

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Infectious Diseases

ESPS manuscript NO: 23120

Title: Osmolyte transport in Staphylococcus aureus and the role in pathogenesis

Reviewer's code: 02616713

Reviewer's country: Germany

Science editor: Shui Qiu

Date sent for review: 2015-10-27 10:36

Date reviewed: 2015-12-22 22:13

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 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		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

The manuscript of Schwan and Wetzel summarizes the current knowledge on osmolyte transport in the human pathogen *S. aureus*. The authors focus mainly on the high and low affinity proline transporters Put, ProP, and the Opu system. Information on the physiological significance and functional properties is provided. The manuscript is interesting and concise. I have the following minor issues: 1. On p. 5 last paragraph the authors make the following statement on PutP: "At the structural level, the PutP homolog of *S. aureus* shows a sodium-binding motif, the same ten conserved amino acids found in all other members of the sodium/solute symporters [23], and the predicted PutP protein of *S. aureus* [22] shares considerable similarity with the PutP protein of *E. coli* [1]. Although many similarities exist between the high-affinity proline transport systems in *S. aureus* and *E. coli*, major differences between these systems include: the concentration of NaCl appears to have no effect on proline transport in *S. aureus* [8, 15]" Does this mean proline uptake by PutP of *S. aureus* is not driven by a sodium motive force although it has a "sodium binding motif" and is a member of the solute/sodium symporter family? The authors should clarify this point. If sodium is not the coupling ion, is it replaced by protons? 2. Table 1 lists the proline and glycine



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betaine transporters found in different *S. aureus* strains. If space is not a problem, it would be great to add a scheme of a *S. aureus* cell showing all the listet transporters including some basis functional properties like the mechanism of energy coupling and/or substrate specificity. 3. The authors may consider the following additional references: - p. 1 Introduction to osmolyte transport: the work/ a review of LN Csonka should be meantioned - middle of. 5: "...and Km values of the PutP system in *E. coli* [15]." Refe. 15 provides kinetic parameters of proline uptake in *S. aureus* but not in *E. coli*. The authors should cite work of the labs of Janet Wood, Tom H. Wilson, Stanley Maloy and/or Heinrich Jung on the kinetics of proline uptake by PutP of *E. coli*. - p. 6 end of second paragraph: "Many of these characteristics are similar to the regulatory and functional properties of the ProP system of *E. coli* [1] ..." Ref. 1 is from 1988. ProP of *E. coli* was shown to act as an osmosensor AND transporter in 1999 (Racher KI et al. Biochemistry).



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ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Infectious Diseases

ESPS manuscript NO: 23120

Title: Osmolyte transport in Staphylococcus aureus and the role in pathogenesis

Reviewer's code: 00506525

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Science editor: Shui Qiu

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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 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		[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

1. There is an error in reference 21.
2. If possible, update references to 2014-2015.



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ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Infectious Diseases

ESPS manuscript NO: 23120

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Science editor: Shui Qiu

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

COMMENTS TO AUTHORS

Dear Authors The manuscript have summarized the current knowledge on osmolyte transport in S. aureus. This is an outstanding article. In page 8, "two componenet signal transduction" componenet should be corrected. Sincerely



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ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Infectious Diseases

ESPS manuscript NO: 23120

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
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		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

The manuscript is well conceived and presents the findings to date in a good format. The corrections made are shown in green highlight for your kind attention.