

**P'PëPrPë, PrP»CII CII PëPëC... PjPsP¶P»PëPIPëPNë C¶PsP·PIPëC,PsPë
C¶PµP·PëC¶C, PµPSC, PSPsC¶C, C-**

P¶PµC¶PsP±PSC- PiC¶P°PjPiPsP·PëC, PëPIPSC- PjC-PëC¶PsPsC¶PiP°PSC-P·PjPë

*Enterococcus faecalis**

*Enterococcus faecium**

P¶PµC¶PsP±PSC- PiC¶P°PjPSPµPiP°C, PëPIPSC- PjC-PëC¶PsPsC¶PiP°PSC-P·PjPë

*Enterobacter cloacae**

Escherichia coli#*

Klebsiella pneumoniae#*

Klebsiella oxytoca

*Proteus mirabilis**

P¶PSP°PµC¶PsP±PSC- PjC-PëC¶PsPsC¶PiP°PSC-P·PjPë

*Bacteroides fragilis**

P PµP·PëC¶C, PµPSC, PSC- PjC-PëC¶PsPsC¶PiP°PSC-P·PjPë

P¶PµC¶PsP±PSC- PiC¶P°PjPSPµPiP°C, PëPIPSC- PjC-PëC¶PsPsC¶PiP°PSC-P·PjPë

Pseudomonas aeruginosa

*P·C,, PµPëC, PëPIPSC-C¶C, C¶ PrPsC¶C, P°C, PSC¶PsC¶ PjC-C¶PsC¶

PiC¶PsPrPµPjPsPSC¶C, C¶PsPIP°PSP° Cí PëP»C-PSC-C¶PSPëC...

PrPsC¶P»C-PrP¶PµPSPSC¶C....

P PµP·PëC¶C, PµPSC, PSPëPNë PrPs PjPµC, PëC¶PëP»C-PSCí S. aureus PrCíP¶Pµ C¶P°C¶C, Ps

C" PsPrPSPsC¶P°C¶PSPs C¶PµP·PëC¶C, PµPSC, PSPëPj C- PrPs

C,, C, PsC¶C... C-PSPsP»PsPSC-PI. Pj PjPµC, PëC¶PëP»C-PSPsC¶PµP·PëC¶C, PµPSC, PSPëC... S.

aureus C¶C-PIPµPSC¶ C¶PµP·PëC¶C, PµPSC, PSPsC¶C, C- PrPs

PjPsPëC¶PëC,, P»PsPëC¶P°C¶PëPSCí C¶C, P°PSPsPIPëC, C¶ PiPsPSP°Pr 50 %.

*PëC, P°PjPë, C¶PëC- PIPëC¶PsP±P»C¶C¶C, C¶ P±PµC, P°-P»P°PëC, P°PjP°P·Cí

C¶PsP·C¶PëC¶PµPSPsPiPs C¶PiPµPëC, C¶P° (ESBL), C" C, P°PëPsP¶

C¶PµP·PëC¶C, PµPSC, PSPëPjPë PrPs C,, C, PsC¶C... C-PSPsP»PsPSC-PI.

PαP°C¶PjP°PëPsPëC-PSPµC, PëPëP°.

P' C¶PjPsPëC, C¿PIP°PSPSC¶C, P° P±C-PsPrPsC¶C, C¿PiPSC-C¶C, C¶

PµC-C¶P»C¶C PsPrPSPsC¶P°P·PsPIPsC— C-PSC,, CíP·C-C— PiC¶PµPiP°C¶P°C, Cí Cí PrPsP·C- 400

PjPi PiC¶PsC, C¶PiPsPj 1 PiPsPrPëPSPë PjP°PëC¶PëPjP°P»C¶PSP° PëPsPSC¶PµPSC, C¶P°C¶C-C¶C

PiC¶PµPiP°C¶P°C, Cí PrPsC¶C¶PiP°C" C, C¶C¶C¶Cí Cí PëC-PSC¶C- C-PSC,, CíP·C-C— C-

C¶C, P°PSPsPIPëC, C¶ PiC¶PëP±P»PëP·PSPs 4,1 PjPi/P», C%Ps P±C-P»C¶C¶Pµ

PiC¶PëP±P»PëP·PSPs PSP° 26 % C¶C¶PsPiPs PiPsPëP°P·PSPëPëP° PiC¶Pë

P·P°C¶C, PsC¶CíPIP°PSPSC- PiC¶PµPiP°C¶P°C, Cí PiPµC¶PsC¶P°P»C¶PSPs (3,1 PjPi/P»).

PµPsPëP°P·PSPëPëC AUC C¶C, P°PSPsPIPëC, C¶ P±P»PëP·C¶PëPs 39 PjPi*PiPsPr/P» PiC-C¶P»C¶C

PIPSCíC, C¶C-C¶PSC¶PsPIPµPSPSPsPiPs PIPµPrPµPSPSC¶C, C%Ps C, C-P»C¶PëPë

PSPµP·PSP°C¶PSPsC¶ PjC-C¶PsC¶ PiPµC¶PµPIPëC%CrC" C¶PµPNë PiP°C¶P°PjPµC, C¶ PiC¶Pë

P·P°C¶C, PsC¶CíPIP°PSPSC- PiC¶PµPiP°C¶P°C, Cí PiPµC¶PsC¶P°P»C¶PSPs (35 PjPi*PiPsPr/P»);

P°P±C¶PsP»C¶C, PSP° P±C-PsPrPsC¶C, CíPiPSC-C¶C, C¶ C¶C, P°PSPsPIPëC, C¶

PiC¶PëP±P»PëP·PSPs 91 %. PµC¶Pë PIPSCíC, C¶C-C¶PSC¶PsPIPµPSPSPsPjCí

PIPIPµPrPµPSPSC- PjPsPëC¶PëC,, P»PsPëC¶P°C¶PëPSCí PSPµPjP°C" PiPsC, C¶PµP±Pë PI

PëPsC¶PµPëC¶C— PrPsP· PIC-PrPiPsPIC-PrPSPs PrPs PIC-PëCí P°P±Ps C¶C, P°C, C-

PiP°C¶C-C" PSC, C-PI. PαP°C¶PjP°PëPsPëC-PSPµC, PëPëP° C" P»C-PSC-PNëPSPsC¶ PI

PrC-P°PiP°P·PsPSC- 50B¶"200 PjPi PrP»C¶C PsPrPSPsC¶P°P·PsPIPsC—

PiPµC¶PsC¶P°P»C¶PSPsC— PrPsP·Pë, PrPs 600 PjPi PrP»C¶C PsPrPSPsC¶P°P·PsPIPsC—

PIPSCíC, C¶C-C¶PSC¶PsPIPµPSPSPsC— PrPsP·Pë C- PrPs 600 PjPi PrP»C¶C

P·P°C¶C, PsC¶CíPIP°PSPSC¶C 1 C¶P°P· PSP° PrPsP±Cí PiC¶PsC, C¶PiPsPj 10 PrPSC-PI.

P PsP·PiPsPrC-P»

РѠPsPeCГPёC,,P»PsPeCГP°C†PёPS C€PIPёPrPePs CђPsP·PiPsPrC-P»CЦC”C,CHCГCЦ Cр
PiPsP·P°CГCрPrPёPSPSPsPjCр PiCђPsCГC,PsCђC-. PhP±Bђ™ C”Pj CђPsP·PiPsPrC-P»Cр Cр
CђC-PiPSPsPiP°P¶PSPsPjCр CГC,P°PSC- (Vss) CГC,P°PSPsPiPёC,CH P±P»PёP·CHPePs 2 P»/PePi.
P—P° CђPµP·CрP»CHC,P°C,P°PjPё PrPsCГP»C-PrP¶PµPSCђ in vitro C,P° ex vivo,
P·PiBђ™ CЦP·CрPiP°PSPSCЦ P· P±C-P»PeP°PjPё CГC,P°PSPsPiPёC,CH PiCђPёP±P»PёP·PSPs
40Bђ”42 % PSPµP·P°P»PµP¶PSPs PiC-Pr PePsPSC†PµPSC,CђP°C†C-C— PiCђPµPiP°CђP°C,Cр.
РѠPsPeCГPёC,,P»PsPeCГP°C†PёPS Pi PsCГPSPsPiPSPsPjCр P·PiBђ™ CЦP·CрC”C,CHCГCЦ P·
P°P»CHP±CрPjC-PSPsPj CГPёCђPsPiP°C,PePё PeCђPsPiC-.

РѠP°PeCГPёPjP°P»CHPSC- PePsPSC†PµPSC,CђP°C†C-C— 5,4 PjPi/PePi C,P° 20,7 PjPi/P»
(CГPµCђPµPrPSC- PiPµPsPjPµC,CђPёC±PSC- P·PSP°C±PµPSPSCЦ)
CГPiPsCГC,PµCђC-PiP°P»PёCГCЦ Cр CГP»PёP·PsPiC-PNё PsP±PsP»PsPSC†C- P±CђPsPSC...C-Pi
C,P° CђC-PrPёPSC- PµPiC-C,PµP»C-P°P»CHPSPsC— PiPёCГC,C-P»PePё PiC-PrPiPsPiC-PrPSPs
C±PµCђPµP· 2,2 PiPsPrPёPSPё PiC-CГP»CЦ PiPµCђPsCђP°P»CHPSPsPiPs PiCђPёPNёPsPjCр
PrPsP·Pё. P’C-PrPiPsPiC-PrPSP° PjP°PeCГPёPjP°P»CHPSP° PePsPSC†PµPSC,CђP°C†C-CЦ Pi
P°P»CHPiPµPsP»CЦCђPSPёC... PjP°PeCђPsC,,P°PiP°C... CГC,P°PSPsPiPёP»P° 56,7 PjPi/PePi. P’
CђC-PrPёPSC- C€PeC-CђPSPёC... PiCрC...PёCђC†C-Pi PePsPSC†PµPSC,CђP°C†C-CЦ 1,75 PjPi/P»
PiC-PrPjC-C±P°P»P°CГCЦ C±PµCђPµP·
10 PiPsPrPёPS PiC-CГP»CЦ PiPSCрC,CђC-C€PSCђPsPiPµPSPSPsPiPs PiPiPµPrPµPSPSCЦ.
PµCђPsC,,C-P»CH B«PiC-P»CHPSP° PePsPSC†PµPSC,CђP°C†C-CЦ Bђ” C±P°CГB» PrP»CЦ
C-PSC,PµCђCГC,PёC†C-P°P»CHPSPsC— CђC-PrPёPSPё C” P°PSP°P»PsPiC-C±PSPёPj
PiCђPsC,,C-P»CH PrP»CЦ PiP»P°P·PjPё PeCђPsPiC- P· PrPsCГCЦPiPSPµPSPSCЦPj
PjP°PeCГPёPjP°P»CHPSPsC— PiC-P»CHPSPsC— PePsPSC†PµPSC,CђP°C†C-C— 1,0 PjPi/P»
(CГPµCђPµPrPSC” PiPµPsPjPµC,CђPёC±PSPµ P·PSP°C±PµPSPSCЦ) PiCђPёP±P»PёP·PSPs
C±PµCђPµP· 1,8 PiPsPrPёPSPё PiC-CГP»CЦ PiPSCрC,CђC-C€PSCђPsPiPµPSPSPsPiPs
PiPiPµPrPµPSPSCЦ PiCђPµPiP°CђP°C,Cр.

PµPµC,P°P±PsP»C-P·Pj

РѠPsPeCГPёC,,P»PsPeCГP°C†PёPS PiC-PrP»CЦPiP°C” P±C-PsC,CђP°PSCГC,,PsCђPjP°C†C-C— II
C,,P°P·Pё C- PiPёPiPsPrPёC,CHCГCЦ P· PsCђPiP°PSC-P·PjCр PSPёCђPeP°PjPё (P±P»PёP·CHPePs
40 %), P° C,P°PePsP¶ C-P· PeP°P»PsPj/P¶PsPiC±Cђ (P±P»PёP·CHPePs 60 %) CЦPe Cр
PSPµP·PjC-PSPµPSPsPjCр CГC,P°PSC-, C,P°Pe C- Cр PiPёPiP»CЦPrC-
CГCрP»CHC,,PsCГPiPsP»CрPe (Pђ1) C- PiP»CHPeCрCђPsPSC-PrC-Pi (Pђ2). M1 C- M2 C”
PjPµC,P°P±PsP»C-C,P°PjPё, CђPµP»PµPiP°PSC,PSPёPjPё P»PёC€Pµ PrP»CЦ P»CHPrPёPSPё,
PsP±PёPrPiP° PiPsPSPё C” PjC-PeCђPsP±C-PsP»PsPiC-C±PSPs PSPµP°PeC,PёPiPSPёPjPё.

PµC-Pr C±P°CГ PrPsCГP»C-PrP¶PµPSCђ in vitro C,P° PeP»C-PSC-C±PSPёC...
PrPsCГP»C-PrP¶PµPSCђ C,,P°P·Pё P† PSPµ CГPiPsCГC,PµCђC-PiP°P»PsCГCЦ
PjPµC,P°P±PsP»C-C±PSPsC— C,,P°CђPjP°PePsPeC-PSPµC,PёC±PSPsC— PiP·P°C”PjPsPrC-C— P·
C-PSC€PёPjPё PiCђPµPiP°CђP°C,P°PjPё, P·P°PrC-CЦPSPёPjPё Cр
P±C-PsC,CђP°PSCГC,,PsCђPjP°C†C-C— C,,P°P·Pё P†, PiPeP»CHC±P°CђC±Pё C,,PµCђPjPµPSC,Pё
CГPёCГC,PµPjPё C†PёC,PsC...CђPsPjCр P 450. PhP·PSP°Pe PsPePёCГP»CHPiP°P»CHPSPsPiPs
PjPµC,P°P±PsP»C-P·PjCр PSPµPjP°C”.

P’PёPiPµPrPµPSPSCЦ

PµPµCђC-PsPr PSP°PiC-PiPiPёPiPµPrPµPSPSCЦ PjPsPeCГPёC,,P»PsPeCГP°C†PёPSCр P·
PiP»P°P·PjPё PeCђPsPiC- CГC,P°PSPsPiPёC,CH PiCђPёP±P»PёP·PSPs 12 PiPsPrPёPS.
PŸPµCђPµPrPSC-PNё PiCГC,P°PSPsPiP»PµPSPёPNё P·P°PiP°P»CHPSPёPNё PeP»C-CђPµPSCГ

PiC-CI'P»CII PIPiPrPµPSPSCII 400 PjPi CI'P, P°PSPsPIPeC, CH PIC-Pr 179 PrPs 246 PjP»/C...PI.
PµC-CI'P»CII PIPSCrC, C7C-CePSCHPsPIPµPSPSPsPiPs PIPiPrPµPSPSCII PI PrPsP-C- 400 PjPi
PIPePIPµPrPµPSPSCII PiC7PµPiP°C7P°C, Cr P· CI'PµC±PµC7 Cr PSPµP·PjC-PSPµPSPsPjCr
PIPePiP»CII PrC- CI'P, P°PSPsPIPeP»Ps P±P»PeP·CHPePs 22 %, P· PeP°P»PsPj B7 " 26 %.
P'PePIPµPrPµPSPSCII PrPsP·Pe (PSPµP·PjC-PSPµPSPsPiPs PiC7PµPiP°C7P°C, Cr C, P°
PjPµC, P°P±PsP»C-C, C-PI) CI'P, P°PSPsPIPeP»Ps P·P°PiP°P»PsPj P±P»PeP·CHPePs 98 %
PiC-CI'P»CII PIPSCrC, C7C-CePSCHPsPIPµPSPSPsPiPs PIPiPrPµPSPSCII
P»C-PeP°C7CI'CHPePsPiPs P·P°CI'PsP±Cr. PkPeC7PePsPIPePµ PeP»C-C7PµPSCr
CI'P, P°PSPsPIPeC, CH PiC7PeP±P»PeP·PSPs 24B7 "53 PjP»/C...PI C, P° CI'PIC-PrC±PeC, CH PiC7Ps
C±P°CI'P, PePsPICr PeP°PSP°P»CHC±PµPICr C7PµP°P±CI'PsC7P±C±C-CH PiC7PµPiP°C7P°C, Cr
P· PSPeC7PsPe. P7CrPiC7C, PSC" P· PjPsPeCI'PeC,, P»PsPeCI'P°C±PePSPsPj PIPiPrPµPSPSCII
C7P°PSC-C, PePrPePSCr C, P° PiC7PsP±PµPSPµC±PePrCr PSPµ P·PjC-PSC7C"
PSPeC7PePsPIPePµ PeP»C-C7PµPSCr PIPeC...C-PrPSPsPiPs P»C-PeP°C7CI'CHPePsPiPs
P·P°CI'PsP±Cr.

PkPeC7PePsPIP° PSPµPrPsCI'P, P°C, PSC-CI'P, CH

PkPµ PIPeCIIPIP»PµPSPs C-CI'P, PsC, PSPeC... P·PjC-PS C,, P°C7PjP°PePsPeC-PSPµC, PePePe
PjPsPeCI'PeC,, P»PsPeCI'P°C±PePSCr Cr PiP°C±C-C" PSC, C-PI C-P· PiPsC7CrCePµPSPSCII Pj
C,, CrPSPeC±C-C— PSPeC7PsPe (PIPeP»C7C±P°C7C±Pe PiP°C±C-C" PSC, C-PI P·
PeP»C-C7PµPSCrPsPj PeC7PµP°C, PePSC-PSCr > 20 PjP»/C...PI/ 1,73 Pj²). P—C-
P·PSPePµPµPSPSCII Pj C,, CrPSPeC±C-C— PSPeC7PsPe PePsPSC±PµPSC, C7P°C±C-CII
PjPµC, P°P±PsP»C-C, Cr P72 (PiP»C7PeCrC7PsPSC-PrCr) P·P±C-P»CHC€CrC"C, CHCI'CI
PjP°PµPµPI 2,5 C7P°P·P° (P· PeP»C-C7PµPSCrPsPj PeC7PµP°C, PePSC-PSCr < 30
PjP»/C...PI/1,73 Pj²).

PµPsC7CzCePµPSPSCII C,, CzPSPeC±C-C— PiPµC±C-PSPePe

P"°PSC- PrPsCI'P»C-PrPµPµPSC7 C,, P°C7PjP°PePsPeC-PSPµC, PePePe, PiC7PsPIPµPrPµPSPeC...
P·P° CrC±P°CI'P, CH PiP°C±C-C" PSC, C-PI P· PiPµC±C-PSPePsPIPsC7
PSPµPrPsCI'P, P°C, PSC-CI'P, CH (PeP»P°CI'Pe P7, P' P·P° PeP»P°CI'PeC,, C-PeP°C±C-C" C7
P7P°PµP»PrP°B7 "PµB7™ C7), PSPµ PrP°C7C, CH P·PjPsPiPe PsCI'P, P°C, PsC±PSPs
PIPeP·PSP°C±PeC, Pe, C±Pe C" CI'PeC-CI'CH PIC-PrPjC-PSPSPsCI'P, C- Cr PiPsPeP°P·PSPePeP°C...
PiP°C±C-C" PSC, C-PI C-P· PiPsC7CrCePµPSPSCII Pj C,, CrPSPeC±C-C— PiPµC±C-PSPePe C, P°
P·PrPsC7PsPIPeC... PrPsP±C7PsPIPsP»CHC±C-PI. PµPsC7CrCePµPSPSCII C,, CrPSPeC±C-C—
PiPµC±C-PSPePe P±CrP»Ps PiPsPiB7™ CI'P·P°PSPµ P· P±C-P»CHC€PsC7
PµPeCI'PiPsP·PeC±C-C" C7 P71 Cr PiP»P°P·PjC- PeC7PsPIC-, C, PsPrC- CI'Pe
PµPeCI'PiPsP·PeC±C-CII PIPeC...C-PrPSPsC— P»C-PeP°C7CI'CHPePsC— C7PµC±PsPIPePSPe
P±CrP»P° P°PSP°P»PsPiC-C±PSPsC7 PµPeCI'PiPsP·PeC±C-C— Cr P·PrPsC7PsPIPeC...
PrPsP±C7PsPIPsP»CHC±C-PI. P"°PSCrC, P°C, PSC7PsPiPs PrPsCI'PIC-PrCr
PeP»C-PSC-C±PSPsPiPs P·P°CI'P, PsCI'CrPIP°PSPSCII PjPsPeCI'PeC,, P»PsPeCI'P°C±PePSCr PrP»CI
P»C-PeCrPIP°PSPSCII PiP°C±C-C" PSC, C-PI C-P· PiPsC7CrCePµPSPSCII Pj C,, CrPSPeC±C-C—
PiPµC±C-PSPePe PSPµPjP°C".

P"°PsPeP»C-PSC-C±PSC- PrP°PSC- P· P±PµP·PiPµPePe

Pj C, C7P°PrPeC±C-PµPSPeC... PrPsCI'P»C-PrPµPµPSPSCII C... P·P°CI'P, PsCI'CrPIP°PSPSCII
PiPsPIC, PsC7PSPeC... PrPsP· PjPsPeCI'PeC,, P»PsPeCI'P°C±PePSCr P±CrP»Ps PIPeCIIPIP»PµPSPs
PiPµPjP°C, PsP»PsPiC-C±PSCr C, PsPeCI'PeC±PSC-CI'P, CH C, P°
PiPµPiP°C, PsC, PsPeCI'PeC±PSC-CI'P, CH Cr C, PIP°C7PePS. P' C-PrPjC-C±P°PICrCI
C, PsPeCI'PeC±PSPePµ PIPiP»PePI PSP° C±PµPSC, C7P°P»CHPSCr PSPµC7PIPsPICr
CI'PeCI'P, PµPjCr (PiPkP7). PiC- PµC,, PµPeC, Pe CI'PiPsCI'P, PµC7C-PiP°P»PeCI'CI PiC-CI'P»CI

PIPIPμPrPμPSPSCΠ PIPëCÍPsPePëC... PrPsP· PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr P°P±Ps
PíC-CÍP»CΠ C,CḡPëPIP°P»PsPiPs P·P°CÍC,PsCÍCrPIP°PSPSCΠ.

P'PëCÍPsPeC- PíPμCḡPsCḡP°P»CḡPSC- PrPsP·Pë Cr C,PIP°CḡPëPS (≥ 60 PjPi/PePi), PSP° C,P»C-
CΠPePëC... PePsPSC†PμPSC,CḡP°C†C-CΠ Cr PíP»P°P·PjC- PeCḡPsPIC- CÍC,P°PSPsPIPëP»P° ≥ 20
PjPi/P», CÍPíCḡPëC†PëPSCΠP»Pë P·PjC-PSPë PíPsPeP°P·PSPëPeC-PI
PμP»PμPeC,CḡPsCḡPμC,PëPSPsPiCḡP°PjPë, P° PI PsPeCḡPμPjPëC... PIPëPíP°PrPeP°C... Bḡ"
P°C,CḡPsC,,C-Cḡ CÍC-C,PeC-PIPePë.

PμC-CÍP»CΠ PIPSCrC,CḡC-CëPSCḡPsPIPμPSPSPsPiPs P·P°CÍC,PsCÍCrPIP°PSPSCΠ
CÍPëCÍC,PμPjPSP° C,PsPeCÍPëC†PSC-CÍC,Cḡ P±C†P»P° PSP°PNëP±C-P»CḡCë
PIPëCḡP°P¶PμPSPsCḡ PíCḡPë PIPIPμPrPμPSPSC- PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr
CëP»CΠC...PsPj P±PsP»CḡCÍPSPëC... C-PSBḡ™ C"PeC†C-PNë (45 PjPi/PePi) C- PSPμ
PIC-PrPjC-C†P°P»P°CÍCΠ PíCḡPë PIPIPμPrPμPSPSC- PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr (40
PjPi/PePi) CëP»CΠC...PsPj PíPsPIC-P»CḡPSPëC... C-PSC,,C†P·C-PNë PíCḡPsC,CΠPiPsPj 50
C...PIPëP»PëPS.

PμC-CÍP»CΠ C-PSC,CḡP°P°CḡC,PμCḡC-P°P»CḡPSPsPiPs PIPIPμPrPμPSPSCΠ
CÍPíPsCÍC,PμCḡC-PiP°P»PëCÍCΠ P·P°PíP°P»CḡPSC- P·PjC-PSPë P· PíPsCëPëCḡPμPSPSCΠPj
PSP° PíPμCḡC-P°CḡC,PμCḡC-P°P»CḡPSC- PjBḡ™ CΠPeC- C,PeP°PSPëPSPë, C%oPs
CÍPIC-PrC†PëC,Cḡ PíCḡPs C,Pμ, C%oPs PSPμPsP±C...C-PrPSPs CrPSPëPeP°C,Pë
C-PSC,CḡP°P°CḡC,PμCḡC-P°P»CḡPSPsPiPs PIPIPμPrPμPSPSCΠ
PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr.

PḡPsPeCÍPëC,,P»PsPeCÍP°C†PëPS PIPëCΠIPëPICÍCΠ PiPμPSPsC,PsPeCÍPëC†PSPëPj PíC-Pr
C†P°CÍ C,PμCÍC,C-PI *in vitro* P· PIPëPePsCḡPëCÍC,P°PSPSCΠPj P±P°PeC,PμCḡC-PNë P°P±Ps
PeP»C-C,PëPS CÍCÍP°PIC†C-PI. Pj PrPsCÍP»C-PrP¶PμPSPSCΠC... *in vivo*
PiPμPSPsC,PsPeCÍPëC†PSC-CÍC,Cḡ PSPμ PIC-PrPjC-C†P°P»P°CÍCΠ, PSPμP·PIP°P¶P°CḡC†Pë
PSP° P·P°CÍC,PsCÍCrPIP°PSPSCΠ PrC†P¶Pμ PIPëCÍPsPePëC... PrPsP·
PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr. PḡPsPeCÍPëC,,P»PsPeCÍP°C†PëPS PSPμ PIPëCΠIPëPI
PeP°PSC†PμCḡPsPiPμPSPSPsC— PrC-C— Cr PrPsCÍP»C-PrP¶PμPSPSC-
PeP°PSC†PμCḡPsPiPμPSPμP·Cr Cr C,PIP°CḡPëPS.

P' CrPjPsPIP°C... *in vitro* PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPS Cr PIPëCÍPsPePëC...
PePsPSC†PμPSC,CḡP°C†C-CΠC... PIPíP»PëPIP°PI PSP°
PμP»PμPeC,CḡPsC,,C-P·C-PsP»PsPiC-C†PSC- PíP°CḡP°PjPμC,CḡPë CÍPμCḡC†PμPIPSC—
PrC-CΠP»CḡPSPsCÍC,C-, C%oPs PjPsPiP»Ps PIPëPeP»PëPeP°C,Pë PíPsPrPsPIP¶PμPSPSCΠ
C-PSC,PμCḡPIP°P»Cr QT.

PμC-CÍP»CΠ PIPSCrC,CḡC-CëPSCḡPsPIPμPSPSPsPiPs P·P°CÍC,PsCÍCrPIP°PSPSCΠ
PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr C,PIP°CḡPëPSP°Pj Cr PrPsP·C- 30 PjPi/PePi CëP»CΠC...PsPj
C-PSC,,C†P·C-PNë C,CḡPëPIP°P»C-CÍC,Cḡ 15, 30 P°P±Ps 60 C...PIPëP»PëPS
PIC-PrPjC-C†P°P»P°CÍCΠ P·P°P»PμP¶PSC-CÍC,Cḡ CÍC,C†PíPμPSCΠ PíPsPrPsPIP¶PμPSPSCΠ
C-PSC,PμCḡPIP°P»Cr QT PIC-Pr CëPIPëPrPePsCÍC,C- C-PSC,,C†P·C-C—: C%oPs
PePsCḡPsC,CëPëPj P±C†PI C†P°CÍ C-PSC,,C†P·C-C—, C,Ps P±C-P»CḡCë PIPëCḡP°P¶PμPSPëPj
P±C†P»Ps PíPsPrPsPIP¶PμPSPSCΠ C-PSC,PμCḡPIP°P»Cr QT. PμPsPrPsPIP¶PμPSPSCΠ
C-PSC,PμCḡPIP°P»Cr QT PSPμ CÍPíPsCÍC,PμCḡC-PiP°P»Pë PíCḡPë PIPIPμPrPμPSPSC- PrPsP·Pë
30 PjPi/PePi CëP»CΠC...PsPj C-PSC,,C†P·C-C— C,CḡPëPIP°P»C-CÍC,Cḡ 60 C...PIPëP»PëPS.

PμCḡPë PIPëPIC†PμPSPSC- PIPíP»PëPICr PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr PSP°
CḡPμPíCḡPsPrC†PeC,PëPIPSr C,,C†PSPeC†C-Cḡ C,PIP°CḡPëPS PrPsPIPμPrPμPSPs, C%oPs
PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPS PíCḡPsPSPëPeP°C" PeCḡC-P·Cḡ PíP»P°C†PμPSC,Cr.

P"PsCГP»C-PrPë PSP° C,PIP°CГPëPSP°C... PSPµ PIPëCЦIPIPëP»Pë C,РµCГP°C,PsPiPµPSPSPsC— PrC-C— PjPsPeCГPëC,,P»PsPeCГP°C†PëPSCr P°P±Ps PiPsPiC-CГC€PµPSPSCЦ C,,PµCГC,PëP»CГPSPsCГC,C- PiC-CГP»CЦ PNëPsPiPs P·P°CГC,PsCГCрPIP°PSPSCЦ. Pj C,PIP°CГPëPS CГPiPsCГC,РµCГC-PiP°P»Pë PSPµP·PSP°C†PSPµ P·P±C-P»CГC€PµPSPSCЦ C†P°CГC,PsC,Pë PIPëPiP°PrPeC-PI PIP°Pr CГPsP·PIPëC,PeCр C...CГPµP±C,P° C,P° CГPµP±PµCГ, P°P»Pµ C,C-P»CГPePë Cr CГP°P·C- P·P°CГC,PsCГCрPIP°PSPSCЦ PrPsP·Pë (20 PjPi/PePi PIPSCrC,CГC-C€PSCГPsPIPµPSPSPs), CЦPeP° P°CГPsC†C-CГPIP°P»P°CГCЦ C-P· CГPëP»CГPSPëPj C,PsPeCГPëC†PSPëPj PIPiP»PëPIPsPj PSP° PsCГPiP°PSC-P·Pj PjP°C,РµCГC-. PŸPiPsCГC,РµCГC-PiP°P»PsCГCЦ P·P±C-P»CГC€PµPSPSCЦ PeC-P»CГPePsCГC,C- PIPëPiP°PrPeC-PI PiPµCГPµCГPëPIP°PSPSCЦ PIP°PiC-C,PSPsCГC,C- Cr C,PIP°CГPëPS PSP° C,,PsPSC- C,РµCГP°PiPµPIC,PëC†PSPsC— PePsPSC†PµPSC,CГP°C†C-C— Cr PiP»P°P·PjC- PeCГPsPIC-, PiPµCГPµPrP±P°C†PµPSPsC— PiCГPë P·P°CГC,PsCГCрPIP°PSPSC- Cr P»CГPrPëPSPë.

P'C-PrPsPjPs C%Ps C...C-PSPsP»PsPSPë, PI C,PsPjCr C†PëCГP»C- PjPsPeCГPëC,,P»PsPeCГP°C†PëPS, CГPiCГPëC†PëPSCЦCГC,CГ CrCГP°P¶PµPSPSCЦ C...CГCЦC%C-PI PIPµP»PëPePëC... PrC-P°CГC,CГPsPrC-P°P»CГPSPëC... CГCрPiP»PsP±C-PI Cr CГC,P°C,РµPIPSPSPµP·CГC-P»PëC... C,PIP°CГPëPS.

РъP»C-PSC-C†PSC- C...P°CГP°PeC,РµCГPëCГC,PëPePë.

РµPsPeP°P·P°PSPSCЦ.

РкPµPiPsCГPiC-C,P°P»CГPSP° PiPSPµPIPjPsPSC-CЦ.

PjCГPeP»P°PrPSPµPSC- C-PSC,,PµPeC†C-PNëPSC- P·P°C...PIPсCГCГPIP°PSPSCЦ C€PeC-CГPë C,P° PiC-PrC€PeC-CГPSPëC... C,PeP°PSPëPS.

PГPsPeCГPëC,,P»PsPeCГP°C†PëPS CГP»C-Pr P·P°CГC,PsCГPsPICрPIP°C,Pë C,C-P»CГPePë C,PsPrC-, PePsP»Pë P·P°CГC,PsCГCрPIP°PSPSCЦ C-PSC€PëC... P°PSC,PëP±P°PeC,РµCГC-P°P»CГPSPëC... PiCГPµPiP°CГP°C,C-PI, CЦPeC- P·PIPëC†P°PNëPSPs CГPµPePsPjPµPSPPrCрCГC,CГCГCЦ PrP»CЦ PiPsC†P°C,PePsPiPsPiPs P»C-PeCрPIP°PSPSCЦ C†PëC... C-PSC,,PµPeC†C-PNë, C" PSPµPrPsC†C-P»CГPSPëPj.

PŸP»C-Pr P·PIPµCГPSCrC,Pë CrPIP°PiCр PSP° PsC,,C-C†C-PNëPSC- C-PSCГC,CГCрPeC†C-C— P· PSP°P»PµP¶PSPsPiPs PIPëPePsCГPëCГC,P°PSPSCЦ P°PSC,PëP±P°PeC,РµCГC-P°P»CГPSPëC... P·P°CГPsP±C-PI.

РµCГPsC,PëPiPsPeP°P·P°PSPSCЦ.

- P"C-PiPµCГC†CрC,P»PëPIC-CГC,CГ PrPs PjPsPeCГPëC,,P»PsPeCГP°C†PëPSCr, C-PSC€PëC... P°PSC,PëP±C-PsC,PëPeC-PI PiCГCрPiPë C...C-PSPsP»PsPSC-PI P°P±Ps P±CрPrCГ-CЦPePsC— P· PrPsPiPsPjC-P¶PSPëC... CГPµC†PsPIPëPS;

- PiPµCГC-PsPr PIP°PiC-C,PSPsCГC,C- P°P±Ps PiPsPrCрPIP°PSPSCЦ PiCГCрPrPrCГ (PrPëPI. CГPsP·PrC-P» B«P—P°CГC,PsCГCрPIP°PSPSCЦ Cr PiPµCГC-PsPr PIP°PiC-C,PSPsCГC,C- P°P±Ps PiPsPrCрPIP°PSPSCЦ PiCГCрPrPrCГB»);

- PrPëC,CЦC†PëPNë PIC-Pe (PrPs 18 CГPsPeC-PI);

- P·P°C...PIPsCḡCḡPIP°PSPSCḡ/PiP°C,PsP»PsPiC-Clḡ ClḡCfC...PsPḡPḡP»Cḡ PI
P°PSP°PjPSPμP·C-, PiPsPiḡḡ™ ClḡP·P°PSC- C-P· P·P°ClḡC,PsClḡCfPIP°PSPSCḡPj
C...C-PSPsP»PsPSC-PI.

PμC-Pr CḡP°Clḡ PrPsPeP»C-PSC-CḡPSPḡC... C,P° PeP»C-PSC-CḡPSPḡC... PrPsClḡP»C-PrPḡPμPSCḡ
PiC-ClḡP»Clḡ PIPiPμPrPμPSPSCḡ PjPsPeClḡPḡC,,P»PsPeClḡP°CḡPḡPSCḡ
ClḡPiPsClḡC,PμCḡC-PiP°P»PḡClḡClḡ P·PjC-PSPḡ PμP»PμPeC,CḡPsC,,C-P·C-PsP»PsPiC-CḡPSPḡC...
PiP°CḡP°PjPμC,CḡC-PI ClḡPμCḡCḡPμPIP°C— PrC-ClḡP»CḡPSPsClḡC,C-, C%Ps
PiCḡPsCḡPIP»ClḡP»PḡClḡClḡ PiPsPrPsPIPḡPμPSPSCḡPj C-PSC,PμCḡPIP°P»Cḡ QT. P— CḡC-C”C—
PiCḡPḡCḡPḡPSPḡ PjPsPeClḡPḡC,,P»PsPeClḡP°CḡPḡPS PiCḡPsC,PḡPiPsPeP°P·P°PSPḡPNḡ
PiP°CḡC-C”PSC,P°Pj C-P·:

- PICḡPsPrPḡPμPSPḡPj P°P±Ps PSP°P±CfC,PḡPj PiPsPrPsPIPḡPμPSPSCḡPj
C-PSC,PμCḡPIP°P»Cḡ QT;

- PiPsCḡCfCḡPμPSPSCḡPj P±P°P»P°PSCḡCfC PμP»PμPeC,CḡPsP»C-C,C-PI, PsClḡPsP±P»PḡPiPs
CfC PIPḡPiP°PrPeCfC PSPμClḡPePsCḡPḡPiPsPIP°PSPsC— PiC-PiPsPeP°P»C-C”PjC-C—;

- PeP»C-PSC-CḡPSPs P·PSP°CḡCfC%PsCḡ P±CḡP°PrPḡPeP°CḡPrC-C”Cḡ;

- PeP»C-PSC-CḡPSPs P·PSP°CḡCfC%PsCḡ ClḡPμCḡCḡPμPIP°Cḡ
PSPμPrPsClḡC,P°C,PSC-ClḡC,Cḡ P·C- P·PSPḡPḡPμPSPSCḡPj C,,CḡP°PeCḡC-C— PIPḡPePḡPrCfC
P»C-PIPsPiPs CḡP»CfCSPsCḡPeP°;

- ClḡPḡPjPiC,PsPjP°C,PḡCḡPSPḡPjPḡ P°CḡPḡC,PjC-ClḡPjPḡ PI P°PSP°PjPSPμP·C-.

PḡPsPeClḡPḡC,,P»PsPeClḡP°CḡPḡPS PSPμ PjPsPḡPSP° PsPrPSPsCḡP°ClḡPSPs
P·P°ClḡC,PsClḡCfPIP°PSPSCḡ PjPsPeClḡPḡC,,P»PsPeClḡP°CḡPḡPS PiCḡPsC,PḡPiPsPeP°P·P°PSPḡPNḡ
C-PSC,PμCḡPIP°P» QT (PrPḡPI. C,P°PePsPḡ CḡPsP·PrC-P» B«P’P·P°C”PjPsPrC-Clḡ P·
C-PSCḡPḡPjPḡ P»C-PeP°CḡClḡCḡPePḡPjPḡ P·P°ClḡPsP±P°PjPḡ C,P° C-PSCḡC- PIPḡPrPḡ
PIP·P°C”PjPsPrC-PNḡB»).

PSPμCḡPμP· PSPμPrPsClḡC,P°C,PSC-PNḡ PeP»C-PSC-CḡPSPḡPNḡ PrPsClḡPIC-Pr
P·P°ClḡC,PsClḡCfPIP°PSPSCḡ PjPsPeClḡPḡC,,P»PsPeClḡP°CḡPḡPS PiCḡPsC,PḡPiPsPeP°P·P°PSPḡPNḡ
PiP°CḡC-C”PSC,P°Pj C-P· PiPsCḡCfCḡPμPSPSCḡPj C,,CfCSPeCḡC-C— PiPμCḡC-PSPePḡ (PeP»P°Clḡ
Pḡ P·P° PeP»P°ClḡPḡC,,C-PeP°CḡC-C”Cḡ PSP°PNḡP»PrP°ḡḡ”Pḡḡḡ™ Cḡ) C,P°
PiC-PrPIPḡC%PμPSPSCḡPj CḡC-PIPSC-PI C,CḡP°PSCḡP°PjC-PSP°P· Cḡ Piḡḡ™ ClḡC,Cḡ
CḡP°P·C-PI C- P±C-P»CḡCḡPμ.

**P’P·P°C”PjPsPrC-Clḡ P· C-PSCḡPḡPjPḡ P»C-PeP°CḡClḡCḡPePḡPjPḡ P·P°ClḡPsP±P°PjPḡ C,P°
C-PSCḡC- PIPḡPrPḡ PIP·P°C”PjPsPrC-PNḡ.**

P’P·P°C”PjPsPrC-Clḡ P· P»C-PeP°CḡClḡCḡPePḡPjPḡ P·P°ClḡPsP±P°PjPḡ

PḡPμ PjPsPḡPSP° PIPḡPeP»CḡCḡPḡC,Pḡ P°PrPḡC,PḡPIPSPḡPNḡ PμC,,PμPeC,
PjPsPeClḡPḡC,,P»PsPeClḡP°CḡPḡPSCḡ C,P° C-PSCḡPḡC... P»C-PeP°CḡClḡCḡPePḡC...
P·P°ClḡPsP±C-PI, C%Ps P·PrP°C,PSC- PIPḡPeP»PḡPeP°C,Pḡ PiPsPrPsPIPḡPμPSPSCḡ
C-PSC,PμCḡPIP°P»Cḡ QTClḡ. PiPμPNḡ PμC,,PμPeC, PjPsPḡPμ PiCḡPḡP·PIPμClḡC,Pḡ PrPs
CḡPsP·PIPḡC,PeCfC CḡP»CfCSPsCḡPePsPIPḡC... P°CḡPḡC,PjC-PNḡ, PIPeP»CḡCḡP°CḡCḡPḡ
PiPsP»C-PjPsCḡC,,PSCḡ CḡP»CfCSPsCḡPePsPICḡ C,P°C...C-PeP°CḡPrC-Cḡ C,PḡPiCḡ
PiC-CḡCfCḡPμC,. PḡP· CḡC-C”C— PiCḡPḡCḡPḡPSPḡ P·P°ClḡC,PsClḡCfPIP°PSPSCḡ

PjPsPeCíPëC,,P»PsPeCíP°C†PëPSCr PI PePsPjP±C-PSP°C†C-C— P· P±C†PrCH-ClPePëPj C-P·
PSPëP¶C†PµP·P°P·PSP°C†PµPSPëC... P»C-PeP°C¶CíCHPePëC... P·P°CíPsP±C-PI
PíC¶PSc,PëPíPsPeP°P·P°PSPµ (PrPëPI. C,P°PePsP¶ C¶PSP·PrC-P»
B«PµC¶PSc,PëPíPsPeP°P·P°PSPSCIB»):

- P°PSC,PëP°C¶PëC,PjC-C†PSC- PíC¶PµPíP°C¶P°C,Pë PeP»P°CíC† P†P¶
(PSP°PíC¶PëPeP»P°Pr C...C-PSC-PrPëPS, PíC-PrC¶PSc...C-PSC-PrPëPS,
PrPëP·PsPíC-C¶P°PjC-Pr);
- P°PSC,PëP°C¶PëC,PjC-C†PSC- PíC¶PµPíP°C¶P°C,Pë PeP»P°CíC† P†P†P†
(PSP°PíC¶PëPeP»P°Pr P°PjC-PsPrP°C¶PSPS, CíPSc,P°P»PsP», PrPsC,,PµC,PëP»C-Pr,
C-P±C†C,PëP»C-Pr);
- P°PSC,PëPíCíPëC...PsC,PëC†PSC- PíC¶PµPíP°C¶P°C,Pë (PSP°PíC¶PëPeP»P°Pr
C,,PµPSPSc,C-P°P·PëPSPë, PíC-PjPsP·PëPr, CíPµC¶C,PëPSPrPsP», PiP°P»PsPíPµC¶PëPrPsP»,
CíC†P»CHC,PsPíC¶PëPr);
- C,C¶PëC†PëPeP»C-C†PSC- P°PSC,PëPrPµPíC¶PµCíP°PSC,Pë;
- PrPµC¶PeC- PíC¶PSc,PëPjC-PeC¶PSP±PSC- P·P°CíPsP±Pë (CíP°PePIC-PSP°PIC-C¶,
CíPíP°C¶C,,P»PsPeCíP°C†PëPS, PµC¶PëC,C¶PSPjC-C†PëPS IV, PíPµPSC,P°PjC-PrPëPS,
PíC¶PSc,PëPjP°P»C¶C¶C-PN°PSC- PíC¶PµPíP°C¶P°C,Pë, P·PsPeC¶PµPjP°
PíP°P»PsC,,P°PSC,C¶PëPS);
- PrPµC¶PeC- P°PSC,PëPíC-CíC,P°PjC-PSPSC- PíC¶PµPíP°C¶P°C,Pë
(C,PµC¶C,,PµPSP°PrPëPS, P°CíC,PµPjC-P·PsP», PjC-P·PsP»P°CíC,PëPS);
- C-PSC€C- P»C-PeP°C¶CíCHPeC- P·P°CíPsP±Pë (C†PëP·P°PíC¶PëPr, PIC-PSPeP°PjC-PS IV,
P±PµPíC¶PëPrPëP», PrPëC,,PµPjP°PSC-P»).

P¶PsPeCíPëC,,P»PsPeCíP°C†PëPS CíP»C-Pr P· PsP±PµC¶PµP¶PSC-CíC,C¶ PíC¶PëPN°PjP°C,Pë
PíP°C†C-C”PSC,P°Pj, C¶PeC- P·P°CíC,PsCíPSPIC†C¶C,CH PíC¶PµPíP°C¶P°C,Pë, C%oPs
PjPsP¶C†C,CH P·PSPëP¶C†PíP°C,Pë C¶C-PIPµPSC¶ PeP°P»C-C¶ (PSP°PíC¶PëPeP»P°Pr
PíPµC,P»CHPsPIC- C,P° C,C-P°P·PëPrPSC- PrC-C†C¶PµC,PëPePë, PíC¶PSPSPScíPSC-
P·P°CíPsP±Pë C,P° PeP»C-P·PjPë (C† PíPëCíPSPePëC... PrPsP·P°C...),
PePsC¶C,PëPePsCíC,PµC¶PSc—PrPë, P°PjC,,PsC,PµC¶PëC†PëPS P’), P°P±Ps
PíC¶PµPíP°C¶P°C,Pë, PíPsPíB¶™ C¶P·P°PSC- P· PeP»C-PSC-C†PSPs P·PSP°C†C†C%oPsC¶
P±C¶P°PrPëPeP°C¶PTrC-C”C¶.

PµC-CíP»C¶ P±P°PíP°C,PsC¶P°P·PsPíPsPíPs P·P°CíC,PsCíC†PíP°PSPSC¶
PjPsPeCíPëC,,P»PsPeCíP°C†PëPSCr C† P·PrPsC¶PSPíPëC... PrPsP±C¶PSPíPSP»CHC†C-PI
CíPíPsCíC,PµC¶C-PíP°P»PsCíC¶ P·P±C-P»CHC€PµPSPSC¶ PŸ_{max} PrPëPíPsPeCíPëPSCr
PíC¶PëP±P»PëP·PSPs PSP° 30 % P±PµP· PíPíP»PëPíC† PSP° AUC C†Pë C¶C-PIPµPSC¶
PíP°P·P°PSPSc— PeC¶PëPíPSc—.

PµC-Pr C†P°Cí PrPsCíP»C-PrP¶PµPSC¶ P·P° C†C†P°CíC,C¶ PrPsP±C¶PSPíPSP»CHC†C-PI,
C...PíPsC¶PëC... PSP° PrC-P°P±PµC,, PsPrPSPSc†P°CíPSPµ P·P°CíC,PsCíC†PíP°PSPSC¶
PjPsPeCíPëC,,P»PsPeCíP°C†PëPSCr PíPµC¶PSPC¶P°P»CHPSPs C,P°
PíP»C-P±PµPSPeP»P°PjC-PrC† PíC¶PëP·PíPSPrPëP»Ps PrPs P·PSPëP¶PµPSPSC¶
PjP°PeCíPëPjP°P»CHPSPSc— PePsPSC†PµPSC,C¶P°C†C-C— PíP»C-P±PµPSPeP»P°PjC-PrC† C†
PíP»P°P·PjC- PeC¶PSPIC- PíC¶PëP±P»PëP·PSPs PSP° 21 %. P¶PsPjP±C-PSP°C†C-C¶
PíP»C-P±PµPSPeP»P°PjC-PrC† P· PjPsPeCíPëC,,P»PsPeCíP°C†PëPSPsPj C,PµPSc¶PµC,PëC†PSPs

PjPsP¶Pµ CÍPíC¶PµPíPµPéCíPíP°P, Pë C¶PµP·PíPëC, PsPe PSPµP·PSP°C¶PSPµC—
PePsC¶PµC, PePsC, C¶PëPíP°P»PsC— PíC-PíPµC¶PíP»C-PePµPjC-C—. PhPrPSP°Pe
PíC-PrPjC-C¶PµPSC- P·PjC-PSPë C,,P°C¶PjP°PePsPeC-PSPµC, PëPePë
PíP»C-P±PµPSPeP»P°PjC-PrCí PSPµ PíPëPeP»PëPeP°P»Pë P·PjC-PS PíP°C¶P°PjPµC, C¶P-C-PI
C,,P°C¶PjP°PePsPrPëPSP°PjC-PePë (C¶P-PIPµPSC¶PíP»C¶PePsP·Pë Pí PeC¶PµPíC-,
C¶P-PIPµPSC¶P C-PSCíCíP»C-PSCí). PhC, P¶Pµ, PeP»C-PSC-C¶PSPµ P·PSP°C¶PëPjPsC—
PíP·P°C”PjPsPrC-C— PjC-P¶ PjPsPeCíPëC,,P»PsPeCíP°C¶PëPSPµPj C,P°
PíP»C-P±PµPSPeP»P°PjC-PrPsPj PSPµPjP°C”.

*P—PjC-PSP° P·PSP°C¶PµPSPSC¶ PjC-P¶PSP°C¶PµPSPµPíPµPSPµC¶PjP°P»C-P·PsPíP°PSPµPíPµP
PíC-PrPSPµC¶PµPSPSC¶ (P¶P¶P’).*

PµPµPíC-PrPsPjP»C¶P»PsCíC¶ PíC¶Pµ PíPµP»PëPeCí PeC-P»C¶PeC-CíC, C¶ PíPëPíP°PrPeC-PI
P·P±C-P»C¶C¶PµPSPSC¶ P°PeC, PëPíPSPµCíC, C- PíPµC¶PµC¶P°P»C¶PSPëC...
P°PSC, PëPePsP°PíCíP»C¶PSC, C-PI Cí PíP°C¶C-C”PSC, C-PI, C¶PeC- PsC, C¶PëPjCíPíP°P»Pë
PíC¶PµC, PëPjC-PeC¶PµP±PSC- P·P°CíPµP±Pë, PsCíPµP±P»PëPíPµC,,C, PsC¶PµC...C-PSPµP»PsPSPë,
PjP°PeC¶PµP»C-PrPë, C, PµC, C¶P°C¶PëPeP»C-PSPë, PePsC, C¶PëPjPsPeCíP°P·PsP» C,P°
PrPµC¶PeC- C¶PµC,,P°P»PsCíPíPµC¶PëPSPë. P¶P°PeC, PsC¶P°PjPë C¶PëP·PëPeCí C”
C-PSC,,PµPeC¶C-PN°PSC- P·P°C...PíPµC¶PíP°PSPSC¶ C- P·P°PíP°P»C¶PSPëPN° PíC¶PµC¶PµCí,
PíC-Pe C- P·P°PíP°P»C¶PSPëPN° CíC, P°PS PíP°C¶C-C”PSC, P°. Pj P·PíP°P C¶P·PeCí P· C¶PëPj
PíP°P¶PePs PíCíC, P°PSPµPíPëC, Pë, C¶PëPj CíP°PjPµ PíPëPeP»PëPeP°PSC- P·PjC-PSPë P¶P¶P’:
C-PSC,,PµPeC¶C-C”C¶ P°P±Ps P»C-PeCíPíP°PSPSC¶Pj. PíPe P·P°CíC, PµC¶PµP¶PSPëPN°
P·P°C...C-Pr PjPsP¶PSP° C¶P°CíC, C-C¶Pµ PíPµC¶PµPíC-C¶PµC, Pë P¶P¶P’. P—P°
PíPµC, C¶PµP±Pë CíP»C-Pr PíC¶PµPíPµCíC, Pë PSP°P»PµP¶PSCí PePsC¶PµPeC¶C-C¶ PrPsP·Pë
PíPµC¶PµC¶P°P»C¶PSPµPíPµ PePsP°PíCíP»C¶PSC, Cí.

Pj PeP»C-PSC-C¶PSPëC... PrPsCíP»C-PrP¶PµPSPSC¶C... PrP»C¶
PSPëP¶C¶PµPSP°PíPµPrPµPSPëC... C¶PµC¶PsPíPëPS P±CíP»P° PrPsPíPµPrPµPSP°
PíC-PrCíCíC, PSC-CíC, C¶ PeP»C-PSC-C¶PSPµ P·PSP°C¶CíC%PsC— PíP·P°C”PjPsPrC-C— P·
PjPsPeCíPëC,,P»PsPeCíP°C¶PëPSPµPj: C¶P°PSC-C, PëPrPëPS, PíC¶PµP±PµPSPµC¶PëPr,
PíPµC¶PµC¶P°P»C¶PSC- PePsPSC, C¶P°C¶PµPíC, PëPíPë, PeP°P»C¶C¶C-C”PíC- PrPsP±P°PíPePë,
PjPsC¶PµC,,C-PS PíC¶Pë PíP°C¶PµPSC, PµC¶P°P»C¶PSPµPjCí PíPíPµPrPµPSPSC-,
C, PµPsC,,C-P»C-PS, C¶PëPeP»PsCíPíPµC¶PëPS P°P±Ps C-C, C¶P°PePsPSP°P·PsP».

P”PsCíP»C-PrP¶PµPSPSC¶ *in vitro* C-P· P·P°CíC, PsCíCíPíP°PSPSC¶Pj C,,PµC¶PjPµPSC, C-PI
C¶PëC, PsC...C¶PµPjCí P 450 P»C¶PrPëPSPë PíC-PrC, PíPµC¶PíP»Pë C¶C-
C¶PµP·CíP»C¶C, P°C, Pë. PýP°PePëPj C¶PëPSPµPj, PjPµC, P°P±PsP»C-C¶PSP° PíP·P°C”PjPsPrC-C¶
C¶PµC¶PµP· C,,PµC¶PjPµPSC, Pë C¶PëC, PsC...C¶PµPjCí P 450 C” PjP°P»PsPN°PjPsPíC-C¶PSPµC¶.

P·P°C”PjPsPrC-C¶ P· C—P¶PµC¶

P¶PsPeCíPëC,,P»PsPeCíP°C¶PëPS PSPµ PíPëC¶PíP»C¶C” PeP»C-PSC-C¶PSPµ
P·PSP°C¶CíC%PsC— PíP·P°C”PjPsPrC-C— P· C—P¶PµC¶, PíPeP»C¶C¶P°C¶C¶Pë PjPsP»PsC¶PSC-
PíC¶PµPíCíPeC, Pë.

PhCíPµP±P»PëPíC- P·P°C...PsPrPë P±PµP·PíPµPePë.

PhPrPëPS C,,P»P°PePsPS PíC¶PµPíP°C¶P°C, Cí PíC¶PëP·PSP°C¶PµPSPëPN° PíPëPeP»C¶C¶PSPµ
PrP»C¶ PµPrPSPµC¶P°P·PsPíPµPíPµ P·P°CíC, PsCíCíPíP°PSPSC¶.
P¶PµPíPëPePsC¶PëCíC, P°PSPëPN° C¶PµP·C¶PëPS PíC-PrP»C¶PíP°C” CíC, PëP»C-P·P°C¶C-C—.

P' CÍC, P° PSPsPIP» PμPSPs, C%Ps PSP° PIPμPrPμPSC- PSPëP¶C±Pμ CĤPsP·C±PëPSPë C'' CÍCfPjC-CÍPSPëPjPë P· CĤPsP·C±PëPSPsPj PrP»CÍ C-PSC,,CfP·C-PNë PjPsPeCÍPëC,,P»PsPeCÍP°C±PëPSCr 400 PjPi: PIPsPrP° PrP»CÍ C-PSBĤ™ C''PeC†C-PNë; CĤPsP·C±PëPS PSP° C,CĤC-CĤ C...P»PsCĤPëPrCf 0,9 %; CĤPsP·C±PëPS PSP° C,CĤC-CĤ C...P»PsCĤPëPrCf 1-PjPsP»CÍ CĤPSPëPNë; CĤPsP·C±PëPS PiP»CĤPePsP·Pë 5 %, 10 %, 40 %; CĤPsP·C±PëPS PeCÍPëP»C-C,Cf 20 %; CĤPsP·C±PëPS P C-PSPiPμCĤP°; CÍPeP»P°PrPSC- CĤPsP·C±PëPSPë PSP° C,CĤC-CĤ P»P°PeC,P° C,Cf (CĤPsP·C±PëPS PÍP°CĤC,PjP°PSP°, P»P°PeC,P° C,PSPëPNë CĤPsP·C±PëPS P C-PSPiPμCĤP°).

P†PSC,,CfP·C-PNëPSPëPNë CĤPsP·C±PëPS PjPsPeCÍPëC,,P»PsPeCÍP°C±PëPSCr PSPμ CÍP»C-Pr PIPsPrPëC,Pë CÍCfPjC-CÍPSPs P· C-PSCëPëPjPë PiCĤPμPiP°CĤP° C,P°PjPë.

PkPμ PIPëPePsCĤPëCÍC,PsPICfPIP° C,Pë PiCĤPμPiP°CĤP° C, P·P° PSP°CÍPIPSPsCÍC,C- PIPëPrPëPjPëC... C,PIPμCĤPrPëC... PrPsPjC-CëPsPe P°P±Ps Cf CĤP°P·C- PiPsPjCfC,PSC-PSPSCÍ CĤPsP·C±PëPSCr.

PμCĤPë P·P±PμCĤC-PiP°PSPSC- Cf PiCĤPsC...PsP»PsPrPSPsPjCf PjC-CÍC†C- PjPsP¶P»PëPIPμ PIPëPiP°PrC-PSPSCÍ PsCÍP°PrCf, CÍPePëPNë CĤPsP·C±PëPSCÍ C''C,CHCÍCÍ CÍ PiCĤPë PeC-PjPSP° C,PSC-PNë C,PμPjPiPμCĤP° C,CfCĤC-. PÿPsPjCf PSPμ CĤPμPePsPjPμPSPrCf C''C,CHCÍCÍ P·P±PμCĤC-PiP° C,Pë C-PSC,,CfP·C-PNëPSPëPNë CĤPsP·C±PëPS PiCĤPë C,PμPjPiPμCĤP° C,CfCĤC- PSPëP¶C±Pμ 15B° C.

PĤCÍPsP±P»PëPIPsCÍC,C- P·P°CÍC,PsCÍCzPIP°PSPSCÍ.

PÿP»C-Pr CfPSPëPeP° C,Pë P·P°CÍC,PsCÍCfPIP°PSPSCÍ PjPsPeCÍPëC,,P»PsPeCÍP°C±PëPSCr PiP°C†C-C''PSC,P°Pj C-P· CÍPμCĤPNëPsP·PSPëPjPë PiPsP±C-C±PSPëPjPë CĤPμP°PeC†C-CÍPjPë PI P°PSP°PjPSPμP·C- PiC-CÍP»CÍ P·P°CÍC,PsCÍCfPIP°PSPSCÍ P»C-PeP°CĤCÍCHPePëC... P·P°CÍPsP±C-PI, C%Ps PjC-CÍC,CÍC,CH C...C-PSPsP»PsPSPë P°P±Ps C,,C,PsCĤC...C-PSPsP»PsPSPë (PrPëPI. CĤPsP·PrC-P» B«PμPsP±C-C±PSC- CĤPμP°PeC†C-C-B»). P»C-PeCfPIP°PSPSCÍ C,P°PePëC... PiP°C†C-C''PSC,C-PI PjPsPeCÍPëC,,P»PsPeCÍP°C±PëPSPsPj CÍP»C-Pr PiPsC±PëPSP° C,Pë C,C-P»CHPePë P·P° PIC-PrCÍCfC,PSPsCÍC,C- P°P»CHC,PμCĤPSP° C,PëPIPSPsC— C,PμCĤP°PiC-C— C,P° PiC-CÍP»CÍ CĤPμC,PμP»CHPSPsC— PsC†C-PSPePë CÍPiC-PIPIC-PrPSPsCëPμPSPSCÍ PiPμCĤPμPIP°PiPë/CĤPëP·PëPe (PrPëPI. C,P°PePsP¶ CĤPsP·PrC-P» B«PμCĤPsC,PëPiPsPeP°P·P°PSPSCÍB»).

PμPμCĤPμPIP°PiPë PIC-Pr P»C-PeCfPIP°PSPSCÍ PjPsPeCÍPëC,,P»PsPeCÍP°C±PëPSPsPj, PsCÍPsP±P»PëPIPs Cf CĤP°P·C- PSPμC,CÍP¶PePëC... C-PSC,,PμPeC†C-PNë, PSPμPsP±C...C-PrPSPs PsC†C-PSCĤPIP° C,Pë, P±PμCĤCfC±Pë PrPs CfPIP°PiPë C-PSC,,PsCĤPjP°C†C-CĤ, CÍPeP° PjC-CÍC,PëC,CHCÍCÍ Cf C†CHPsPjCf CĤPsP·PrC-P»C-.

PμPsPrPsPIP¶PμPSPSCÍ C-PSC,PμCĤPIP°P»Cf QT_{cf} C,P° PeP»C-PSC-C±PSC- CfPjPsPIPë, P·P° CÍPePëC... PjPsP¶P»PëPIPμ PiPsPrPsPIP¶PμPSPSCÍ C-PSC,PμCĤPIP°P»Cf QT_{cf}

P'CTC,P°PSPsPIP»PμPSPs, C%Ps PjPsPeCTPëC,,P»PsPeCTP°CTPëPS Cr PsPeCTPμPjPëC...
PiP°CTC-C"psc,C-PI PiCTPëP·PIPsPrPëC,CH PrPs PiPsPrPsPIP¶PμPSPSC¶
C-PSC,PμCTHIP°P»Cr QTCÍ PSP° PμP»PμPeC,CTHPsPeP°CTHPrC-PsPiCTHP°PjC-. PŸC,CrPiC-PSCCH
PiPsPrPsPIP¶PμPSPSC¶ C-PSC,PμCTHIP°P»Cr QT PjPsP¶Pμ P·P±C-P»CHC€CrPIP°C,PëCTC¶
P·C- P·P±C-P»CHC€PμPSPSC¶Pj PePsPSC+PμPSC,CTHP°CTC-C— PiCTHPμPiP°CTHP°C,Cr Cr
PiP»P°P·PjC- PeCTHPsPIC- PiCTHPë C€PIPëPrPeC-PNë PIPSCrC,CTHC-C€PSCCHPsPIPμPSPSC-PNë
C-PSC,,CrP·C-C—. PŸPsPjCr CTP»C-Pr PrPsC,CTHPëPjCrPIP°C,PëCTC¶
CTHPμPePsPjPμPSPPrP°CTC-PNë C%PsPrPs C,CTHPëPIP°P»PsCTC,C- C-PSC,,CrP·C-C—, C¶PeP°
PiPsPIPëPSPSP° CTc,P°PSPsPIPëC,Pë PSPμ PjPμPSC€Pμ 60 C...PIPëP»PëPS, C,P° PSPμ
PiPμCTHPμPIPëC%CrPIP°C,Pë PIPSCrC,CTHC-C€PSCCHPsPIPμPSPSCr PrPsP·Cr 400 PjPi 1 CTHP°P·
PSP° PrPsP±Cr. P'CTC-P»CHC€ PrPμC,P°P»CHPSPs PrPëPI. Cr CTHPsP·PrC-P»P°C...
B«PμCTHPsC,PëPiPsPeP°P·P°PSPSC¶B» C,P° B«P'P·P°C" PjPsPrC-C¶ P· C-PSC€PëPjPë
P»C-PeP°CTCÍCHPePëPjPë P·P°CTPSP±P°PjPë C,P° C-PSC€C- PIPëPrPë
PIP·P°C" PjPsPrC-PNëB».

PŸPμCTHP°PiC-CH PjPsPeCTPëC,,P»PsPeCTP°CTPëPSPsPj PiCTHPëPiPëPSC¶CTHC,CH PiCTHPë
PiPsC¶PIC- CTPëPjPiC,PsPjC-PI, C%Ps PjPsP¶CrC,CH P±CrC,Pë PiPsPIBŸ™ C¶P·P°PSC- P·
CTPμCTHC+PμPIPSCH P°CTHPëC,PjC-C"CH, PSPμP·P°P»PμP¶PSPs PIC-Pr C,PsPiPs, C±Pë
PiC-PrC,PIPμCTHPrP¶CrC" C,CHCTC¶ C+Pμ CTHPμP·CrP»CHC,P°C,P°PjPë P·PŸP".

PŸPsPeCTPëC,,P»PsPeCTP°CTPëPS CTP»C-Pr P· PsP±PμCTHPμP¶PSC-CTC,CH
P·P°CTC,PsCTPSPICrPIP°C,Pë PiP°CTC-C"psc,P°Pj P·C- CTc,P°PSP°PjPë, C%Ps
CTPiCTHPëC¶CTHC,CH CTHPsP·PIPëC,PeCr P°CTHPëC,PjC-C— (PSP°PiCTHPëPeP»P°Pr, PiPsCTC,CTHP°
C-C€PμPjC-C¶ PjC-PsPeP°CTHPr°), PsCTPëC-P»CHPePë C,P°PeC- C...PIPSCHC- PjP°CHC,CH
PiC-PrPIPëC%PμPSPëPNë CTHPëP·PëPe PIPëPSPëPePSPμPSPSC¶ C€P»CrPSPsC±PePsPIPsC—
P°CTHPëC,PjC-C— (PIPëP»CHC±P°CHC±Pë PiPsP»C-PjPsCTC,,PSCr C€P»CrPSPsC±PePsPICr
C,P°C...C-PeP°CTHPrC-CH C,PëPiCr PiC-CTC¶PμC,) C,P° P·CrPiPëPSPePë CTPμCTHC+CTC (PrPëPI.
C,P°PePsP¶ CTHPsP·PrC-P»Pë B«PμCTHPsC,PëPiPsPeP°P·P°PSPSC¶B» C,P° B«P'P·P°C" PjPsPrC-C¶
P· C-PSC€PëPjPë P»C-PeP°CTCÍCHPePëPjPë P·P°CTPSP±P°PjPë C,P° C-PSC€C- PIPëPrPë
PIP·P°C" PjPsPrC-PNëB»). PkPμPsP±C...C-PrPSPs P· PsP±PμCTHPμP¶PSC-CTC,CH
P·P°CTC,PsCTPSPICrPIP°C,Pë PjPsPeCTPëC,,P»PsPeCTP°CTPëPS PiP°CTC-C"psc,P°Pj, C¶PeC-
P·P°CTC,PsCTPSPICrCTHC,CH P»C-PeP°CTCÍCHPeC- P·P°CTPSP±Pë, C%Ps PjPsP¶CrC,CH
P·PSPëP¶CrPIP°C,Pë CTHC-PIPμPSCCH PeP°P»C-CH (PrPëPI. C,P°PePsP¶ CTHPsP·PrC-P»Pë
B«PμCTHPsC,PëPiPsPeP°P·P°PSPSC¶B» C,P° B«P'P·P°C" PjPsPrC-C¶ P· C-PSC€PëPjPë
P»C-PeP°CTCÍCHPePëPjPë P·P°CTPSP±P°PjPë C,P° C-PSC€C- PIPëPrPë PIP·P°C" PjPsPrC-PNëB»).

PŸP»C-Pr P· PsP±PμCTHPμP¶PSC-CTC,CH PiCTHPëP·PSP°C±P°C,Pë
PjPsPeCTPëC,,P»PsPeCTP°CTPëPS PiP°CTC-C"psc,P°Pj, C¶PeC- PsC,CTHPëPjCrCTHC,CH
P»C-PeP°CTCÍCHPeC- P·P°CTPSP±Pë, C%Ps PiPsPIBŸ™ C¶P·CrCTHC,CH C-P·
PeP»C-PSC-C±PSPs P·PSP°C±CrC%PsCH P±CTHP°PrPëPeP°CTHPrC-C"CH (PrPëPI. C,P°PePsP¶
CTHPsP·PrC-P» B«PμCTHPsC,PëPiPsPeP°P·P°PSPSC¶B»).

Pj P¶C-PSPsPe C,P° PiP°CTC-C"psc,C-PI P»C-C,PSCCHPsPiPs PIC-PeCr PjPsP¶Pμ
CTPiPsCTC,PμCTHC-PiP°C,PëCTC¶ P±C-P»CHC€P° C±CrC,P»PëPIC-CTC,CH PrPs PrC-C—
PiCTHPμPiP°CTHP°C,C-PI, C%Ps PIPëPeP»PëPeP°CHC,CH PiPsPrPsPIP¶PμPSPSC¶
C-PSC,PμCTHIP°P»Cr QT_{Cr}, C,P°PePëC... C¶Pe PjPsPeCTPëC,,P»PsPeCTP°CTPëPS, C,PsPjCr
C,P°PeC- C...PIPSCHC- PiPsC,CTHPμP±CrCTHC,CH PsCTPSP±P»PëPIPsC— CrPIP°PiPë.

PμC-PrPIPëC%PμPSP° C±CrC,P»PëPIC-CTC,CH/P°P»PμCTHPiC-C±PSC- CTHPμP°PeCTC-C—

PμPsPIC-PrPsPjP»C¶P»PsCTC¶ PiCTHPs PIPëPiP°PrPePë CTHPsP·PIPëC,PeCr

PiC-PiPμCḡC±CfC,P»PëPIPsCfC,C- C,P° P°P»PμCḡPiC-C±PSPëC... CḡPμP°PeC†C-PNë PiC-CfP»CfC
PiPμCḡCëPsPiPs P·P°CfC,PsCfCfPIP°PSPSCfC C,,C,PsCḡC...C-PSPsP»PsPSC-PI,
PIPeP»CḡC±P°CḡC±Pë PjPsPeCfPëC,,P»PsPeCfP°C†PëPS. PḡPSP°C,,C-P»P°PeC,PëC±PSC-
CḡPμP°PeC†C-C— PjPsPḡCfC,Cḡ PSP°P±CfPIP°C,Pë C,,PsCḡPjPë PSPμP±PμP·PiPμC±PSPsPiPs
PrP»CfC PḡPëC,C,CfC CëPsPeCf PSP°PIC-C,Cḡ PiC-CfP»CfC PiPμCḡCëPsPiPs
P·P°CfC,PsCfCfPIP°PSPSCfC PiCḡPμPiP°CḡP°C,Cf. Pj CḡP°P·C- PeP»C-PSC-C±PSPsPiPs
PiCḡPsCfPICf C,CfPḡPePëC... CḡPμP°PeC†C-PNë PiC-PiPμCḡC±CfC,P»PëPIPsCfC,C-
PSPμPsP±C...C-PrPSPs PiCḡPëPiPëPSPëC,Pë P·P°CfC,PsCfCfPIP°PSPSCfC
PjPsPeCfPëC,,P»PsPeCfP°C†PëPSCf C,P° PiPsC±P°C,Pë PIC-PrPiPsPIC-PrPSPμ
P»C-PeCfPIP°PSPSCfC (PSP°PiCḡPëPeP»P°Pr C,PμCḡP°PiC-Cḡ CëPsPeCf).

PÿCfPḡPeC- PiPsCḡCfCëPμPSPSCfC C,,CfPSPeC†C-C— PiPμC±C-PSPePë

PμCḡPë P·P°CfC,PsCfCfPIP°PSPSC- PjPsPeCfPëC,,P»PsPeCfP°C†PëPSCf
PiPsPIC-PrPsPjP»CfP»PsCfCfC PiCḡPs PIPëPiP°PrPePë C,,CfP»CḡPjC-PSP°PSC,PSPsPiPs
PiPμPiP°C,PëC,Cf, C%oPs PjPsPḡPμ PiCḡPëP·PIPsPrPëC,Pë PrPs CḡPsP·PIPëC,PeCf
PiPμC±C-PSPePsPIPsC— PSPμPrPsCfC,P°C,PSPsCfC,C- (PIPeP»CḡC±P°CḡC±Pë
P»PμC,P°P»CḡPSC- PIPëPiP°PrPePë) (PrPëPI. CḡPsP·PrC-P» B«PμPsP±C-C±PSC-
CḡPμP°PeC†C-C—B»). Pj CḡP°P·C- PIPëPSPëPePSPμPSPSCfC CfPëPjPiC,PsPjC-PI
C,,CfP»CḡPjC-PSP°PSC,PSPsPiPs PiPμPiP°C,PëC,Cf, C,P°PePëC... CfPe P°CfC,PμPSC-CfC, C%oPs
CëPIPëPrPePs CḡPsP·PIPëPIP°C,CḡCfCfC C,P° CfCfPiCḡPsPIPsPrPḡCfC,CḡCfCfC
PḡPsPIC,CfPSPëC†PμCḡ, C,PμPjPSPsCḡ CfPμC±PμCḡ, CfC...PëP»CḡPSC-CfC,Cḡ PrPs
PeCḡPsPIPsC,PμC± P°P±Ps PiPμC±C-PSPePsPIPsCḡ PμPSC†PμC,,P°P»PsPiP°C,C-C”Cḡ,
PiP°C†C-C”PSC,P°Pj CḡPμPePsPjPμPSPrCfC”C,CḡCfCfC
PiCḡPsPePsPSCfCfP»CḡC,CfPIP°C,PëCfCfC P· P»C-PeP°CḡPμPj PiPμCḡPμPr
PiCḡPsPrPsPIPḡPμPSPSCfCfPj P»C-PeCfPIP°PSPSCfC.

PμCḡPë PiPsCfPIC- PsP·PSP°Pe PiPsCḡCfCëPμPSPSCfC C,,CfPSPeC†C-C— PiPμC±C-PSPePë
PSPμPsP±C...C-PrPSPs PiCḡPsPIPμCfC,Pë PrPsCfP»C-PrPḡPμPSPSCfC C,,CfPSPeC†C-C—
PiPμC±C-PSPePë.

PÿCfPḡPeC- CëPeC-CḡPSC- CḡPμP°PeC†C-C—

PμC-Pr C±P°Cf P·P°CfC,PsCfCfPIP°PSPSCfC PjPsPeCfPëC,,P»PsPeCfP°C†PëPSCf (PrPëPI.
CḡPsP·PrC-P» B«PμPsP±C-C±PSC- CḡPμP°PeC†C-C—B») PiPsPIC-PrPsPjP»CfP»PsCfCfC PiCḡPs
PIPëPiP°PrPePë C,CfPḡPePëC... CëPeC-CḡPSPëC... CḡPμP°PeC†C-PNë, PIPeP»CḡC±P°CḡC±Pë
C,PsPeCfPëC±PSPëPNë PμPiC-PrPμCḡPjP°P»CḡPSPëPNë PSPμPeCḡPsP»C-P· (PÿP·Pá),
C,P°PePsPḡ PIC-PrPsPjPëPNë CfPe CfPëPSPrCḡPsPj P»P°PNëC”P»P°), CfPëPSPrCḡPsPj
PÿC,C-PIPμPSCfP° Bḡ” P”PḡPsPSCfPsPSP° (PÿPÿP”), PiPsCfC,CḡPëPNë
PiPμPSPμCḡP°P»C-P·PsPIP°PSPëPNë PμPeP·P°PSC,PμPjP°C,PsP·PSPëPNë PiCfCfC,CfP»CḡPsP·
(P”P”P·Pμ) C,P° CḡPμP°PeC†C-Cḡ PSP° P»C-PeP°CḡCfCḡPePëPNë P·P°CfC-P± P·
PμPsP·PëPSPsC,,C-P»C-C”Cḡ C,P° CfPëCfC,PμPjPSPëPjPë CfPëPjPiC,PsPjP°PjPë (DRESS),
CfPeC- PjPsPiP»Pë P·P°PiCḡPsPḡCfPIP°C,Pë PḡPëC,C,Cḡ P°P±Ps P±CfC,Pë
P»PμC,P°P»CḡPSPëPjPë. PμC-Pr C±P°Cf PiCḡPëP·PSP°C±PμPSPSCfC P»C-PeP°CḡCfCḡPePsPiPs
P·P°CfPsP±Cf PiP°C†C-C”PSC,C-PI CfP»C-Pr PiPsPiPμCḡPμPrPḡP°C,Pë PiCḡPs PsP·PSP°PePë
C,P° CfPëPjPiC,PsPjPë C,CfPḡPePëC... CḡPμP°PeC†C-PNë CëPeC-CḡPë C- CfC,P°CḡP°PSPSPs
P·P° PSPëPjPë CfPiPsCfC,PμCḡC-PiP°C,Pë. PμCḡPë PiPsCfPIC- PsP·PSP°Pe C,P°
CfPëPjPiC,PsPjC-PI, C%oPs CfPIC-PrC±P°C,Cḡ PiCḡPs C,P°PeC- CḡPμP°PeC†C-C—,
PjPsPeCfPëC,,P»PsPeCfP°C†PëPS CfP»C-Pr PSPμPiP°PNëPSPs PIC-PrPjC-PSPëC,Pë C-
CḡPsP·PiP»CfPSCfC,Pë P°P»CḡC,PμCḡPSP°C,PëPIPSPμ P»C-PeCfPIP°PSPSCfC. PiPeC%oPs
PiCḡPë C,PμCḡP°PiC-C— PjPsPeCfPëC,,P»PsPeCfP°C†PëPSPsPj Cf PiP°C†C-C”PSC,P°
CḡPsP·PIPëPSCfP»PëCfCḡ C,CfPḡPeC- CëPeC-CḡPSC- CḡPμP°PeC†C-C—, C,P°PeC- CfPe

PiC-CI'P»CII PiPμCηCεPsPiPs P·P°CI'C,PsCI'CI'PIP°PSPSCI C,,C,PsCηC...C-PSPsP»PsPSC-PI,
PIPeP»CηC±P°CηC±Pē PjPsPeCI'PēC,,P»PsPeCI'P°C±PēPS. PJ CηC-PrPeC-CI'PSPēC...
PIPēPiP°PrPeP°C... PrPμPiCηPμCI'C-CII C±Pē PiCI'PēC...C-C±PSC- CηPμP°PeC±C-C—
PiCηPsPiCηPμCI'CI'PIP°P»Pē PrPs CηPsP·PIPēC,PeCr CI'CI'C—C±PēPrP°P»CηPSPēC... PrCI'PjPsPe
C- C,P°PePēC... PiCηPsCIIPIIC-PI CI'P°PjPsP°PiCηPμCI'C-C—, CIIPe CI'PiCηPsP±Pē
CI'P°PjPsPiCI'P±CI'C,PIP° (PrPēPI. CηPsP·PrC—P» B«PμPsP±C-C±PSC- CηPμP°PeC±C-C—B»).

PiPeC%Ps Cr PiP°C±C-C"PSI,P° CηPsP·PIPēPIP°CηC,CηCI'CI C,P°PeC- CηPμP°PeC±C-C—,
P»C-PeCI'PIP°PSPSCI PjPsPeCI'PēC,,P»PsPeCI'P°C±PēPSPsPj CI'P»C-Pr PiCηPēPiPēPSPēC,Pē C,P°
PIP°PēC,Pē PIC-PrPiPsPIC-PrPSPēC... P·P°C...PsPrC-PI. PkPμPsP±C...C-PrPSPs
PrPsC,CηPēPjCI'PIP°C,PēCI'CI PsP±PμCηPμP°PSPsCI'C,C-, PiCηPēP·PSP°C±P°CηC±Pē
PjPsPeCI'PēC,,P»PsPeCI'P°C±PēPS PiP°C±C-C"PSI,P°Pj, P· PiCI'PēC...C-C±PSPēPjPē
P·P°C...PIPsCηCηPIP°PSPSCI PjPē PI P°PSP°PjPSPμP·C- P°P±Ps P· PSP°CIPIPSC-CI'C,Cη
C,P°PePēC... PSPēPSC-.

P°C-P°CηPμCI, P°CI'PsC±C-PMεPsPIP°PSP° C-P· P·P°CI'C,PsCI'CI'PIP°PSPSCI Pj
P°PSC,PēP±C-PsC,PēPeC-PI, PIPeP»CηC±P°CηC±Pē PePsP»C-C,

P'PēPiP°PrPePē PrC-P°CηPμC—, P°CI'PsC±C-PMεPsPIP°PSPsC— C-P·
P·P°CI'C,PsCI'CI'PIP°PSPSCI Pj P°PSC,PēP±C-PsC,PēPeC-PI (AAP"), C,P° PePsP»C-C,CI',
P°CI'PsC±C-PMεPsPIP°PSPsPiPs C-P· P·P°CI'C,PsCI'CI'PIP°PSPSCI Pj P°PSC,PēP±C-PsC,PēPeC-PI
(AAP), PIPeP»CηC±P°CηC±Pē PiCI'PμPIP°PrPsPjPμPjP±CηP°PSPsP·PSPēPNε PePsP»C-C, C,P°
PrC-P°CηPμCη, P°CI'PsC±C-PMεPsPIP°PSCI P· *Clostridium difficile*,
CI'PiPsCI'C,PμCηC-PiP°P»PēCI'CI Cr P·PIBη™ CIIP·PeCI' C-P· P·P°CI'C,PsCI'CI'PIP°PSPSCI Pj
P°PSC,PēP±C-PsC,PēPeC-PI CεPēCηPsPePsPiPs CI'PiPμPeC,CηP° PrC-C—, PI C,PsPjCI'
C±PēCI'P»C- PjPsPeCI'PēC,,P»PsPeCI'P°C±PēPSCI. PŸC,CI'PiC-PSCH PiCηPsCIIPICI' C±PēC...
CIPIPēC% PjPsP°Pμ PePsP»PēPIP°C,PēCI'CI PIC-Pr PrC-P°CηPμC— P»PμPiPePsPiPs
CI'C,CI'PiPμPSCI PrPs PePsP»C-C,CI' P· P»PμC,P°P»CηPSPēPj PSP°CI'P»C-PrPePsPj. PŸPsPjCI'
PIP°P°P»PēPIPs PICηP°C...PsPICfPIP°C,Pē PNεPjPsPIC-CηPSC-CI'C,Cη C,P°PePsPiPs
PrC-P°PiPSPs·CI' Cr PiP°C±C-C"PSI,C-PI, CI'CIIPePēC... PiC-Pr C±P°CI' P°P±Ps PiC-CI'P»CII
P·P°CI'C,PsCI'CI'PIP°PSPSCI PjPsPeCI'PēC,,P»PsPeCI'P°C±PēPSCI CηPsP·PIPēPIP°C"C,CηCI'CI
C,CIIP°PeP° PrC-P°CηPμCI. PμCηPē PiC-PrPsP·CηCηPIP°PSC-PMε P°P±Ps
PiC-PrC,PIPμCηPrP°PμPSC-PMε AAP" P°P±Ps AAP P»C-PeCI'PIP°PSPSCI C-P·
P·P°CI'C,PsCI'CI'PIP°PSPSCI Pj PiCηPsC,PēPjC-PeCηPsP±PSPēC... P·P°CI'PsP±C-PI,
PIPeP»CηC±P°CηC±Pē PjPsPeCI'PēC,,P»PsPeCI'P°C±PēPS, CI'P»C-Pr PiCηPēPiPēPSPēC,Pē C,P°
PSPμPiP°PNεPSPs CηPsP·PiPsC±P°C,Pē PIC-PrPiPsPIC-PrPSC- C,PμCηP°PiPμPIC,PēC±PSC-
P·P°C...PsPrPē. PηCηC-Pj C±CηPsPiPs, PSPμPsP±C...C-PrPSPs PIP°PēC,Pē
PIC-PrPiPsPIC-PrPSPēC... P·P°C...PsPrC-PI, CI'PiCηCIIPjPsPIP°PSPēC... PSP°
PePsPSC,CηPsP»Cη C-PSC,,PμPeC±C-C—, P· PjPμC,PsCη P·PSPēP°PμPSPSCI CηPēP·PēPeCI'
C—C— PiPμCηPμPrP°C±C-. PμP°C±C-C"PSI,P°Pj, CI'CIIPePēC... CηPsP·PIPēPIP°C"C,CηCI'CI
C,CIIP°PeP° PrC-P°CηPμCI, PiCηPsC,PēPiPsPeP°P·P°PSC- PiCηPμPiP°CηP°C,Pē, C%Ps
PiCηPēPiPSC-C±CI'CηC,Cη PiPμCηPēCI'C,P°P»CηC,PēPeCI'.

PμP°C±C-C"PSI,Pē, C...PIPsCηC- PSP° C,CIIP°PeCI' PjC-P°CI'C,PμPSC-Cη

PηPsPeCI'PēC,,P»PsPeCI'P°C±PēPS CI'P»C-Pr P· PsP±PμCηPμP°PSC-CI'C,Cη
P·P°CI'C,PsCI'PsPICfPIP°C,Pē PiP°C±C-C"PSI,P°Pj P· C,CIIP°PePsCη PjC-P°CI'C,PμPSC-C" Cη
(*myasthenia gravis*), PsCI'PeC-P»CηPePē C—C— CI'PēPjPiC,PsPjPē PjPsP°CI'C,Cη
PiPsCI'PēP»CηPIP°C,PēCI'CI.

P—P°PiP°P»PμPSPSCI CI'CI'C...PsP°PēP»PeP° C,P° CηPsP·CηPēPI CI'CI'C...PsP°PēP»PeC-PI

PμC-Pr C±P°CI' C,PμCηP°PiC-C— C...C-PSPsP»PsPSP°PjPē C,P° C,,C,PsCηC...C-PSPsP»PsPSP°PjPē

PjPsP¶CfC,CH CÍPíPsCfC,PµCfC-PiP°C,PëCfC¶C P·P°PíP°P»PµPSPSC¶C C,P° C¶PsP·C¶PëPIPë CÍCfC...PsP¶PëP»PeC-PI (PsCfC¶PsP±P»PëPIPs, P°P»Pµ PSPµ PsP±PjPµP¶CfC¶PëCfC¶H, P°C...C-P»P»PsPIPsPiPs CÍCfC...PsP¶PëP»PeP°), C-PSPsPrC- б¶ PrPIPsCfC,PsC¶PsPSPSC-, C%Ps C¶PsP·PIPëPIP°C¶C,CHCfC¶C PSP°PIC-C,CH PíC¶PsC,¶PiPsPj 48 PiPsPrPëPS PiC-CÍP»¶C¶ PiPsC±P°C,PeCf P»C-PeCfPIP°PSPSC¶C C- PjPsP¶CfC,CH C,C¶PëPIP°C,Pë PSP°PIC-C,CH PIPíC¶PsPrPsPIP¶ PrPµPeC-P»CHPePsC... PjC-CÍC¶C¶C-PI PiC-CÍP»¶C¶ PiC¶PëPíPëPSPµPSPSC¶C P»C-PeCfPIP°PSPSC¶C (PrPëPI. C¶PsP·PrC-P»Pë B«PµC¶PsC,PëPíPsPeP°P·P°PSPSC¶C» C,P° B«PµPsP±C-C±PSC- C¶PµP°PeC¶C-C—B»). P PëP·PëPe C,PµPSPPrPëPSC-C,Cf C,P° C¶PsP·C¶PëPICf CÍCfC...PsP¶PëP»PeC-PI PiC-PrPIPëC%¶CfC¶C,CHCfC¶C Cf PíP°C¶C-C”PSC,C-PI P»C-C,PSC¶PsPiPs PIC-PeCf, PíP°C¶C-C”PSC,C-PI C-P· PSPëC¶PePsPIPsC¶ PSPµPrPsCfC,P°C,PSC-CÍC,CH, PíP°C¶C-C”PSC,C-PI P· C,C¶P°PSCfPíP»P°PSC,P°C,P°PjPë CÍPsP»C-PrPSPëC... PsC¶PiP°PSC-PI C,P° Cf C...PIPsC¶PëC..., C¶PeC- PsC,C¶PëPjCfC¶C,CH CÍCfPíCfC,PSC” P»C-PeCfPIP°PSPSC¶C PePsC¶C,PëPePsCfC,PµC¶PsC—PrP°PjPë. PÿPsPjCf CÍP»C-Pr CfPSPëPeP°C,Pë PsPrPSPsC±P°CfPSPsPiPs P·P°CfC,PsCfCfPIP°PSPSC¶C C-P· PePsC¶C,PëPePsCfC,PµC¶PsC—PrP°PjPë.

PµC¶Pë PíPsC¶PIC- PíPµC¶C¶PëC... CÍPëPjPíC,PsPjC-PI C,PµPSPPrPëPSC-C,Cf (PSP°PíC¶PëPeP»P°Pr P±PsP»C-CÍPSPsPiPs PSP°P±C¶C¶PeP°PSPSC¶C P°P±Ps P·P°PíP°P»PµPSPSC¶C) P·P°CfC,PsCfCfPIP°PSPSC¶C PjPsPeCfPëC,,P»PsPeCfP°C¶PëPSCf CÍP»C-Pr PíC¶PëPíPëPSPëC,Pë C,P° C¶PsP·PiP»C¶PSCfC,Pë P°P»CHC,PµC¶PSP°C,PëPIPSCf C,PµC¶P°PiC-CH. P”P»C¶Cf C¶C¶PePsPrP¶PµPSPsC—(PëC...) PeC-PSC¶C-PIPePë(PsPe) CÍP»C-Pr C¶PsP·PíPsC±P°C,Pë PIC-PrPíPsPIC-PrPSPµ P»C-PeCfPIP°PSPSC¶C (PSP°PíC¶PëPeP»P°Pr, C-PjPjPsP±C-P»C-P·P°C¶C-C¶C). PµC¶Pë C¶PsP·PIPëC,PeCf CÍPëPjPíC,PsPjC-PI C,PµPSPPrPëPSPsPíP°C,C-C— PSPµ CÍP»C-Pr P·P°CfC,PsCfCfPIP°PSPSC¶C,Pë PePsC¶C,PëPePsCfC,PµC¶PsC—PrPë.

P¶PSPµPIC¶PëP·PjP° P°PsC¶C,Pë C,P° C¶PsP·C¶P°C¶CfPIP°PSPSC¶C CÍC,C-PSPePë P°PsC¶C,Pë, C¶PµPiCfC¶PiC-C,P°C¶C-C¶C/PSPµPrPsCfC,P°C,PSC-CÍC,CH PeP»P°PíP°PSC-PI CÍPµC¶C¶C¶C

P·PiC-PrPµPjC-PsP»PsPiC-C±PSC- PrPsCfP»C-PrP¶PµPSPSC¶C CÍPIC-PrC±P°C,CH PíC¶Ps PiC-PrPIPëC%¶PµPSPëP¶ C¶PëP·PëPe P°PSPµPIC¶PëP·PjPë P°PsC¶C,Pë C,P° C¶PsP·C¶P°C¶CfPIP°PSPSC¶C CÍC,C-PSPePë P°PsC¶C,Pë, PsCfCfPsP±P»PëPIPs Cf PíP°C¶C-C”PSC,C-PI P»C-C,PSC¶PsPiPs PIC-PeCf, C,P° C¶PsP·PIPëC,PeCf C¶PµPiCfC¶PiC-C,P°C¶C-C— PSP° P°PsC¶C,P°P»CHPSPsPjCf C- PjC-C,C¶P°P»CHPSPsPjCf PeP»P°PíP°PSP°C... PiC-CÍP»¶C¶ P·P°CfC,PsCfCfPIP°PSPSC¶C C,,C,PsC¶C...C-PSPsP»PsPSC-PI. PµPsPIC-PrPsPjP»C¶P»PsCfC¶C PíC¶Ps C¶C-PrPeC-CÍPSC- PIPëPíP°PrPePë P°PSPµPIC¶PëP·PjPë P°PsC¶C,Pë C,P° C¶PsP·C¶P°C¶CfPIP°PSPSC¶C CÍC,C-PSPePë P°PsC¶C,Pë, C-PSPsPrC- CÍCfPeP»P°PrPSPµPSC- C¶PsP·C¶PëPIPsPj (Cf C,PsPjCf C±PëCfP»C- P»PµC,P°P»CHPSPëPj), P° C,P°PePsP¶ C¶PµPiCfC¶PiC-C,P°C¶C-C—/PSPµPrPsCfC,P°C,PSPsCfC,C- P±CfPrCH-C¶PePsPiPs P· PeP»P°PíP°PSC-PI CÍPµC¶C¶C¶C Cf PíP°C¶C-C”PSC,C-PI, C¶PeC- P·P°CfC,PsCfCfPIP°P»Pë C,,C,PsC¶C...C-PSPsP»PsPSPë (PrPëPI. C¶PsP·PrC-P» B«PµPsP±C-C±PSC- C¶PµP°PeC¶C-C—B»). PÿPsPjCf C,,C,PsC¶C...C-PSPsP»PsPSPë CÍP»C-Pr P·P°CfC,PsCfCfPIP°PSPSC¶C,Pë P»PëC¶Pµ PiC-CÍP»¶C¶ C¶PµC,PµP»CHPSPsC— PsC¶C-PSPePë CÍPíC-PIPIC-PrPSPsC¶PµPSPSC¶C PePsC¶PëCfC,CH/C¶PëP·PëPe C,P° C¶PsP·PiP»C¶PíCf C-PSC¶PëC... C,PµC¶P°PíPµPIC,PëC±PSPëC... PjPsP¶P»PëPIPsCfC,PµP¶ PrP»C¶C PíP°C¶C-C”PSC,C-PI P· P°PSPµPIC¶PëP·PjPsC¶ P°P±Ps PIC¶PsPrP¶PµPSPsC¶ PIP°PrPsC¶ CÍPµC¶C¶PµPIPsPiPs PeP»P°PíP°PSP° PI P°PSP°PjPSPµP·C- C±Pë PrP»C¶C PíP°C¶C-C”PSC,C-PI C-P· PrC-P°PiPSPsCfC,PsPIP°PSPsC¶ P°PSPµPIC¶PëP·PjPsC¶ P°PsC¶C,Pë C,P°/P°P±Ps C¶PsP·C¶P°C¶CfPIP°PSPSC¶C¶Cf CÍC,C-PSPePë P°PsC¶C,Pë C±Pë P·P°C...PIPsC¶C¶PIP°PSPSC¶C¶Cf CÍPµC¶C¶PµPIPëC... PeP»P°PíP°PSC-PI, P° C,P°PePsP¶ P·P° PSP°C¶PIPSPsCfC,C- C-PSC¶PëC...

C,,P°PeC,PsCḡC-PI CḡPëP·PëPeCí P°P±Ps CÍC,P°PSC-PI, C%Ps CÍPíCḡPëCḡCḡC,CH CḡPsP·PIPëC,PeCí C- P°PSPµPICḡPëP·PjPë P°PsCḡC,Pë C,P° CḡPsP·CëP°CḡCíPIP°PSPSCḡ CÍC,C-PSPePë P°PsCḡC,Pë, C- CḡPµPíCíCḡPíC-C,P°C†C-C-/PSPµPrPsCÍC,P°C,PSPsCÍC,C- PeP»P°PíP°PSC-PI CÍPµCḡC†Cḡ (PSP°PíCḡPëPeP»P°Pr, PíPsCḡCíCëPµPSPSCḡ CÍPíPsP»CíC†PSPsC— C,PeP°PSPëPSPë, C,P°PeC- CḡPe CÍPëPSPPrCḡPsPj PḡP°CḡC,,P°PSP° P°P±Ps PIP°CÍPeCíP»CḡCḡPSPëPNë CÍPëPSPPrCḡPsPj P·C...P»PµCḡCÍP° Bḡ“ P”P°PSP»PsCÍP°, CÍPëPSPPrCḡPsPj PÿPµCḡPSPµCḡP°, C...PIPpsCḡPsP±P° P’PµC...C†PµC,P°, P°CḡC,PµCḡC-P°P»CHḡPSP° PíC-PíPµCḡC,PµPSP·C-Cḡ, CḡPµPIPjP°C,PsC—PrPSPëPNë P°CḡC,CḡPëC,) P°P±Ps C,P°PePsPḡ P°PSPµPICḡPëP·PjPë P°PsCḡC,Pë C,P° C—C— CḡPsP·CëP°CḡCíPIP°PSPSCḡ (PSP°PíCḡPëPeP»P°Pr, CÍCíPrPëPSPSC- CḡPsP·P»P°PrPë, C,P°PeC- CḡPe P°CḡC,PµCḡC-C—C, PÿP°PeP°CḡCíCí P°P±Ps PíC-PíP°PSC,PsPeP»C-C,PëPSPSPëPNë P°CḡC,PµCḡC-C—C,, P°P±Ps PIC-PrPsPjPëPNë P°C,PµCḡPsCÍPeP»PµCḡPsP·, P°P±Ps CÍPëPSPPrCḡPsPj PëPµPíCḡPµPSP°), P°P±Ps C,P°PePsPḡ CḡPµPíCíCḡPíC-C,P°C†C-C-/PSPµPrPsCÍC,P°C,PSPsCÍC,C- PeP»P°PíP°PSC-PI CÍPµCḡC†Cḡ (PSP°PíCḡPëPeP»P°Pr, C-PSC,,PµPeC†C-PNëPSPëPNë PµPSPPrPsPeP°CḡPrPëC,).

P PëP·PëPe CḡPsP·PIPëC,PeCí P°PSPµPICḡPëP·PjPë C- CḡPsP·CëP°CḡCíPIP°PSPSCḡ CÍC,C-PSPePë P°PsCḡC,Pë, P° C,P°PePsPḡ C—C... CḡPsP·CḡPëPíCí PjPsPḡPµ P±CíC,Pë PíC-PrPIPëC%PµPSPëPNë Cí PíP°C†C-C”PSC,C-PI, CḡPeC- PsC,CḡPëPjCíCḡC,CH PsPrPSPsC†P°CÍPSCí C,PµCḡP°PíC-Cḡ CÍPëCÍC,PµPjPSPëPjPë PePsCḡC,PëPePsCÍC,PµCḡPsC—PrP°PjPë.

PJ CḡP°P·C- PIPëPSPëPePSPµPSPSCḡ CḡP°PíC,PsPIPpsPíPs P°P±PrPsPjC-PSP°P»CHḡPSPsPíPs P±PsP»Cḡ, P±PsP»Cḡ Cí PíCḡCíPrCḡC... P°P±Ps CÍPíPëPSC- PíP°C†C-C”PSC,P°Pj CÍP»C-Pr PSPµPíP°PNëPSPs P·PIPµCḡPSCíC,PëCÍCḡ PrPs P»C-PeP°CḡCḡ P·P° PSPµPIC-PrPeP»P°PrPSPsCḡ PrPsPíPsPjPsPíPsCḡ.

PµP°C†C-C”PSC,P°Pj CÍP»C-Pr CḡPµPePsPjPµPSPPrCíPIP°C,Pë PSPµPíP°PNëPSPs P·PIPµCḡPSCíC,PëCÍCḡ P·P° PjPµPrPëC†PSPsCḡ PrPsPíPsPjPsPíPsCḡ Cí CḡP°P·C- PíPsCḡPIPë PíPsCÍC,CḡPsC— P·P°PrPëCëPePë, PíCḡPëCíPePsCḡPµPSPsPíPs CÍPµCḡC†PµP±PëC,C,Cḡ P°P±Ps CḡPsP·PIPëC,PeCí PSP°P±CḡCḡPeCí PḡPëPIPpsC,P° C†Pë PSPëPḡPSC-C... PeC-PSC†C-PIPpsPe.

PµP°C†C-C”PSC,Pë P· PíPsCḡCíCëPµPSPSCḡPj C,,CíPSPeC†C-C— PSPëCḡPsPe

PµP°C†C-C”PSC,P°Pj P»C-C,PSCHḡPsPíPs PIC-PeCí, CḡPeC- PjP°CḡC,CH CḡPsP·P»P°PrPë P· P±PsPeCí PSPëCḡPsPe, CÍP»C-Pr P· PsP±PµCḡPµPḡPSC-CÍC,Cḡ PíCḡPëP·PSP°C†P°C,Pë PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPS, CḡPeC%Ps PIPsPSPë PSPµ CÍPíCḡPsPjPsPḡPSC- PíC-PrC,CḡPëPjCíPIP°C,Pë PSP°P»PµPḡPSPëPNë PsP±Bḡ™ C”Pj CḡC-PrPëPSPë Pí PsCḡPíP°PSC-P·PjC-, PsCíPeC-P»CHḡPePë P·PSPµPIPpsPrPSPµPSPSCḡ P·P±C-P»CHḡCëCíC” CḡPëP·PëPe PIPëPSPëPePSPµPSPSCḡ PSPëCḡPePsPIPpsC— PSPµPrPsCÍC,P°C,PSPsCÍC,C-.

PµPsCḡCíCëPµPSPSCḡ P· P±PsPeCí PsCḡPíP°PSC-PI P·PsCḡCí

PJ CḡP°P·C- PíPsPíC-CḡCëPµPSPSCḡ P·PsCḡCí P°P±Ps P±CíPrCHḡ-CḡPePsPíPs PíPíP»PëPíCí PSP° PsCḡPíP°PSPë P·PsCḡCí PSPµPsP±C...C-PrPSPs PSPµPíP°PNëPSPs P·PIPµCḡPSCíC,PëCÍCḡ P·P° PePsPSCíCíP»CHḡC,P°C†C-C”Cḡ PrPs P»C-PeP°CḡCḡ-PsC,,C,P°P»CHḡPjPsP»PsPíP° (PrPëPí. CḡPsP·PrC-P»Pë B«P—PrP°C,PSC-CÍC,CH PíPíP»PëPíP°C,Pë PSP° CëPíPëPrPeC-CÍC,CH CḡPµP°PeC†C-C— PíCḡPë PePµCḡCíPIP°PSPSC- P°PIC,PsC,CḡP°PSCÍPíPsCḡC,PsPj P°P±Ps CḡPsP±PsC,C- P· C-PSCëPëPjPë PjPµC...P°PSC-P·PjP°PjPëB», B«PµPsP±C-C†PSC- CḡPµP°PeC†C-C—B»).

P"PeCfPiP»C-PePμPjC-CI

PiPe C- PiCfPe P·P°CfC,PsCfCfPiP°PSPSC- PICfC-C... C,,C,PsCfC...C-PSPsP»PsPSC-PI, PiC-Pr C±P°Cf P»C-PeCfPiP°PSPSC PjPsPeCfPeC,,P»PsPeCfP°CfPePSPsPj PiPsPIC-PrPsPjP»CfP»PsCfCf PiCfPs PiPePiP°PrPePe PIC-PrC...PeP»PμPSPSCf PIC-Pr PSPsCfPjPe PiPsPeP°P·PSPePeC-PI PiP»CfPePsP·Pe PeCfPsPIC-, CfPe Cr PiPePiP»CfPrC- PiC-PiPsPiP»C-PePμPjC-C—, C,P°Pe C- Cr C,,PsCfPjC- PiC-PiPμCfPiP»C-PePμPjC-C— (PrPePi. CfPsP·PrC-P» B«PμPsP±C-C±PSC- CfPμP°PeCfC-C—B»). P"PeCfPiP»C-PePμPjC-CI CfPsP·PiPePiP°P»P°CfCf PiPμCfPμPiP°P¶PSPs Cr PiP°CfC-C"psc,C-PI P»C-C,PSCfPsPiPs PIC-PeCf, C...PiPsCfPeC... PSP° PrC-P°P±PμC,, CfPeC- PsC,CfPePjCrPiP°P»Pe PsPrPSPsC±P°CfPSPs P· P»C-PeCfPiP°PSPSCfPj PjPsPeCfPeC,,P»PsPeCfP°CfPePSPsPj PiPμCfPsCfP°P»CfPSC- PiC-PiPsPiP»C-PePμPjC-C±PSC- P·P°CfPsP±Pe (PSP°PiCfPePeP»P°Pr CfCfP»CfC,,PsPSC-P»CfPμC±PsPiPePSCf) P°P±Ps C-PSCfCfP»C-PS. PμPsPIC-PrPsPjP»CfP»PsCfCf PiCfPs PiPePiP°PrPePe PiC-PiPsPiP»C-PePμPjC-C±PSPsC— PePsPjPe. P¶PiPsCfPePj PSP° CfCfPeCfPsPiPePμ PrC-P°P±PμC, CfPμPePsPjPμPSPrCfC"C,CfCfCf CfPμC,PμP»CfPSPs PePsPSC,CfPsP»CfPiP°C,Pe CfC-PiPμPSCf PiP»CfPePsP·Pe PI PeCfPsPIC-.

PμCfPsC,,C-P»P°PeC,PePeP° CfPμP°PeCfC-PN C,,PsC,PsCfPμPSCfPeP±C-P»C-P·P°CfC-C—

PμC-Pr C±P°Cf P·P°CfC,PsCfCfPiP°PSPSCf C...C-PSPsP»PsPSC-PI Cr PiP°CfC-C"psc,C-PI CfPμC"CfC,CfCfPiP°P»PeCfCf CfPμP°PeCfC-C— C,,PsC,PsCfPμPSCfPeP±C-P»C-P·P°CfC-C—. P¶PrPSP°Pe, P·P° PrP°PSPePjPe PrPsCfP»C-PrP¶PμPSCf, PiCfPe P·P°CfC,PsCfCfPiP°PSPSC- PjPsPeCfPeC,,P»PsPeCfP°CfPePSCf CfPeP·PePe C-PSPrCfPeCfC-C— CfPμP°PeCfC-PN C,,PsC,PsCfPμPSCfPeP±C-P»C-P·P°CfC-C— P±CfPI PSPeP·CfPePePj. Pj PICfCfPePsPjCr CfP°P·C- PiP°CfC-C"psc,P°Pj PSPμPsP±C...C-PrPSPs CrPSPePeP°C,Pe PiPiP»PePICf C,CfPePiP°P»PsPiPs C,P°/P°P±Ps C-PSC,PμPSCfPePiPSPsPiPs CfPsPSCfC±PSPsPiPs PiPePiCfPsPjC-PSCfPiP°PSPSCf C±Pe CrP»CfC,CfP°C,,C-PsP»PμC,PsPiPsPiPs PsPiCfPsPjC-PSCfPiP°PSPSCf PiCfPsC,CfPiPsPj P»C-PeCfPiP°PSPSCf PjPsPeCfPeC,,P»PsPeCfP°CfPePSPsPj (PrPePi. CfPsP·PrC-P» B«PμPsP±C-C±PSC- CfPμP°PeCfC-C—B»). PμP°CfC-C"psc,Pe P· PrPμC,,C-CfPeC,PsPj PiP»CfPePsP·Ps-6-C,,PsCfC,,P°C,- PrPμPiC-PrCfPsPiPμPSP°P·Pe

PμP°CfC-C"psc,Pe P· PrPμC,,C-CfPeC,PsPj PiP»CfPePsP·Ps-6-C,,PsCfC,,P°C,- PrPμPiC-PrCfPsPiPμPSP°P·Pe

PμP°CfC-C"psc,Pe P· PSPμPrPsCfC,P°C,PSC-CfC,Cf P°PeC,PePiPSPsCfC,C- PiP»CfPePsP·Ps-6-C,,PsCfC,,P°C,-PrPμPiC-PrCfPsPiPμPSP°P·Pe, P° C,P°PePsP¶ PiP°CfC-C"psc,Pe, Cr CfPePeC... CfCf PiP°C,PsP»PsPiC-Cf C" PI CfPsPrPePSPSPsPjCr P°PSP°PjPSPμP·C-, CfC...PeP»CfPSC- PrPs CfPsP·PiPeC,PeCf PiPμPjPsP»C-C,PeC±PSPeC... CfPμP°PeCfC-PN PiC-Pr C±P°Cf P»C-PeCfPiP°PSPSCf C...C-PSPsP»PsPSP°PjPe. P¶P°PePePj C±PePSPsPj, PjPsPeCfPeC,,P»PsPeCfP°CfPePS CfP»C-Pr P·P°CfC,PsCfPsPICfPiP°C,Pe P· PsP±PμCfPμP¶PSC-CfC,Cf CfC-PN PeP°C,PμPiPsCfC-C— PiP°CfC-C"psc,C-PI.

P—P°PiP°P»PμPSPSCf C,PeP°PSPePS PI PiPμCfC-P°CfC,PμCfC-P°P»CfPSC-PN P·PsPSC-

P¶PsPeCfPeC,,P»PsPeCfP°CfPePS, CfPsP·C±PePS PrP»Cf C-PSC,,CfP·C-PN, PiCfPeP·PSP°C±PμPSPePN PiPePeP»CfC±PSPs PrP»Cf PiPSCfC,CfC-C¶PSCfPsPiPμPSPSPsPiPs P·P°CfC,PsCfCfPiP°PSPSCf. P¶P»C-Pr CrPSPePeP°C,Pe C-PSC,CfP°P°CfC,PμCfC-P°P»CfPSPsPiPs PiPiPμPrPμPSPSCf, PsCfPeC-P»CfPePe PI PrPsPeP»C-PSC-C±PSPeC... PrPsCfP»C-PrP¶PμPSPSCfC... PiCfPe C,P°PePsPjCr CfPiPsCfPsP±C- PiPiPμPrPμPSPSCf CfPiPsCfC,PμCfC-PiP°P»PsCfCf P·P°PiP°P»PμPSPSCf C,PeP°PSPePS PI PiPμCfC-P°CfC,PμCfC-P°P»CfPSC-PN P·PsPSC-.

РμP°C†C-C°PSC, Pë P·C- C†P̄P̄μC†PëC,,C-C†PSPëPjPë C†C†PëP»P°PrPSPμPSPëPjPë
C-PSC,,PμPëC†C-C†PjPë C€PëC-C†Pë C,P° P̄C-PrC€PëC-C†PSPsC— PëP»C-C,PëPsPIPëPSPë

РлP»C-PSC-C†PSP° PμC,,PμPëC,PëPIPSC-C†C,CH P·P°C†C,PsC†C†PIP°PSPSC†
PjPsPëC†PëC,,P»PsPëC†P°C†PëPSC† P̄C†Pë P»C-PëC†PIP°PSPSC- C,C†P¶PëPëC...
C-PSC,,PμPëC†C-PM̄, P̄PsP̄B̄™ C†P·P°PSPëC... P· PsP̄C-PëP°PjPë, C,,P°C†C†PëC,C† C,P°
C-PSC,,C-PëPsPIP°PSPsC— PrC-P°P±PμC,PëC†PSPsC— C†C,PsP̄Pë, C%Ps
C†C†P̄C†P̄PsPIP̄sPrP¶C†C”C,CHC†C† PsC†C,PμPsPjC-C”P»C-C,PsPj, PSPμ
PIC†C,P°PSPsPIP»PμPSP°.

P’P̄P»PëPI PSP° P±C-PsP»PsP̄C-C†PSC- C,PμC†C,Pë

РлPsPëC†PëC,,P»PsPëC†P°C†PëPS PjPsP¶Pμ PIP̄P»PëPIP°C,Pë PSP° C†PμP·C†P»CHC,P°C,Pë
P°PSP°P»C-P·C† PSP° PSP°C†PIPSC-C†C,CH *Mycobacterium spp.* C€P»C†C...PsPj
P̄C†PëP̄P̄PSC-C†PμPSPSC† PjC-PëPsP±P°PëC,PμC†C-P°P»CHPSPsP̄Ps C†P̄PsC†C,C†, C%Ps, C†
C†PIP̄sC† C†PμC†P̄C†, PjPsP¶Pμ P̄C†PëP·PIP̄μC†C,Pë PrPs C...PëP±PSPsPSPμP̄P°C,PëPIPSPëC...
C†PμP·C†P»CHC,P°C,C-PI C† C...PIP̄sC†PëC..., C†PëC- P̄C†PëP̄N̄PjP°C†C,CH
PjPsPëC†PëC,,P»PsPëC†P°C†PëPS.

РμP°C†C-C°PSC, Pë P· C-PSC,,PμPëC†C-C†PjPë, PIPëPëP»PëPëP°PSPëPjPë
PjPμC,PëC†PëP»C-PSPsC†PμP·PëC†C,PμPSC,PSPëPj P·PsP»PsC,PëC†C,PëPj
C†C,P°C,,C-P»PsPëPsPëPsPj (MRSA)

РлPsPëC†PëC,,P»PsPëC†P°C†PëPS PSPμ C†PμPëPsPjPμPSPPrC†C”C,CHC†C† PrP»C†
P»C-PëC†PIP°PSPSC† C-PSC,,PμPëC†C-PM̄, C†P̄C†PëC†PëPSPμPSPëC... PjPμC,PëC†PëP»C-PS-
C†PμP·PëC†C,PμPSC,PSPëPj *Staphylococcus aureus* (MRSA). P̄C†Pë PSP°C†PIPSPsC†C,C-
P̄C-PrPsP·C†Pë P°P±Ps P̄C-PrC,PIP̄μC†P̄P¶PμPSPSC† C%PsPrPs C-PSC,,PμPëC†C-C—,
PIPëPëP»PëPëP°PSPsC— MRSA, PSPμPsP±C...C-PrPSPs C†P̄PsP·P̄PsC†P°C,Pë
P»C-PëC†PIP°PSPSC† PIC-PrP̄PsPIC-PrPSPëPj P°PSC,PëP±P°PëC,PμC†C-P°P»CHPSPëPj
P̄C†PμP̄P̄P°C†P°C,PsPj (PrPëPI. C†P̄PsP·PrC-P» B«P̄P°C†PjP°PëPsPrPëPSP°PjC-PëP°B»).

Р†PSC,,PsC†PjP°C†C-C† P̄C†P̄Ps PrPsP̄PsPjC-P¶PSC- C†PμC†PsPIPëPSPë

P̄PμPM̄ P»C-PëP°C†C†CHPëP̄N̄ P·P°C†C-P± PjC-C†C,PëC,CH 787 PjPi (P̄C†PëP±P»PëP·PSPs
34 PjPëPjPsP»CH) PSP°C,C†C-C† PI PsPrPSPsPjC† C,,P»P°PëPsPSC-, C%Ps PjC-C†C,PëC,CH 250
PjP» C†P̄PsP·C†PëPSC† PrP»C† C-PSC,,C†P·C-PM̄, C%Ps PμPëPIC-PIP°P»PμPSC,PSPs 39,35 %
PjP°PëC†PëPjP°P»CHPSPsC— PrPsP±PsPIP̄sC— PrPsP·Pë PSP°C,C†C-C† (2 Pi) P·P̄C-PrPSPs P·
C†PμPëPsPjPμPSPPr°C†C-C†PjPë P’P̄P̄P— PrP»C† PrPsC†P̄P»PsC— P»CHPrPëPSPë.

P—P°C†C,PsC†C†PIP°PSPSC† C† P̄PμC†C-PsPr PIP°P̄C-C,PSPsC†C,C- P°P±Ps
P̄PsPrC†PIP°PSPSC† P̄C†C†PrPrC†.

P’P°P̄C-C,PSC-C†C,CH

P’PμP·P̄PμPëP° P·P°C†C,PsC†C†PIP°PSPSC† PjPsPëC†PëC,,P»PsPëC†P°C†PëPSC† C†
P̄PμC†C-PsPr PIP°P̄C-C,PSPsC†C,C- C† P»CHPrPëPSPë PSPμ PIPëPIC†PμPSP°.
P PμP·C†P»CHC,P°C,Pë PrPsC†P»C-PrP¶PμPSC† PSP° C,PIP°C†PëPSP°C... PIPëP°P·C†C†C,CH
PSP° C†PμP̄P̄P̄PsPrC†PëC,PëPIPSC† C,PsPëC†PëC†PSC-C†C,CH (PrPëPI. C†P̄PsP·PrC-P»
B«P̄P°C†PjP°PëPsP»PsP̄C-C†PSC- PIP»P°C†C,PëPIP̄sC†C,C-B»). P̄PsC,PμPSC†C-PM̄PSPëP̄N̄
C†PëP·PëPë PrP»C† P»CHPrPëPSPë PSPμ PIC†C,P°PSPsPIP»PμPSPëP̄N̄. P— PsP̄P»C†PrC† PSP°
PμPëC†P̄PμC†PëPjPμPSC,P°P»CHPSPs PIC†C,P°PSPsPIP»PμPSPëP̄N̄ C†PëP·PëPë

C€PeC-PrP»PëPIPsPiPs PIPiP»PëPICr C,,C,PsC7C...C-PSPsP»PsPSC-PI PSP° C...C7C7C%oC-,
C7C7C- PSPµC7C7C,CH PsC7PSPsPIPSPµ PSP°PIP°PSC,P°P¶PµPSPSC7C, Cr
C7C,P°C,PµPIPsPSPµP·C7C-P»PëC... C,PIP°C7PëPS C,P° PIC7P°C...PsPICrC7C±Pë
C7PsP·PIPëC,PsPe PsP±PsC7PsC,PSPëC... CrC7P°P¶PµPSC7 C7C7PiP»PsP±C-PI Cr PrC-C,PµPNë,
C7C7C- PsC,C7PëPjC7PIP°P»Pë P»C-PeC7PIP°PSPSC7C PrPµC7C7PëPjPë
C,,C,PsC7C...C-PSPsP»PsPSP°PjPë, PjPsPeC7PëC,,P»PsPeC7P°C7PëPS PSPµ C7P»C-Pr
PiC7PëP·PSP°C7P°C,Pë PIP°PiC-C,PSPëPj P¶C-PSPeP°Pj (PrPëPI. C7PsP·PrC-P»
B«PµC7PsC,PëPiPsPeP°P·P°PSPSC7C7B»).

P“PsPrC7PIP°PSPSC7C PiC7C7PrPrC7C

PkPµPjP°C” PrP°PSPëC... C%oPsPrPs P·P°C7C,PsC7C7PIP°PSPSC7C PiC7PµPiP°C7P°C,Cr Cr
PiPµC7C-PSPr PiPsPrC7PIP°PSPSC7C PiC7C7PrPrC7C Cr P¶C-PSPsPe. P PµP·C7P»CHC,P°C,Pë
PrPsPeP»C-PSC-C7PSPëC... PrPsC7P»C-PrP¶PµPSC7 C7PIC-PrC7P°C,CH, C%oPs
PSPµPIPµP»PëPeP° PeC-P»CHPeC-C7C,CH PjPsPeC7PëC,,P»PsPeC7P°C7PëPSC7
PiC7PsPSPëPeP°C” Cr PiC7C7PrPSPµ PjPsP»PsPePs. Pj P·PiB7™ C7P·PeC7 C-P·
PIC-PrC7C7C,PSC-C7C,CH PrP°PSPëC... C%oPsPrPs PIPiP»PëPICr PSP° PSPµPjPsPIP»C7C,,
C7C7PëC... PiPsPrC7C7C,CH PiC7C7PrPrC7C, C,P° PIC7P°C...PsPICrC7C±Pë
PµPeC7PiPµC7PëPjPµPSC,P°P»CHPSPëPNë C7PëP·PëPe C€PeC-PrP»PëPIPsPiPs PIPiP»PëPICr
C,,C,PsC7C...C-PSPsP»PsPSC7 PSP° C...C7C7C%oC- C7C,P°C,PµPIPsPSPµP·C7C-P»PëC...
C,PIP°C7PëPS, C%oPs PSPµC7C7C,CH PsC7PSPsPIPSPµ PSP°PIP°PSC,P°P¶PµPSPSC7C,
PiPsPrC7PIP°PSPSC7C PiC7C7PrPrC7C PiC7PsC,PëPiPsPeP°P·P°PSPµ PiC-Pr C7P°C7
P»C-PeC7PIP°PSPSC7C PjPsPeC7PëC,,P»PsPeC7P°C7PëPSPsPj (PrPëPI. C7PsP·PrC-P»
B«PµC7PsC,PëPiPsPeP°P·P°PSPSC7C7B»).

PαPµC7C,PëP»CHPSC-C7C,CH

P”PsC7P»C-PrP¶PµPSPSC7C PSP° C,PIP°C7PëPSP°C... PSPµ PIPëC7PIPëP»Pë PIPiP»PëPICr PSP°
C,,PµC7C,PëP»CHPSC-C7C,CH (PrPëPI. C7PsP·PrC-P» B«PαP°C7PjP°PePsP»PsPiC-C7PSC-
PIP°P°C7C,PëPIPsC7C,C-B»).

*P—PrP°C,PSC-C7C,CH PIPiP»PëPIP°C,Pë PSP° C€PIPëPrPeC-C7C,CH C7PµP°PeC7C-C— PiC7Pë
PePµC7C7PIP°PSPSC- P°PIC,PsC,C7P°PSC7PiPsC7C,PsPj P°P±Ps C-PSC€PëPjPë
PjPµC...P°PSC-P·PjP°PjPë.*

P”PsC7P»C-PrP¶PµPSPSC7C PIPiP»PëPICr PjPsPeC7PëC,,P»PsPeC7P°C7PëPSC7 PSP°
P·PrP°C,PSC-C7C,CH PePµC7C7PIP°C,Pë P°PIC,PsC,C7P°PSC7PiPsC7C,PsPj C,P°
PiC7P°C7C7PIP°C,Pë P· PjPµC...P°PSC-P·PjP°PjPë PSPµ PiC7PsPIPPrPëP»PëC7C7C. PµC7PsC,Pµ
C,,C,PsC7C...C-PSPsP»PsPSPë, PIPeP»CHC7P°C7C±Pë PjPsPeC7PëC,,P»PsPeC7P°C7PëPS,
PjPsP¶C7C,CH PIPiP»PëPIP°C,Pë PSP° C€PIPëPrPeC-C7C,CH C7PµP°PeC7C-C— PiC7Pë
PePµC7C7PIP°PSPSC- P°PIC,PsC,C7P°PSC7PiPsC7C,PsPj P°P±Ps C7PsP±PsC,C- P· C-PSC€PëPjPë
PjPµC...P°PSC-P·PjP°PjPë, C7PiC7PëC7PëPSC7C7C±Pë C7PµP°PeC7C-C— P· P±PsPeC7
C7PµPSC,C7P°P»CHPSPsC— PSPµC7PIPSPsC— C7PëC7C,PµPjPë (PSP°PiC7PëPeP»P°Pr
P·P°PiP°PjPsC7PsC7PµPSPSC7C, PiPsC7C,C7C7C,PëPjC7P°C7PsPICr PIC,C7P°C,Cr P·PsC7C7C)
P°P±Ps PiPsC7C,C7C7C,C,P° PePsC7PsC,PePsC,C7PëPIP°P»Cr PIC,C7P°C,Cr
C7PIC-PrPsPjPsC7C,C- (PSPµPiC7PëC,PsPjPSC-C7C,CH) (PrPëPI. C7PsP·PrC-P»
B«PµPsP±C-C7PSC- C7PµP°PeC7C-C—B»). PµP°C7C-C”PSC,P°Pj
C7PµPePsPjPµPSPPrC7C”C,CHC7C7C PiPµC7PµPIC-C7PëC,Pë C7PIPSC7 C7PµP°PeC7C-C7C PSP°
PjPsPeC7PëC,,P»PsPeC7P°C7PëPS PiPµC7PµPr C,PëPj, C7C7C PePµC7C7PIP°C,Pë
P°PIC,PsC,C7P°PSC7PiPsC7C,PsPj P°P±Ps PiC7P°C7C7PIP°C,Pë P· C-PSC€PëPjPë

PjPμC...P°PSC-P·PjP°PjPë.

PŸPìPsCÍC-P± P·P°CÍC,PsCÍCáPIP°PSPSCI C,P° PrPsP·Pë.

P°PsP·CíPIP°PSPSCI

P PμPePsPjPμPSPPrPsPIP°PSPëPñ CĤPμP¶PëPj PrPsP·CíPIP°PSPSCI 400 PjPi PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr Cí PIPëPiP»CĬPrC- C-PSC,,CíP·C-C— 1 CĤP°P· PSP° PrPsP±Cí.

PμPsC±P°C,PePsPIP° PIPSCrC,CĤC-CëPSCĤPsPIPμPSPSP° C,PμCĤP°PíC-CĬ PjPsP¶Pμ P±CíC,Pë PíCĤPsPrPsPIP¶PμPSP° CëP»CĬC...PsPj PíPμCĤPsCĤP°P»CĤPSPsPiPs P·P°CÍC,PsCÍCíPIP°PSPSCI C,P°P±P»PμC,PsPe PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr 400 PjPi P·P° CíPjPsPIPë PSP°CĬIPSPsCÍC,C- PeP»C-PSC-C±PSPëC... PíPsPeP°P·P°PSCĤ.

PJ C...PsPrC- PeP»C-PSC-C±PSPëC... PrPsCÍP»C-PrP¶PμPSCĤ P±C-P»CĤCëC-CÍC,CH PíP°C†C-C°PSC,C-PI PíPμCĤPμC...PsPrPëP»° PSP° PíPμCĤPsCĤP°P»CĤPSPëPñ CëP»CĬC... P·P°CÍC,PsCÍCíPIP°PSPSCI PjPsPeCÍPëC,,P»PsPeCÍP°C†PëPSCr PíCĤPsC,CĬPiPsPj 4 PrPSC-PI (PSPμPiPsCÍPíC-C,P°P»CĤPSP° PíPSPμPIPjPsPSC-CĬ) P°P±Ps 6 PrPSC-PI (CíCÍPeP»P°PrPSPμPSC- C-PSC,,PμPeC†C-PñPSC- P·P°C...PIPSCĤCĤPIP°PSPSCI CëPeC-CĤPë C,P° PíC-PrCëPeC-CĤPSPëC... C,PeP°PSPëPS). P PμPePsPjPμPSPPrPsPIP°PSP° P·P°PíP°P»CĤPSP° C,CĤPëPIP°P»C-CÍC,CH PIPSCrC,CĤC-CëPSCĤPsPIPμPSPSPsPiPs C,P° PíPμCĤPsCĤP°P»CĤPSPsPiPs P»C-PeCíPIP°PSPSCI CÍC,P°PSPsPIPëC,CH 7BĤ“14 PrPSC-PI PrP»CĬ PSPμPiPsCÍPíC-C,P°P»CĤPSPëC... PíPSPμPIPjPsPSC-Pñ C,P° 7BĤ“21 PrPμPSCĤ PrP»CĬ CíCÍPeP»P°PrPSPμPSPëC... C-PSC,,PμPeC†C-PñPSPëC... P·P°C...PIPSCĤCĤPIP°PSCĤ CëPeC-CĤPë C,P° PíC-PrCëPeC-CĤPSPëC... C,PeP°PSPëPS.

PŸPìPsCÍC-P± P·P°CÍC,PsCÍCíPIP°PSPSCI

PμCĤPμPíP°CĤP°C, PIPiPsPrPëC,Pë PIPSCrC,CĤC-CëPSCĤPsPIPμPSPSPs Cí PIPëPiP»CĬPrC- **P±PμP·PíPμCĤPμCĤPIPSPsC— C-PSC,,CíP·C-C— C,CĤPëPIP°P»C-CÍC,CH PSPμ PjPμPSCëPμ**

60 C...PI (C,P°PePsP¶ PrPëPI. CĤPsP·PrC-P» B«PĥCÍPsP±P»PëPIPSCÍC,C- P·P°CÍC,PsCÍCíPIP°PSPSCI B»).

P—P° PSP°CĬIPSPsCÍC,C- PíPsPeP°P·P°PSCĤ, CĤPsP·C±PëPS PrP»CĬ C-PSC,,CíP·C-C— PjPsP¶PSP° PIPiPsPrPëC,Pë C±PμCĤPμP· PŸ-PíPsPrC-P±PSPëPñ PeP°C,PμC,PμCĤ CĤP°P·PsPj C-P· CÍCíPjC-CÍPSPëPjPë C-PSC,,CíP·C-PñPSPëPjPë CĤPsP·C±PëPSP°PjPë (PrPëPI. CĤPsP·PrC-P» B«PĥCÍPsP±P»PëPIC- P·P°C...PsPrPë P±PμP·PíPμPePëB»).

PμPsCĤCáCëPμPSPSCI C,,CáPSPeC†C-C— PSPëCĤPsPe/PíPμC±C-PSPePë

PμP°C†C-C°PSC,Pë, CĬPeC- PjP°CĤC,CH PíPsCĤCíCëPμPSPSCI C,,CíPSPeC†C-C— PSPëCĤPsPe PIC-Pr P»PμPiPePsPiPs PrPs C,CĬP¶PePsPiPs CÍC,CíPíPμPSCI, C,P° PíP°C†C-C°PSC,Pë, CĬPeC- PíPμCĤPμP±CíPIP°CĤC,CH PSP° C...CĤPsPSC-C±PSPsPjCí PrC-P°P»C-P·C-, PSP°PíCĤPëPeP»P°Pr C,C-, C...C,Ps PíCĤPsC...PsPrPëC,CH PíPμPjPsPrC-P°P»C-P· C,P° PrPsPIPiPsC,CĤPëPIP°P»PëPñ P°PjP±CíP»P°C,PsCĤPSPëPñ PíPμCĤPëC,PsPSPμP°P»CĤPSPëPñ PrC-P°P»C-P·, PSPμ PíPsC,CĤPμP±CíCĤC,CH PePsCĤPμPeC†C-C— PrPsP·Pë (P±C-P»CĤCë PrPsPeP»P°PrPSPs PrPëPI. Cí CĤPsP·PrC-P»C- B«PαP°CĤPjP°PePsP»PsPiC-C±PSC- PIP»P°CÍC,PëPIPSCÍC,C-B»).

C, P° PSCĤC...Cf), Cf PīP°C†C-C" PSC, C-PI, CĪPeC- P·P°CĪC, PsCĪCfPICfPIP°P»Pë
C...C-PSPsP»PsPSPë C, P° C,, C, PsCĤC...C-PSPsP»PsPSPë PSPμP·P°P»PμP¶PSPs PIC-Pr PIC-PeCf
C, P° C-CĪCfPSCfCĤC†PëC... C,, P°PeC, PsCĤC-PI CĤPëP·PëPeCf (PrPëPI. CĤPsP·PrC-P»
B«PhCĪCfPsP±P»PëPIPsCĪC, C- P·P°CĪC, PsCĪCfPIP°PSPSCĪB»).

** PμPsPIC-PrPsPjP»CĪP»PsCĪCĪ PīCĤPs CĤC-PrPeC-CĪPSC- PIPëPīP°PrPePë
P°PSPμPICĤPëP·PjPë P°PsCĤC, Pë C, P° CĤPsP·C€P°CĤCfPIP°PSPSCĪ CĪC, C-PSPePë P°PsCĤC, Pë,
C-PSPsPrC- CfCĪPeP»P°PrPSPμPSC- CĤPsP·CĤPëPIPsPj (Cf C, PsPjCf C†PëCĪP»C-
P»PμC, P°P»CHPSPëPj), P° C, P°PePsP¶
CĤPμPiCfCĤPiC-C, P°C†C-C-/PSPμPrPsCĪC, P°C, PSPsCĪC, C- P±CfPrCH- CĪPePsPiPs P·
PeP»P°PīP°PSC-PI CĪPμCĤC†CĪ Cf PīP°C†C-C" PSC, C-PI, CĪPeC- P·P°CĪC, PsCĪCfPICfPIP°P»Pë
C,, C, PsCĤC...C-PSPsP»PsPSPë (PrPëPI. CĤPsP·PrC-P» B«PhCĪCfPsP±P»PëPIPsCĪC, C-
P·P°CĪC, PsCĪCfPIP°PSPSCĪB»).

PŞP°CĪC, PsC, P° CĤPsP·PIPëC, PeCf PSPëP¶C†PμPSP°PIPμPrPμPSPëC... PμC,, PμPeC, C-PI C"
PIPëC%PsCĤ PīCĤPë PIPSCfC, CĤC-C€PSCĤPsPIPμPSPSPsPjCf C€P»CĪC...Cf
PIPIPμPrPμPSPSCĪ PīCĤPμPīP°CĤP°C, Cf P· PīPsPrP°P»CHC€PsCĤ PīPμCĤPsCĤP°P»CHPSPsCĤ
C, PμCĤP°PīC-C" CĤ P°P±Ps P±PμP· C, P°PePsC—.

PŞP°CĪC, Ps: PīC-PrPIPëC%PμPSPSCĪ CĤC-PIPSCĪ PīP°PjPjP°-
PīP»CfC, P°PjC-P»C, CĤP°PSCĪC,, PμCĤP°P·Pë.

PkPμC†P°CĪC, Ps: C€P»CfPSPsC†PePsPIP° C, P°C...C-P°CĤPëC, PjC-CĪ, PīC-PīPsC, PμPSP·C-CĪ,
PSP°P±CĤCĪPe, P°CĪPsC†C-PNëPsPIP°PSPëPNë C-P· P·P°CĪC, PsCĪCfPIP°PSPSCĪPj
P°PSC, PëP±C-PsC, PëPeP° PePsP»C-C, (PIPeP»CĤC†P°CĤC†Pë
PīCĪPμPIPPrPsPjPμPjP±CĤP°PSPsP·PSPëPNë PePsP»C-C,, Cf CĤC-PrPeC-CĪPSPëC...
PIPëPīP°PrPeP°C... P°CĪPsC†C-PNëPsPIP°PSPëPNë C-P· P·P°PīCĤPsP·P»PëPIPëPjPë PrP»CĪ
P¶PëC, C, CĪ CfCĪPeP»P°PrPSPμPSPSCĪPjPë, PrPëPI. CĤPsP·PrC-P» B«PhCĪCfPsP±P»PëPIPsCĪC, C-
P·P°CĪC, PsCĪCfPIP°PSPSCĪB»), CĪCfPrPsPjPSC- PSP°PīP°PrPë (Cf C, PsPjCf C†PëCĪP»C- *grand*
mal PSP°PīP°PrPë) (PrPëPI. CĤPsP·PrC-P» B«PhCĪCfPsP±P»PëPIPsCĪC, C-
P·P°CĪC, PsCĪCfPIP°PSPSCĪB»), PīP°P»CĤC†PëPSP°C†C-C—, PīPsCĤCfC€PμPSPSCĪ
C,, CfPSPeC†C-C— PSPëCĤPsPe (PIPeP»CĤC†P°CĤC†Pë P·P±C-P»CHC€PμPSPSCĪ CĤC-PIPSCĪ
P°P·PsC, Cf CĪPμC†PsPIPëPSPë PeCĤPsPIC- C, P° PeCĤPμP°C, PëPSC-PSCf), PSPëCĤPePsPIP°
PSPμPrPsCĪC, P°C, PSC-CĪC, CH (PrPëPI. CĤPsP·PrC-P» B«PhCĪCfPsP±P»PëPIPsCĪC, C-
P·P°CĪC, PsCĪCfPIP°PSPSCĪB»).

Pj CĤC-PrPeC-CĪPSPëC... PIPëPīP°PrPeP°C... PīC-CĪP»CĪ P»C-PeCfPIP°PSPSCĪ C-PSC€PëPjPë
C,, C, PsCĤC...C-PSPsP»PsPSP°PjPë PīPsPIC-PrPsPjP»CĪP»PsCĪCĪ PīCĤPs PīPsP±C-C†PSC-
PμC,, PμPeC, Pë, CĪPeC- PIC-CĤPsPiC-PrPSPs PjPsP¶CfC, CH C, P°PePsP¶ PIPëPSPëPePSCfC, Pë
PīC-Pr C†P°CĪ P»C-PeCfPIP°PSPSCĪ PjPsPeCĪPëC,, P»PsPeCĪP°C†PëPSPsPj:
PīC-PrPIPëC%PμPSPSCĪ PIPSCfC, CĤC-C€PSCĤPsC†PμCĤPμPīPSPsPiPs C, PëCĪPeCf
(PIPeP»CĤC†P°CĤC†Pë C-PrC-PsPīP°C, PëC†PSCf PIPSCfC, CĤC-C€PSCĤPsC†PμCĤPμPīPSCf
PīC-PīPμCĤC, PμPSP·C-CĤ), PīC-PīPμCĤPSP°C, CĤC-C" PjC-CĪ,
PīC-PīPμCĤPeP°P»CHC†C-C" PjC-CĪ, PīPμPjPsP»C-C, PëC†PSP° P°PSPμPjC-CĪ.

PμPsPIC-PrPsPjP»PμPSPSCĪ PīCĤPs PīC-PrPsP·CĤCĤPIP°PSC- PīPsP±C-C†PSC-
CĤPμP°PeC†C-C—

PμPsPIC-PrPsPjP»PμPSPSCĪ PīCĤPs PīC-PrPsP·CĤCĤPIP°PSC- PīPsP±C-C†PSC-
CĤPμP°PeC†C-C— PīC-CĪP»CĪ CĤPμC" CĪC, CĤP°C†C-C— PīCĤPμPīP°CĤP°C, Cf C"

PIP°P¶P»PëPIPëPjPë. P'PsPSPë PrP°CĤC,CH P·PjPsPiCř PiCĤPsPIPsPrPëC,Pë
P±PµP·PiPµCĤPµCĤPIPSPëPNë PjPsPSC-C,PsCĤPëPSPi CĤPiC-PIPIC-PrPSPsCëPµPSPSCĬ
PePsCĤPëCĤC,C- C,P° CĤPëP·PëPeCř P·P°CĤC,PsCĤCřPIP°PSPSCĬ P»C-PeP°CĤCĤCHPePsPiPs
P·P°CĤPsP±Cř. PµCĤP°C†C-PIPSPëPePë CĤPëCĤC,PµPjPë PsC...PsCĤPsPSPë P·PrPsCĤPsPIBĤ™ CĬ
PiPsPIPëPSPSC- PiPsPIC-PrPsPjP»CĬC,Pë PiCĤPs P±CřPrCH-CĬPeC- PiC-PrPsP·CĤCĤPIP°PSC-
PiPsP±C-C†PSC- CĤPµP°PeC†C-C—.

PkPµCĤCžPjC-CĤPSC-CĤC,CH.

PkPµ PjPsP¶PSP° PIPIPsPrPëC,Pë C-PSC,,CřP·C-PNëPSPëPNë CĤPsP·C†PëPS
PjPsPeCĤPëC,,P»PsPeCĤP°C†PëPSCř PsPrPSPsC†P°CĤPSPs P· C-PSCëPëPjPë
PSPµCĤCřPjC-CĤPSPëPjPë P· PSPëPj CĤPsP·C†PëPSP°PjPë, PrPs CĬPePëC... PSP°P»PµP¶P°C,CH:
CĤPsP·C†PëPS PSP°C,CĤC-CĤ C...P»PsCĤPëPrCř 10 %; CĤPsP·C†PëPS PSP°C,CĤC-CĤ
C...P»PsCĤPëPrCř 20 %; CĤPsP·C†PëPS PSP°C,CĤC-CĤ PiC-PrCĤPsPeP°CĤP±PsPSP°C,Cř 4,2 %;
CĤPsP·C†PëPS PSP°C,CĤC-CĤ PiC-PrCĤPsPeP°CĤP±PsPSP°C,Cř 8,4 %.

PiPµPNë P»C-PeP°CĤCĤCHPePëPNë P·P°CĤC-P± PSPµ CĤP»C-Pr P·PjC-CëCřPIP°C,Pë P·
C-PSCëPëPjPë PiCĤPµPiP°CĤP°C,P°PjPë, PeCĤC-Pj C,PëC..., C%Ps P·P°P·PSP°C†PµPSC- Cř
CĤPsP·PrC-P»C- B«PhCĤPsP±P»PëPIC- P·P°C...PsPrPë P±PµP·PiPµPePëB».

PŷPµCĤPjC-PS PiCĤPëPrP°C,PSPsCĤC,C-.

5 CĤPsPeC-PI.

PJPjPsPIPë P·P±PµCĤC-PiP°PSPSCĬ.

P—P±PµCĤC-PiP°C,Pë PI PSPµPrPsCĤC,CřPiPSPsPjCř PrP»CĬ PrC-C,PµPNë PjC-CĤC†C-.

P—P±PµCĤC-PiP°C,Pë PI CĤCřC...PsPjCř, P·P°C...PëC%PµPSPsPjCř PIC-Pr CĤPIC-C,P»P°
PjC-CĤC†C- PiCĤPë C,PµPjPiPµCĤP°C,CřCĤC- PSPµ PSPëP¶C†Pµ 15 B°Pŷ.

PkPµ P·P°PjPsCĤPsP¶CřPIP°C,Pë.

PµCĤPµPiP°CĤP°C, PiPsPIPëPSPµPS P·P±PµCĤC-PiP°C,PëCĤCH PI
PsCĤPëPiC-PSP°P»CHPSC-PNë CřPiP°PePsPIC†C-.

PJPiP°PePsPIPëP°.

PµPs 250 PjP» CĤPsP·C†PëPSCř Cř C,,P»P°PePsPSP°C.... PµPs 1 C,,P»P°PePsPSCř CĤP°P·PsPj P·
C-PSCĤC,CĤCřPeC†C-C”CĤ PrP»CĬ PjPµPrPëC†PSPsPiPs P·P°CĤC,PsCĤCřPIP°PSPSCĬ PI
PeP°CĤC,PsPSPSC-PNë PiP°C†C†C-.

PĽP°C,PµPiPsCĤC-CĬ PIC-PrPiCřCĤPeCř.

P—P° CḡPμC†PμPīC,PsPj.

P'PëCḡPsP±PSPëPε.

P'P°PNεC"ḡPḡPḡ, PκC-PjPμC†C†PëPSP° / Bayer AG, Germany

**PḡC-CÍC†PμP·PSP°C...PsPḡPḡPμPSPSCḡ PIPëCḡPsP±PSPëPεP° C,P° P°PḡCḡPμCÍP°
PjC-CÍC†Cḡ PīCḡPsPIP°PḡPḡPμPSPSCḡ PNεPsPiPs PḡC-CḡP»CḡPSPsCÍC,C-.**

PḡP°PNεP·PμCḡ-P'ḡC-P»CḡPiPμP»CḡPj-PḡP»PμPμ, 51368, P>PμPIPμCḡPεCíP·PμPS,
PκC-PjPμC†C†PëPSP°/

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