

**MEMORANDUM OF UNDERSTANDING BETWEEN**

**THE LOUISIANA STATE UNIVERSITY  
HEALTH SCIENCES CENTER AT SHREVEPORT  
1501 Kings Highway, Shreveport, LA 71103**

**AND**

**THE CITY OF SHREVEPORT,  
DEPARTMENT OF WATER & SEWERAGE  
505 Travis Street, Suite 580, Shreveport, LA 71101**

**ON**

**Development of a regional wastewater epidemiology initiative, to include funding mechanisms within the NIH Rapid Acceleration of Diagnostics-Radical program (RADx-rad Wastewater Detection of SARS-COV-2)**

This Memorandum of Understanding (MOU) is made between The Louisiana State University Health Sciences Center At Shreveport (hereinafter referred to as “LSUHSC-S”), and The City of Shreveport Department of Water & Sewerage (“DWS”), a public government entity located in Shreveport, LA, each wishing to establish a cooperative research relationship through mutual interests in the areas of wastewater-based testing (WBT) and surveillance, which can provide detailed mapping of the extent and spread of COVID-19 and related projects.

**LSUHSC-S and DWS** will hereinafter be referred to collectively as “Participants” or individually as “Participant”, as applicable.)

**WHEREAS** LSUHSC-S and DWS wish to be linked by common scientific and cultural interests in wastewater-based testing.

**WHEREAS** LSUHSC-S and DWS wish to enable cooperation and exchange in the research area of clinical and basic science; and

**NOW THEREFORE**, LSUHSC-S and DWS, as Participants to this Memorandum of Understanding, set forth the following:

**ARTICLE I  
(Background & Objectives)**

**1.1 Background.** In response to the global public health crisis related to transmission of the SARS-COV-2 virus, LSUHSC-S, and in particular its Emerging Viral Threat Laboratory, has engaged with State and Federal authorities to provide testing, analysis and other healthcare-related services in support of pandemic response needs and the public good. As a furtherance to those activities, senior leadership within both LSU HSC-S and the City of Shreveport wish to develop a wastewater-based research and testing program as a means of further understanding and providing timely guidance to ready responders and policy-makers with regard to presence and spread of SARS-COV-2 within the community.

**1.2 Objectives.** This MOU reflects the Participants' sincere and genuine intentions to collaborate in a variety of projects herein pertaining to the research and development of wastewater epidemiology and testing, and enable each of the Participants to pursue the research activities and tasks set out in Article II of this MOU.

## **ARTICLE II (Scope of Collaboration)**

**2.1 General Scope.** Each Participant will foster a collaborative research relationship with the other that is focused on development of a wastewater epidemiology and testing initiative.

**2.2 Specific Research Activities.** The Participants intend to collaboratively pursue research activities and grant applications and goals through both basic research, clinical and public health research areas.

**2.3 Further Agreements.** It is envisioned that the Participants will enter into further binding agreements involving or related to the collaborative research activities or grant applications as outlined in Article 2.2 above ("Further Agreements"). Further Agreements will delineate the Participants' rights and obligations, will address, among other things, sources of funding and intellectual property rights, and be signed by both Participants' authorized signatories, before commencing any research activity.

**2.3.1** Each Participant's Liaison Officer, as designated in Article 4.6 below, will coordinate with its respective contracts/research office, or equivalent, regarding any Further Agreements identified and proposed under this MOU prior to initiating projects or applying jointly for external funding for such projects.

**2.3.2** Each Participant will abide by all regulations, policies and procedures of their Institutions regarding the disclosing and handling of intellectual property, developed technologies, and confidential information that may arise under this MOU.

**2.4 Tasks for Participants.** Each Participant will maintain regular and reasonable contact with the other and engage in discussions regarding research project collaborations and the research activities listed herein. Further, each Participant will nominate members of its senior staff to be responsible for overseeing matters pertaining to this MOU.

**2.5 Funding.** Specific funding allocations for the exchange of faculty, research staff, and collaborative employees ("Participating Researchers"), shall be subject to the approval of the individual Participant and are not binding as a result of this MOU. Except as may be stipulated in any specific subsequent agreement, each Participant shall be responsible for expenses incurred by its employees under this MOU. Any exchange of funds will require the execution of further agreements that have been signed by only authorized parties representing each Participant. This agreement will contain at a minimum: a statement of work, detail budget, detail budget justification, and payment/collection invoicing and payment terms.

### **2.6**

**2.6.1** Each Participant will provide assistances and/or the necessary letters of invitation or affiliation to facilitate the involvement of Participating Researchers and other participants.

**2.6.2** Participants shall be responsible for ensuring Participating Researchers have adequate medical insurance coverage for the duration of their engagement.

**ARTICLE III**  
**(Duration, Termination and**  
**Amendment)**

**3.1 Duration.** This MOU shall remain in force for four (4) years from the date of the last signature. Either Participant may terminate this MOU by providing 60 days' advance written notice to the other Participant.

**3.2 Extension and Renewal.** The Participants may extend or renew this MOU by agreement, confirmed in a written amendment signed by each Participant's authorized signatory.

**3.3 Amendment.** No amendment of the terms of this MOU will be effective unless made in writing and signed by each Participant's authorized signatory.

**ARTICLE IV**  
**(General Matters)**

**4.1 Use of Names.** Except in promoting the activities proposed in Article 1.2 above among its faculty, staff, and students, neither Participant may use the name of the other Participant in any form of advertising or publicity without express written permission. The Participants will seek permission from one another by submitting the proposed use, well in advance of any deadline, to the Liaison Officers designated in Article 4.6 below.

**4.2 Confidentiality.** In the course of the activities under this MOU it may be necessary for the Participants to disclose Confidential Information. Unless otherwise expressly permitted in this agreement, any and all information, correspondence, financial statements, records, data, or information that is competitively sensitive and not generally known to the public, including formulations, analysis, inventions, improvements and activities of the disclosing Participant, disclosed by one Participant to the other Participant of this MOU, and other documents transmitted or communicated by either Participant to the other Participant that is marked as confidential or proprietary for the purposes of this agreement ("Confidential Information") shall be received and treated in confidence, and shall not be used by the receiving Participant or disclosed by the receiving Participant without the prior written consent of the disclosing Participant, which consent shall not be unreasonably withheld or delayed. These restrictions on use or disclosure of information do not extend to any item of information which (a) is publicly known at the time of the disclosure, (b) is lawfully received by the receiving Participant from a third party which does not have a confidential relationship to the disclosing Participant, (c) the receiving Participant can demonstrate was in its possession or known by it before its receipt from the disclosing Participant, or (d) the receiving Participant is required by law to disclose to government authorities (including courts). Unless otherwise required under a subsequent binding agreement, each receiving Participant shall, at the expiry or termination of this agreement, return to the disclosing Participant any and all documents provided by the disclosing Participant setting out as Confidential Information.

**4.3 Potential for Intellectual Property Development.** It is understood that activities contemplated under this MOU are expected to be cooperative in nature and that Participating Researchers (including students, faculty, employees and staff researchers) may collaborate in such activities.

4.3.1 "Intellectual Property" or "IP" means all patentable discoveries, innovations, inventions, improvements, devices, equipment, and designs, conceived and reduced to practice under the term of and in performance of this agreement.

4.3.2 Participants hereby agree that ownership of intellectual property rights generated as a result of the activities under this agreement will follow inventorship rules in accordance with applicable patent laws. Each Participant to this MOU shall own the intellectual property (IP) conceived and

first reduced to practice solely by its employees or agents in furtherance of projects or activities contemplated by this agreement. IP conceived or first reduced to practice jointly by employees or agents of both parties shall be Jointly Owned in accordance with applicable patent laws. "Jointly Owned" means either Participant may exploit jointly developed IP.

4.3.3 Notwithstanding the above, it is understood that, in accordance with the LSU system bylaws and Regulations, non-LSUHSC-S personnel, including Participating Researchers, are required to sign additional documents consistent with LSU System Policies as a condition precedent of utilizing LSUHSC-S research facilities.

4.3.4 All copyrights, patents, trademarks, trade secrets, and any other intellectual property rights ("IPR") disclosed in connection with this MOU shall remain the property of the Participant introducing and/or disclosing the same to the other Participant for the purposes of this MOU.

**4.4 *Export Control.*** It is recognized and understood that this MOU is subject to all applicable export control laws and regulations controlling the transfer of technical information or items out of the respective countries of the Participants. The transfer of certain technical information or items may require a license from the respective governments of the Participants. Participants to this MOU must comply with all applicable export control laws and regulations and no Participant may export or allow the export or re-export of any information or item when to do so would constitute a violation of those laws or regulations.

**4.5 *Human and Animal Subjects in Research.*** Participants agree that adequate safeguards shall be taken whenever using human or animal subjects in research, consistent with applicable laws and policies regarding the use of human and animal subjects, including training of such trainees, faculty, or staff, an institutional review committee, research ethics board, or animal care and use committee composed of members with varying backgrounds who will perform complete and adequate review of projects involving the use of such subjects. Informed consent shall be obtained in accordance with national laws and regulations, international research standards, and accepted guidelines on good research practices and ethics. Each Participant shall, to the extent necessary for the legal conduct of activities under this MOU, comply with the laws and regulations of the other Participant's country.

**4.6 *Notices.*** The Participants must give all notices under this MOU in writing. All communications must be sent to the addresses, set forth below or to such other address designated by the Participants by written notice. Notices are effective upon receipt.

For LSUHSC-S:	Annella B. Nelson Asst. Vice Chancellor for Research Dev. 1501 Kings Highway Shreveport, LA 71103 <a href="mailto:anelso@lsuhsc.edu">anelso@lsuhsc.edu</a>
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For DWS:	William Daniel Director of Water and Sewerage City of Shreveport 505 Travis St. Suite 580 Shreveport, La. 71101 Tel: 318-673-7660 Fax: 318-673-7663 email: <a href="mailto:william.daniel@shreveportla.gov">william.daniel@shreveportla.gov</a>
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**4.7 Indemnification.**

4.7.1. LSUHSC-S agrees to defend, indemnify and hold DWS, its officers, employees and agents harmless from and against any and all liability, loss, expense, attorneys' fees, or claims for injury or damages arising out of the activities under this MOU, but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of DWS.

4.7.2 DWS agrees to defend, indemnify and hold LSUHSC-S, its officers, employees and agents harmless from and against any and all liability, loss, expense, attorneys' fees, or claims for injury or damages arising out of the activities under this MOU but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of LSUHSC-S.

**4.8 Dispute Resolution.** The Participants agree to make efforts in good faith to resolve all disputes amicably and expeditiously between themselves.

**4.9 Non-Binding Nature.** This MOU is not intended to and does not give any person who is not a Participant to it any rights to enforce any of its provisions. Nothing in this MOU will be construed as creating a binding legal relationship between the Participants, with the exception of only Article IV herein which will survive the expiry or termination of this MOU. This MOU is a broad statement of intent which sets forth the general basis upon which the Participants wish to proceed. No legal liability will arise in respect of any subject matter hereof unless a subsequent binding agreement is negotiated, approved, executed and delivered by the Participants to this MOU.

**4.10 Authorized Signatories.** Each Participant represents that the individuals signing this MOU have the authority to sign on its behalf in the capacity indicated.

**AUTHORIZED SIGNATURES ON THE FOLLOWING PAGE**

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be executed by its respective duly authorized officer as of the day and year first above written.

Signed for and on behalf of:

Signed for and on behalf of:

**THE LOUISIANA STATE  
UNIVERSITY BOARD OF  
SUPERVISORS ACTING ON  
BEHALF OF THE LSU HEALTH  
SCIENCES CENTER - SHREVEPORT**

**City of Shreveport  
Department of Water & Sewerage**

By: \_\_\_\_\_  
**Annella B. Nelson, MBA  
Assistant Vice Chancellor for  
Research Development**

By: \_\_\_\_\_  
Institutional Authorizing Official

Date: \_\_\_\_\_

Date: \_\_\_\_\_