



PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 40842

Title: A novel screening test for celiac disease using peptide functionalised gold nanoparticles

Reviewer’s code: 00742022

Reviewer’s country: United States

Science editor: Xue-Jiao Wang

Date sent for review: 2018-07-13

Date reviewed: 2018-07-24

Review time: 11 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	(General priority)	Peer-reviewer’s expertise on the topic of the manuscript:
<input type="checkbox"/> Grade E: Do not publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Minor revision	<input type="checkbox"/> Advanced
		<input checked="" type="checkbox"/> Major revision	<input checked="" type="checkbox"/> General
		<input type="checkbox"/> Rejection	<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

A novel screening test for celiac disease using peptide functionalised gold nanoparticles
The investigators have developed a novel and innovative process to screen for celiac disease. The process works by determining spectrophotometric properties of gold



**Baishideng
Publishing
Group**

7901 Stoneridge Drive, Suite 501,
Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

nanoparticles coated with the peptide sequence reactive in celiac disease. The investigators report a change to redder spectrum in reacting substrate. Although the authors mention the sensitivity and specificity of the method, I didn't notice any resulting values. The authors state - We next assessed the sensitivity and specificity levels of the test using serum samples spiked with AGA. What are the values? All cases of CD were medically diagnosed and based on typical small intestinal histology usually in conjunction with positive CD serology. Need better explanation. What was the serology and Marsh score of each patient versus diagnosis of CD? Results and Discussion - should be separate. A formal Discussion section is needed to compare and contrast the study with published works in the literature, with citations. Separate Results and Discussion sections are needed. Cites needed in the Discussion, with compare and contrast. Out of these thirty samples, fourteen samples that were diagnosed with active CD with high antibody titres as shown by serology and intestinal damage as per biopsy were identified as CD positive using AuNP-Peptide-AGA assay as well. What about the other samples? while 26 samples showed comparable results with existing serology and histology, What does comparable results mean? 2 false positive results and 2 false negative results were obtained using the AuNP-Peptide-AGA assay giving the AuNP-Peptide-AGA assay an overall accuracy of 86.6%. What were the existing serology and histology values/scores for these?

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- The same title
- Duplicate publication
- Plagiarism
- No



**Baishideng
Publishing
Group**

7901 Stoneridge Drive, Suite 501,
Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

BPG Search:

- The same title
- Duplicate publication
- Plagiarism
- No



PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 40842

Title: A novel screening test for celiac disease using peptide functionalised gold nanoparticles

Reviewer’s code: 00159281

Reviewer’s country: United Kingdom

Science editor: Xue-Jiao Wang

Date sent for review: 2018-07-13

Date reviewed: 2018-07-30

Review time: 17 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	<input type="checkbox"/> Accept (High priority)	<input type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of polishing	<input type="checkbox"/> Accept (General priority)	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Minor revision	Peer-reviewer’s expertise on the topic of the manuscript:
<input type="checkbox"/> Grade E: Do not publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Congratulations to the authors for beautiful work! The authors presenting an interesting study by determining spectrophotometric properties of gold nanoparticles coated with the peptide sequence reactive activities in celiac disease (CD). This novel



**Baishideng
Publishing
Group**

7901 Stoneridge Drive, Suite 501,
Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

work has a high potential in improving the diagnostic accuracy and adding additional biomarker to CD' workup. Unfortunately this paper has been written in a unconventional fashion. The results is extremely long and the paper lack a classical structure like introduction, patients/methods/ results and discussion with proportional information. I suggest balancing the paper with limited material and methods/results. The results section should be shortened and contain the very essential information suitable for WJG readers. The rest can be submitted as additional supplemental files. The information related to patients is inadequate. I suggest adding a section lile patient and Methods were the patient can clearly discuss how the have selected their patients and controls (volunteers) and at which stage of diagnosis the test were accomplished. Other comments Again, why do we have to read about "villous atrophy" when no such process is involved! Why do authors persist in repeating these meaningless phrases and words [see Marsh et al, Gastroenterology 151: 784, 2016]. Likewise Oberhuber's changes have for many years been shown to be unworkable, and pretty useless in terms of diagnosis, treatment, or follow-up (Rostami K, et al. Gut 2017;66:2080-2086). In light of recent studies the Oberhubers classification lack scientific support and shouldn't be used.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- The same title
- Duplicate publication
- Plagiarism
- No

BPG Search:



Baishideng Publishing Group

7901 Stoneridge Drive, Suite 501,
Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

- The same title
- Duplicate publication
- Plagiarism
- No



PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 40842

Title: A novel screening test for celiac disease using peptide functionalised gold nanoparticles

Reviewer's code: 00050427

Reviewer's country: India

Science editor: Xue-Jiao Wang

Date sent for review: 2018-07-13

Date reviewed: 2018-07-31

Review time: 17 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	(General priority)	Peer-reviewer's expertise on the topic of the manuscript:
<input type="checkbox"/> Grade E: Do not publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Minor revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Major revision	<input checked="" type="checkbox"/> General
		<input type="checkbox"/> Rejection	<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Dear Author You have done good job. But I have few concern regarding submitted article, which is as follows: 1. Reference range of IgA tTG and IgG DGP is different for different serum serum samples. It appears that different kits are used for ELISA. Why it



**Baishideng
Publishing
Group**

7901 Stoneridge Drive, Suite 501,
Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

is not done by the kit of single manufacturer? 2. References needs to be critically revised as title of ref. 13 is missing, etc.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- The same title
- Duplicate publication
- Plagiarism
- No

BPG Search:

- The same title
- Duplicate publication
- Plagiarism
- No



PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 40842

Title: A novel screening test for celiac disease using peptide functionalised gold nanoparticles

Reviewer’s code: 01555264

Reviewer’s country: Iran

Science editor: Xue-Jiao Wang

Date sent for review: 2018-07-13

Date reviewed: 2018-08-03

Review time: 21 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer’s expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input checked="" type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This article is about a new test for celiac disease using functionalized peptides with gold nanoparticles and uses alpha gliadin as a specific peptide for the diagnosis. In this paper, the specificity of this sensor has been investigated, but the precision of this sensor has



**Baishideng
Publishing
Group**

7901 Stoneridge Drive, Suite 501,
Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

not been compared with existing ones such as ELISA. Specificity with control samples and differences in color intensity were investigated (difference in color intensity in AuNP-peptide-AGA and AuNP-peptide-IgG, which did not change the color intensity of AuNP-peptide-IgG in comparison to the antibody fraction, but in AuNP-peptide-AGA change) The detection of binding by the technique of the difference in color intensity indicates that when the antigliadic antibody binds to the antigen, the color intensity decreases as compared to the control sample and when there is no antigen. The antibody binding method is to the level of gold nanoparticles peptides using the avidine biotin method, which these two substances have the ability to interconnect. Gold nanoparticles peptides are first coated with NeutrAvidin, followed by Biotin- (PEG) 11-Maleimide, which adds biotin and avidin to each other, and then the anti-glutamine antibody is added to the resulting peptide. Samples of patients with celiac disease are found on the peptide and, by changing the color intensity of the binding of the antibody and the antigen. For clarity and simplicity, the nanoparticles can be coated with avidin for greater accuracy and clarity. Using the functional groups, the antibody was placed on the surface. To diagnose the sample, the patient labeled with a biotin-tagged antigen, labeled with a biotin binding to avidine and color changes, noticed the binding of the antibody to the antigen and the presence or absence of the disease. Also, this article claims to be the best method for diagnosis after mucosal biopsy for celiac disease, but has not provided sufficient reasons such as accuracy and cheapness and ... etc.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- [] The same title
- [] Duplicate publication
- [] Plagiarism



**Baishideng
Publishing
Group**

7901 Stoneridge Drive, Suite 501,
Pleasanton, CA 94588, USA
Telephone: +1-925-223-8242
Fax: +1-925-223-8243
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

[Y] No

BPG Search:

[] The same title

[] Duplicate publication

[] Plagiarism

[Y] No