



CETP Gene and Its Role in Diabetes Mellitus Type II - A Review

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'HSDUWPHQW RI %LRWHFKQRORJ\ \$ 3 - \$EGXO .DODP 7HFKQLFDO 8QLYHUVLW\ 8WWDU 3UDGHVK ,QGLD
'HSDUWPHQW RI 3DWKRORJ\ .LQJ *HRUJH\V 0HGLFDO 8QLYHUVLW\ 8WWDU 3UDGHVK ,QGLD

Corresponding author: 0RKG :DPLTXH 3K ' 6FKRODU 'HSDUWPHQW RI %LRWHFKQRORJ\ \$ 3 - \$EGXO .DODP 7HFKQLFDO
ZDPLTXHNKDQ #JPDLO FRP

Received date: -DQ Accepted date: \$SU Published date: 0RKG

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Abstract

3ODV0DSRSURWHLQV DUH FRQWLQXRXVO\ UHPRGHOOHG WKURXJK WKH DFWLRQV SDUWLFXODU WKH WUDQVIHUV RI FKROHVWHU\O HVWHUV &(DQG WULJO\FHULG NQRZQ DV WKH FKROHVWHU\O HVWHU WUDQVIHU SURWHLQ &(73

HQHWLF SRO\PRUSKLVV RI WKH HQJ\PHV DQG SURWHLQV LQYROYHG LQ OLSLG SURWHLQ &(73 KDYH EHHQ VKRZQ WR DIIHFW SODVPD OLSLG FRQFHQWUDWLRQV &(OLSRSURWHLQ 9// OHYHOV ,W WUDQVIHUV FKROHVWHURO ITMaððp/ /RZ 'HQVLW\ 3URWHLQ &(&KROHVWHURO (VWHUV 9// 9HU\ /RZ 'HQVLW\ /LSRSURWHLQ 7 7ULJO\FHULGHV

,QWURGXFWRQ

3ODVPD

&(73IDFLOLWDWHV WKH WUDQVIHU DQG H[FKDQJH RI FKROHVWHU\O HVWHU &(DQG WULJO\FHULGH 7* EHWZHHQ WKH SODVPD OLSRSURWHLQV DQG SOD\ DV LPSRUWDQW UROH LQ +/ &(DQG DSR \$, FDWDEROLVP ,Q VRRP SULPDU\ DQG VFRQGDU\ K\SHUOLSLGHPLDV H J IDPLOLDO K\SHUFKROHVWHUROHPLD G\VEHWDOLSRSURWHLQHPLD K\SHUWULJO\FHULGHPLD DQG QHSKURWLF V\QGURPH DQG GXULQJ SRVWSUDQGLDO OLSHPLD DFFHOHUDWH &(73 PHGLDWHG &(WUDQVIHU UHVXOWV LQ LQFUHDVHG &(QHW PDVV WUDQVIHU IURP +/ WR 9// RU FK\ORPLFURQ SRVVLEO\ FRQWULEXWHG WR OLSRSURWHLQ +/ &(OHYHOV DQG &(HQULFKPHQW UHF\SRWHQ WR OLSRSURWHLQV DQG FK\ORPLFURQ DQG 9// UHPQDQWV > @ +\$ZULSRURWLRQ (SRKHV\O\DWXGLHV ZID FHQWUDO UROH LQ FOHDUDQFH RI OLSRSURWHLQ UHPQDQWV E\ VHUYLQJ DV OLJDQG IRU /'^EH GHFUHDVHG E\ KHDI\ DOFRKRO GULQNLQJ DQG SK\VLFDQ WU &(73 LV NQRZQ WR WUDQVIHU &(IURP +/ WR YHU\ ORZ GHQVLW\ OLSRSURWHLQ 9// LQ H[FKDQJH IRU WULJO\FHULGH 7* :KLOH WKH &(LQ WKH 9// // SRRO LV GHOLYHUHG WR WKH OLYHU DQG HOLPLQDWHG IURP WKH ERG\ DV D FRPSRQHWR RI ELOH WKH 7* LQ ORZ GHQVLW\ OLSRSURWHLQ // DQG +/ LV K\GURO\]HG E\ KHSDWLF OLSDVH +/ UHVXOWLQJ LQ VPDOOHU GHQVHU SDUWLFOHV > @ +/ LV LQYROYHG LQ WKH PHWDEROLVP RI ,/ LQWHUPHGLDWH GHQVLW\ OLSRSURWHLQ DQG ODUJH // WR VG// SDUWLFOHV DQG LQ WKH FRQYHUVLRQ RI +/ WR +/ LQ DGGLWLRQ WR 0@Op0SQ À VRSQY V

GHFUHDVHG &(73 PDVV DQG DQ LQFUHDVH LQ +' / FKROHVWHURO > @ \$
UHFHQWO\ GHVFULEHG UHODWL\ / FRPPRQ PXWDWLRQ LQ WKH
SURPRWHU FDXVHV GHFUHDVHG WUDQVFULSWLRQDO DFWLYLW\ DQG PDUNHG K\SH
DOSKD OLSRSURWHUW\ DUHG UHYHUVH FKROHVWHURO
WUDQVSRUW SHFLHQW BBUHVXOWV LQ UHGXFHG &
FRQWHQWV LQ 9// LQWHUPHGLDWH GHQVLW\ OLSRSURWHUW\ DQG //

SURWHLQ JHQH LQ MDSQHVH K\SHUDOSKDOLSR SURWHLQHPLF VXEMHFWV \$UWHULRVFOH
URPBDVF %LRO
%RHNKROGM YHQKRYHQ -\$ +RYLQJK *. -XNHPD -: .DVWHOHLQ -- HW
DO &(73 JHQH YDULDWLRQ UHODWLRQ WR OLSLG SDUDPHWHUV DQG
FDUGLRYDVFXODU ULVN &XUU 2SLQ /LSLGRO
%RUJJKUHYHOOHQVHQE%WGH -RQJ 3(%DNNHU 6- HW DO
HHvHRWFKROHVWHU\O HVWHU WUDQVIHU SURWHLQ & \$ SURPRWHU
SRO\PRUSKLVP RQ KLJK GHQVLW\ OLSRSURWHLQ FKROHVWHURO LV GSHQGHQW RQ
VHUXP WULJO\FHULGHV - &OLQ (QGRFULQRO 0HWDE
)LGDQL*RXODV \$ &URRN 5 3WHUVHQ 5& 7DQJDORV (HW DO \$Q
DVVRFLDWLRQ VWXG\ RI WKH FKROHVWHU\O HVWHU WUDQVIHU SURWHLQ 7DT, %
SRO\PRUSKLVP ZLWK ODWH RQVHW \$QJHLPHU V GLVHDVH 1HXURVFLHQFH /HWWHUV

%HUQDUG 6 0RXOLQ 3 /DJURVW / 3LFDUG 6 (OFKHEO\ 0 HW DO
\$VVRFLDWLRQ EHWZHHQ SODVPD +'FKROHVWHURO FRQFHQWUDWLRQ DQG 7DT %
&(73 JHQH SRO\PRUSKLVP LQ QRQ LQVXOLQ GSHQGHQW GLDEHHV PHOOLWXV -
/LSLG 5HV
%URZQ 0/ ,QDJX \$ +HVOHU &% \$JHOORQ /% 0DQQ & HW DO
0ROHFXODU EDVLV RI GSHQGHQVHQWUWUWUWU SURWHLQ