89<8. !:I> B5@0?52B8G=89 5D5:B A;01:89 01> 7>2AV<  
2V4ACB=V9 ?@>4>26C20B8 70AB>AC20==O ?@5?0@0BC C BV9 65 A07V 4> 7 4V1. !:I> 70 F59 B5@B@8  
<0=> 1060=>3> B5@0?52B8G=>3> 5D5:BC, ;V:C20==O ?V@0F5B0<<< A;V4 ?@8?8=8B8 B0 ?@87=0G8B8  
V=HV 0=B8;:>=VG=V 70A>18. # @07V >B@8<0==O =5>1EV4=>3> B5@0?52B8G=>3> 5D5:BC ;V:C20==O

?@>4>26C20B8 4> 7=8:=5==O A8@N20==O. ;O ?>?5@5465==O ?>3V@H5==O AB0=C E2>@8E =5 <>6=0  
 @V7: > ?@8?8=OB8 70AB>AC20==O ?@5?0@0BC. 5>1EV4=> ?>ABC?>2> 7=86C20B8 4>7C =0 1-2 3 :>6=V  
 2-3 4=V (:>6=V 3-4 4=V C 28?04:C A8=4@>AC20==V ?V4 G0A ;V:C20==O V=H8E 0=B8;>=VG=8E 70A>1V2  
 4>7C ?V@0F5B02B>@=V :C@A8 ;V:C20==O ?@5?0@0B<., :>@53CNG8 ?@8 FL>7C 70;56=> 2V4 AB0=C  
 ?0FVT=B0, 4> 7=8:=5==O 01> 7<5=H5==O ?@>O2V2 E2>@>18.

V:C20==O 70?0<>@>G5==O V ?>2O70=8E 7 =8< @>7;04V2 @V2=>2038.

5:><5=4>20=0 4>1>20 4>70 AB0=>28BL 2,4,4,8 3. 0728G09 4>7C A;V4 @>?>4V;OB8 =0 2-3 ?@89<>8.

0AB>AC20==O 4VBO

# A.;04V :>W B5@0?VW 48A;5:AVW.

0AB>A>2C20B8 4VBO< 2V:< 2V4 8 @>:V2. >1>20 4>70 AB0=>28BL 70728G09 3,2 3, @>?>4V;5=0 =0  
 2 ?@89<>8.

>7C20==O E2>@8< V7 ?>@CH5==O< DC=:FVW =8@>.: A;V;L:8 ?@5?0@0B 282>48BLAO 7 >@30=V7  
 ;V:C20==O B0:8< E2>@8< 70;56=> 2V4 ABC?5=O B06:>ABV =8@>:2>W =54>AB0B=>ABV, 4>B@8  
 <5=40FV9:

!BC?V=L =8@>:2>W =54>AB0B=>ABV	;V@5=A :@50B8=V=C (<; /E2)	>7C20==O
	> 80	28G09=0 4>70
53:89	50-79	2/3 728G09=>W 4>78 70 2-3 ?@89<>8
>	30-49	1/3 728G09=>W 4>78 70 2 ?@89<>8
"06:89	< 30	1/6 728G09=>W 4>78 >4=>@07>2>
"5@		@>B8?>:070=>

>@53C20==O 4>78 =5 ?>B@V1=5 4;O E2>@8E V7 ?>@CH5==O< DC=:FVW ?5GV=:8.

**VB8.**

@5?0@0B 70AB>A>2C20B8 4VBO< 2V:< 2V4 8 @>:V2 4;O ;V:C20==O 48A;5:AVW.

**5@54>7C20==O.**

!8<8: ?>A8;5==O ?@>O2V2 ?>1VG=>W 4VW ?@5?0@0BC. @8 ?@89>75 3 ?V@0F5B0 2V47=0G5=V  
 48A?5?B8G=V O28I0, B0:V O: 4V0@5O 7 :@>2N V 1V;L C 682>BV. =H8E A8C20==O ?V@0F5B0.  
 V:C20==O A8<0B8G=5. 4@07C ?VA;O 7=0G=>3> ?5@>@0;L=>3> ?5@54>7C20==O<>6=0 ?@><8B8  
 H;C=>: 01> 28;:8:0B8 1;N20==O. !?5F8DVG=>3> 0=B84>BC =5<0T, <>6=0 70AB>A>2C20B8 35<>4V0;V7  
 (282545==O 50-60 % ?V@0F5B0

**>1VG=V @50:FVW.**

I>:C =5@2>2>W A8AB5<8: 3V?5@:V=57VO, 0B0:AVO, 3>;>2=89 1V;L, 157A>==O, ?V428I5==O G0AB>B8  
 =0?04V2 5?V;5?AVW, ?>@CH5==O @V2=>2038, A>=:82VABL, B@5>@.

I>:C VW A8AB5<8: 3V?5@GCB;82VABL, C B>

I>:C B@02=>W A8AB5<8: 014>B0, =C4>B0, 4V0@5O, 1;N20==O.

I>:C 25AB81C;O@=>W A8AB5<8: 25@B83>.

I>:C H:V@8 B0 ?V4H:V@=8E B:0=8=: 0=3V>=52@>B8G=89 =01@O:, 45@<0B8B8, A25@1V6, 28A8?,  
 :@>?82O=:0.

I>:C ?A8EV:8: ?V428I5=0 71C46C20=VABL, A>=:82VABL, 45?@5AVO, B@82>6=VABL, A?;CB0=VABL  
 A2V4><>ABV, 30;NF8=0FVW, 7=5@2>20=VABL, 715=B565==O.

=HV: 71V;LH5==O <0A8 BV;0, 0AB5=VO, 0@B5@V0;L=0 3V?5@B5=7VO, AB0B525 71C465==O,  
 3V?5@B5@

**"5@ABV. 5 @>:V2.**

5 70AB>A>2C20B8 ?@5?0@0B ?VA;O 70:V=G5==O B5@ABV, 707=0G5=>3> =0 C?0:>2FV.

**#<>28 715@V30==O.**

15@V30B8 2 >@83V=0;L=V9 C?0:>2FV ?@8 B5

15@V30B8 C =54>ABC?=>

#?0:>2:0.> 10 :0?AC; C 1;VAB5@V.> 3 01> 6 1;VAB5@V2 C ?0GFV.

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

8@>1=8:." «\$0@<0:».

VAF57=0E>465==O 28@>1=8:0 B0 9>3> 04@5A0 20465==O 4VO;L=>ABV.

#: @0W=0, 04080, <. 8W2, 2C;.\$@C=75, 74.