

!"#\$%&'()* &
+,\$-".#-/0&1,/2) &

!

!"#\$%&'(

!

"#\$%&'()*%#\$+!, '\$-./, '\$-.0!\$%!.-%\$12.-!(!)3%%\$%(!(#.14)%()2!5)66.1.!7)88'2\$(9!)!-.(*8\$2.!
3'(#)*%#\$+!32-!(!)+*..2(!)*!.%)6:!.13'(#)*%#\$+!-\$%+'(.%;!!<%%'%.%13--*.%%, '\$\$23@#3%!!
#)=!(!)!-(*8\$2.!=#.(#.*!32!\$2-\$-\$-'36>%!7)2(*\$?'(\$2%!=3**32!(3'(#)*%#\$+ @!37A2)=6.-18.2(% @!
)!2)!8.2(\$2; !(

(

)*+#%, "-+.%*(

!

4)%()2!5)66.1.!\$%!7)88\$((.-!(!).2%*\$21!366!%7#)63*69!32-!*.%.3*7#!+'?6\$73(\$2%!\$2:)6:\$21!
B37'6(9@!%!(3BB!/\$276'-\$21!+)%(-)7%0@!)!%('-.2(% @!\$276'-.!3++*)+\$3(!3(*\$?'(\$2!)B!3'(#)*%#\$+
*.7)12\$(2!)B!(#)%!\$2:)6:.-!\$2!(#.=)*A;!!C*)+.*!3(*\$?'(\$2!32-!*7)12\$(2!)3*.*!7*\$(\$736!(!)
.2%*\$21!(#3!(3'(#)*%#\$+!7*.-\$(!\$%!1\$:..2!=#.2!32-!=#.*!\$(!\$%!-'@!+*..2(\$21!3'(#)*%#\$+!-\$%+'(.% @!
32-!+*)8)(\$21!7)663?)*3(\$2!38)21!*%.3*7#. *%;!!(

!

D#.2!-(*8\$2\$21!3'(#)*%#\$+!3(*\$?'(\$2@!*%.3*7#. *%!%#)'6-!B38\$6\$3*\$E.!(#.8%.6:.%!=\$#!(#.!
+*)B.%%\$)236!2)*8%!32-!%(32-3*-%!B!(#.*\$!373-.8\$7!-\$%7\$+6\$2.!32-!3++69!(#.8!3++*)+\$3(.69;!
F.%3*7#. *%!%#)'6-!36%)!*.1'63*69!7)88'2\$73(!(#)%!.!2)*8%!32-!%(32-3*-%@!3!8\$2\$8'8!=#.2!32!
\$2-\$-\$-'36!G)\$2%13!*.%.3*7#!+*)G.7!(32-!(#.)232!322'36!?'3%% @!=\$#!366!.8+6)9..% @!B37'6(9@!
%(3BB@!%('-.2(%!32-!)(#.*!\$2-\$-\$-'36%!\$2:)6:.-!\$2!(#.*\$;!%!%.3*7#

(

/"+0%#&0.\$(

!

H)*!.37#!\$2-\$-\$-'36@!(#.!+*\$:\$6.1.!B!3'(#)*%#\$+!%#)'6-!?!?!?3%.-!)2!3!%\$12\$B\$732!(7)2(*\$?'(\$2!)!
(#.!7)27.+('36\$E3(\$2@!-.%\$12@!.!7'(\$2@!)!\$2(.+*(3(\$2!)B!(#.!*%.3*7#@!3%!=.66!3%!(!)(#.!
-*3B(\$21!)!%!'?%(32(\$..69!*.\$=\$21!)!*.%.3*7#@!3%!=\$21!(#.!*%(\$76#!B*

!

&'(#)*%#\$+!+).(2(\$3669!7)2:..9%!1*.3(!?2.B\$(U3!7#)*% @!?'(!(\$!36%)!\$2:)6:.%!+.*%)236!
.%)2%\$?\$6\$(9!B)!(#.!*%.3*7#!+'?6\$%#.-;!!<2!(#.!%7#)63*69!3*.23@!3'(#)*%#\$+!36%)!B)*8%!(#.!?
B)*!*. =3*-%!32-!73*..*!3-:327.8.2(!<(!\$%!..%2(\$36!(#3!(3!+.*%)2>%!7)2%2(!?!)?(3\$2.-!?.B)*!
+637\$21!(#.*\$!238.!2!3!96\$2. @!%\$27.!377)'2(3?\$6\$(9!32-!*.%)2%\$?\$6\$(9!B)*!(#.!7)2()*0 -1*(#.!7

!"

+?6\$%#.-!) *A!\$%!\$8+6\$.-!=#.2!3'(#)*%#\$+!7*.-\$(!\$%!1\$:.2;!!"#.*.B)*.@\$B!329)2.!\$%!377)*-.-!

/" +0%#&0.\$(:#,'# (

!

L.(.*8\$23(\$2%)!B!P6.3-!3'(#)*Q!32-!B7(#)*Q!-\$BB.*!%\$12\$B\$732(69!-.+.2-\$21!)2!(#.!.373-.8\$7!
-\$%7\$+6\$2.;!!5)2%.K'.2(69@!=#.2!83A\$21!P3'(#)*%#\$+!)*.*Q!-.(.*8\$23(\$2%)!B!P6.3-!3'(#)*Q!
.B.!(!#.!+*)B.%%\$)236!2)*8%!32-!%(32-3*-%!)B!(#..\$!373-.8\$23(\$2%)!B!P6.3-!3'(#)*Q!
.K'\$.8.2(%!B*)8!(#.!.%.3*7#!G)*236!\$2!=#\$7#!(#.9#!)+.!'?6\$%#!)*!(#.!.%+)2%)*!B!(#.!.%.3*7#!
\$2:)6:-;!!<2!(#.!.2(!)B!3!%\$('3(\$2!\$2!=#\$7#!3'(#)*%#\$+!)*.*7322)(!?.!-.(.*8\$2.-@!(#.!.7)
3'(#)*%!%#)'6-!7)2(37(!#.\$!*%.+.7(\$.:B*(8.2(!7#3\$*)!*!3%%)7\$3(!.%.3*7#!-.32!B)*!3%%\$%(327.;!)

!

;%* <" +0%#(=%*+#. >"+%#&

!

<2-\$:-'36%#)%!.7)2(*\$?'(\$2%!)2)(!G'(%\$B9!3'(#)*%#\$+!)2!(#.!.3B)*.8.2(\$2.-!7*\$(*\$3
7)'6-!%(\$6637A2)=6.-1.-!\$2-\$:-'3669!)!3%!3!1*)+'!2-.*!3!%\$216.!#3-\$21!/.;1;!R56\$2\$736!
<2:..%(\$13()*%R!)!RC3*(\$7\$+3(\$21!<2:..%(\$13()*%R0@!32-!(#..\$!7)2(1\$2(\$B\$!-/;1;@!
R%.*.-!3%!%7\$2(\$B\$7!3-.\$%)*%@R!R7*\$(\$73669!*.:\$=-.!(#.!.%('9!+*)+)%36@R!R7)66.7(-!3(3@R
R+*):\$.-!32-!73*.-!B)*!%('9!+3(\$2(%@R!R+3*(\$7\$+3(-!\$2!=\$(\$21!)*!(.7#2\$736!-\$(\$21!)B!(#.!
832'%7*\$+(R0;

!

SI38+6.%)B!37(\$:\$(\$.%!(#3(!36)2.!-!)2)(!K'36\$B9!3!7)2(*\$?'()*!B)*!3'(#)*%#\$+!\$276'-.@!?'(!3*!.2)(!
6\$8\$(-!)M!37K'\$%\$(\$2!)B!B'2-\$21T!1.2.*36!%'+.*:\$%\$2!)B!3!*%.3*7#!1*)+'!1.2.*36!
3-8\$2\$%(*3(\$.:!%++)*(T!32-!=\$22%\$%(327.@!(.7#2\$736!-\$(\$21@!6321'31!.-(\$21@!32-!
+*))B*.3-\$21!

!

?9%725(%@(2*!/" +0%#

!

"#.!.7\$%\$2)!*.8):!32!3'(#)*! +*\$)*!(!)+?'6\$73(\$2K*\$*.%!73*.B'6!7)2%\$-.*3(\$2!32-!
3-#.*.27!(!).(\$736!%(32-3*-%(\$!%!*7)88.2-!(!#3(!7)B'(#)*%!*.:\$=!(#.!.3'(#)*%#\$+!7*\$(*\$3!
%(3(-!\$2!(\$%\$!.\$2!)*.*!(!)7)2B*\$8!.37#!\$2-\$:-'36!#3%@!)!#3%2)(@!%3(\$%B\$.-!37#!7*\$(*\$)2;!!<
3!-.7\$%\$2!\$%!83-!(!)*.8):!32!3'(#)*@!366!3'(#)*%!%#)'6-!7)2%.2(!\$2!=\$(\$21!)(!#3(!*.8):36@!
\$276'-\$21!(#.!.176'-!3'(#)* \$;!!U+)2!31*..8.2(@!3'(#)*%!%#)'6-!38.2-!(#.!.3'(#)*!6\$%!(32-!
7)2(*\$?'()*!-.(3\$6%!3%!2.-.!.;!

!

&29!-\$%+!(.%)!*\$-\$%31*..8.2(%!38)2!B7(#)*%!*13*-\$21!3'(#)*%#\$+):36%P%#)'6-!?!
3--.*%.-!79!(#.!.%.+.7(\$.:!-.+3*(8.2(!7#3\$*)!*!3%%)7\$3(!.%.3*7#!-.32;!!<2!%7#!32!B)2%(327.@!
3'(#)*%!%#)'6-!+63\$2#!.*.3%)2!B)*!*.8):\$21!32!3'(#)*!32-!+*):\$-!3!-.(3\$6.-G%(\$B\$736)2
(#3(!-.7\$%\$2!36)21!=\$#!%++)*(\$21!)-7'8.2(3(B)B!3++6\$73?6.;!!

!

\$!L)1,*#!(,11%0)75#)(\$T!P*97W1!7;!11%0)75!*\$%&'(.10(7,U!LR<N!
)00\$#TVV\$%&'(.10(7,*0)(. #275:V#(0*#V+*;1%0V;(*#V!P!0)76#1\$*75!\$%&'(.10(7)7\$*H7J.)1502\$+!

\$"

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Addendum A: Authorship Agreement Flow Chart

Establish Authorship
Agreement written by

Addendum B: Authorship Dispute Resolution Flow Chart

***Notes**
Research misconduct is defined as plagiarism, falsification, and or fabrication.



