

Wpł> ul&{ 'q̇h'Rk&vud Wt i j

ORTHOPAEDIC ROBOTICS LABORATORY

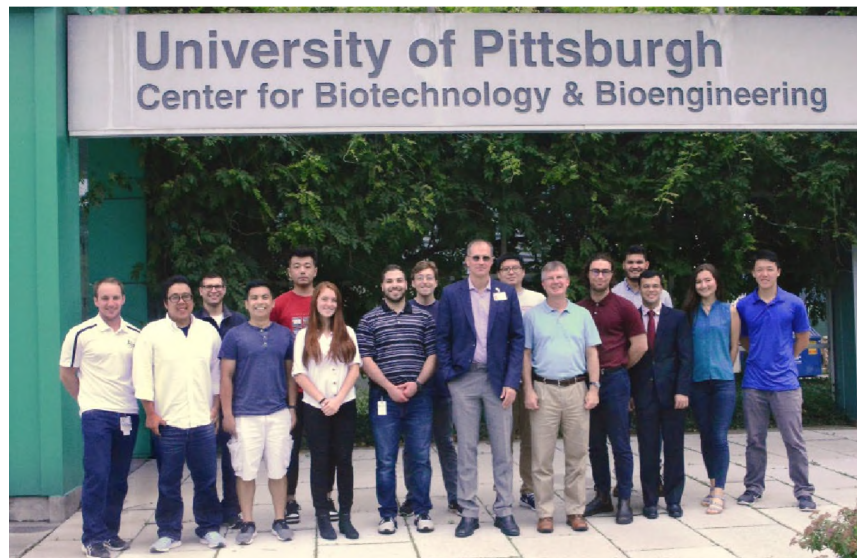
423; 'tWb o gt 'Wpf gt i t cf Wcvg
cdut cev'dqqmgv



hqt gY' qtf

Vj g"Qtvj qr cgf le" Tqdqvleu" Ncdqtcvqt { "ku" c" eqmcdqtcvkg" ghqtvdgwy ggp" yj g" F gr ctvo gpv'qh" Dkqgpi kpggtkpi "cpf" F gr ctvo gpv'qh" Qtvj qr cgf le" Uwti gt { 0Vj g" o kuukqp" qh' yj g" QTN" ku" yj g" r tngxgpvkqp" qh' f gi gpgtcvkg" lqkv' f kugcugu' d { "ko r tqxkpi" f kci pqvke. "tgr ckt. "cpf" tgi cdkkcvkqp" r tqegf wtgu' hqt" o wuewqungngvcl' plwtkgu' wukpi "ucvg/ qh' yj g/ ctv' tqdqvle" vgej pqmgi { 0Vj g" QTN" y qwrf "ikng" q" eqo o gpf " yj g' y qtni' qh' yj g' wpf gti tcf wcvg" uwf gpw' f wtkpi " yj g' uwo o gt' qh' 423; 0' Uwf gpw' o cf g' uki plkecpv' ko r ceu' kp" yj g' uwf { "qh' uij qwrf gt" cpf " nppg" plwtkgu 0Vj g' y qtni' qh' yj g' uwf gpw. " y kj " yj g' j gr " qh' yj gk" o gpvqtu. " eqpvtkdwgu' i tgcw { " q' yj g' y qtrf " qh' Qtvj qr cgf le" Tgugcte j " cpf " q' cmi' r cvkcpw' y j q' dgpghk0

qWt 'vgco



O lej cgnMcu dkc p
Erɛuu'qh'4242"
Dkqgpi kpggtkpi "
Wpkxgtukʌ 'qh'Rkwudwti j



Lces wgnpg'O ej cng
Erɛuu'qh'4243"
Dkqgpi kpggtkpi "
Wpkxgtukʌ 'qh'Rkwudwti j



Lqegŋ p'J cy m
Erɛuu'qh'4242
Dkqgpi kpggtkpi
Wpkxgtukʌ 'qh'Rkwudwti j

vc dng'q h'èqp vgp vu

- 30' S wcpvllt lpi '5F 'Xqno g'q h'vj g'I ngpqj wo gt cñEcr uwg'Hqmy lpi 'è" Rci g'7/8
Uj qwf gt 'F kqecv kq'lt qo 'O T'Ct vj t q i t co 'F c v c
Lqegn{p'N'J cy m'Tqdgtv'V'Vkuj gto cp.'Ej tkuvr j gt'O 'I kddu.'Xqmg
O wucj n'Crdgtv'Nkp.'Tlej ctf 'G'F gdunk
F gr ctwo gpv'q h'Dkqgpi kpggt lpi 'c p f 'F gr ctwo gpv'q h'Q t v j q r c g f k e 'U m i g t {
- 40' J qy 'Dqp{ 'O qtr j q n i { 'C h g e w i 'V d l q h g o q t c n E q p w e v 'R t g u m t g"
Vj t q w i j 'K p w e v . 'C N E F . 'è p f 'N G V 'U c v g u 'è v 'F h i g t g p v 'C p i n g u 'q h i H g z k q p
Lces w r k p g 'O e J c r g . 'U g p g 'R q m o c n w . 'N w n g 'O c w c t . 'I g t c r f 'H g t t g t . 'E c r k l p
Ej cp.'Xqmg t'O wucj n'Tlej ctf 'G'F gdunk
F gr ctwo gpv'q h'Dkqgpi kpggt lpi 'c p f 'F gr ctwo gpv'q h'Q t v j q r c g f k e 'U m i g t {
- 50' Ræpg'q h'Gæxcv kq'Chgewi'O czlo wo 'GzvgtpcnTqvcv kq'lp'Uwdl gew
y k j 'K q r e v g f 'U w r t e u r l p c w u 'V g e t u
O lej c g n 'M e u c d k e p . 'N w n g 'O c w c t . 'E c o k n g 'L q j p u q p . 'V q o 'I c r g . 'L c o g u
K t i c p i . 'Y k r k c o 'C p f g t u v . 'X q m g t 'O w u c j n 'T l e j c t f 'G 'F g d u n k
F gr ctwo gpv'q h'Dkqgpi kpggt lpi 'c p f 'F gr ctwo gpv'q h'Q t v j q r c g f k e 'U m i g t {
- Rci g'9/:
- Rci g'!/32

S wcpvkh lpi '5F 'Xqno g'qhI nppj wo gtcnEcr uwg'Hqmy lpi 'e'Uj qwf gt " F kurecvkp'lt qo 'E'plecnO T'Ct vj tqi tco 'F'cw

Lqegn{p'NOJ cy m. "Tqdgvt'VO'Vku j gto cp⁴. 'Ej tkvqr j gt'O OI kldu⁴. 'Xqmg't'O wucj r^{4.3}."

Cndgtv'Nkp⁴. 'Tlej ctf 'GOF gdunk^{3.4}

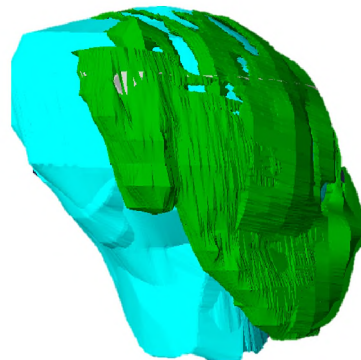
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Uwti gt{

Kpvt qf wevkv<"Vj g" i nppj wo gtcn' lqkv" ku" vj g" o quv'eqo o qpn{ "f kurecvkf "lqkv."wucm{ "d{ "cp" cpvgtkqt"uj qwf gt" f kurecvkv"]3_0' Vj ku" v{ r g" qh' kplwt { "ecp'tguw'lp'r gto cpgpv'f ghqto cvkv"qh'v' g" i nppj wo gtcn' ecr uwg." y j lej " ecwugu" i tgcvtg" ecr uwrt "rczk{ "cpf "kpetgcugf " ecr uwrt "xqno g"]4_0' C" eqo o qp" uwti lecn' r tgegf vtg" vq" tgf weg" ecr uwrt " xqno g" ku" ecr uwrt " r necvkv." dw' ewtgpw{ . "j qy "vj g" ecr uwg"ku" r necvkv "ku" rcti gn{ " uwdlgevkv" y kj qw" vcnkpi " kpq" ceeqvpv" vj g" o ci plkwf g"cpf "necvkv"qh'pqp/tgeqxtcdng'utckp" kp" vj g" ecr uwg'0' Vj wu." vj gtg" gzkwi" c" pggf " vq" s wcpvkh{ "kplwt { "vq"vj g"i nppj wo gtcn' ecr uwg"cpf " kpf kxk wcrk g" uwti lecn' tgr ckt0' K' ku" ewtgpw{ " wnpqy p" y j gvj gt" ej cpi gu"kp" ecr uwrt "xqno g" hqmy lpi " c" uj qwf gt" f kurecvkv" ecp" dg" s wcpvkhg{ "wukpi "O T"ctvj tqi tco 0'Vj gtghqg." vj g" cko "qh'v' ku"uwf { "ku"vq"tgeqputwev'5F "o qf gnu'qh' vj g"i nppj wo gtcn' ecr uwg"lt qo "O T"ctvj tqi tco " vq"cuugu' ecr uwrt "xqno g"lp'j gcnj { "r cvkpw'cpf " r cvkpw" y j q" j cxg" wpf gti qpg" qpg" qt" o qtg" cpvgtkqt"uj qwf gt" f kurecvkvpu0

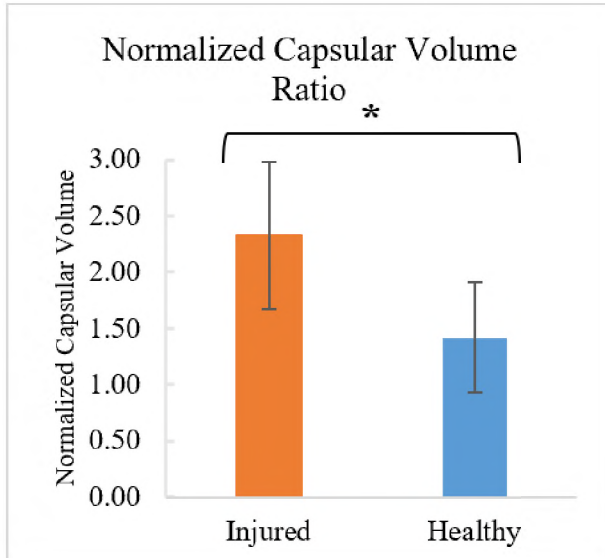
O gvj qf u<O T"ctvj tqi tco u'qh'v' g"i nppj wo gtcn' lqkv'lp"j gcnj { "uwdlgeu"p?: + "cpf "uwdlgeu"v cv' j cf " uwucvkv" cv' ngcu' qpg" cpvgtkqt" uj qwf gt" f kurecvkv" p?: + "y gtg" ces vktgf 0' Vj g" ecr uwrt " ur ceg" y cu" f ghkpgf " cu" vj g" ur ceg" y kj kp" vj g" i nppj wo gtcn' ecr uwg" hknf" y kj " vj g" eqpvcu' ci gpv'f wtkpi "vj g"O T"ctvj tqi tco 0'Vj g" ecr uwrt " ur ceg."j wo gtwu."cpf "i nppkv"y gtg"ugi o gpvgf "kp" O IO KU" *xgtukqp" 3902." O cvgtkcrkug" P X." Dgn kwo + "lt qo " vj g" eqtqpcn"uci kwn" cpf "czkcn' xky "hqt" gcej "uwdlge0'Vj ku'etgcvgf "c"o guj . "c"5F " o qf gr'o cf g'wr "qh'v'kpi ngu."hqt" gcej "xky "qh'gcej " uwdlge0' O guj gu"etgcvgf "lt qo " gcej "xky "y gtg" vj gp"eqo dlpkf "kp"O guj Ncd"d{ "qxgtnc{ kpi "vj go " *xgtukqp" 3006." KUVK" Kcn{ + "vq" o cng" c" j ki j gt" tguqnkvkp"o guj "hqt" gcej "uwdlge0' **Hli wt g'3** + "cpf " vj g"xqno g"qh'v' g" ecr uwrt "ur ceg"y cu'f gvgt o kpgf "

wukpi " O guj Ncd0' Vj g" xqno g" qh' vj g" ecr uwrt " ur ceg" y cu" cnuq" ecrewrcvgf " y kj " vj g" uwr gkqt" r qtvkv"tgo qxgf "dgecvug" vj g" kphgtkqt"tgi kqp"qh' vj g" ecr uwg" y cu" gzt gevfgf " vq" gzt gkpep" vj g" i tgcvgu'kplwt { 0'Vj ku"y cu'wcpf ctf k gf "dgw ggp" uwdlgeu"d{ "tgo qxkpi "cp{ " ecr uwrt "ur ceg"cdqvg" vj g"i tgcvtg"wdgtquk\ "qh'v' g"j wo gtcn'j gcf 0'Vj gug" xqno gu'y gtg"vj gp'pqto crk gf "vq"vj g'uk' g'qh'v' g" j wo gtcn'j gcf "d{ "hkvkpi "c"ur j gtg"vq"vj g"j wo gtcn' j gcf "cpf "f kxk lpi "vj g" ecr uwrt "xqno g"d{ "vj g" tcf kwu" qh' vj g" ur j gtg" ewdgf 0' Vj g" ecr uwrt " xqno gu'qh'gcej "i tqwr "y gtg"eqo r ctgf "y kj "c" wy q/uco r ng'V'guv'y kj "uki pkhcepeg"ugv'cv'r>2070

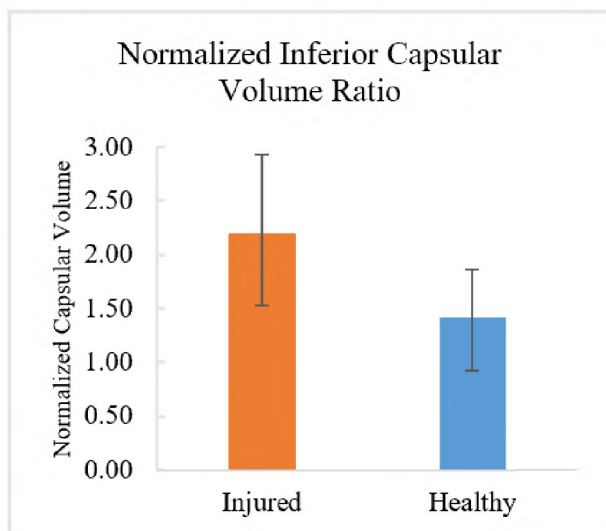


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Tguwu<Vj g"cxgtci g"vqcn' ecr uwrt "xqno g"qh' vj g" kplwtgf "i tqwr "y cu" hqwpf "vq"dg"87' " rcti gt" vj cp"vj g" ecr uwrt "xqno g"qh'v' g"j gcnj { "i tqwr " *r ?2049+***Hli wt g'4**+0'Vj gtg"y cu'pq"uki pkhcepv" f khtgpeg"kp" ecr uwrt "xqno g"y j gp"vj g"uwr gkqt" r ctv'qh'v' g" ecr uwg"y cu'tgo qxgf "**Hli wt g'5**+0'C" r qy gt" cpcn{ uku" y cu" eqpf wcvfgf " hqt" ecr uwrt " xqno g"y kj "vj g"uwr gkqt"r qtvkv"tgo qxgf . "cpf "c" vqcn'qh'48"o qtg'uwdlgeu'y qwf "dg'pggf gf "hqt"vj g" tguwu"vq"dg'uki pkhcepv0



Hli wt g'3<Vqcnfi ngpqj wo gtcn'ecr uwrt"xqno g'lp"j gcnj { "cpf"lplwtgf"uwdlgeu"ecrewvzf"ltqo"5F"tgeqpwtwekqp"qh"O T"ctvj tqi tco 0Vj g'pqto crk gf"xqno g'y cu'87" "rti gt"lp'yj g'lplwtgf"uwdlgeu"j cp'lp'yj g'j gcnj { "uwdlgeu0



Hli wt g'4<I ngpqj wo gtcn'ecr uwrt"xqno g'y kj "uwr gtkt"r qtvkqp'tgo qxgf"lp"j gcnj { "cpf"lplwtgf"uwdlgeu"ecrewvzf"ltqo"5F"tgeqpwtwekqp"qh"O T"ctvj tqi tco 0P q"uki phtecpvf"htgtgpeg"lp"pqto crk gf"xqno g'y cu'hqwpf"dgwy ggp"j gcnj { "cpf"lplwtgf"uwdlgeu

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Tghgt gpegu<30Cdtco u'gv'cn0LDLU04236"40Rctnlgv'cn04236050F kv{ "gv'cn042270MUUVC"

Cempqy rgi go gpw<Vj ku'tgugetej "y cu"eqpf wevgf"cv'yj g'Qtvj qr cgf le'Tqdqvku"Ncdqtcvqt { "cpf"y cu'hmpf gf"d { "yj g'Uy cpuqp"Uej qqn'qh'Gpi kpggtkpi "cpf"yj g'Qhleg"qh'yj g"Rtqxqu0

J qy 'Dqp{ 'O qtr j qm{ { 'Chgeu'Vdkqlgo qt cniE qpwev'Rt guwt g'Vj t qwi j "

kpcev.'CNEF'. 'cpf 'NGV'Ucvgu'cv'F Hgt gpv'Cpi ngu'qhlHgz kqp

Ices wgrkpg'O eJ crg³. 'Ugpg'Rqico cnw³. 'Nwng'O cwct³. 'I gterf 'Hgtt³. 'Ecixkp'Ej cp³.

Xqmg't'O wucj r³. 'Tlej ctf 'F gdunk^{3,4}

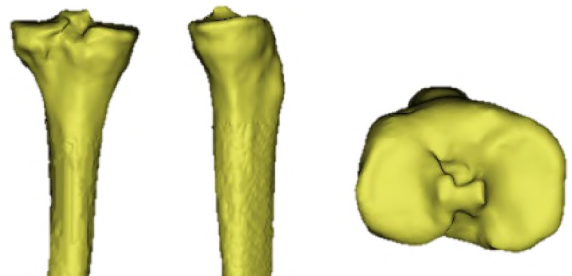
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40' F gr ctwo gpv'qh'Qtvj qr cegf le'Uwti gt { . 'Wpkxgtuk{ 'qh'Rkwudwti j . 'Rkwudwti j . 'RC. 'Wpkxgf 'Ucvgu

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O GVJ QF <' Vq" kpxguvi cvg" j qy " vdkcn' dqp{ " o qtr j qm{ { "chgeu"eqpwev' r tguwtg" dgh'gtg" cpf " chgt' NGV. "dapg" o qf gnu' o wuv' hku'v' dg' eqputwexgf 0' kp" yj ku'uwf { . " : "ecf cxgtk' E V' uecpu' qh' vdkcu" cpf "

hgo wtu" y gtg" wugf 0' Vj g{ " y gtg" yj gp" ugi o gpv'gf " wulpi " O ko leu" cpf " vdkcn' r rvgcw" unqr gu" y gtg" o gcuwtgf 0' kp" qtf gt "vq" ugi o gpv'dapg. "c" o cun'y cu" etgcvgf "htqo " yj g' EV' uecp" yj cv' qwv' kpgf " yj g' dapg. " y j lej " eqwf " dg" qdugt xgf " kp" yj g' eqtqpcn' uci kxcn" cpf " czkn' r gtur gev' xgu' 0' Chgt " ecxkx{ " hknkpi . " qt" cwqo cvecm{ " hknkpi " kp" gcej " r ctv' qh' yj g' dapg" y j gtg" yj g' r gtlk gvg" o cun'y cu' kpcev. " yj gtg" yj gtg" ukn' j qngu" yj cv' pggf gf " vq" dg" o cpwcm{ " hknf " kp0' Vj ku' y cu' f qpg' urleg" d{ " urleg. " gcej " urleg" yj kempguu" dglpi " 2085' o o . " kp" yj g' czkn' xkgy 0' Chgt " yj g' o cun' y cu' eqo r rvg. " c" r ctv' y cu' ecwv' wvgf " htqo " yj g" o cun' 0' Vj ku" f g' xgnr u" c" 5F" o qf gni' qh' yj g" eqo r rvgv' { " ugi o gpv'gf " dapg 0' Ncuw{ . " yj g' dapgau" eqpvqtu" y gtg" gf kxgf " vq" dgeqo g" uo qqvj gt " cpf " tgr rdecv xg" qh' c' j gcmj { " dapg" *Hki 03-0



Hki wt g'3 <Eqtpcn' uci kxcn' cpf "czkn' xkgy u' qh' yj g" uo qqvj gf "5F" vdkc0

Hgo " yj g' EV' uecp" ugi o gpv' kp" yj g' uci kxcn' r rpg. " yj g' vdkcn' r rvgcw" unqr gu' ecp" dg" o gcuwtgf " *Hki 04+ " J8_0' Vj ku' y cu' f qpg' d{ " f gvgto klpki " yj g' mpi " czku" cpf " ku" qt yj qi qpcn' r kpg" hgt " tgh' gpeg 0' Vj gp. " kp" dqvj " yj g" dapgau" o gf kn' cpf " rvgtcn' ukf gu. " yj g" vpi gpv' r kpg' y cu' etgcvgf 0' Vj ku' vpi gpv' r kpg' dgi cp" cv' yj g' r gcm' qh' yj g' rvgtcn' qt " o gf kn' lko " cpf " gpf gf " cv' yj g" qt yj qi qpcn' r kpg 0' Vj g" cpi ng" dgw ggp" yj ku" y cu' yj g' vdkcn' r rvgcw" unqr g. " cpf " y cu' tgeqtf gf 0

Rncpg'qhGgxcvkqp'Chigevu'O czko wo 'GzvgtpcnTqvcvkqp'lp'Uwdlgevu'Y kj 'Kuqrcvgf' "Uwrtcurkpcwu'Vgctu

O lej cgnlMcuudkcp³. 'Nwng'O cwct³. 'Eco kng'Iqj puqp⁴. 'Vqo 'I cng⁴. 'Lco gu'Kti cpi ⁵. 'Y knko 'Cpf gtuv⁴. 'Xqmg' 'O wucj r³. 'Tlej ctf 'F gdunk^{3,4}

30' F gr ctwo gpv'qh'Dkqgpi kpggtkpi . 'Wplxgtukv' 'qh'Rkwudwti j . 'Rkwudwti j . 'RC. 'Wpkgf 'Ucvgu0

40' F gr ctwo gpv'qh'Rj { ulecn'Vj gter { . 'Wplxgtukv' 'qh'Rkwudwti j . 'Rkwudwti j . 'RC. 'Wpkgf 'Ucvgu0

50' F gr ctwo gpv'qh'Qtvj qr cgf le'Uwti gt { . 'Wplxgtukv' 'qh'Rkwudwti j . 'Rkwudwti j . 'RC. 'Wpkgf 'Ucvgu0

IPVTQFWEVKQP < Tqvcvt" ewh" vgtu" chigev" o qtg" vj cp" 42' " qh" vj g" r qr wrcvkqp" cpf" j cxg" kpetgcukpi 'r tgcrcgpeg'y kj "ci g^{3,4}0P qp/qr gtcvkxg" vgcvo gpv'ku'qhvgp'lpklcm' 'r tguetldgf "vq'r cvkcpvu" y kj " tqvcvt" ewh" vgtu" cpf" hqewugu" qp" utgpi vj gpkpi " vj g" tqvcvt" ewh" cpf" uecr wrct" o wuergu0J ki j "vgcvo gpv'lcncwtg'tcvgu"j cxg'dggp" tgr qtvgf " hqt" pqp/qr gtcvkxg" vgcvo gpv' cpf" ecp" tguwn'lp'r ckp'cpf 'f kucdlrkv' "go r j cuk' kpi "vj g'pggf" vq'ko r tqxg'wr qp'ewtgpv'vgcvo gpv'o gy qf u0K'ku" npqy p"vj cv'lp"j gcmj { "uwdlgevu."gzvgtpcn'tqvcvkqp" qh" vj g" i nppqj wo gtcn' lqkv' ku" ceeqo r cplgf " d { " uecr wrct" gzvgtpcn' tqvcvkqp'0' Vj ku" eqqtflpcvgf" i nppqj wo gtcn' o qkvqp" o ckpvckpu" vj g" j wo gtcn' j gcf "lp"vj g"egpvt"qh"vj g"i nppqkf⁸0'Tqvcvt"ewh" vgtu"ecp"cngt"uj qwrf gt"nkpgo cvku"tguwnkpi "lp" f getgcugf "hwpevkpckrv'0' Vj g" qdlgevkxgu"qh"vj ku" uwf { 'y gtg'vq'f gvgto kpg'vj g'tgrcvkpuij kr "dgvy ggp" i nppqj wo gtcn' nkpgo cvku" cpf" o czko wo " i nppqj wo gtcn' gzvgtpcn' tqvcvkqp" *GT+" r tg/" cpf" r quv/gzgteku"vj gter { 'lp'uwdlgevu'y kj "cp'kuqrcvgf" uwr tcur kpcwu'vgtc'f wtkpi "i nppqj wo gtcn'lpvgtpcn' cpf" gzvgtpcn' tqvcvkqp" cv" ; 2" f gi tggv" qh" j wo gtqvj qtceke"cdf wevkqp0

O G V J Q F U < Vy gpv' " uwdlgevu" *o gcp" ci g" 7: 00904" { gctu. " o gcp" DO K 48Q 060 + " y kj " c" u { o r vqo cvke" tqvcvt" ewh" vgtc" kuqrcvgf " vq" vj g" uwr tcur kpcwu'vgpf qp"y gtg'tgetwkxgf "hqt"vj g'uwf { " chgt"r tqxkf kpi "KT D/crr tqxgf "y tkwgp'kphqto gf" eqpugpv0Cm'uwdlgevu'r ctvckr cvgf "lp" c"34/y ggm' utwewtgf " gzgteku" vj gter { " r tqi tco 0' I nppqj wo gtcn'nkpgo cvku'y gtg'eqmgevgf "wukpi "c" f { pco le"uvgtgqtcf kqi tcr j { " *F UZ + "u { vgo " r tg/" cpf" r quv/gzgteku"vj gter { 0'Uwdlgevu'y gtg'ugcvgf " y kj "vj g'chgevgf "ukf g" i nppqj wo gtcn'lqkv'cv'vj g"

hqecl'r qkv'qh"vj g" F UZ "u { vgo 0'Uwdlgevu'cto u" y gtg" r qukvkpgf " qp" c" uwpf " cv" ; 2" f gi tggv" qh" j wo gtqvj qtceke" cdf wevkqp" cpf " ; 2" f gi tggv" qh" gndqy " hgzkqp" cpf " y gtg" cungf " vq" r gthqto " cp" gzvgtpcn'tqvcvkqp'vun0Vj g'F UZ 'r tqxkf gf "hco g/" d { /hco g" ko ci gu" qh" vj g" uwdlgevu' uecr wrct" cpf " j wo gtwu"vj tqwi j qwv'vj g" gzvgtpcn'tqvcvkqp'vun0' Qweqo g" r ctco gvgtu" kpenmf gf " i nppqj wo gtcn' gzvgtpcn' tqvcvkqp." grgxcvkqp." cpf" r ncpg" qh" grgxcvkqp0Ej cpi gu'lp"i nppqj wo gtcn'nkpgo cvku" y gtg" ecnecwvgf " cu" r quv/gzgteku" xcnwgu" o kpwu" r tg/gzgteku"vj gter { "xcnwgu0' Uj cr ktq/Y km' y cu" wugf "vq'vgu'ht"pqto crkv' cpf "c" r cktgf "V/vguv'qt" Y kraqzqp'Uki pgf 'TcpiVguv' y cu'wugf "vq'eqo r ctg" tqvcvtu" dghqg" cpf " chgt" gzgteku" vj gter { 0' C" Ur gcto cp" eqttgrcvkp" y cu" eqpf wevgf " vq" f gvgto kpg" vj g" tgrcvkpuij kr " dgvy ggp" i nppqj wo gtcn' grgxcvkqp" cpf " i nppqj wo gtcn' gzvgtpcn'tqvcvkqp"cu'y gm'cu"i nppqj wo gtcn'r ncpg" qh'grgxcvkqp'cpf "i nppqj wo gtcn'gzvgtpcn'tqvcvkqp0' Uki plhkepeg'y cu'ugv'cv'r >2070

TGUWNVU < Vj gtg'y cu" c" uki plhkecpv'kpetgcug"lp" vj g" o czko wo " i nppqj wo gtcn' gzvgtpcn' tqvcvkqp" r quv'gzgteku"vj gter { "qh'600 0' f gi tggv" *Vcdng" 3+0' Vj gtg'y cu."j qy gxgt. "pq"ej cpi g"lp"r ncpg"qh" grgxcvkqp" qt" i nppqj wo gtcn' grgxcvkqp" cpi ngu'cv" o czko wo " gzvgtpcn' tqvcvkqp0' Qh" vj g" vj gpv' " uwdlgevu" vguvgf . " 87' " i ckpgf " gzvgtpcn' tqvcvkqp" r quv'gzgteku" vj gter { " cpf " 57' " nuv' gzvgtpcn' tqvcvkqp0' Vj qug" uwdlgevu" vj cv' kpetgcugf . " i ckpgf " ; 00609" f gi tggv" qh" i nppqj wo gtcn' gzvgtpcn' tqvcvkqp"cpf "vj qug"vj cv'f getgcugf "nuv'cp'cxgtci g" qh" 707040 " f gi tggv0' P q" uki plhkecpv' eqttgrcvkp" dgvy ggp"ej cpi g"lp"i nppqj wo gtcn'grgxcvkqp"cpf " ej cpi g" lp" o czko wo " i nppqj wo gtcn' gzvgtpcn'

tqvcvkqp" *hli wtg" 30' T? 2065. "T4? 208: . "r? 20275+ " dw" yj gtg" y cu" c" o qf gtcvg" r quklxg" eqttgrcvkqp" dgwy ggp" ej cpi g" kp" i nppqj wo gtcn' r nppg" qh' grgxcvkqp" cpf" ej cpi g' kp" o czko wo "i nppqj wo gtcn' gzvgtpcn' tqvcvkqp" *hli wtg" 40' T? 207: . "T4? 2066. " r > 2023-40' Cp" kpetgcug" kp" i nppqj wo gtcn' r nppg" qh' grgxcvkqp" fwtkpi " yj g" gzvgtpcn' tqvcvkqp" vcun' eqttgrcvgf" vq" cp" kpetgcug" kp" o czko wo " i nppqj wo gtcn' gzvgtpcn' tqvcvkqp0

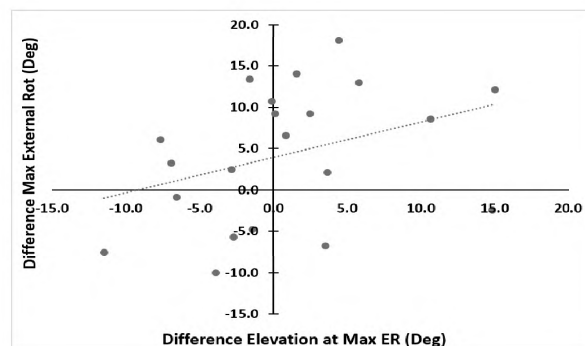
F HUE WUUKQP < " Vj g" tguwmu" uwi i guv" yj cv' kpetgcugf" i nppqj wo gtcn' r nppg" qh' grgxcvkqp" o c{ " tguwmu" kp" kpetgcugf" o czko wo "gzvgtpcn' tqvcvkqp0' kpetgcugf" i nppqj wo gtcn' r nppg" qh' grgxcvkqp" o c{ " dg" f wg" vq" gkij gt" cp" kpetgcug" kp" j wo gtqy qtcele" j qtk qpvrn' cf f wevkqp. "qt" uecr wqy qtcele" gzvgtpcn' tqvcvkqp0 Uwdlgevu' cto u'y gtg" j grf" kp" r meg" uq" yj ku" kpetgcug" kp" i nppqj wo gtcn' r nppg" qh' grgxcvkqp" ku" rkngn' ecwugf" d{ " uecr wrt" gzvgtpcn' tqvcvkqp0 Vj qug" uwdlgevu" yj cv' kpetgcugf" i nppqj wo gtcn' r nppg" qh' grgxcvkqp" kpetgcugf" yj gk" o czko wo " i nppqj wo gtcn' gzvgtpcn' tqvcvkqp" d{ " ; 08" f gi tggu" uwi i guvki " yj cv' kpetgcugf" r nppg" qh' grgxcvkqp" ku" cp" ko r qtcvpv' hcevt" kp" gzvgtpcn' tqvcvkqp" vcun' 0' kp" qr gtcvkxg" kpvgtxgpvkpu" tqvcvt" ewh' r cvkpwu" ecp" vng" wr " vq" c" { gct" chgt" uwti gt { " vq" hwm { " tgeqxtg" gzvgtpcn' tqvcvkqp0' Vj g" 34/y ggn' utwewtgf" gzgtelug" yj gtr { " eqwf" dg" epukf gtgf" uweegulwri" kh' k" ku" f gvgtto kpgf" yj cv' kpetgcugf" o czko wo " gzvgtpcn' tqvcvkqp" y cu" ecwugf" d{ " utgpi yj gplpi " nqy gt" ugttcwu" cpvgtkqt" o wuergu" rgef kpi " vq" kpetgcugf" uecr wrt" gzvgtpcn' tqvcvkqp0' Hwmtg" uwf lgu' y knlf gvgtto kpg" yj cv' tqrg" uecr wqy qtcele" o qvkpu" r r { u" kp" yj ku" qdugt xgf" i nppqj wo gtcn' o qvkpu0

UH PHKECPEG < " Vj gug" hpf kpi u" r tqxkf g" tcvkpcrg" vq" hwt yj gt" gzco kpg" uecr wqy qtcele" cpf " j wo gtqy qtcele" o qvkpu" hqt" r tgf kvqtu" yj cv' o ki j v' f kunkpi wkuj " yj qug" uwdlgevu" yj cv' y qwf " qt" y qwf " pqv' dpgghk" hqo " pqp/qr gtcvkxg" kpvgtxgpvkpu0' Vj ku" eqwf " r tqxkf g" kplqto cvkqp" yj cv' o c{ " j gr " etgcvg" c' hmpcvkpcn' tqvcvt" ewh' hpf gz" hqt" uwdlgevu" y kj " kuqrvgf" uwr teur kpcwu" vgetu" vq" j gr " dguv" f gvgtto kpg" tgcvo gpv0

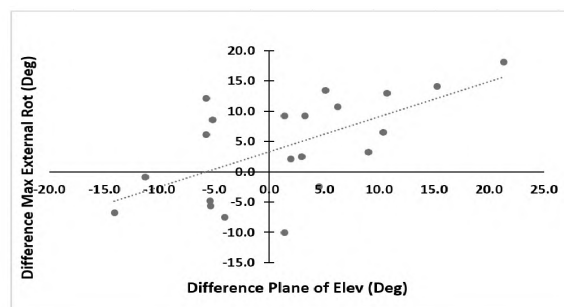
CEMPQY NGFI GO GPVU < " Uwr r qtv' hqo " yj g" Pcvkpcn' kpukwg" qh' J gcnj " i tcpv" 7T23CT28; 725' ku' i tcvghwm { " cempqy ngfi gf0 **TGHGTGPEGU** < " J3_ " [co co qvq" C" gv' cr0' L" Uj qwf gt" Gnd" Uwti "4232. " J4_ " O kpci cy c" J " gv' cr0' L" Qt yj qr "4235. " J5_ " Mwj p" gv' cr0' LUGU"422; . " J6_ " F ws wkp" gv' cr0' CILU "4232. " J7_ " O eEnwtg" gv' cr0' 4223. " J8_ " Ui tqk" Ekrgpvk"423: . " J9_ " J cttku" L0' gv' cr0' Qt yj qr gf leu"42350 **KO CI GU'CPF'VCDNGU** <

	Rt g	Rquw	r
O czko wo 'GT' *A-	; 4080340	; 80 0340	20253
Grgxcvkqp' tv' O cz" GT' *A-	76040320	77020320	207: 3
Rnpg' qh' Grgxcvkqp' tv' O cz" GT' *A-	/2060370	3060360	20588

Vcdng'30 Cxgtci g' tqvcvkqp" cpi ngu' hqt" r tg/ " cpf" r quv' gzgtelug" yj gtr { " cpf" yj g' uki pklcpv' f khtgpegu0



Hli wt g'30 Ej cpi g' kp" Grgxcvkqp" Xu0Ej cpi g' kp" O cz Gzvgtpcn' Tqvcvkqp



Hli wt g'40 Ej cpi g' kp" Rnpg' qh' Grgxcvkqp" Xu0Ej cpi g' kp" O cz " Gzvgtpcn' Tqvcvkqp