



### ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Diabetes

**ESPS manuscript NO:** 15748

**Title:** Vitamin D and Its Relationship with Insulin Resistance and Diabetes Mellitus

**Reviewer’s code:** 00506304

**Reviewer’s country:** Thailand

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2014-12-09 11:01

**Date reviewed:** 2014-12-28 12:20

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
		BPG Search:	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

### COMMENTS TO AUTHORS

General comments This paper has provided novel evidence that vitamin D insufficiency/deficiency poses a risk of T2DM. The possible underlying mechanisms, such as the direct effect of vitamin D on pancreatic beta cells, as well as supporting clinical studies were also reviewed. In general, this review article is informative, consisting of both preclinical and clinical data. Specific comments are listed as follows. Specific comments 1. On page 5-6: Reference #25 was quoted; however, this reference mentioned about the role of calbindin-D28k as a calcium-buffering protein in beta cell. Specifically, this vitamin D-dependent protein should decrease intracellular calcium and inhibit insulin release. This point must be explicitly described and discussed. 2. Indeed, vitamin D deficiency should not interfere with plasma ionized calcium or intracellular calcium concentrations enough to impair insulin secretion since the ratio of intracellular calcium:plasma calcium is approximately 1:1000 even in overt non-lethal hypocalcemia (i.e., large gradient for calcium influx). On the other hand, if vitamin D increases opening of pancreatic L-type calcium channels, it may increase insulin release. 3. The conclusion should be described in a separate section (under the header “Conclusions”). The authors may provide perspectives on future research questions, clinical application, and potential use of



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25(OH)D level as a biomarker for T2DM in this section.



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## ESPS PEER-REVIEW REPORT

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<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
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		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

### COMMENTS TO AUTHORS

In this manuscript, the author review about the relationship between vitamin D and type 2 diabetes. It's a well-written review manuscript. I have a couple of comments as follows. 1. "Vitamin D" is used both as a general term for vitamin D compounds and as cholecalciferol. The authors should use "vitamin D" more carefully, specifically in the section "Vitamin D metabolism" (as in Figure 1). Use vitamin D3 (or cholecalciferol), vitamin D2 (or ergocalciferol), 25(OH)D3, 25(OH)D2, 1,25(OH)2D3 (or calcitriol), and 1,25(OH)2D2 as necessary. 2. A table that summarizes epidemiological and clinical studies is helpful for readers to read this review paper.