OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

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- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://brieflands.com/briefland/knowledgebase/category/tree.html#opr.html

Gene, Cell and Tissue
Article DOI: 10.5812/gct.102074
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Peer Review Report for "An Updated Review of Methods, Challenges, and Future Perspectives of Circulating Tumor Cell Isolation: Focusing on the Use of Nanomaterials"

Author(s): Saman Sargazi, Ramin Saravani

Review Timeline:

Submit Date:	21 Feb 2020
Revised Date:	13 Mar 2020
Accepted Date:	16 Mar 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (0) 25 Feb 2020

Dear AE,
The subject of the article is interesting. However, an improvement in the several aspects of the paper could be necessary. In this situation, some points could be considered:
Hard to read the following sentences: “Tumor dormancy is defined as a “steady state” where circulating tumor cells (CTCs) are present in patients but do not form a large vascularized tumor, owing to the absence of stimulatory signals or prolonged activation of suppressive signaling pathways [1].”
“In a study by Sekine et al., carboxylic acid group coated monomers dissolved in dichloromethane were directly electropolymerized onto a surface.”
“Five years later, Chen et al. synthesized a tumor microenvironment-responsive nanocarrier and co-treated melanoma cells with this novel nanomaterial and celastrol and mitoxantrone, the two potent anti-tumor agents.”
The following sentences are unclear:
“Metastasis causes poor patient prognosis.”

“Nanomaterials are useful for monitoring and targeted therapy guidance.”
Thanks.

REFEREE: Reviewer | **Revision** (0) 26 Feb 2020

Dear AE,
In this letter, the authors address the important role of nanoparticles in the diagnosis and treatment of cancer, which seems to be a good topic for publication in this journal.
It would be more appealing to the reader if the letter had been classified into two sections achievements and challenges
Here are some tips to improve the article:
1. The text should be checked grammatically
2. The authors stated that separation faces many challenges, however, mentioned only one challenge.
Thanks

Nadia Sheibak: Reviewer | **Revision** (0) 1 Mar 2020

Dear AE,
Concerning the manuscript entitled "Nanomaterials enhance the isolation of circulating tumor cells" for Gene, Cell and Tissue journal.
Final evalution:
With respect to the authors, the article is recommended to reject or accept after a major revision. Rewriting or doing more research could improve the study.
This manuscript reviewed use of nanomaterials for CTC isolation.
There are several major issues with this paper:
1- As it is mentioned by authors, nanomaterisls currently are used for CTC isolation, therefore there is a lack of novelty in the present manuscript.
2- Authors should add new suggestions in this topic to improve their study.
3- Limitations and side effects of this method should be cosidered.
4-English editing is recommended.
Thanks

REFEREE: Associate Editor | **Revision** (0) 2 Mar 2020

Dear EIC
The reviewer(s) have recommended publication, but also suggest some minor revisions to the manuscript. Therefore, I invite the author to respond to the reviewer(s)' comments and revise his manuscript.
Kind regards,

Zahra Heidari: EIC | **Revision** (0) 3 Mar 2020

Dear Authors,
Based on the reviewers' and AE comments this manuscript needs some revisions and also English language editing.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reviewer 1:
In this letter, the authors address the important role of nanoparticles in the diagnosis and treatment of cancer, which seems to be a good topic for publication in this journal.
It would be more appealing to the reader if the letter had been classified into two sections of achievements and challenges
Here are some tips to improve the article:
١. The text should be checked grammatically
٢. The authors stated that separation faces many challenges, however mentioned only one challenge.

Response: Thank you for pointing these out. We divided the manuscript into two sections and added some information regarding these challenges. However, we changed the title to avoid confusion. Besides, we re-checked the manuscript for possible grammatical errors.

Reviewer 2:
The subject of the article is interesting. However, an improvement in the several aspects of the paper could be necessary. In this situation, some points could be considered:

Hard to read the following sentences: “Tumor dormancy is defined as a “steady state” where circulating tumor cells (CTCs) are present in patients but do not form a large vascularized tumor, owing to the absence of stimulatory signals or prolonged activation of suppressive signaling pathways [1].”
“In a study by Sekine et al., carboxylic acid group coated monomers dissolved in dichloromethane were directly electropolymerized onto a surface.”
“Five years later, Chen et al. synthesized a tumor microenvironment-responsive nanocarrier and co-treated melanoma cells with this novel nanomaterial and celastrol and mitoxantrone, the two potent anti-tumor agents.”
The following sentences are unclear:
“Metastasis causes poor patient prognosis.”
“Nanomaterials are useful for monitoring and targeted therapy guidance.”

The mentioned sentences were revised and reworded to improve the readability.

Reviewer 3:
Concerning the manuscript entitled "Nanomaterials enhance the isolation of circulating tumor cells" for Gene, Cell and Tissue journal.

There is no response to this comment.

Final evalution:
With respect to the authors, the article is recommended to reject or accept after a major revision. Rewriting or doing more research could improve the study.

Response: We appreciate your comment. Unfortunately, we could not add more researches because the number of references should not exceed 10.

This manuscript reviewed use of nanomaterials for CTC isolation.
There are several major issues with this paper:
1- As it is mentioned by authors, nanomaterisls currently are used for CTC isolation, therefore there is a lack of novelty in the present manuscript.

Response: Of course, nanomaterials are used for this purpose. The thing is there is still one or two primary challenges in their application. Besides, we aimed to briefly summarize different methods for CTC isolation by focusing on the recent application of nano-based compounds. We divided the manuscript into two sections and added some information regarding these challenges.

2- Authors should add new suggestions in this topic to improve their study.

Response: done.

3- Limitations and side effects of this method should be cosidered.

Response: done.

4-English editing is recommended.

Response: done.

OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

Nadia Sheibak: Reviewer | **Revision** (1) — 7 Mar 2020

Dear AE,
Final evaluation:
With respect to the authors, the article is recommended to reject.
1- The present manuscript basically revised but still there is no new insight.
2- This topic has been previously studied and published as review articles.
3- It is recommended to revise the present study as an updated review.
4-Several grammatical errors are still present in the manuscript.
Thanks

REFEREE: Reviewer | **Revision** (1) — 8 Mar 2020

Dear AE,
The article " Methods and challenges in isolation of circulating tumor cells: Focusing on the use of nanomaterials" was read. This manuscript described the role of nanoparticles in the diagnosis and treatment of cancer. It is a good topic for GCT journal. Also, the authors have carried out reforms.
Best regards.

REFEREE: Reviewer | **Revision** (1) — 9 Mar 2020

Dear AE,
The study is reviewed carefully. According to comments and revisions by the author, this manuscript is accepted.
Thanks

Zahra Heidari: Associate Editor | **Revision** (1) — 9 Mar 2020

Dear EIC,
Based on the reviewers' comments, this manuscript still needs revision and English language editing. The authros should revise it and reply point by point to the reviewer,s comments.
Thanks.

Zahra Heidari: EIC | **Revision (1)** 11 Mar 2020

Dear Authors,
Based on the reviewers' comments, this manuscript still needs revision and English language editing. please revise it and reply point by point to the reviewer,s comments.
Thanks.

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Dear Editor of *GCT Journal*

Thank you very much for your effort regarding the review process of our Manuscript entitled "**An updated review of methods, challenges and future perspectives of circulating tumor cells isolation: Focusing on the use of nanomaterials**"(ID:102074**)**. We have carefully revised our manuscript according to reviewer's comments. The revised sentences are marked in yellow in the manuscript.

Reviewer 1:

1- The present manuscript basically revised but still there is no new insight.

Response: We added a section at the end of the manuscript, named "future perspectives". In this section, we explained possible new strategies which might help overcoming these challenges.

2- This topic has been previously studied and published as review articles.

Response: Yes it did. I respect your opinion. However, it does necessarily mean that the issue is not worth publishing as an updated editorial paper !

3- It is recommended to revise the present study as an updated review.

Response: Thanks for your suggestion. The title of the article is now changed to "An updated review of methods, challenges and future perspectives of circulating tumor cells isolation: Focusing on the use of nanomaterials"

4-Several grammatical errors are still present in the manuscript.

Response: We re-evaluated the text for possible typo- and grammatical errors. The changes were highlighted.

We tried our best to improve the manuscript and made some changes based on the suggestions, , hoping to meet the reviewer expectations. We assure these changes do not influence the content and framework of the paper.

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (2) — 15 Mar 2020

Dear AE,
The study is reviewed carefully. According to comments and revisions by the author, this manuscript is accepted.
Thanks

Nadia Sheibak: Reviewer | **Revision** (2) — 16 Mar 2020

Dear AE,
The article is recommended to accept and publish as a mini-review.
Thanks.

Zahra Heidari: Associate Editor | **Revision** (2) — 16 Mar 2020

Dear EIC,
Revisions were done well. Thus this manuscript can be accepted for publication in GCT.
Thanks.

REFEREE: EIC | **Revision** (2) — 16 Mar 2020

Dear Authors,
Revisions were done well. Thus this manuscript can be accepted for publication in GCT.
Thanks.