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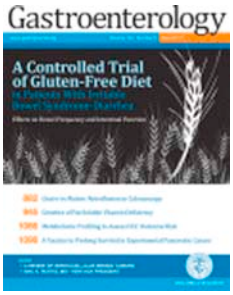

Vitamin D Receptor Activation Down-regulates Small Heterodimer Partner and Increases CYP7A1 to Lower Cholesterol

Edwin C.Y. Chow, Lilia Magomedova, Holly P. Quach, Rucha H. Patel, Matthew R. Durk, Jianghong Fan, Han-Joo Maeng, Kamdi Irondi, Sayeepriyadarshini Anakk, David D. Moore, Carolyn L. Cummins, K. Sandy Pang

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Title: Vitamin D Receptor Activation Down-regulates Small Heterodimer Partner and Increases CYP7A1 to Lower Cholesterol

Short Title: VDR up-regulates Cyp7a1 and lowers cholesterol

Authors: Edwin C.Y. Chow[1], Lilia Magomedova[1], Holly P. Quach[1,†], Rucha H. Patel[1,†], Matthew R. Durk[1], Jianghong Fan[1], Han-Joo Maeng[1,3], Kamdi Irondi[1], Sayeepriyadarshini Anakk [2,√], David D. Moore[2], Carolyn L. Cummins[1,‡], and K. Sandy Pang[1,‡] ([†,‡]contributed equally)

[1]Department of Pharmaceutical Sciences, Leslie Dan Faculty of Pharmacy, University of Toronto, Canada; [2]Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, Texas, USA; [3]Current Address: College of Pharmacy, Inje University, 607 Obang-dong, Gimhae, Gyeongnam 621-749, South Korea

[√]**Current address:** Department of Molecular & Integrative Physiology, University of Urbana-Champaign, Illinois 61801

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Abbreviations: ApoE, Apolipoprotein E; Asbt, rodent apical sodium dependent bile acid transporter, Bsep, rodent bile salt export pump; Cyp7a1/CYP7A1, rodent/human cholesterol 7α-hydroxylase; Fgf15/FGF19, rodent/human fibroblast growth factor 15/19; FGFR, fibroblast growth factor receptor; Fxr/FXR, rodent/human farnesoid X receptor; Gapdh, rodent glyceraldehyde-3-phosphate dehydrogenase; HDL-C, high-density lipoprotein cholesterol; HmgCo-A/HMGCo-A reductase, rodent/human 3-hydroxy-3-methyl-glutaryl-CoA reductase; HNF-4α, hepatocyte nuclear factor 4α; Ibabp, mouse ileal bile acid binding protein; LCA, lithocholic acid; LDL-C, low-density lipoprotein cholesterol; Ldlr, low-density lipoprotein receptor; LRH-1, liver receptor homolog-1; LXRα, liver X receptor alpha; Npc1l1, rodent Niemann-Pick C1-Like 1 transporter; Ntcp, mouse sodium-dependent taurocholate co-transporting polypeptide; Rxr/RXR, rodent/human retinoid X receptor; Shp/SHP, rodent/human small heterodimer partner; Sr-b1, mouse scavenger receptor class B member 1; Vldlr, mouse very low-density lipoprotein receptor; EMSA, electromobility shift assays; ChIP, chromatin immunoprecipitation; DAB, 3,3'-diaminobenzidine tetrahydrochloride; PBS, phosphate buffered saline; HRP, horseradish peroxidase; RLU, relative luciferase units; DTT, dithiothreitol; EDTA, ethylenediaminetetraacetic acid; BSA, bovine serum albumin; HEK293, human embryonic kidney 293