

ICMJE DISCLOSURE FORM

Date: March 22, 2023

Your Name: Keyvan Golestan

Manuscript Title: Approximating Femoral Neck Bone Mineral Density from Hand, Knee, and Pelvis X-Rays Using Deep Learning

Manuscript number (if known): JMAI-23-10

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

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	___ None	
6	Payment for expert testimony	___ None	
7	Support for attending meetings and/or travel	___ None	
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	___ None	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	___ None	
13	Other financial or non-financial interests	___ 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:

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: 2023-03-20

Your Name: Catriona Syme

Manuscript Title: Approximating Femoral Neck Bone Mineral Density from Hand, Knee, and Pelvis X-Rays Using Deep Learning

Manuscript number (if known): JMAI-23-10

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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.	<u>None</u>	
		16 Bit Inc.	Received Salary
Time frame: past 36 months			
2	Grants or contracts from any entity (if not indicated in item #1 above).	<u>X</u> None	
3	Royalties or licenses	<u>X</u> None	
4	Consulting fees	<u>X</u> None	

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	<input checked="" type="checkbox"/> None	
6	Payment for expert testimony	<input checked="" type="checkbox"/> None	
7	Support for attending meetings and/or travel	<input checked="" type="checkbox"/> None	
8	Patents planned, issued or pending	<input checked="" type="checkbox"/> None	
9	Participation on a Data Safety Monitoring Board or Advisory Board	<input checked="" type="checkbox"/> None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	<input checked="" type="checkbox"/> None	
11	Stock or stock options	<input type="checkbox"/> None	
		16 Bit Inc	Equity compensation from 16 Bit
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<input checked="" type="checkbox"/> None	
13	Other financial or non-financial interests	<input checked="" type="checkbox"/> None	

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

Dr. Catriona Syme is Head of Research & Quality at 16 Bit.

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.

ICMJE DISCLOSURE FORM

Date: March 20 2023

Your Name: Alexander Bilbily

Manuscript Title: Approximating Femoral Neck Bone Mineral Density from Hand, Knee, and Pelvis X-Rays Using Deep Learning

Manuscript number (if known): JMAI-23-10

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Time frame: Since the initial planning of the work			
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Time frame: past 36 months			
2	Grants or contracts from any entity (if not indicated in item #1 above).	Amgen Canada	\$60,000 grant to run a pilot study at Sunnybrook Hospital for a 16 Bit Health Canada approved medical device called Rho.
		INOVAIT	\$2,000,000 reimbursement-based grant to 16 Bit to further the development of Rho
3	Royalties or licenses	<u>None</u>	
4	Consulting fees	<u>None</u>	

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	<u> </u> None	
6	Payment for expert testimony	<u> </u> None	
7	Support for attending meetings and/or travel	<u> </u> None	
8	Patents planned, issued or pending	16 Bit	Pending patent entitled "Systems and Methods for Approximating Bone Mineral Density and Fracture Risk Using Single Energy X-Rays" (US 2021/0015421 A1)
9	Participation on a Data Safety Monitoring Board or Advisory Board	Osteoporosis Canada	Unpaid position on the Scientific Advisory Board.
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	<u> </u> None	
11	Stock or stock options	16 Bit Inc.	I hold stock in 16 Bit Inc.
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<u> </u> None	
13	Other financial or non-financial interests	<u> </u> None	

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

I am on the scientific advisory board of Osteoporosis Canada. I hold stock in a company I co-founded called 16 Bit which manufactures a Health Canada approved medical device which operates in the osteoporosis space. I am an inventor on a patent that is related to measuring bone mineral density from routine xrays. 16 Bit has received funding from Amgen Canada and INOVAIT to support product development.

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: March 20th 2023

Your Name: Saba Zuberi, Ph.D.

Manuscript Title: Approximating Femoral Neck Bone Mineral Density from Hand, Knee, and Pelvis X-Rays Using Deep Learning

Manuscript number (if known): JMAI-23-10

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

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

5	Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events	____ None	
6	Payment for expert testimony	____ None	
7	Support for attending meetings and/or travel	____ None	
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	____ None	
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	____ None	
13	Other financial or non-financial interests	____ 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:

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

ICMJJE DISCLOSURE FORM

Date: March 22, 2023

Your Name: Maksims Volkovs

Manuscript Title: Approximating Femoral Neck Bone Mineral Density from Hand, Knee, and Pelvis X-Rays Using Deep Learning

Manuscript number (if known): JMAI-23-10

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

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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.

ICMJE DISCLOSURE FORM

Date: March 22, 2023

Your Name: Tomi Poutanen

Manuscript Title: Approximating Femoral Neck Bone Mineral Density from Hand, Knee, and Pelvis X-Rays Using Deep Learning

Manuscript number (if known): JMAI-23-10

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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	<input checked="" type="checkbox"/> None	
4	Consulting fees	<input checked="" type="checkbox"/> None	
5		<input checked="" type="checkbox"/> None	

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

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

No Conflicts of Interest

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.

ICMJE DISCLOSURE FORM

Date: 2023-03-20
 Your Name: Mark Cicero
 Manuscript Title: Approximating Femoral Neck Bone Mineral Density from Hand, Knee, and Pelvis X-Rays Using Deep Learning
 Manuscript number (if known): JMAI-23-10

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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 type="checkbox"/> None	
		16 Bit Inc.	Received salary
		Amgen	Provided funding support to 16 Bit for this
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	<u> </u> None	
		Amgen Canada	Payment for lecture
6	Payment for expert testimony	<u> x </u> None	
7	Support for attending meetings and/or travel	<u> X </u> None	
8	Patents planned, issued or pending	<u> </u> None	
		16 Bit	Patent application filed directly related to this work.
9	Participation on a Data Safety Monitoring Board or Advisory Board	<u> x </u> None	
10	Leadership or fiduciary role in other board, society, committee or advocacy group, paid or unpaid	<u> X </u> None	
11	Stock or stock options	<u> </u> None	
		16 Bit	Equity compensation from 16 Bit
12	Receipt of equipment, materials, drugs, medical writing, gifts or other services	<u> X </u> None	
13	Other financial or non-financial interests	<u> X </u> None	

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

Dr. Mark Cicero is the Co-founder and Co-CEO of 16 Bit which supported this research project with assistance from Amgen Canada.

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

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