

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 5469

Title: The circadian clock circuitry in colorectal cancer

Reviewer code: 02612571

Science editor: Cui, Xue-Mei

Date sent for review: 2013-09-11 18:20

Date reviewed: 2013-09-24 19:56

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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 type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

In this reviews, authors describe relationship between circadian clock and colorectal cancer. Varieties of recent studies have reported that dysfunction of circadian clock leads to cancer and that abnormal regulation of circadian clock is observed in patients with cancer. To date, there are varieties of review papers dealing with the connection of circadian clock and cancer. However, there is no review paper focusing on the connection between circadian clock and colorectal cancer. Thus, I think that this review will provide important information to researchers from broad fields. I have several comments on this review, which are summarized below. Several descriptions regarding the circadian clock are not accurate. (1) Page2 lanes 25-27 The core circadian clock proteins in mammals are CLOCK, NPAS2, Brain muscle Arnt like 1 and 2 (BMAL1 and BMAL2), CRY1/2, PER 1/2. In mammals, TIME and TIPIN are not critical for circadian regulation. In addition, Per3 KO mouse does not show any circadian phenotype. Many researchers believe that Per3 is one of the output genes, not the core clock gene. Please check the following paper. Zheng B et al. Nonredundant roles of the mPer1 and mPer2 genes in the mammalian circadian clock. Cell. 2001 105, 683-94. I recommend authors to re-write this sentence. (2) Page 2 lane 25 Brain muscle Arnt like (BMAL) or MOP3 is more frequently used in the circadian clock field than ARNTL is. NPAS2 is the paralog of CLOCK. Thus, the description of "CLOCK (NPAS2)" is not correct. (3) Page2 lanes 25-27 There are so many kinases involved in circadian regulation, such as GSK-beta and JNK. If authors put CK1-epsilon as the core clock component, they need to put them all, which would take space. I would like to recommend authors to remove CK1-epsilon from the original sentence. (4) Page2 lane 46 O-GlcNAcylation has been recently reported to be an important post-translation modification for circadian regulation in mammals (Please see the following references.) I recommend authors to include this modification

in the sentence. Kaasik K et al. Glucose sensor O-GlcNAcylation coordinates with phosphorylation to regulate circadian clock. *Cell Metab.* 2013 17, 291-302. Li MD et al. O-GlcNAc signaling entrains the circadian clock by inhibiting BMAL1/CLOCK ubiquitination. *Cell Metab.* 2013 17, 303-10. (5) Page2 lanes 46-48 Casein kinases also have been reported to phosphorylate CRY1 and BMAL1. GSK3-beta also has been reported to phosphorylate CRY2, PER2 and CLOCK. I recommend authors to re-write sentence. The following paper summarized post-translational modifications of clock proteins in its table 2, and will be helpful. Uchida Y et al. A common origin: signaling similarities in the regulation of the circadian clock and DNA damage responses. *Biol Pharm Bull.* 2010, 33, 535-44. (6) Page2 lane 46 Authors mentioned SUMOylation of clock protein (BMAL1). But they did not put reference for the sentence. I recommend them to put following references or the proper review paper. Cardone L et al. Circadian clock control by SUMOylation of BMAL1. *Science.* 2005, 309, 1390-1394. Lee J et al. Dual modification of BMAL1 by SUMO2/3 and ubiquitin promotes circadian activation of the CLOCK/BMAL1 complex. *Mol Cell Biol.* 2008, 28, 6056-6065. (7) Page3 lanes 5-6 In reference 30 (Nakahata Y et al *Cell* 2008), they did not report that SIRT1 interacts with CLOCK:BMAL1 complex in circadian manner, instead they found that SIRT1 interaction with CLOCK:BMAL1 is not time-dependent and further that the NAD⁺-dependent SIRT1 activity is changed in circadian manner. Circadian regulation of SIRT1 activity has been reported to be dependent on CLOCK:BMAL1-mediated regulation of Nampt 1 expression. (Please see following papers.) Nakahata Y et al. Circadian control of the NAD⁺ salvage pathway by CLOCK-SIRT1. *Science.* 2009, 324, 654-657. Ramsey KM et al. Circadian clock feedback cycle through NAMPT-mediated

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 5469

Title: The circadian clock circuitry in colorectal cancer

Reviewer code: 02521098

Science editor: Cui, Xue-Mei

Date sent for review: 2013-09-11 18:20

Date reviewed: 2013-10-04 22:16

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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 type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input checked="" type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input checked="" type="checkbox"/> Grade D (Fair)		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

Intesting topic. however, 2 issues should be paid attention to: 1. The epidemiological data is too old, mostly in 2005, and I suggest updating epidemiological data. 2 References is nonething new, basically in 2005, also should be updated.

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 5469

Title: The circadian clock circuitry in colorectal cancer

Reviewer code: 02596277

Science editor: Cui, Xue-Mei

Date sent for review: 2013-09-11 18:20

Date reviewed: 2013-12-01 23:33

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input checked="" type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of	<input type="checkbox"/> No records	
<input type="checkbox"/> Grade D (Fair)	language polishing	BPG Search:	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

The mechanisms underlying biological rhythm are not well studied. The authors contribute considerable time to seek for the controls of this biological phenomenon, this review provides some insights into them. It deserves reading and has meritorious. I agree to have it accepted.