

Conflict of Interest Management

Office of Research Integrity Assurance 505 Tenth Street NW Atlanta, Georgia 30332-0420 Phone: 404-894-6925

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July 27, 2020

Woon- Hong Yeo, Ph.D. Assistant Professor School of Mechanical Engineering College of Engineering Sent via e-mail to: whyeo@gatech.edu

COI Case: 2020-65-01

Umbrella management plan for research objectivity regarding activities related to sensor technology

Dear Dr. Yeo:

The Conflict of Interest Review Committee (Committee) is aware you have a portfolio of technologies related to various sensor technologies (Addendum A). You are a consultant, founder, and/or equity holder in compan(ies) (Addendum B) commercializing the technologies listed in Addendum A and similar technologies. In reviewing your ongoing body of research, as well as proposed related research, you confirmed that these technologies are utilized in, or could be improved through, your GA Tech research endeavors.

The Committee reviewed your interest in the technologies, your relationship with this/these compan(ies), and your role on GA Tech research related to both. The Committee understands that the intersection between your related research (Addendum C) and your external activities is such that there are actual or apparent financial conflicts of interest in several of your research projects. Thus far, individual management plans were prepared for each project.

The Committee has determined that a master "umbrella" management plan would better serve all parties in addressing your conflicts going forward and streamline the process of award administration and COI disclosure. This management plan will cover your general research objectivity responsibilities in all ongoing and future research activities related to the technologies in Addendum A and companies in Addendum B.

1. In every project involving Addendum A technologies or related to Addendum B companies, you must disclose, in writing, your financial interest(s) in the related companies and in the technologies being used or studied, to the other members of the research team, including external research teams. A copy of this correspondence must be submitted to the COI Office for our records, contemporaneous with the notification of your team members. Said notification must be given prior to the start of the research. A new disclosure must be administered to any additional new team members during the life of the project. A disclosure substantially similar to one of the following is appropriate:

- a. I am an inventor of technologies that includes: wearable electronics for health monitoring. I am an inventor of patents that have been licensed to companies developing and/or licensing the aforementioned technologies, products, or intellectual property (IP), and/or a paid advisor to companies developing and/or licensing of related products, and a founder/shareholder of companies developing and/or licensing related products, including [insert company name at issue in the given study]. For this reason, these studies could affect my personal financial status. My conflicts of interest have been disclosed to and are managed by the Georgia Institute of Technology Office of Research Integrity Assurance. (Note: please edit language as needed.)
- 2. In every project involving Addendum A technologies or related to Addendum B companies, you must disclose in writing, your financial interest(s) in the related companies and in the technologies being used or studied in any publication or presentation. The disclosure statement should appear in an appropriate position in the manuscript. For presentations, an appropriate disclosure slide must be included. If you are included on any press releases, you should request that the disclosure statement be included. A disclosure substantially similar to one of the following would be appropriate:
 - a. Dr. Yeo is an inventor of technology that include: wearable electronics for health monitoring. These/This technology have been licensed to companies developing and/or licensing related products, a paid advisor to companies developing and/or licensing aforementioned related products, and a founder/shareholder of companies developing and/or licensing previously stated products, including [insert company name at issue in the given study]. His conflicts of interest have been disclosed to and are managed by the Georgia Institute of Technology Office of Research Integrity Assurance. (Note: please edit language as needed.)
- 3. You must notify the COI Office by continuing to timely submit eCOI External Activity Reports (EARs) detailing any new start-up companies or relationships so they can be incorporated into this COI management plan and added to the attached list of companies that this plan covers. (Addendum A). You must also continue to update your existing EARs to reflect changes to your relationship, interest, or supervisory conflicts concerning those companies by amending the EAR in the eCOI system as changes occur.
- 4. For new research proposals, you must disclose your conflict in OSP's proposal routing system and notify the COI Office at the time of proposal submission so that, if the proposal is funded, the project can be incorporated into this COI management plan and added to the attached list of projects (Addendum C) covered by this plan.
- 5. You may not be a PI or an investigator on any protocol, e.g. IBC, IRB, IACUC, required for the conduct of research sponsored by a company in which you have a financial interest.
- 6. For research involving human subjects, you must disclose your financial interests in the technologies to the GA Tech IRB. This plan must be referenced in and attached to your protocol submissions. The IRB may require additional management tools.
- 7. In any human subject's research requiring an informed consent form, you must disclose your financial interest in the form. A disclosure substantially similar to the following would be appropriate:
 - a. Dr. Yeo is an inventor of technologies used to develop wearable electronics for health monitoring. He has a role in [insert company name at issue in the given study] that licenses this/these technologies or makes or sells these products. This study could affect Dr. Yeo's

financial status. This has been disclosed to and is managed by the Georgia Institute of Technology Office of Research Integrity Assurance.

- 8. If any student you advise or a GA Tech employee you supervise will be involved with a company that has licensed any of your Addendum A technologies, or in which you have a financial interest, you must notify the COI Office because additional conflict management measures will be required. Such measures will include approval from your Chair and the COI Committee. Appropriate coadvisement of the student or co-supervision of the employee may also be required.
- 9. If a company in which you have a financial interest, including IP rights, makes a gift your Chair will have spending authority over the gift and the funds cannot be used to support your research. Independent oversight is meant to ensure that there is no *quid pro quo*, that the donation is indeed "arms-length," and to insulate you from the appearance of conflict in administration of the gift.
- 10. You agree you will play no direct role in contract or license negotiations between GA Tech/GTRC and any external company in which you have a financial interest or relationship.
- 11. You must continue to provide the COI Office an update of each research project listed in Addendum C via an annual report that will be due in June 2021, and annually thereafter. The COI Office will continue to provide reminders for reporting. The report should describe the progress of each listed research project, any changes in the licensing of the IP, and the steps you have taken to comply with the management plan. You must attach a copy of any publications or presentations of all related research. A sample annual report form is attached for your reference.

This management plan is incorporated as part of your overall COI management plan for your relationships with outside companies, IP interests, and other outside professional activities. Nothing herein is meant to absolve you of your responsibilities under previous, project-specific COI plans.

If you have any questions about your COI management plan, please do not hesitate to contact Aric Edwards at 404-710-9101. Please sign and date the enclosed copy of this letter and return it to Mr. Edwards, indicating your acceptance of the plan. You may email a scanned version to COI@gatech.edu.

Sincerery,
DocuSigned by:
Jeffrey Steltzer
Jeff Steltzer, J.D.
Director, Conflict of Interest Management

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I agree to comply with the management plan described above.

Docusigned by: Woonling Us	7/30/2020 8:48 AM EDT	
Woonhong Yeo, Ph.D.	Date	

cc: Steve McLaughlin, Ph.D. Samuel Graham, Ph.D.

Bill Hunt, Ph.D. Aisha Oliver-Staley, J.D. Ms. Jilda Garton Robert Butera, Ph.D. Ms. Rebecca Caravati Ms. Kelly Winn

Addendum ARelated Technologies

Tech ID	Disclosed IP Name
8420	Printed, Soft, Nanostructured Strain Sensors for Monitoring of Structural Health and
	Human Physiology
8414	Fully stretchable, wireless, skin-conformal bioelectronics for continuous stress
	monitoring in daily life
8405	Breathable, large-area epidermal electronic systems for recording electromyographic
	activity during operant conditioning of H-reflex
8395	All-printed, nanomembrane wireless bioelectronics using a biocompatible,
	solderable graphene for multimodal human-machine interfaces
8305	Skin-conformal, soft material-enabled bioelectronic system with minimized motion
	artifacts for reliable health and performance monitoring of athletes
8285	Soft, Flexible Hybrid Bioelectronic Systems for Wireless Quantitative Diagnostics of
	Blepharospasm
8237	Wearable, wireless "skin-like" electronics (SKINTRONICS) for objective assessment of
	blepharospasm
8212	Wearable, Wireless, Flexible Skin Patch for Athletes
8160	Fully portable, wireless, universal brain-machine interfaces enabled by flexible scalp
	electronics and deep-learning algorithm
8112	Wireless, wearable skin-like bioelectronics for quantitative diagnostics of cervical
	dystonia patients
7988	Smart Bioreactor with Integrated Flexible Sensors and Wireless Electronics
7916	Stretchable Hybrid Electronics for Electrooculogram Sensing and Eye Vergence
	Therapeutics
7908	Wireless neurovascular monitoring system
7877	Wireless, Intraoral Hybrid Electronics for Real-Time Quantification of Sodium Intake
7691	Ultrathin, Comfortable, Multifunctional Biopatch for Wireless Monitoring of
	Neonatal and Infant Health Conditions
8420	Printed, Soft, Nanostructured Strain Sensors for Monitoring of Structural Health and
	Human Physiology

Addendum B Related Companies

EAR	Company	Last Updated
E26835	Huxley Medical	10/31/2019
E27835	YBrain Inc.	10/12/2019

Addendum C Active Projects and Continuing Plans

eRouting Number	Research Title	Sponsor
	Ultrathin, Comfortable, Multifunctional	
	Biopatch for Portable Health Monitoring of	Hanyang
P2127	Pediatric Patients.	University
	"Fabrication and evaluation of flexible	
	graphene-polymer electrodes with high	Georgia Research
P2984	sensitivity for human signal sensing"	Alliance
		Advanced
	Ultrathin, Comfortable, Multifunctional	Regenerative
P5640	Biopath For Portable Health	Manufacturing
		Institute
	Fabrication and evaluation of flexible	Hanyang
P6818	graphene-polymer electrodes with high	University
	sensitivity for human signal sensing	-

IRB#	Project Title
H17212	A Pilot Study of Skin and Muscle Parameters Using a Tissue-like
	Nanoelectronics System
H18343	A Pilot Study: Ultrathin, Comfortable, Multifunctional Biopatch for
	Measuring Non-Invasive Biometrics
H19302	
	Emory: A Pilot Study: Ultrathin, Comfortable, Multifunctional Biopatch
	for Measuring Non- Invasive Biometrics
H19553	A Pilot Study: Skin-Wearable Microstructured Patch
1113000	A I not Study. Skin-wearable whorostructured I atch
H20204	
	A pilot study of monitoring stress on the skin via a wearable biopatch
H20211	
	A pilot study of monitoring of real-time, continuous physiological data
	related to sleep via a wearable soft biopatch
H20245	UPenn: Biomechanical Assessment of Human Motion