SACIDS Africa Centre of Excellence for Infectious Diseases

A Handbook for SACIDS-ACE PhD Students

Cohort 2017/2018

Acknowledgement

"SACIDS Africa Centre of Excellence for Infectious Diseases of Humans and Animals".

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WELCOME REMARKS

Welcome to the SACIDS Africa Centre of Excellence (SACIDS ACE), a regional leading centre in postgraduate training and research on infectious diseases of humans and animals using a One Health approach.

The Centre supports rigorous PhD programmes offered by the Sokoine University of Agriculture (SUA) and Muhimbili University of Health and Allied Sciences (MUHAS) and provides a forum for collaboration of these universities with its established national, regional and UK partners. National partners include the Catholic University for Health and Allied Sciences (CUHAS), the National Institute for Medical Research (NIMR), the Tanzania Veterinary Laboratory Agency (TVLA) and the Tanzania Wildlife Research Institute (TAWIRI). The regional collaboration involves epidemiological links with Southern and East African countries, i.e. Democratic Republic of Congo (DRC), Kenya, Mozambique, South Africa, Tanzania, Uganda and Zambia, and strategic smart partnerships with UK institutions namely the London School of Hygiene and Tropical Medicine (LSHTM), the Royal Veterinary College (RVC), the London International Development Center (LIDC) and The Pirbright Institute (TPI), with wider international collaboration on a project-by-project basis.

This strategic arrangement ensures that PhD students interact with leading experts in their respective disciplines and have access to the state of art facilities required to produce excellent research scientists and leaders in animal and human health. The ultimate goal is to improve regional research capacity to detect, identify and monitor infectious diseases of humans, animals, ecosystems and their interactions in order to better manage the risk posed by them. In pursuance of this goal and strategy, SACIDS-ACE students and fellows will be expected to develop competence in a core scientific domain of the Centre (i.e. virology or microbiology or Parasitology including pathogen molecular biology or analytical epidemiology or social sciences (including economics) to define risk, intervention and risk management/ disease control or health, food and/or policy systems.

This handbook is intended as a quick guide for navigating the PhD programme. The information and procedures described in the handbook are subject to change and may vary according to the specific programme requirements of the two universities. It is recommended that you use this handbook as an initial reference tool and basis for further inquiry with your supervisors or programme coordinators. In addition to the items described here, the PhD programme follows the guidelines outlined by the registering universities, namely SUA and MUHAS, which can be found at the following websites; www.suanet.ac.tz and www.muhas.ac.tz. It is your responsibility as a PhD student to maintain your progress in accordance with both the Centre and registering university regulations and guidelines, and to meet relevant deadlines. All questions regarding registering university regulations/guidelines should be directed to the Office of Postgraduate Studies through relevant departments. For questions relating to the Centre guidelines, please consult the SACIDS Research and Training Officer at the SACIDS Secretariat.

We wish you all the best in your studies.

Prof Gerald Misinzo
Centre Leader

"SACIDS Africa Centre of Excellence for Infectious Diseases of Humans and Animals".

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1.0 INTRODUCING THE HANDBOOK

The purpose of this handbook is to provide you with important information and guidance throughout your studentship. It helps to demonstrate the Centre's commitment to provide a quality service to PhD students supported by SACIDS ACE and to outline your entitlements and responsibilities.

It describes current policies and procedures that are implemented both at the Centre and at your registering university, aiming to help you to understand the specific procedures that are required in order for you to progress smoothly through your journey to PhD award.

This handbook must be read in conjunction with other documents of the Centre such as the Centre's Code of Practice for Postgraduate Students and Supervisors and the Student's Logbook. Provided through the Centre's Research and Training Unit and can be found at www.sacids.org/. The handbook must also be read with General Regulations and Guidelines for Postgraduate Study Programmes and policies provided through the Directorates of Postgraduate Studies of either SUA or MUHAS, depending on where you are registered, also found at www.suanet.ac.tz and www.muhas.ac.tz

You must ensure that you have read, and are familiar with both the Centre's and the registering university's documents.

2.0 CENTRE IN THE UNIVERSITY CONTEXT

SACIDS-ACE, which is hosted by Sokoine University of Agriculture (SUA) is linked to its College of Veterinary Medicine and Biomedical Sciences and operates under the legal framework of the university. SACIDS ACE supported students are registered at either SUA or MUHAS in Tanzania. In addition to Centre specific requirements students are required to abide by the rules and regulations of the registering universities. This table below provides contact details of key Centre leaders and administrative and supporting staff.

Table 1: Centre Staff Contact Details

Title	Name	SACIDS ACE Title	Contacts
Prof	**Gerald Misinzo**	Centre Leader	Sokoine University of Agriculture, Cell Phone: +255 76 7058805, E-mail: gerald.misinzo@sacids.org
Prof	**Mark Rweyemamu**	Deputy Centre Leader	Sokoine University of Agriculture, Cell Phone: +255 78 8509915 / +44 78 89317687, E-mail: mark.rweyemamu@sacids.org
Prof	**Mecky Matee**	Second Deputy Leader	Muhimbili University of Health and Allied Sciences (MUHAS), Cell Phone: +255 71 3081162, E-mail: mecky.matee@sacids.org
Dr	**Leonard Mboera**	NIMR Coordinator	National Institute of Medical Research (NIMR), Cell Phone: +255 75 4314701, E-mail: leonard.mboera@sacids.org
Prof	**Esron Karimuribo**	Coordinator of Training and Research	Sokoine University of Agriculture, Cell Phone: +255 75 4695760, E-mail: esron.karimuribo@sacids.org
Prof	**Philemon Wambura**	Innovation & Technology Development	Sokoine University of Agriculture, Cell Phone: +255 76 7216408, E-mail:philemon.wambura@sacids.org
Dr	**Kenneth Bengesi**	Equity and Career Skills Development	Sokoine University of Agriculture, Cell Phone: +255 65 5282007, E-mail: kenneth.bengesi@sacids.org
Prof	**Paul Gwakisa**	Training CoP Leader	Sokoine University of Agriculture, Cell Phone: +255 78 2437508, E-mail: paul.gwakisa@sacids.org
Prof	**Sharadhuli Kimera**	Epidemiology Competence coordinator, SUA	Sokoine University of Agriculture, Cell Phone: +255 655569684, E-mail: sikimera@gmail.com
Dr	**Candida Moshiro**	Epidemiology and Social Sciences coordinator, MUHAS	Muhimbili University of Health and Allied Sciences, Dar es Salaam, Cell Phone: +255655950071, E-mail: cmoshiro@yahoo.com
Prof	**Janusz Paweska**	Emerging and vector-borne CoP Leader	Center for Emerging and Zoonotic Diseases, National Institute for Communicable Diseases, Tel: +2711 386 6382 (6336), Mobile: +27 82 9088046, E-mail: janusz.paweska@sacids.org
Prof	**Richard Silayo**	Quality Assurance	Sokoine University of Agriculture, Email: rssilayo@yahoo.co.uk, Cell Phone: +255 754879139
Dr	**Filomena Namuba**	Programme Manager / Secretariat	SACIDS Secretariat, Sokoine University of Agriculture Cell Phone: +255 78 4394479, E-mail: filomena.namuba@sacids.org
Ms	**Secky Nyakunga**	Research & Training Officer	SACIDS Secretariat, Sokoine University of Agriculture, Cell Phone: +255 71 5011677, E-mail: secky.nyakunga@sacids.org

Table 2: Key Institutional Contacts and Addresses

Sokoine University of Agriculture, Morogoro, Tanzania	Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania
Directorate of Postgraduate Training, Research Technology Transfer and Consultancy Services P. O. Box 3151, Telephone: +255 23 2604388 Fax: +255 23 2604388, E-mail: drpgs@suanet.ac.tz Website: http://www.suanet.ac.tz/drpgs/index.html	**Directorate of Postgraduate Studies** P.O. Box 65001, Dar es Salaam, Fax: 2150465, E-Mail: dpgs@muhas.ac.tz Tel Direct: 2151377 or 2150302-6 Ext. 207
Sokoine National Agricultural Library (SNAL) P.O Box 3022 Chuo Kikuu, Morogoro E-mail: snal@suanet.ac.tz Telephone:+255 23 2604639 Fax : + 255 23 2604639	**Directorate of Research and Publications** P.O. Box 65001, Dar es Salaam, Tel Direct: +255 22 2152489 E-mail: drp@muhas.ac.tz
SUA Computer Centre **Centre for Information Communication Technology (CICT)** P.O. Box 3000, Chuo Kikuu, Morogoro. Tel. + 255 23 2640025 E-mail: dircc@suanet.ac.tz	**Directorate of Continuing Education and Professional Development**, P. O. Box 65001, Dar es Salaam. Email: dce@muhas.ac.tz, Tel : +255 022 2150302-6 Ext. 207, Direct Line: +255 22 2151117, Telefax: +255 022 2151117, Telegrams: UNIVMED
Principal **College of Veterinary Medicine and Biomedical Sciences** P. O. Box 3015 Chuo Kikuu Morogoro, Tanzania. Tel: +255 23 2604647, +255 260 3511- 4 Fax: +255 23 260 4647 E-mail:deanfvm@suanet.ac.tz	**Directorate of Information and Communication Technology** P. O. Box 65001, Dar es Salaam E-mail: dict@muhas.ac.tz Direct: +255 22 2152271 Telephone: +255 22 2150302-6, Ext. 1032.
University Health Centre P.O. Box 3027, Chuo Kikuu, Morogoro. Tel. + 255 23 2604682	**Dean, School of Medicine** P.O. Box 65001, Dar es Salaam E-mail: dfmed@muhas.ac.tz Direct: + 255 22 2151680, or 2150302-6 Ext. 278
Students Welfare and administration Department P.O Box 3033, Chuo Kikuu	**Dean, School of Public Health and Social Sciences** P. O. Box 65015, Dar es Salaam E-mail: diph@muhas.ac.tz Direct telephone: 2153371, Telephone:+255 22 2150302-6, Ext. 222
	Directorate of Library Services P. O. Box 65001, Dar es Salaam E-mail: hlib@muhas.ac.tz Telephone: +255 22 215032-6, Ext. 247 Direct: + 255 22 2152531.

3.0 GENERAL INFORMATION AND ADMINISTRATION

3.1 Students Access to Centre Office

The Centre's Secretariat Office is open to students for 40 hours a week Monday to Friday from 9:00 to 17:00.

3.2 Students Contact Hours

Student contact hours are stipulated in regulations and guidelines for higher degrees of the two registering universities. Please note that on some occasions you may be required to work out of office hours or during weekends. There are special procedures in place to enable you to do this. Please consult your supervisor for guidance.

3.3 Finance and Fees

Centre-supported students are normally paid (fully or partially) according to the following:
- A basic stipend in accordance with Centre's standard rates and a cost-of living top-up bursary as per your offer award letter.
- Approved university fees paid directly to the university
- Funds for the student's research disbursed in accordance with the regulation of both the Centre and registering university regulations and will be performance based.

NB: Self-sponsored students or those sponsored by other schemes may join the SACIDS-ACE programme subject to their meeting the academic and financial requirements of the registering university and of the Centre

3.4 Period of Sponsorship

The Centre will support you for a maximum period of 48 months. The Centre will not support you for any extension of your study period.

3.5 Public Holidays

The SACIDS ACE Secretariat Office will remain closed during these days

Table 3: List of Public Holidays

Date	Public Holidays
2nd September 2017	Eid el Hajj
14th October 2017	Nyerere Day
1st December 2017	Prophet's Birthday
9th December 2017	Independence Day and Republic Day
25th December 2017	Christmas Day
26th December 2017	Boxing Day
1st January 2018	New Year's Day
12th January 2018	Zanzibar Revolution Day
30th March 2018	Good Friday
2nd April 2018	Easter Monday
7th April 2018	Karume Day
26th April 2018	Union Day
1st May 2018	Labour Day
7th July 2018	Saba Saba
8th August 2018	Farmers Day

3.6 Absence

You, or an individual on your behalf, must telephone your primary and co-supervisor(s) to inform them of your incapacity to attend. This must be within 1 hour of your start time. If the absence is prolonged then you must keep in contact with your supervisors. If you become unwell at the university you must contact your primary supervisor for advice and guidance. It is highly recommended that you also consult the university guidelines regarding the student's absenteeism.

3.6.1 Medical Appointments

You must make a reasonable effort to arrange visits to a doctor, hospital, dentist, or optician outside normal contact hours. However, if you have an appointment during contact hours, time off will not be unreasonably denied. The process is as follows:

- At the earliest opportunity notify your supervisor of the date and time.
- Wherever possible the appointment should be early morning or late afternoon in order that time away is minimised.
- Your supervisor will log a record of appointments.
- If these become excessive then you will be expected to make up the time.
- If these appointments are not for medical reasons then you will be expected to make up the time.

Any queries should be directed to your supervisor, the Centre's Research and Training Officer and appropriate university office.

3.7 Maternity Leave

In the case of Centre-funded studentships, the legal requirements in the countries of placement for our students and the regulations of the registering universities will prevail; we will maintain students on full stipend during maternity leave for 3 months and adjust the studentship accordingly. In order to be considered for maternity leave the student must, at the latest by the end of the 15th week before the expected week of childbirth, give her supervisor and Centre Training Coordinator:

- Written notification of the fact she is pregnant
- A certificate from a medical practitioner or registered midwife stating the expected week of confinement
- Notice of the date on which she intends to commence maternity leave

3.8 Annual Performance Review

This is a four-year PhD programme structured with annual performance reviews to track student performance and ensure timely delivery of expected outputs. The annual assessments will involve two external assessors (not involved in supervision of the PhD) and a primary / co-supervisor who act as observers and will have no decision on the assessment process. For the first year annual review, students will be expected to prepare an annual appraisal report of 5,000 words and make an oral presentation. In the second year, students are expected to prepare a 5,000 word written report and make an oral presentation of preliminary/initial results and challenges. It also expected that students would start preparing manuscripts or publications and/or posters. During the third year, students are expected to prepare a 5,000-word written report and make an oral presentation of more results and preliminary analysis. It is also expected that students will have manuscript(s) or publication(s) and prepare poster(s) for annual appraisal and attend scientific conferences. In the final year, Centre review is aimed at preparing the student for his/her PhD defence. The students will prepare a presentation of their complete results, which will include manuscripts or publications, and submit a PhD thesis within three and half years for the Centre for the final appraisal before submitting to the registering university. For details and timelines of these assessments please consult the Centre's Code of Practice and the PhD Logbook.

3.9 Extension of Studies

The Centre is not prepared to consider applications to extend studentships beyond the original period of financial support. However, in exceptional circumstances where a student's progress has been delayed for reasons outside of their control, for example long-term illness, the registering university guided by the existing regulations at no cost to the Centre will give sympathetic consideration.

3.10 Suspension of Studies

Studentships are to be held without a break and the Centre will only consider an interruption to a studentship in exceptional circumstances. This may be due to persistent health problems, problems associated with the student's dependants, or for reasons of maternity. The Centre will normally only be prepared to consider the interruption of award provided that the request is made in advance. The student will need to provide written support, certifying that this interruption will not delay the submission of the final thesis by more than the length of the interruption. The Centre and registering university must both agree to the interruption.

3.11 Accommodation

The Centre will provide accommodation fees as stipulated in the registering university fee structure. The details of the accommodation and associated facilities, the rules on occupation and current charges are available from the registering universities.

3.12 Health Insurance

The Centre will cover the cost associated with the health insurance as stipulated in the registering university regulations and guidelines.

3.13 Behaviour

All PhD students at the Centre (along with members of staff, visiting workers etc.) will be expected to conduct themselves in an acceptable manner whilst at the Centre/University and whilst representing the Centre at external functions. This code of conduct covers the following:

- **Unauthorised absence –** students must not absent themselves from attendance without prior authorisation.
- **Conduct disturbing to others –** a student is expected to behave with consideration for their colleagues and visitors and to maintain dignity whilst on the Centre and University premises.
- **Offences against safety regulations –** Students have a general duty of care towards themselves and their colleagues. They must conduct themselves and their studies to ensure that there is no risk to the safety or health of any person.
- **Theft or unauthorised borrowing of Centre funds and/or property –** Centre property, including tools and equipment, must not be moved from the Centre without authority. Similarly, Centre funds must not be obtained for personal use without prior authorisation.
- **Discrimination and harassment –** Students must not discriminate against any fellow colleagues, potential colleague or any person encountered during the period of study. Harassment on any grounds is a form of unacceptable discrimination. This is defined as inappropriate words, actions or images, which, intentionally or not, create or give rise to an intimidating, hostile or offensive work environment for one or more colleagues. This includes aggressive and bullying behaviour and the use of images downloaded and/or transmitted via the Internet and/or e-mail systems, which have a similar effect of creating a hostile or offensive work environment.
- **Drunkenness or the misuse of drugs –** Students must not be under the influence of alcohol or drugs (except those prescribed by a medical practitioner) whilst on campus.
- **Threatening or abusive behaviour –** Students must not use threatening or abusive language or behaviour to other members of the public, whilst off or on campus.

- **Damage to Centre property-** Students must not wilfully damage Centre property.

Any breaches in acceptable or appropriate behaviour will be dealt with according to the Centre Code of Conduct; the registering university will be involved where the conduct relates to an academic issue.

3.14 Student Representation

The Academic Committee includes student members whose presence helps ensure that the students' perspective is considered. The Academic Committee includes a selection of scientists from registering universities and partners institutions. This is a good forum to raise concerns and suggestions, not only on academic matters but also on other aspects of Centre policy, which the Committee may be able to influence indirectly.

If you have suggestions or comments that you would like to put forward, please address the student representatives or a staff member on the Academic Committee. Election of student representatives is by the student body and they will usually serve a term of two years although this can be flexible.

3.15 Plagiarism

Plagiarism can be defined as presenting someone else's work, whether intentionally or unintentionally, as your own. Another person's work can include, but is not limited to, words, images, diagrams, formulae, ideas, judgements, discoveries and results. Plagiarism is considered as a serious offence and can lead to a student having his/her award revoked. Please speak to your supervisor if you have any queries. Your university will also be able to advise (and possibly offer training) on plagiarism as well as information regarding their regulations governing this topic.

3.16 Support and Complaints

It is hoped that you will feel able to turn to your supervisors for advice and support on most matters. In addition, the Head of your Academic Department acts as an independent senior tutor for all students, providing support and advice on academic issues. Views of general concern may be expressed to the Academic Committee through the local student representatives. If you wish to make a complaint or raise a grievance, this can be done according to the Centre's Code of Practice.

4.0 CONDUCT OF RESEARCH

Your research will commence upon obtaining ethical clearance and permission from the registering university and the relevant national authorities. You will conduct research under a primary supervisor appointed by the registering university as per its guidelines. Most of your research will be conducted in Tanzania. Non-Tanzanian students may be allowed by the Centre to conduct part of their research in their home countries upon recommendation by the primary supervisor.

4.1 Student placement for Industrial Experience

Industry placements are structured programmes that provide students with the opportunity to gain all-important work experience and employability skills before graduating.

Depending on your specialty's relatedness to industry, and based on recommendations of your supervisory team, you will be placed in an industry to undertake a particular project related to your research project. At the end of your placement you will be expected to write a report and give a presentation, which will be assessed by the placement industry, using a tool developed by the Centre.

4.2 Student One Health Placement across Sectors

Understanding One Health requires that professionals from across different disciplines and sectors have an understanding and appreciation of the links among human, animal, and ecosystem health, and the importance of and commitment to working together to address health challenges.

To accomplish this, you will be placed, based on the recommendations of your supervisory team, in institution(s) that will provide you with exposure to complementary sectors, for a better understanding and practice of One Health. At the end of your placement you will be expected to write a report and give a presentation, which will be assessed by the placement institution, using a tool developed by the Centre.

4.3 Research Conducted Outside Tanzania

Depending on the research topic, students may, on a case-by-case basis and on the recommendation of the supervisory team, have an opportunity for secondment to regional or international Centres of research and training excellence for highly specialised training, unique techniques and / or data handling/modelling.

5.0   ROLES AND RESPONSIBILITIES

5.1 The Roles and Responsibilities of the Supervisor

- To supervise the research project with a view to its timely completion.
- To work with the SACIDS Secretariat Research and Training Unit to ensure that the student registers with an appropriate university.
- To be familiar with that university's regulations and to work with the SACIDS Secretariat Research and Training Unit, the student's external supervisor and industrial partners (if appropriate) to ensure that quality assurance, monitoring and training requirements are met in full.
- To have formal face-to-face meetings with the student (at least monthly in the early days), to keep written record of all such meetings and to make these notes available to the Academic Committee when requested on an annual basis for quality assurance purposes. Where students are based away from their registering university, supervisors are required to conduct telephone or Skype meetings.
- To report formally at the prescribed times on the student's progress, and to arrange examinations as required by the Centre and the registering university.
- To advise the student on literature and sources, give guidance on experimental and research techniques, and arrange for formal instruction on research training.
- To advise the student on issues of scientific integrity and to ensure awareness of, and compliance with, the

quality/training policies of the Centre and registering university.

- To ensure that the thesis, and the data it contains, are the student's own work.
- To ensure that throughout the period of study the student knows whether their research progress is considered to be satisfactory. Where progress is not satisfactory the supervisors must advise the student where the problem lies and offer constructive help and guidance to remedy the situation.
- To ensure, as far as is within their control, that the student's work is not impeded through inadequacies of equipment or resources or through flaws in the research plan.
- To request written work as appropriate and return such work in reasonable time (3 weeks) with constructive criticism.
- To encourage student participation at seminars and scientific meetings, as appropriate, and to arrange for the student to talk about his/her work at group meetings and other seminars as required by the Centre and the registering university.
- To give advice on completion dates of successive stages of the work so that the thesis may be submitted within the scheduled time.
- When absent for an extended period, to delegate formally the supervision to an appropriate member of staff and to inform the SACIDS Secretariat Research and Training Unit of this change.
- To advise the student of the value of intellectual property, their role in protecting it and the necessity to keep accurate records.
- To take the initiative in updating their own knowledge and skills to ensure they are fully equipped to supervise students.

The Centre's Academic Committee will consider failures in good supervisory practice. Where these are deemed to be serious, recommendations will be made to the Centre Leader detailing either sanctions or formal disciplinary measures against the individual concerned, depending on the severity of the offence. Sanctions could include: a block on having any further Centre-supported PhD students for a defined period of time; a block on being primary supervisor for a defined period of time; compulsory attendance at additional supervisor training workshops prior to supervising further students.

5.2 The Roles and Responsibilities of the Student

- To undertake and write up a programme of research that is of sufficient merit and originality to be considered for a PhD degree.
- To develop a broad base of knowledge in the respective scientific field.
- To be familiar with and comply with the Centre's and registering university's regulations and policies affecting them including the regulations for their qualification, health and safety, Biosecurity and quarantine, intellectual property and ethical research guidelines.
- To be familiar with and comply with their university's requirements, rules and regulations and to consult their supervisor in advance of all progress reports and examinations.
- To have formal meetings with the supervisors (at least monthly in the early days), to prepare adequately for these meetings and to keep a full written record of all such meetings.
- To develop and agree a plan of work with their supervisors, and to set and keep to timetables and deadlines, including planning and submitting written work as and when required and generally maintaining satisfactory progress with the programme of work.
- To continually review the programme of work and to revise as necessary with the approval of the supervisor.
- To respond appropriately to advice given by their supervisors and by other members of the supervisory team.
- To take the initiative in raising problems or difficulties with their supervisors, however elementary they may seem.

- To prepare periodic reports (quarterly and annual) and others as may be required by Centre management
- To publish results in reputable scientific journals
- To be aware of and comply with the quality/training policies of the group, the Centre and the registering university.
- To arrive punctually for training so as not to delay the start and disrupt the learning for others.
- To maintain confidentiality. Students working in a research laboratory will often have access to findings of their colleagues before these are published. Students are expected not to disclose any of this privileged information without permission from the supervisors.
- To take responsibility for their own personal and professional development.
- To prepare, submit and defend their thesis within the required period and in accordance with regulations of the registering university and requirement of Centre.

Failures relating to any of the above responsibilities will be considered by the Centre's Academic Committee. Where these are deemed to be serious, recommendations will be made to the Chair of the Academic Committee detailing either sanctions or formal disciplinary measures against the individual concerned, depending on the severity of the offence. Sanctions could include either termination of the sponsorship or compulsory attendance at formal training sessions relevant to the failed section.

5.3 The Roles and Responsibilities of your Supervisory Team

You will have two or three appointed supervisors as part of a supervisory team appointed by your registering university. The Primary Supervisor takes overall responsibility for the studentship but supervision is a team effort between the Primary Supervisor and the Co-Supervisor(s). The supervisory team may include beyond campus subject specialists from the SACIDS partnership institutions.

The Centre's Academic Committee will appoint an internal assessor to your supervisory team within the first few months of starting your studies. This will be someone with the relevant experience to understand your project but who is outside of your direct research group. The role of the Internal Assessor is two-fold; they act as an independent advisor to you and your supervisor as required and they are involved in the end of year assessments as stipulated in the Centre's Code of Practice and PhD Handbook.

6.0 MONITORING AND ASSESSMENT

6.1 Monitoring and Assessment

Your registering university is the degree awarding body and as such, their regulations for monitoring progress and other assessments must be strictly adhered to. Although universities differ in their requirements and processes, this is not to say that any one is better than another because the Tanzania Commission for Universities governs the quality of all universities. It does however mean that each student and his/her supervisors must familiarise themselves with the specific processes and requirements of their registering university. Failure to comply may result in a student being asked to withdraw from the studentship.

Most university systems are very thorough, but some have a lighter touch in certain areas. As such the Centre also has its own guidelines for monitoring student progress (see timeline below), which must be implemented if not already met by the university processes.

The SACIDS Secretariat Research and Training Unit have compiled the requirements from both the Centre and the registering universities to ensure that students are fulfilling the requirements available at www.sacids.org. Students will be issued with a timeline specific to their university but it is the student's responsibility to check that this is up to

date when they receive their university registration information.

6.2 Student Logbook

This logbook has been prepared to assist you throughout your PhD degree programme. It provides a framework for recording details related to your research programme, scheduled supervisory meetings and activities associated with skills development. The logbook will also help you to assess your progress and to plan and chart evidence of the development of the academic and discipline specific skills and key skills you will need to become an effective researcher.

6.3 Period of Study

The period for registration of a full-time PhD student is 4 years. The maximum period is usually no more than 5 years for SUA and 6 years for MUHAS; registration after 4 years will only be considered in exceptional circumstances by the registering university as per regulations and guidelines and at no cost to the Centre.

Table 4: Timeline of Centre Specific Monitoring Milestones

Timescale	Student action	Supervisor action
Before start of ACE PhD programme	Selected for the ACE programme, thematic area agreed and supervisor allocated	
YEAR 1		
Month 1	**SS1: First formal meeting with supervisor**	Initiate meeting
	• Initial discussion about concept • Agree core training courses to attend and enter in training plan in Student Log • Notes of meeting in Student Log	
Month 1	Attend student induction programme	Some supervisors will help deliver the induction programme
Month 1 at induction	• Carry out learning needs analysis for transferable skills • Make additions to training plan	Discuss training plan at next quarterly meeting/provide encouragement for student to attend training
Month 2	Attend transferable skills I • Technical research skills • Core transferable skills • Bioethics • Lab safety	Encourage students to attend basic transferable skills training
By end of month 1	Submit concept note	Help student to develop concept note
October – December	Attend core courses: Biostatistics, Research Methodology, Bioethics, Epidemiology	Encourage/facilitate student to attend training
Month 3	**SS2: Three month supervisory session** • Attend supervision meeting • Prepare progress report to using ACE –template in Student Log • Send progress report to ACE Research and Training Officer via the primary supervisor	• Hold formal supervision meeting • Discuss progress report
Month 6	Attend transferable skills training	Encourage students to attend

		transferable skills training
	• Information search skills • Plagiarism • Citation and referencing • Introduction to intellectual properties and commercialization of innovation in Tanzania context • Creative thinking and problem solving skills • Core research leadership skills	
Within first 6 months	• Conduct literature review and draft research proposal (including plan and budget) • Submit proposal to primary supervisor for sharing within the CoP	Advise on literature review, read and comment on draft research proposal
Month 6 and every 6 months	Submit progress report to university using form provided for this purpose	Provide guidance
Month 6	**SS3: Six month supervisory session** • Prepare progress report for ACE and discuss with supervisor • Send quarterly report to Centre Research and Training Officer through primary supervisor • Identify specific training needs in relation to the research project and make additions to the training plan	• Hold formal supervision meeting • Discuss student's progress report to ACE • Help student to identify specific training needs related to the research project
Month 7	Submit full research proposal for approval by university postgraduate committee	Intensive support to ensure student develops robust proposal
Month 7-8	Finalise registration at university once research proposal has been approved	
Month 8	Attend transferable skills training • Advanced technical research skills • Foundation research management • Critical skills for finishing a PhD on time • Biostatics	Encourage students to attend transferable skills training
On-going	• Implement research project • Attend specialist training	Intensive guidance from supervisor
Month 9	**SS4: Nine months supervisory session** Meet supervisor, discuss progress and send quarterly report to Centre Research and Training Officer through the primary supervisor	Review progress, provide guidance
Month 8-9	Seminar – present research proposal	• Attend seminar • Give verbal feedback on presentation skills
Month 11-12	**SS5: Eleven to Twelve months supervisory session** Participate in annual appraisal process, submit: • Peer reviewed review paper arising from literature review • Quarterly progress report against research plan • Update on training plan and credits gained • Attend appraisal meeting	• Hold formal supervision meeting. • Review the student's submissions and offer advice. • Attend the appraisal meeting
Month 12	Submit progress report to university using form provided for this purpose	
YEAR 2		
Month 13	Present progress report on research to peers at	• Attend seminar

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	interdisciplinary PhD seminar	• Give verbal feedback on presentation
Month 13	Attend transferable skills training • Foundation research leadership • Foundations of external policy and industry engagement • Scientific writing skills • Principles and practices of public health • Natural products development and formulation	Encourage students to attend transferable skills training
Month 15	**SS6: Fifteen months supervisory session**	Hold formal meeting with student to review progress, advice and support
	Attend meeting with supervisor and discuss progress with research and any issues in quarterly report to ACE	
Month 15	Submit ACE quarterly report	
Month 18	Submit progress report to university using relevant form	
Month 18	**SS7: Eighteen months supervisory session**	Hold formal meeting with student to review progress, advice and support
	Attend meeting with supervisor and discuss progress with research and any issues in quarterly report to ACE	
Month 24	**SS8: 24 months supervisory session**	• Hold formal supervision meeting. • Review the student's submissions and offer advice. • Attend the appraisal meeting
	Participate in annual appraisal process: • Meet supervisor in advance of the appraisal • Submit 5000 word paper and oral presentation documenting preliminary results • Attend appraisal meeting	
Month 24	**SS9: 24 months supervisory session**	Discuss any feedback from the appraisal and actions to be taken
	Attend meeting with supervisor immediately after the appraisal meeting	
Month 24	Submit progress report to university using relevant form	
YEAR 3		
Month 25	Present preliminary results of research to peers at interdisciplinary PhD seminar	Attend seminar and give verbal feedback on presentation
Month 25	Attend transferable skills training • Research and investigation skills • Critical thinking skills in research • Team building and management	Encourage students to attend transferable skills
Month 28	**SS10: 28 months supervisory session**	Hold formal meeting with student to review progress, advice and support
	• Attend meeting with supervisor and discuss progress with research and any issues in quarterly report to ACE • Submit report to Centre Research and Training Officer through your primary supervisor	
Month 30	Submit progress report to university using relevant form	
Month 30	**SS11: Thirty months supervisory session**	Hold formal meeting with student to review progress, advice and support
	• Attend meeting with supervisor and discuss progress with research and any issues in quarterly report to ACE • Submit report to Centre Research and Training Officer through your primary supervisor	
Month 32	Attend transferable research skills training • Project management skills	Encourage students to attend transferable skills

	• Grants application and management • Communication skills	
Month 33	**SS12: Thirty three months supervisory session** Attend meeting with supervisor and discuss progress with research and any issues in quarterly report to ACE Submit report to Centre Research and Training Officer through your primary supervisor	Hold formal meeting with student to review progress, advice and support
Month 36	**SS13: Thirty six months supervisory session** Participate in annual appraisal process: • Meet supervisor in advance of the appraisal • Submit: poster, presentation, manuscript for publication • Attend appraisal meeting	• Hold formal supervision meeting. • Review the student's submissions and offer advice. • Attend the appraisal meeting
Month 36	**SS14: Thirty six months supervisory session** • Attend meeting with supervisor immediately after the appraisal meeting •	• Discuss any feedback from the appraisal and actions to be taken •
Month 36	Submit progress report to university using relevant form •	
Month 37	Present poster at interdisciplinary PhD seminar	Attend seminar and give verbal feedback on presentation of poster
Month 39	**SS15: Thirty nine months supervisory session** • Attend meeting with supervisor and discuss progress with thesis and any issues in quarterly report to ACE • Submit report to Centre Research and Training Officer through your primary supervisor	Hold formal meeting with student to review progress, advice and support
Month 42	Pre-submission to ACE: presentation of complete results and manuscripts for publication (1 submitted, 2 in preparation)	Intensive support
Month 43	Submission of thesis to university	Facilitate submission
Month 44	Viva Voce	Liaise with university management
Month 48	PhD Award	

- Depending on the candidates research area and supervisors recommendations a student can be placed, during training period, to an institution/industry relevant to speciality
- The university progress report forms will be obtained from the respective directorate of postgraduate studies
- Students are expected to attend journal clubs, seminars and conferences on an ongoing basis and keep records in the logbook.

6.4 Details of Milestones

All Centre supported PhD students MUST attend the induction programme, details of which are shown in Table 5.

6.4.1 Setting a research plan

At the start of your studentship, you and your supervisors should agree a plan for the research programme, setting out the timetable and any deadlines or milestones where possible. This plan forms the basis of subsequent reporting and assessment. The plan needs to have some level of

flexibility to allow for adapting or modifying the plan to take account of developments in the research results or other external factors.

6.4.2 Proposal development and ethical clearance

You are required to prepare a concept note as per registering university regulations under the guidance of your supervisors, outlining your perception of the background, objectives and experimental approaches of the project. The concept note will be presented in your academic department for appraisal before being submitted to the Directorate of Postgraduate Studies of your registering university for approval and recommendation to proceed with the development of full proposal. A full proposal will be expected to be developed within six months of concept note clearance. The student, through his/her supervisor, should also seek ethical clearance before starting the actual research.

6.4.3 Progress reports

Centre PhD students are required to submit progress reports through their supervisors at three monthly intervals throughout their studentship. Each time, the feedback of your report will be shown to you and you have an opportunity to make adjustment on the academic progress. These progress reports should be completed using centre-specific progress forms and returned to the SACIDS Secretariat Research and Training Unit.

6.4.4 Centre annual performance assessment

This will be in form of a report and an oral presentation as described earlier – (See also Section 8.4, 8.5 and 8.6 of the Student Code of Practice). The oral component will be organised by the Centre as this is highly beneficial practice for the final year *viva voce*. The details and timelines of the assessment are stipulated both in the Centre's Code of Practice and PhD Handbook.

6.4.5 First year annual assessment

You are expected to prepare an annual 5,000 words report and to undergo annual assessment with the internal and external assessors. A written assessment report must be completed by the assessors and forwarded to your supervisor and to you to address comments raised. The corrected version of the report should be submitted to the SACIDS Secretariat Research and Training Unit.

6.4.6 Second year annual assessment

The Centre requires you to prepare an annual report and to undergo annual assessment with the internal and external assessors as in your first year. After the annual assessment a written assessment report must be completed by the assessors and forwarded to your supervisor and to you to add any comments. This completed report is then sent to the SACIDS Secretariat Research and Training Unit.

6.4.7 Third year annual assessment plan

During the third year, students are expected to prepare a 5,000-word written report and make an oral presentation of more results and preliminary analysis. It is also expected that students will have manuscript(s) or publication(s) and prepare poster(s) for annual appraisal and attend scientific conferences. After the annual assessment a written assessment report must be completed by the assessors and forwarded to your supervisor and to you to add any comments. This completed report is then sent to the SACIDS Secretariat Research and Training Unit.

6.4.8 Thesis development plan

The plan should provide a clear strategy and timetable for the final stage of delivering a completed thesis on time. The timing of this report is important and should not be delayed without

specific agreement from the Academic Committee.

6.4.9 Thesis submission

This should be done in accordance with the registering university's regulations and guidelines.

6.4.10 Viva voce examination

This should be done in accordance with the registering university's regulation and guidelines.

6.5 Journal Clubs and Student Club

It is mandatory for you to attend Journal Clubs as scheduled. Journal Club is a regular meeting of all students and some Postdocs, the aims of which are to provide participants the opportunity to expand their knowledge in wider scientific fields, to foster the exchange of knowledge between them, and to encourage the development of critical thinking and presentation skills.

6.6 Thesis

The PhD degree examination requires the submission of a thesis by the student, embodying the results of his/her research. A thesis submitted for the award of PhD should be of international standard, and should contain new observations of scientific value relevant to the field of speciality. The Candidate must have attended fundamental/core courses including research methods, biostatistics, bioethics and scientific writing, as well as relevant courses to his/her area of study as prescribed by his/her supervisors.

The PhD thesis itself must be prepared in accordance with the instructions of the registering university. An electronic copy of the completed thesis must also be deposited with the university's library and SACIDS Secretariat.

7.0 TRAINING

The PhD training programme provides you with two important forms of training: project based and transferable skills training. The project based training (i.e. scientific, research management and personal skills) focuses on the development of practical, questioning and critical analysis skills required to deliver the specific research project and trains you to become a professional research scientist. Transferable skills training provides you with a generic set of skills that are more broadly applicable beyond that of a student and to many careers in addition to that of an academic research scientist.

Graduate students have varied backgrounds and prior experience; training therefore needs, to some extent, to be tailored to the individual. Early on in the studentship, ideally during the induction process, you should meet with your supervisor to discuss development and general educational needs. This should be revisited and re-evaluated on a regular basis and at least at the start of each year.

7.1 Induction Week

The induction programme is a mandatory requirement that all new PhD students should attend.

Please be aware that your registering university may also have an induction week and although there may be some overlap it is important that you try to attend both. If you have any queries about either the Centre or University induction, please seek advice from the SACIDS Secretariat Research and Training Unit.

7.2 Training Calendar

For specific training, staff within the registering and partner universities who are familiar with the latest techniques will usually be prepared (upon request) to help instruct students in their particular areas of expertise. Where possible, and subject to adequate funding, students are encouraged to attend specialist practical and taught courses relevant to their discipline, both within the registering university and elsewhere.

For transferable skills training, your registering university and the Centre will both have a set of mandatory requirements covering transferable skills training. It is vital that you are aware of these and that you fulfil both sets of requirements. However, we recognise that there is often a high degree of overlap and hence both institutions will be flexible in recognising and accrediting the other's courses. In this way, you need not duplicate effort through attendance at similar events; advice should be sought from the supervisor if you are in any doubt with regards to which courses to attend. If you are unable to attend a mandatory session at the Centre without a replacement at your university, permission should be sought from the Academic Committee in consultation with the registering university.

Table 5: PhD Transferable Skills Training Timetable

Confirmed	Course	Duration	Facilitator	Date
ACADEMIC YEAR 1				
1.	Induction program	3 Days		October 2017
2.	Technical research skills • Foundations of research methodologies • Core IT capabilities • Research ethics • Health and safety and institutional policies • Philosophy of science (scientific investigation)	5 days	Dr. Emanuel Chao (MU), Mr. Felix Sukums (MUHAS);	November 2017
3.	Core transferable skills • Personal management skills • Publishing options • Presenting with confidence • Effective written communication	5 Days	Theresa (UK) and Dr. E.T Lwoga (MUHAS)	November 2017
4.	Bioethics	1 days	Mr. Muhsin Aboud (MUHAS)	November 2018
5.	Lab Safety	0.5 day	Mr. Majigo Mtebe (MUHAS)	November 2018
6.	• Information search skills (Sources of scholarly literature, search tools and techniques). • Plagiarism (types, avoiding plagiarism, plagiarism checkers) • Citation and referencing (reference management software).	3 days	Prof. Sife, A (SUA); E.T. Lwoga (MUHAS) and Prof. Dulle (SUA)	March 2018
7.	Introduction to intellectual properties and commercialization of innovation in Tanzania context	3 days	Prof. Kweka, A (SUA) and Dr. Kenneth Bengesi (SUA)	March 2018
8.	Creative thinking and Problem solving skills	1 day	Dr. Hawa Petro (MU) & Dr. Emanuel Chao (MU)	March 2018
9.	Core research leadership • Understanding yourself • Action centered leadership • Communicating and engaging with peers • Teams and team working • Networking • Project leadership • External and cross-cultural skills	3 days	Dr. Tom Kennie (Ranmore)	19th – 21st March, 2018

	Developing your network skills			
	• Managing cultural dynamics in research consortium			
10.	Advanced technical research skills • Advanced research methodologies • Advanced IT capabilities • Data management skills • Quantitative data analysis • Quantitative data analysis software's (Amos, Stata, SPSS)	5 days	Dr. Emanuel Chao (MoU), Dr. Ayoub Churi (SUA), Dr. Kenneth M.K. Bengesi (SUA)	May 2018
11.	Foundation Research Management • Research ethics • Research evaluation • Project management • Administration of research project • Institutional financial and Human Resources policies	5 days	Dr. Kenneth M.K. Bengesi (SUA), Dr. Emanuel Chao (MU), Dr. Hawa Petro (MU)	May 2018
12.	Critical skills for finishing a PhD research on time	1 day	Dr. Emanuel Chao (MU), Dr. Hawa Petro (MU)	May 2018
13.	Biostatistics	5days	Dr. Candida Moshiro (MUHAS)	May 2018
ACADEMIC YEAR 2				
14.	Foundation Research leadership • Building a research team • Delegating and core coaching skills • Monitoring and developing others • Leading research impact • Innovation and entrepreneurship	3 days	Dr. Tom Kennie (Ranmore) & Dr. Kenneth Bengesi (SUA)	15th – 17th October 2018
15.	Foundations of external policy and industry engagement • Understanding research policy makers • National network development • Engagement with industry • Approaches to fostering innovation • Skills to develop successful industry – HE intervention and partnerships	2 days	Dr. Tom Kennie (Ranmore) & Dr. Kenneth Bengesi (SUA)	18th-19th October 2018
16.	• Scientific writing and publishing - Structure of scientific papers (IMRAD structure; Hourglass model; King's model; CARS model etc. • Reviewing literature; • Dealing with journal editors' and reviewers' comments.	3 days	Prof. Sife (SUA), A; Dr. E.T. Lwoga (MUHAS) and Prof. Dulle (SUA)	October 2018
17.	principles and practice of public health	2days	Doreen Mloka (MUHAS)	October 2018
18.	Natural products development and formulation	4days	Dr. M.C. Kapingu (MUHAS)	October 2018
ACADEMIC YEAR 3				
19.	Research and investigation skills	1 day	Dr. Hawa Petro (MU) & Dr. Emanuel Chao (MU)	October 2019
20.	Critical thinking skills in research	1 day	Dr. Hawa Petro (MU), Dr. Emanuel Chao (MU)	October 2019
21.	Team building and Management • How to build and manage effective team • Develop and motivate team members • Delegate effectively • Manage teams in multicultural environment	2 days	Dr. Kenneth Bengesi (SUA), Dr. Hawa Petro (MU) & Dr. Emanuel Chao (MU)	October 2019

22.	Problem solving skills • General problem solving techniques • Drilling down into the root causes of problems • Understand and solve issues with business process • Develop creative solution	2 days	Dr. Hawa Petro (MU); Dr. Emanuel Chao (MU)	October 2019
23.	Project Management Skills • Project management framework • Discover key elements of the project management process • Learn how to schedule projects and manage their scope • How to win stakeholders support and manage change	2 days	Dr. Kenneth Bengesi (SUA), Dr. Hawa Petro (MU) & Dr. Emanuel Chao (MU)	May 2020
24.	Grants application and management	1 day	Prof. Kulwijira, L (SUA)	May 2020
25.	Communication skills	1 day	Dr. Komba Sotco (SUA)	May 2020
26.	• Interpersonal skills • Successful CVs and interview skills • Negotiation, persuasion and influence • Presentation skills • Active listening • Writing skills • Communication barriers			

NB. Further courses will be added (stats, ethics etc) and students will be updated via email.

In addition to the transferable skills training, each year you must also undertake the following mandatory training:

- Attend as many internal and external speaker seminars as possible when at the Centre. Seminars are an important means by which you can learn about the wider scientific background of your project, providing the diversity of knowledge expected of a PhD student. Registers will be taken and a continued failure to attend will be noted and action taken.
- Assist the Centre Communications Manager with at least one outreach activity. Such events include visits to schools, attendance at agricultural and public health shows, demonstration at science exhibitions, etc. and they are an important way to learn how to communicate your science to the general public.
- Attend journal club meetings and present journal club seminars.
- Attend all Centre PhD Programme meetings.

Both the registering university and the Centre will offer numerous other opportunities and you are encouraged to take these if deemed appropriate by your supervisor(s). Funding may be available for external courses through the SACIDS Secretariat Research and Training Unit.

7.3 Records of Training

You must keep a written record of any external training courses and events attended, as well as seminars and journal club meetings. This record is an important part of the annual assessment/appraisal process, assuring the Centre and the University that you are receiving the necessary training.

8.0 LABORATORY BASED RESEARCH FACILITIES AND EQUIPMENT

The following facilities at SUA and MUHAS will be available to support your research. Student access to these facilities will be subject to prevailing Standard Operating Procedures (SOP), Quality Management, Biosafety and other relevant requirements of SUA/MUHAS and the Centre.

8.1 Pathogen Molecular Biology Research Laboratory –SUA.

Class II biological safety cabinets; a 7500 Applied Biosystems Fast real time PCR systems, a Gene Amp 9700 and 3 Veriti ABI for conventional PCR, Field Laboratory System (Enigma Diagnostics) for fully automated combined nucleic acid extraction and real-time PCR, A 3500 Applied Biosystems Genetic Analyser for automated dideoxy cycle sequencing of PCR products, Conventional and a nanodrop spectrophotometers for determining quality and quantity of DNA, Gel documentation system for visualization of electrophoresed PCR products, Ultralow freezers (-80 °C), freezers (-20 °C), refrigerators (+4 °C) for storage of reagents and cryopreservation of samples, ELISA washer and reader for serology, An IsoArk BSL-3 laboratory unit.

8.2 Genome Science Centre (GSC) laboratory

This laboratory equipped with basic molecular biology equipment for DNA studies (PCR and gel documentation), ELISA reader machines for antigen and antibody detection and Western blotting equipment for the analysis of protein expression, Gene scanner for the differential analysis of microarray gene expression and basic laboratory equipment like ice making machine, Centrifuges, Heater blocks, +4, -20, -40 fridge/freezers, and A 30 KVA diesel back up power generator

8.3 Pathogen Molecular Biology Training Laboratories

This laboratory at SUA is equipped with class II biological safety cabinet for biosafety, a Takara Thermocycler for conventional PCR, Centrifuges, electrophoresis machines for agarose gel electrophoresis, BioRad gel documentation system for visualization and imaging of electrophoresed PCR products, freezers (-20 °C), refrigerators (+4 °C) and liquid nitrogen containers for storage of reagents and cryopreservation of samples.

8.4 Conventional Virology Laboratory for vaccine development, and diagnostic testing – SUA

A modern cell culture based biosafety level 2-research laboratory equipped with biological safety cabinet 2, two fluorescence microscopes, two CO2 incubators, and ultralow freezers.

A unique biosafety level 2 animal house**,** capable of testing vaccines on goats, sheep, cattle or other mid-sized animals to perform inoculations and take and analyse samples under conditions following Good Laboratory Practices, for use in future research efforts and industrial product development projects.

8.5 Video conference facility – SUA

The facility fitted with Cisco Tandberg c40 x 12 ZOOM; including Natural Presenter package, multisite software, Premium resolution and Dual display, which can be accessible for video conferences when need arises.

8.6 Community radio: Deluxe Radio Station- SUA

With 600 watt Site; link and 150-watt repeater site, including D&tR Airmate Broadcasting console (8 Mic 8 Sterio Line 2 Hybrids), 12 Channel Production Mixing Console, BW TX600 Watt FM Transmitter V2 with built-in audio processor; BW TX150 Watt FM Transmitter.

8.7 Microbiology Laboratory (MUHAS)

Equipped with diagnostic and research microbiology laboratories (bacteriology, immunology, virology) with the following equipment: UV spectrometer, pH meters, Analytical Balances, Inhibition zones reader, centrifuge, incubators, Autoclaves, hot air ovens, electrophoresis tools, PCR machine, laminar flow cabinets, fridge, freezers and binocular microscopes, FACSCount; FACSCalibur, FACSCanto, ELISpot Reader Cell harvester, Microbeta counter, liquid nitrogen plant, Bactec 960 MGIT and Blood culture machine.

8.8 Molecular Biology research laboratory (MUHAS)

Equipped with two biosafety cabinets, centrifuges, freezers, dark room and modern lab imaging equipment, PCR machines.

9.0 PUBLICATIONS

All PhD students are strongly encouraged to give presentations of their findings for peer discussion at international conferences and to publish them in journals with the highest possible impact factors, so as to ensure that the material is rigorously reviewed. Publications will be in Open access journals as advocated by many reputable publishing houses and major science funding agencies. The thesis for PhD by Research and Publications shall consist of a minimum of four original research articles. Manuscripts will be reviewed by a Centre's Publication Committee to ensure quality, relevance and avoidance of submission to low quality predatory, so-called open access journals (Beall's List).

Table 6: Centre Key Staff

Type of Academic Staff/Experts (existing, visiting, new, industry etc.)	Area of Expertise	Key Role
Gerald Misinzo (PhD, Existing), SUA	Molecular Biology, Virology	Centre Leader, workshops, teaching and research, research collaborations, graduate training, mentoring PhD
Mark Rweyemamu (PhD, Visiting), SUA	Virology, One Health,	Deputy Centre Leader, research collaboration, advisory, Mentoring PhD students/ Postdocs. Brings wealth of international experience to the program; grant writing
Mecky Matee (PhD, Existing), MUHAS	Microbiology, Immunology	Second Deputy Centre Leader, Workshops, teaching and research, research collaboration, mentoring PhD students/ Postdocs
Paul Gwakisa (PhD, Existing), SUA	Immunology, Animal Biotechnology	Workshops, teaching and research, research collaboration, mentoring PhD students/ Postdocs
Philemon Wambura (PhD, Existing), SUA	Microbiology	Workshops, teaching and research, research collaborations, mentoring PhD students
Eliangiringa Kaale, PhD, Existing, MUHAS	Pharmacy and Quality Assurance	Training and research supervision, Quality Assurance & Quality Control. Link with Industry and TFDA
Christopher Kasanga (PhD, Existing), SUA	Molecular Biology, Virology	Teaching and research, research collaborations, graduate training
Esron Karimuribo PhD (Existing), SUA	Epidemiology, Ecohealth, Disease surveillance, modelling	Workshops, teaching and research, research collaborations, supervision PhD students, Innovations for ICT driven disease detection and surveillance
Leonard Mboera (PhD, Existing), NIMR	Emerging and vector-borne disease, Ecohealth, Disease	Information and Communications technology, research collaboration, workshops, Speaking engagements
Sharadhuli Kimera (PhD, Existing), SUA	Epidemiology, Public health	Workshops, research collaboration, supervision PhD students
Eric Beda Mutagaywa MSc, Contractual SUA		ICT-in-learning; mobile and digital technologies for disease surveillance
Stephen Mshana (PhD Visiting), CUHAS	Anti-microbial resistance	Guest lectures and collaborative research and training

Rudovick Kazwala (PhD, Existing), SUA	Zoonosis, Public health, One Health	Workshops, research collaboration, advisory, mentoring PhD students/ Postdocs
Robinson Mdegela (PhD, Existing), SUA	Zoonosis, Public health, One Health	Workshops, teaching, research collaboration, mentoring PhD students
Helen Ngowi PhD Existing), SUA	Parasitic Zoonoses, Cycsticercosis	Workshops, research collaboration, supervision PhD students
Ayoub Kassuku PhD (Existing, SUA)	Parasitic Zoonoses, Cycsticercosis	Workshops, research collaboration, supervision PhD students
Billy Ngasala PhD (Existing), MUHAS	Parasitic Zoonoses, Cycsticercosis	Workshops, research collaboration, supervision PhD students
Kenneth Bengesi (PhD, Existing), SUA	Strategic Entrepreneurship, Economics and Management Sciences	Workshops, research collaboration, teaching and research, graduate training; developing and teaching Research Leadership and Management
Carolyne Nombo (PhD, Existing), SUA	Sociology	Teaching including Gender and development, public policy and food security; developing and teaching Research Leadership and Management
Calvin Sindato (PhD)	Epidemiological Modelling and Disease surveillance systems	
Peter Mangesho (PhD)	One Health Socio-anthropology	
Majigo Mtebe (MMED, Existing), MUHAS	Microbiology, Immunology	Teaching and research, graduate training, research collaborations
Bruno Sunguya (PhD, Existing), MUHAS	Public Health	Teaching and research, graduate training, research collaborations