

ICMJE DISCLOSURE FORM

Date: 10/18/2023

Your Name: Ishan Shah

Manuscript Title: Osteobiologics in Degenerative Spine Disease: Current Clinical Applications of Recombinant Human Bone Morphogenetic Proteins - A Narrative Review

Manuscript number (if known): _____

In the interest of transparency, we ask you to disclose all relationships/activities/interests listed below that are related to the content of your manuscript. "Related" means any relation with for-profit or not-for-profit third parties whose interests may be affected by the content of the manuscript. Disclosure represents a commitment to transparency and does not necessarily indicate a bias. If you are in doubt about whether to list a relationship/activity/interest, it is preferable that you do so.

The following questions apply to the author's relationships/activities/interests as they relate to the current manuscript only.

The author's relationships/activities/interests should be defined broadly. For example, if your manuscript pertains to the epidemiology of hypertension, you should declare all relationships with manufacturers of antihypertensive medication, even if that medication is not mentioned in the manuscript.

In item #1 below, report all support for the work reported in this manuscript without time limit. For all other items, the time frame for disclosure is the past 36 months.

		Name all entities with whom you have this relationship or indicate none (add rows as needed)	Specifications/Comments (e.g., if payments were made to you or to your institution)
Time frame: Since the initial planning of the work			
1	All support for the present manuscript (e.g., funding, provision of study materials, medical writing, article processing charges, etc.) No time limit for this item.	<input checked="" type="checkbox"/> None	
Time frame: past 36 months			
2	Grants or contracts from any entity (if not indicated in item #1 above).	<input checked="" type="checkbox"/> None	
3	Royalties or licenses	<input checked="" type="checkbox"/> None	
4	Consulting fees	<input checked="" type="checkbox"/> None	

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	<input type="checkbox"/> None	
6	Payment for expert testimony	<input type="checkbox"/> None	
7	Support for attending meetings and/or travel	<input type="checkbox"/> None	
8	Patents planned, issued or pending	<input type="checkbox"/> None	
9	Participation on a Data Safety Monitoring Board or Advisory Board	<input type="checkbox"/> None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	<input type="checkbox"/> None	
11	Stock or stock options	<input type="checkbox"/> None	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<input type="checkbox"/> None	
13	Other financial or non-financial interests	<input type="checkbox"/> None	

Please summarize the above conflict of interest in the following box:

None

Please place an "X" next to the following statement to indicate your agreement:

I certify that I have answered every question and have not altered the wording of any of the questions on this form.

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Date: 10/18/2023

Your Name: Manat Chopra

Manuscript Title: Osteobiologics in Degenerative Spine Disease: Current Clinical Applications of Recombinant Human Bone Morphogenetic Proteins - A Narrative Review

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3	Royalties or licenses	<input checked="" type="checkbox"/> None	
4	Consulting fees	<input checked="" type="checkbox"/> None	

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	<input type="checkbox"/> None	
6	Payment for expert testimony	<input type="checkbox"/> None	
7	Support for attending meetings and/or travel	<input type="checkbox"/> None	
8	Patents planned, issued or pending	<input type="checkbox"/> None	
9	Participation on a Data Safety Monitoring Board or Advisory Board	<input type="checkbox"/> None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	<input type="checkbox"/> None	
11	Stock or stock options	<input type="checkbox"/> None	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<input type="checkbox"/> None	
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ICMJE DISCLOSURE FORM

Date: 10/18/2023

Your Name: Andy Ton

Manuscript Title: Osteobiologics in Degenerative Spine Disease: Current Clinical Applications of Recombinant Human Bone Morphogenetic Proteins - A Narrative Review

Manuscript number (if known): _____

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Time frame: past 36 months			
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3	Royalties or licenses	<input checked="" type="checkbox"/> None	
4	Consulting fees	<input checked="" type="checkbox"/> None	

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	<input type="checkbox"/> None	
6	Payment for expert testimony	<input type="checkbox"/> None	
7	Support for attending meetings and/or travel	<input type="checkbox"/> None	
8	Patents planned, issued or pending	<input type="checkbox"/> None	
9	Participation on a Data Safety Monitoring Board or Advisory Board	<input type="checkbox"/> None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	<input type="checkbox"/> None	
11	Stock or stock options	<input type="checkbox"/> None	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<input type="checkbox"/> None	
13	Other financial or non-financial interests	<input type="checkbox"/> None	

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None

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ICMJE DISCLOSURE FORM

Date: 10/18/2023

Your Name: Raymond J. Hah

Manuscript Title: Osteobiologics in Degenerative Spine Disease: Current Clinical Applications of Recombinant Human Bone Morphogenetic Proteins - A Narrative Review

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Time frame: past 36 months			
2	Grants or contracts from any entity (if not indicated in item #1 above).	<input type="checkbox"/> SI bone	Research support
3	Royalties or licenses	<input checked="" type="checkbox"/> None	
4	Consulting fees	<input type="checkbox"/> Nuvasive	50,000

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	<input type="checkbox"/> x <input type="checkbox"/> None	
6	Payment for expert testimony	<input type="checkbox"/> x <input type="checkbox"/> None	
7	Support for attending meetings and/or travel	North American Spine Society	
8	Patents planned, issued or pending	<input type="checkbox"/> x <input type="checkbox"/> None	
9	Participation on a Data Safety Monitoring Board or Advisory Board	<input type="checkbox"/> x <input type="checkbox"/> None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	<input type="checkbox"/> x <input type="checkbox"/> None	
11	Stock or stock options	<input type="checkbox"/> x <input type="checkbox"/> None	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<input type="checkbox"/> x <input type="checkbox"/> None	
13	Other financial or non-financial interests	<input type="checkbox"/> x <input type="checkbox"/> None	

Please summarize the above conflict of interest in the following box:

Raymond J. Hah has received grant funding from SI bone, consulting fees from NuVasive, and support from the North American Spine Society to attend meetings.

Please place an "X" next to the following statement to indicate your agreement:

X I certify that I have answered every question and have not altered the wording of any of the questions on this form.

ICMJE DISCLOSURE FORM

Date: 10/18/2023

Your Name: Jeffrey C. Wang

Manuscript Title: Osteobiologics in Degenerative Spine Disease: Current Clinical Applications of Recombinant Human Bone Morphogenetic Proteins - A Narrative Review

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Time frame: past 36 months			
2	Grants or contracts from any entity (if not indicated in item #1 above).	<input checked="" type="checkbox"/> None	
3	Royalties or licenses	Biomet	IP Royalties
		Novapproach	IP Royalties
		Seaspine	IP Royalties
		Synthes	IP Royalties
4	Consulting fees	<input checked="" type="checkbox"/> None	

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	<input type="checkbox"/> None	
6	Payment for expert testimony	<input type="checkbox"/> None	
7	Support for attending meetings and/or travel	<input type="checkbox"/> None	
8	Patents planned, issued or pending	<input type="checkbox"/> None	
9	Participation on a Data Safety Monitoring Board or Advisory Board	<input type="checkbox"/> None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	AO Foundation	Board or Committee Member
11	Stock or stock options	Bone Biologics Electrocore PearlDiver Surgitech	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<input type="checkbox"/> None	
13	Other financial or non-financial interests	<input type="checkbox"/> None	

Please summarize the above conflict of interest in the following box:

Jeffrey C. Wang has received intellectual property royalties from Zimmer Biomet, NovApproach, SeaSpine, and DePuy Synthes, and is a committee member of AO Foundation. He holds stocks in the Bone Biologics, Electrocore, PearlDiver and Surgitech.

Please place an “X” next to the following statement to indicate your agreement:

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ICMJJE DISCLOSURE FORM

Date: 10/18/2023

Your Name: Ram K. Alluri

Manuscript Title: Osteobiologics in Degenerative Spine Disease: Current Clinical Applications of Recombinant Human Bone Morphogenetic Proteins - A Narrative Review

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Time frame: past 36 months			
2	Grants or contracts from any entity (if not indicated in item #1 above).	NIH	
3	Royalties or licenses	None	
4	Consulting fees	HIA Technologies	

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	Eccential Robotics	
6	Payment for expert testimony	Med-legal consulting (not testimony)	
7	Support for attending meetings and/or travel	USC	
8	Patents planned, issued or pending	___ None	
9	Participation on a Data Safety Monitoring Board or Advisory Board	___ None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	___ None	
11	Stock or stock options	_ HIA Technologies	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	___ None	
13	Other financial or non-financial interests	Alphatec Spine	Research Support

Please summarize the above conflict of interest in the following box:

Ram K. Alluri has received grant funding from NIH, consulting fees from HIA Technologies, payment from Eccential Robotics for lectures and presentations, payment for expert testimony from Med-legal consulting (not testimony), support for attending meetings from USC, research support from Alphatec Spine, and holds stocks in the HIA Technologies.

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