

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Immunology

ESPS manuscript NO: 20848

Title: Chimeric antigen receptors – on the road to realising their full potential

Reviewer's code: 00212189

Reviewer's country: Norway

Science editor: Xue-Mei Gong

Date sent for review: 2015-06-24 14:32

Date reviewed: 2015-07-04 02:42

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" type="checkbox"/> Grade A: Excellent	<input checked="" 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"/> The same title	<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"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> Plagiarism	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input 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

In this well-written editorial, the authors present a very interesting review on a novel technology for immunotherapy, namely chimeric antigen receptors (CARs). Specific comments: 1) Page 3. Some references would be appropriate for the 2 signal requirement for T-cell activation, e.g. Bretscher & Cohn Science 1970 (PMID:4194660) 2) How does CAR technology compare to immunotherapy mediated by monoclonal antibodies against the same target, e.g. anti-CD19 antibodies? A few considerations about this issue would be useful to the critical reader. 3) Page 7. "Consequently, self-antigens are generally selected for CAR T cell immunotherapy in the hope that on-target toxicity will not emerge upon clinical testing." This sentence is paradoxical and requires further explanations. Targeting self antigens is expected to cause toxicity!

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Immunology

ESPS manuscript NO: 20848

Title: Chimeric antigen receptors – on the road to realising their full potential

Reviewer's code: 00502947

Reviewer's country: Australia

Science editor: Xue-Mei Gong

Date sent for review: 2015-06-24 14:32

Date reviewed: 2015-07-05 20:27

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

COMMENTS TO AUTHORS

A clearly written and enjoyable to read expert editorial on CARs. The different issues are appropriately covered and this includes the quality control of the technology. The arguments are well balance. I thought that the work in two other recent June publications could be mentioned. This includes use in T cell malignancies: Mamonkin M et al. A T cell-directed chimeric antigen receptor for the selective treatment of T cell malignancies. Blood. 2015 Jun 8. pii: blood-2015-02-629527. [Epub ahead of print] Also some work on overcoming the cytokine toxicity Song DG et al. A fully human chimeric antigen receptor with potent activity against cancer cells but reduced risk for off-tumor toxicity. Oncotarget. 2015 Jun 19. [Epub ahead of print]

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Immunology

ESPS manuscript NO: 20848

Title: Chimeric antigen receptors – on the road to realising their full potential

Reviewer's code: 00502977

Reviewer's country: France

Science editor: Xue-Mei Gong

Date sent for review: 2015-06-24 14:32

Date reviewed: 2015-06-28 21:59

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input checked="" type="checkbox"/> High priority for publication
<input 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 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: the authors provide a review related to chimeric antigen receptors (CAR). This excellent and up to date review article will provide much recent knowledge concerning CAR to the readers of this journal. In the manuscript, authors refer to therapeutic trials and adverse events, however, these issues are not sufficiently discussed and a table summarizing these specific points would help the readers.

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Immunology

ESPS manuscript NO: 20848

Title: Chimeric antigen receptors – on the road to realising their full potential

Reviewer's code: 00503125

Reviewer's country: United States

Science editor: Xue-Mei Gong

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Date reviewed: 2015-06-29 04:46

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input type="checkbox"/> High priority for publication
<input 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
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		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

Chimeric antigen receptors are fusion molecules that may be genetically delivered to T-cells thereby conferring specificity for target antigens on the surface of the tumor. This approach has had some success with elimination of B-cell malignancies. The efficacy of this approach to solid tumors remains poorly defined. Manufacture of the critical molecules and target selection remains a challenge. A nice review of the status of the application of chimeric antigen receptors to tumor biology is outlined in this manuscript.