



DukeHealth
Global Neurosurgery and Neurology

**MEMORANDUM OF UNDERSTANDING
BETWEEN**

**MBARARA UNIVERSITY OF SCIENCE & TECHNOLOGY
UGANDA**

AND

DUKE UNIVERSITY

PREAMBLE

The Physiotherapy Department of Mbarara University of Science and Technology, Uganda and Duke University, acting by and through Duke Global Neurosurgery and Neurology, United States, (hereinafter referred to individually as a "Party" and collectively as "the Parties") have shown their interest to enter into a cooperative relationship for the general purpose of supporting and promoting teaching and learning, research and grants, capacity building, and joint intellectual property rights and other collaborative activities for the mutual benefit of both Parties, especially in the fields of Physiotherapy and Rehabilitation Science. Hence, this Memorandum of Understanding has been signed

BETWEEN

Mbarara University of Science and Technology (hereinafter referred to as "MUST") was established by the Mbarara University of Science and Technology Statute 1989 in October 1989 as a second public University in Uganda, and later ratified by an Act of Parliament the Universality and Other Institutions Act 2001 as amended under section 129(2). It aims at providing quality and relevant education at national and international levels. Undergraduate programs started in October 1989, offering the degree of Bachelor of Medicine and Bachelor of Surgery under the Faculty of Medicine. MUST has grown to offer many more health, science education, engineering, computer and ICT programs, management sciences, and interdisciplinary programs. MUST has retained a strong community-based education, engagement, and service component integrated into its training programs. The university has six faculties and two institutes; Faculty of Medicine, Faculty of Science, Faculty of Business and Management Sciences, Faculty of Computing and Informatics Sciences, Faculty of Applied Science and Technology, Faculty of Interdisciplinary Studies, Institute of Tropical Forest Conservation, and Maternal Newborn and Child Health Institute. The Physiotherapy Department of MUST opened its doors in 2012. It is the first and the only recognized school training Physiotherapists at the Bachelor level, the highest qualification level of physiotherapy in the country. Currently, the Physiotherapy Department of MUST admits both direct students and completers (Upgrading students from Diploma to bachelor degrees). To accomplish its mission of being a school/center of excellence in rehabilitation medicine, the Physiotherapy Department of MUST aims to start physiotherapy-specialized postgraduate training and other rehabilitation-related courses in the future.

AND

Duke Global Neurosurgery and Neurology (hereinafter referred to as "DGNN") was established in October 2014 as a division within the Department of Neurosurgery of Duke University School of Medicine, based in Durham, North Carolina, United States of

America. DGNN is a research group comprising several professionals from diverse disciplines connected to neurology and neurosurgery. It aims to promote outcomes and inform policy in healthcare systems with emerging and developing care capacity for neurosurgical and neurological patient populations through a multifaceted, evidence-based, and collaborative approach. DGNN entered into collaboration with MUST in 2014 for this common mission.

WHEREAS MUST and DGNN share the common mission of promoting neurologic rehabilitation care and education, research, and community-based services and engagement.

WHEREAS the Physiotherapy Department of MUST and DGNN provide neurologic rehabilitative care, teaching, and performing research to enhance rehabilitation knowledge

WHEREAS the Physiotherapy Department of MUST and DGNN are desirous of entering this MOU to foster health services and health system research linked to the topics areas of neurologic rehabilitation, foster academic partnerships between MUST and DGNN faculty, and foster relationships that allow all parties to submit for grant funding jointly.

NOW, THEREFORE in consideration of the terms and conditions set forth herein and the obligations and responsibilities resulting therefrom and hereby undertaken, MUST and DGNN agree to this MOU, which will govern their relationship and operations as set forth herein.

ARTICLE I: PURPOSE OF AGREEMENT

The Physiotherapy Department of MUST and DGNN will establish collaborative research projects ("Collaborations") in the provision of neurologic rehabilitative care, teaching, and research. Examples of Collaborations may include but are not limited to the following (Collaborations will be detailed and dated as Appendices of this Memorandum once the leadership, scope, and funding of the Collaborations have been defined):

- A. Health Systems Strengthening: The Parties will collaborate on research and interventions regarding evidence-based care, learning health systems, and policies related to neurological rehabilitation.
- B. Educational Expansion: DGNN will assist as appropriate program and/or faculty development for Masters and Ph.D. Level Physiotherapy programs at MUST.
- C. Neurologic Rehabilitation Training: The Parties will provide advanced neurologic physiotherapy training to local physiotherapy clinicians.

- D. Data Base: A Collaboration project will extend the established DGNN-Mbarara Regional Referral Hospital database for neurosurgery to include functional outcomes after traumatic brain injury, stroke, and spinal cord injury.
- E. Information Exchange: The Parties will establish a consultation program to discuss specific difficult or interesting neurorehabilitation cases that require further discussion.

ARTICLE 2: OBLIGATIONS OF THE PARTIES

2.1 DGNN undertakes to do the following:

- A. To work closely with the Physiotherapy Department of MUST to develop new Collaboration ideas to submit as research proposals for funding from local and international funders.
- B. To organize a representative committee to review and approve proposals by the Physiotherapy Department of MUST for funding.
- C. To provide mentorship and technical support necessary for carrying out Collaborations.
- D. To arrange, as may be expedient and practical in its view, a research partnership between students from MUST and those that DGNN may forward for collaborative research study and publication.
- E. To engage with the Physiotherapy Department of MUST faculty to establish academic partnerships that develop post-graduate education at the Physiotherapy Department of MUST.
- F. To identify opportunities for capacity building and student and staff exchange for DGNN and the Physiotherapy Department of MUST.

2.2 The Physiotherapy Department of MUST undertakes to do the following:

- A. To work closely with DGNN to develop new Collaboration ideas to submit as research proposals for funding from local and international funders.
- B. To organize a representative committee for the purpose of reviewing and approval of proposals by DGNN for funding.

- C. To provide mentorship and technical support necessary for carrying out Collaborations.
- D. To arrange, as may be expedient and practical in its view, a research partnership between students from DGNN and those that the Physiotherapy Department of MUST may forward.
- E. To engage with DGNN faculty to establish academic partnerships that develop post-graduate education at the Physiotherapy Department of MUST.
- F. To identify opportunities for capacity building and student and staff exchange for DGNN and the Physiotherapy Department of MUST.

ARTICLE 3: GOVERNANCE OF COLLABORATION

3.1 Establishment

Each discrete Collaboration shall be established and governed by a subsidiary collaboration agreement of terms and conditions ("Collaboration Agreement"), to be separately negotiated and mutually agreed upon by the Parties through the signing of a Collaboration Agreement, and executed with reference to that particular Collaboration.

3.2 Absent or Conflicting Agreements

In the absence of a Collaboration Agreement, this MOU shall govern each Collaboration, including, without limitation, grants, awards, financial and resource management, personnel, equipment, buildings, study records, administrative support, and other matters required to implement a Collaboration. If there is a conflict between the provisions of this MOU and a Collaboration Agreement, then the provisions of this MOU shall take precedence.

Notwithstanding the foregoing, the Parties hereby understand and agree that certain Collaboration Agreements may involve funding by third-party sponsors (including, but not limited to, private foundations, United States government agencies, or intergovernmental bodies), and that those prospective sponsors may impose their own terms and conditions that are in some way inconsistent with the terms of this MOU. In such cases, and subject to the principle of legality, the specific provisions of the Collaboration Agreement related to the sponsored activity shall take precedence over any conflicting provision in this MOU. However, these provisions may not violate any mandatory legal requirements or principles of public policy.

3.3 Components of a Collaborative Agreement

Each Collaborative Agreement will need to establish the following content and present the information to the respective Parties for approval:

1. Project Team Members
2. Research Topic(s)
3. Funding
4. Background
5. General Method(s)
6. Data Sharing and Management
7. Timeline
8. Remuneration (include reference to funding policy)
9. Supplemental Signed Documents and Agreements per Institution Requirements (list and state storage method)
10. Relationship to Article 1
11. Other Partner Engagement Details
12. Stakeholder and/or Community Engagement Plan
13. Dissemination Plan

ARTICLE 4: COLLABORATION STRUCTURE

4.1 Project Teams

- A. The Parties shall constitute a Project Leadership Team (hereinafter referred to as "Project Leadership Team") that shall have shared oversight and supervisory powers over Collaborations and other related projects.
- B. The Project Leadership Team shall at all material times consist of at least two senior faculty members, one each from DGNN and the Department of Physiotherapy at MUST.
- C. The Project Leadership Team shall meet at least once monthly over video conferencing to discuss projects and updates.
- D. Each Collaboration will establish in its Collaboration Agreement a Full Project Team (hereinafter referred to as "Full Project Team"), which shall at all material times consist of the Project Leadership Team, other investigators, a statistician, and an MD or Ph.D. level researcher.

4.2 Student Involvement

- A. Participation: Students that the Project Leadership Team has approved may participate in a specific Collaboration.

- B. Equity & Diversity: All Collaborations will seek and attempt to include the participation of at least one student at each of the Party's institutions at the time when student participation in a project is deemed appropriate by the Project Leadership Team. The collaboration shall be cognizant of diversity in its full range as determined from moment to moment.
- C. Mentorship and Education: Students that join any Collaboration(s) shall be mentored by all Parties with specific expertise and guidance provided in each Parties' area of specialization.

4.3 Collaboration Management

- A. Collaboration Creation: New Collaborations shall be jointly developed by interested faculty from both Parties. Joint development, at minimum, consists of a joint effort to initiate, define, design, and implement a research project proposal, followed by a formal presentation to the Project Leadership Team members before any further advancement in project development, including but not limited to submissions for funding and ethical approval.
- B. Collaboration Agreement: Accepted Collaborations will outline and present for approval by the Project Leadership Team defined in the Collaboration Agreement.
- C. Sites: The Collaborations will involve research with participants in Uganda and the United States. For example, participants may be providers or patients receiving health care either at Mbarara Regional Referral Hospital, Duke University, or neighboring entities, and research may be conducted at the different sites specified in the respective research proposals.
- D. Ethical Approval: All Parties shall be responsible for seeking ethical approval from the appropriate domestic and international ethic committees before implementing any research projects.
- E. Project Implementation: The Project Team shall jointly complete all phases of research projects with primary on-the-ground oversight and oversight of data security by listed PI(s) and primary oversight of data security and analysis by the Project Team.
- F. Follow-Up: All results shall be shared with all Parties, and dissemination within Uganda and the United States will be done for all key stakeholders.
- G. Communication and Notice: In cases of urgency where communication is required in under 48 hours, an email, phone call, and WhatsApp attempt in the working hours of the receiver will be required. Any Co-PIs will be required to monitor their email daily for important notifications.

4.4 Project Data Sharing/ Access

- A. The Full Project Team shall have two mechanisms for data sharing: one for developing and storing Collaboration ideas and documents, and another for sharing research data that require added security.
- B. Data for developing and storing Collaboration ideas and documents shall be shared via Google Drive so that all Parties can access the research proposals, manuscripts, and other essential study documents at all times.
- C. Data requiring added security shall be shared using secure systems that may only be accessed by Project Team members who are formally listed on the ethics approval documents specific to the Collaboration that generated the data.
- D. All Parties will have continuous, uninterrupted access to the data as long as they are listed on the ethical approval for that Collaboration.

ARTICLE 5: FINANCING OF ACTIVITIES

5.1 Solicitation of Funds

The Parties hereto undertake to jointly solicit for funds, including donor funds, research grants, contributions, subscriptions, and such related funds for the purpose of realizing any or all the objectives of the Collaboration, with special attention to equitable distribution, when feasible, of indirect costs relative to the funding source and the specific project.

5.2 Administration

The institution to which a Collaboration grant is or will be awarded shall be referred to herein as the Governing Institution.

The Governing Institution shall be responsible for the administration and administrative support of the Collaboration in accordance with all funding agency and Governing Institution's requirements and policies, including, without limitation, the preparation and filing of grant applications, including protocols and budgets, compliance with all requirements of the subject grant, reporting in accordance with grant requirements, the appointment of "Co-Principal Investigators" (one from each Governing Institution) for individual projects or groups of projects, the management of resources for the Collaboration, provision for human subjects protections, and the publication of research results.

The financial resources to provide this administrative support will be taken from indirect costs allocated by the funding agency to the recipient institution unless otherwise negotiated

ARTICLE 6: PUBLICATIONS, DISSEMINATION & OTHER USE OF RESEARCH RESULTS

6.1 Investigator Responsibilities

- A. It is understood and agreed that the coordinated publication (hereafter called "Publication" and inclusive of both written and oral reports of research results) of the results of research carried out under a Collaboration is of the utmost importance, and it is further agreed that the coordination of all such publications by the principal investigator of the Collaboration is of equal importance.
- B. Each institution and each investigator agrees to make every effort to assist the co-principal investigators in their efforts to coordinate and publish the results of the research.
- C. To ensure such coordinated Publication, it is agreed that all publication of research results shall require the approval of the co-principal Investigators, investigators, if any, and other Project Team members.
- D. If an Investigator or Inventing Institution determines that a proposed publication or presentation contains patentable subject matters which require protection and in which that Investigator or the Inventing Institution has an interest as the owner of patent rights, that investigator or the Investigating Institution may require the delay of the publication or presentation for a period of time not to exceed ninety (90) days for the purpose of allowing the pursuit of such patent protection.
- E. If a Party determines that the proposed publication contains that Party's Confidential Information, the Party may require the delay of the publication for a period of time not to exceed sixty (60) days, and the Parties will collaborate to remove the relevant information, provided that neither party shall prevent use of information necessary for the complete and accurate presentation and interpretation of the research.
- F. Subject to restrictions imposed above and elsewhere herein, each party shall be free to use the results of its research for its non-commercial teaching, research, educational, clinical, and publication purposes without paying royalties or other fees.
- G. Each institution agrees to submit to the co-principal investigators for review a copy of any proposed publication or presentation resulting from research under a Collaboration at least ninety (90) days before the estimated date of publication, and if no response is received within sixty (60) days of the date submitted, it will be conclusively presumed that the publication or presentation may proceed without delay.
- H. The co-principal investigators shall circulate any proposed publication to the other investigators and shall disseminate all comments received among the investigators.

- I. The co-principal investigators shall agree to consider all comments received in good faith, review the proposed publication with the investigators, and inform the submitting author whether the proposed publication may proceed as soon as practicable, but in any event within the time frame set forth.

6.2 Authorship

- A. Authorship position shall be based upon contribution to the specific manuscript and be agreed upon by the Project Leadership Team during a monthly meeting in a timely fashion before submission.

6.3 Presentations and Posters

- A. The Project Leadership Team shall jointly submit project results for domestic and international poster and platform presentations.
- B. Decisions on where to submit and who shall attend will be made as a joint decision during a monthly research team meeting.

6.4 Other Dissemination

- A. Stakeholders: All results shall be shared with all Parties, and dissemination within Uganda and the United States will be done for all key stakeholders.
- B. Conferences: The Project Team must clarify conference plans with both Parties.

ARTICLE 7: INDIVIDUAL PARTY RESPONSIBILITIES

7.1 Personnel

Each institution in a Collaboration will be responsible for the employment and management of the personnel identified as necessary for that institution's participation in the Collaboration.

7.2 Compliance

Each Party to this Memorandum shall be responsible for compliance with all policies, laws, and regulations which apply to that member's activities under the Memorandum of Understanding and Collaboration Agreement hereunder, including, without limitation, compliance with laws pertaining to patient consent, approval of the research by government authorities with jurisdiction over the matter, required internal approval of the research by the applicable member of a Collaboration, internal conflict of interest policies of the applicable institution, and other requirements which may apply to a particular Collaboration.

7.3 Risk Management

- A. Each Collaboration will be required to define and review potential risks that may arise within the Collaboration and to agree upon an appropriate plan for risk management, which may include, without limitation, entering into contractual agreements with other entities to provide protection, and obtaining insurance coverage from third parties as deemed appropriate.

7.4 Confidentiality

- A. "Confidential Information" shall mean all information provided by one Party to the other and clearly identified as confidential by the transmitting Party at the time of disclosure.
- B. Each Party agrees that it will use the confidential information provided by the other Party only as necessary to discharge its obligations under this MOU and for no other purpose without the prior written consent of the disclosing Party.
- C. The Party receiving the confidential information agrees to hold that information in trust and confidence for the transmitting Party, using the same care and discretion that the receiving Party uses with similar information which it considers confidential.
- D. The receiving Party will not use Confidential information other than for the benefit of the two Parties and relating to the Memorandum of Understanding and Collaboration Agreement hereunder, and except as may be provided for in Article 6 regarding publication herein, neither Party will disclose such information without authorization from the other party.
- E. Disclosing confidential data must always require consent from the party from where the data was obtained, even following disclosure.

ARTICLE 8: INTELLECTUAL PROPERTY RIGHTS

Intellectual property rights will be in accordance with accepted institutional, national, and international standards.

For the purposes of this MOU, "Intellectual Property" is defined as including, but is not limited to: Confidential information, know-how, patents, copyrights, design rights, rights relating to computer software, scientific data, material, publications, and any other industrial or intellectual property rights.

8.1 Ownership

- A. All rights and title to Intellectual Property solely developed by DGNN under this MOU shall belong to Duke University and will be subject to the terms and conditions of this MOU.
- B. All rights and title to Intellectual Property solely developed by MUST shall belong to MUST, and will be subject to the terms and conditions of this MOU.
- C. All rights and title to Intellectual Property jointly developed by MUST and DGNN shall be jointly owned by MUST and DGNN, and will be subject to the terms and conditions of this MOU.
- D. MUST and DGNN agree that Intellectual Property owned by either Party prior to the enactment of this MOU ("Background Intellectual Property") is, and shall remain, the separate property of the owning Party, and is not affected by this MOU. Neither Party shall gain any rights in such separate inventions and technologies. No license grant or assignment of such Background Intellectual Property, express or implied, is intended by, or shall be inferred from this MOU.

8.2 Use of Intellectual Property

- A. Before any registration or commercialization of any intellectual property takes place, the parties shall endeavor to reach a separate agreement covering issues such as exploitations rights and revenue sharing.
- B. This MOU will not permit the use or dissemination by either party hereto of Intellectual Property belonging to the other party, without the prior written consent of the party owning the said Intellectual Property, such consent not to be unreasonably withheld.
- C. Joint Intellectual Property: The parties will determine equitable sharing of any proceeds arising from any Intellectual Property of their innovations.

ARTICLE 9: RESOLUTION OF DISPUTE

In the event of a dispute or disagreement between Parties, a meeting (or conference call) will be convened between the people directly involved or affected by the dispute and two additional representatives from each institution representing the leadership of the affected institutions. In the event of a deadlock, this ad-hoc conflict resolution committee may choose to, but is not obligated to, hire external counsel, which may result in the conflict proceeding to arbitration or the involvement of the court system. If the disagreement results in a consideration for the termination of the MoU, that termination must be carried out per the guidelines for termination within the MoU.

ARTICLE 10: FORCE MAJEURE

10.1 Notification

Either party shall promptly notify the other party, in writing, of any situation or event arising from circumstances beyond their control, such as an Act of God, civil commotion, riots, robbery, war, revolution, action by government, or any other force majeure reasons which they could not have reasonably foreseen, and which make the performance of all or parts of the parties' obligations under this MOU impossible.

10.2 Postponement

Upon notification of the occurrence of such a situation or event, the performance of this contract shall be deemed to be postponed for a period of time equivalent to that caused by the force majeure and reasonable period of time as dictated by the circumstances thereafter shall be allowed for remobilization to continue the performance of the MOU.

10.3 Time Limit

However, if the reasons for suspension have not been eliminated within twelve (12) months of their first occurrence, this agreement shall then terminate, and neither party shall be liable for failure to fulfill its obligations herein or any loss or damage including consequential loss or damage due to force majeure. An extension can be reached in case both parties agree.

ARTICLE 11: DURATION, REVIEW, RENEWAL, AMENDMENT, AND TERMINATION

11.1 Duration

This MOU will be in effect from the date of signature for a period of 5 years, but may be extended for a further term(s) at the discretion of the Physiotherapy Department of MUST and DGNN.

11.2 Renewal and Amendment

- A. This MOU may be renewed by mutual agreement after expiry, and a revision may be completed at the halfway point of the agreement.
- B. The MOU may be amended or revised at any time if both parties agree. Such amendments, modifications, or revisions shall be in writing and effective from the date of signature by authorized persons on behalf of the Parties.

11.3 Termination: This MOU can be terminated by either party

- A. with three (3) months of written notice; or
- B. immediately with notice in the event of a breach of the terms herein by any other party.

ARTICLE 12: ENTRY INTO FORCE

This Memorandum of Understanding shall come into force from the date of execution and appendage of signatures by the parties, with each Party receiving one copy.

ARTICLE 13: MISCELLANEOUS:


- A. None of the Parties may assign, delegate or otherwise transfer any of its rights or obligations under this MOU without the prior written consent of the other Parties.
- B. The Parties are entering into this MOU as independent entities, and there is no intent of the Parties to create a joint venture, partnership, separate legal entity, or other separate organization.
- C. This MOU and its Appendices contain the entire agreement and understanding between the Parties regarding its subject matter. It merges all prior discussions between the Parties, and neither Party will be bound by conditions, definitions, warranties, understandings, or representations, concerning such subject matter except as provided in the Memorandum in writing signed by properly authorized representatives of the Parties.
- D. The failure of a Party in any instance to insist upon the strict performance of the terms of this MOU will not be construed to be a waiver or relinquishment of any of the terms of this MOU, either at the time of the Party's failure to insist upon strict performance or at any time in the future, and such terms will continue in full force and effect.
- E. Each clause of this MOU is a distinct and severable clause, and if any clause is deemed illegal, void, or unenforceable, the validity, legality, or enforceability of any other clause or portion of this Memorandum will not be affected thereby.
- F. All captions, titles, and article headings contained in this MOU are inserted only as a matter of convenience and reference. They do not define, limit, extend or describe the scope of this MOU or the intent of any of its provisions.
- G. Each Party will do such further acts, including execution and delivering additional agreements or instruments as the other may reasonably require, to consummate,

evidence, or confirm the agreements contained in the MOU

- H. All pronouns will be deemed to refer to the masculine, feminine or neutral, and singular or plural, as appropriate.
- I. This MOU may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall constitute one and the same instrument together.


ARTICLE 14: EXECUTION

IN WITNESS WHEREOF, the authorized representative(s) of Duke University and Mbarara University of Science and Technology are;


1.
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**In the Presence of
for
DUKE UNIVERSITY**


2.
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**In the presence of
for
Mbarara University of Science and
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2. **Mr. Melchior Byaruhanga**
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3.

.....
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3. Mr. Mugumya Timothy Ndiana 
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