Narrative Review Checklist

Section/Topic	Item No	Item	Reported on Page Number/Line Number	Reported on Section/Paragraph
TITLE				
Title	1	Identify the report as a systematic Review of PTPRD mediated signaling pathways in hepatocellular carcinoma.	Page1/Line7	-
ABSTRACT				
Unstructured summary	2.a	Provide an unstructured summary including, as applicable: background: (HCC) is the third most common cause of cancer-related mortality worldwide, and the methods for its treatment have shown limited efficacy. (PTPRD) is an important tumor-suppressor gene that is down-regulated in HCC	Page2/Line1-2;5-7	Abstract/paragraph1
	2.b	Objective：To exprove the underlying signal transduction pathway of PTPRD in HCC	Page2/Line1-9	Abstract/paragraph1
	2.c	Brief summary of narrative review: We introduce the structure, functionality, and the physiological role of PTPRD and summarize the underlying signal transduction pathway of PTPRD to emphasize a hypothesis that PTPRD is a strong HCC tumor-suppressing gene.	Page2/Line10-15	Abstract/paragraph1
	2.d	Implications for future research: The PTPRD-mediated signaling pathway has emerged as a promising target for the treatment of HCC.	Page2/Line15	Abstract/paragraph1
	2.e	Clinical practice or policy development: Efficient delivery and stability of PTPRD in conjunction with other anticancer therapeutics in vivo remain technically challenging	Page2/Line16-20	Abstract/paragraph1
INTRODUCTION				
Rationale/background	3	Describe the rationale for the review in the context of what is already known: PTPRD is homozygously deleted and epigenetically downregulated in HCC, and PTPRD may be a significant tumor-	Page3/Line 11-17	Introduction/paragraph1

		suppressor gene for HCC		
Objectives	4	Specify the key question(s) identified for the review topic:	-	-
	4.a	Does PTPRD deletion promote the development of HCC? Page/3Line 13-27	Page3/Line 13-17	Introduction/paragraph2
	4.b	Why PTPRD decreased in HCC compared with normal tissues?	Page3/Line 18-23	Introduction/paragraph2
	4.c	Whether PTPRD inhibites the carcinogenic signaling pathway in HCC?	Page3/Line 24-30	Introduction/paragraph2
	4.d	How does PTPRD play an inhibitory role in HCC?	Page3/Line 31-33; Page4/Line 1-11	Introduction/paragraph3
METHODS				
Research selection	5	Specify the process for identifying the literature search (eg, years considered, language, publication status, study design, and databases of coverage): We searched PubMed database for published English papers on PTPRD in the past ten years.	-	-
DISCUSSION/SUMMARY				
Narrative	1).	research reviewed including fundamental or key findings;	-	-
	6.a	PTPRD negatively regulates of signaling pathways in HCC, including those of STAT3/JAK, β-catenin/TCF, the PTPRD-CXCL8 axis, the PI3K/Akt/mTOR axis, and the PD-1/PD-L1 axis.	Page14/Line14-17	Conclusion/paragraph1
	2).	Limitations and/or quality of research reviewed:	-	-
	6.b	This hypothesis lacks experiments both in vivo and in vitro.	Page14/Line21-22	Conclusion/paragraph1
Discuss	3).	Need for future research:	-	-

	6.c	It provides a theoretical basis for future research	Page14/Line19-21	Conclusion/paragraph1
Summary	7	Provide an overall interpretation of the narrative review in the context of clinical practice and/or the Nutrition Care Process for registered dietitian nutritionists, clinical practice for other health professionals, policy development and implementation, or future research. Mainly including:	-	-
	7.a	PTPRD is a tumor-suppressor gene that has a crucial role in the initiation, promotion, and progression of HCC.	Page14/Line10-13	Conclusion/paragraph1
	7.b	We summarize the pathological role of PTPRD and We put forward a hypothesis that PTPRD pivotal contribution to the regulation of signaling pathways in HCC, including those of STAT3/JAK, β-catenin/TCF, the PTPRD-CXCL8 axis, the PI3K/Akt/mTOR axis, and the PD-1/PD-L1 axis.	Page14/Line14-19	Conclusion/paragraph1
	7.c	We suggest that PTPRD combined with other anticancer therapeutics may be a promising therapeutic approach against HCC	Page14/Line19-22	Conclusion/paragraph1

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*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.