



UR MONTHLY

The official newsletter of the University of Rwanda

UR MEETS ITS ALUMNI FROM MEDICINE AND HEALTH SCIENCE



A section of UR alumni during the meeting

In his keynote speech, Dr Faustin Ntezilyayo the Rwanda Chief Justice who was the guest of honour told the gathering that UR alumni community should not only be proud of what the University has given them but also be determined to give back and contribute to the university greatness. According to Ntezilyayo, Alumni should be part-time visiting or honorary lecturers and give industry experience in classrooms while contributing in review of programmes so that they can be market relevant.

MORE IN THIS ISSUE

UR MEETS ITS ALUMNI FROM MEDICINE AND HEALTH SCIENCE

A GET TOGETHER WITH INTERNATIONAL STUDENTS

A RESEARCH ON MASTITIS IN DAIRY COWS IN RWANDA

UR- CE RECEIVES AWARD AS CHAMPION IN INCLUSIVE EDUCATION

MASTER STUDENTS IN ENERGY VISIT MUKUNGWA I&II HYDROPOWER PLANTS

JOINT TRAINING IN MINIMALLY INVASIVE SURGERY

PROJECT ON SUSTAINABLE RURAL DEV'T AND TRANSFORMATION

The University of Rwanda kicked off a get together with its alumni; a maiden event that started with graduates in Medicine and Health Science. The event was marked with panel discussions and presentation from graduates to share their experience and achievements while the University management presented registered successes and the role of its alumni for propelling the University to the higher level.

In his opening remarks, UR Vice Chancellor Prof Phil Cotton commended the College of Medicine and Health Sciences for its contribution to research.

With a huge university alumni found in leadership position in public and private sectors, current students should not struggle to get industrial attachment

Dr Faustin Ntezilyayo

In the course of the get together evening, an executive committee of Medicine and Allied Sciences Chapter was elected. It is formed of Dr Albert Nzayisenga as the Chair, Mr André Gitembagara the Vice Chair, and Ms Marie Claire Gasanganwa the Secretary.

We want to make UR much more compassionate in the way that it deals with students and staff

Prof Phil Cotton



Prof Cotton, UR Vice Chancellor in his address to international students

A GET TOGETHER WITH INTERNATIONAL STUDENTS

In collaboration with Study in Rwanda Organization, the University of Rwanda organized a get together with new and continuing international students in its quest to reaffirm the existing bond with them. The event featured a series of students and officials' interventions and was an opportunity to rejoice for Christmas since students were going to celebrate it away from their family.

Speaking on the occasion, Prof Phil Cotton the Vice Chancellor of the University of Rwanda noted that one of the objectives of the University of Rwanda is to build a collective confidence of the next generation. According to him, the University of Rwanda looks to conduct research that changes the nation and train people with ability to go back to their communities and make a difference.

Halima Mohamed is from Kenya and studies at the Centre of Internet of Things at master's level. She witnessed that she joined the University of Rwanda in 2018 due to the fact that the course she is pursuing is not found in many universities. She added that Kigali is one of fast growing cities in Africa and internet of things is a new course that has a huge impact on propelling modern cities.

In his remarks, Amb. Dr Charles Murigande the Deputy Vice Chancellor for Institutional Advancement noted that international students have a

reason to join Rwanda and more specifically UR because Rwanda is the most improved country in the last 25 years. He also informed them that UR has been steadily improving overtime and the university ranking has been equally progressing every six months.

"You have made a good choice to join a country with great transformation and humble and convincing measures" Murigande told international students ; adding that the University of Rwanda does all it can to create conditions for their success.

You have made a good choice to join a country with great transformation, humble and convincing measures

Amb. Dr Charles Murigande

UNDERSTANDING MASTITIS AND MILK QUALITY IN RWANDA

Towards increasing milk production, quality and safety



Jean Baptiste Ndahetuye performing lab experiment

Thousands and thousands of people consume milk every day. Cows producing such milk can contract different diseases that threaten the supply of milk. One of the most common diseases in dairy cows is mastitis, which is an inflammation of the mammary gland that is caused mainly by different bacteria. Mastitis negatively affects milk yield and milk quality in dairy cows. Bacteria causing mastitis could be from environment around the cow, from other cows with infection in the udder or from human during milking. If precautions are not taken, dairy cows could suffer from mastitis for a long time and this will compromise their welfare and milk yield.

This thesis was undertaken to better understand mastitis and milk quality in Rwanda. Dairy cows have a great cultural and economic importance in Rwanda, where most of the milk is produced by small holder farmers. Milk has been recognized to be important for the nutritional status of young children and for their growth and cognitive development. The cattle population and milk production is increasing, partly due to national programs striving for enhanced human nutritional status and food security and safety. Mastitis can be either clinical with obvious changes in the udder and milk or subclinical without visible signs. The research focused on subclinical mastitis as it is more prevalent and it often goes undetected in the herd and affects milk yield and quality. Ndahetuye screened 828 cows in 429 herds from five regions in Rwanda with a cow-side test named california mastitis tests and taken milk samples from affected udder quarters for analysis of which bacteria cause the mastitis.

In addition, he studied antibiotic resistance in the isolated mastitis-causing bacteria. Furthermore, he studied how milk quality and safety is affected by different practices at farm.

Results showed that subclinical mastitis prevalence was around 70% on herd level, 65% on cow level and 40% on quarter level. That means around 6 cows out of 10 have inflammation in at least one of the udder quarters. About 75% of cultured milk samples in all regions were bacteriologically positive and 25% were bacteriologically negative. In all regions, staphylococci (non-aureus staphylococci (NAS) followed by *Staphylococcus* (*S.*) aureus) were the predominant bacterial pathogens causing subclinical mastitis. In conclusion, subclinical mastitis is common in dairy herds in Rwanda and the majority of causative udder pathogens are resistant to penicillin. Contamination of milk in the production chain leads to a high microbial load in milk which is of importance for milk quality, processability and public health. Molecular characterization of *S. aureus* showed that this pathogen is highly diverse in subclinical mastitis cases in Rwanda, which provide knowledge on biosecurity, how mastitis is spread and how to best implement preventive measures. An overall mastitis control plan is recommended in order to optimize milk production in Rwanda.



Jean Baptiste Ndahetuye is currently a Lecturer at the University of Rwanda, College of Agriculture, Animal Sciences and Veterinary Medicine in the School of Animal Sciences and Veterinary Medicine. He recently obtained his PhD from the Swedish University of Agricultural Sciences, in the Department of Clinical Sciences and his research focused on Mastitis in dairy cows in Rwanda: Characterization, Prevalence, etiology, molecular epidemiology and effects on milk quality. The overarching goal with this research is to increase milk production, quality and safety from farm to milk collection centers (MCC) level in Rwanda.

In the context of its vibrant actions aimed at developing People with Disabilities, the University of Rwanda- College of Education School of Inclusive and Special Needs Education was recently awarded Dr.FarajRemmo Award 2019 in the University of Bielefeld (Germany). The College of Education was represented by Dr. Evariste Karangwa, the Dean of School of Inclusive and Special Needs Education. This award joins a number of others from local community as well as civil societies. The University of Rwanda-College of Education is now among 193 institutions and organizations worldwide that have been recognized for similar accomplishments.

The School of Inclusive and Special Needs Education is one of the teacher-training units of the University of Rwanda's College of Education. Its approach to teacher training is problem-based, innovatively involving a blend of theories in lecture room interactive discussions, often enriched by inquiries and observations made on children with disabilities of the neighborhood communities. Those children receive free therapeutic services in the school Resource Center for Special Needs.

Since the inception of the School of Inclusive and Special Needs Education in 2009, UR-CE had privileged collaboration with local and international civil societies; with government and non-governmental agencies; in studies and community outreach; and especially in teacher-training programs.



DrFararajRemmo Award accorded to UR-CE



Vistors from Agder University (Norway) were impressed by handcrafts made by parents of children with disabilities under support of UR-CE

THE PURSUIT OF INCLUSIVE AND SPECIAL NEEDS EDUCATION

UR-CE receives an international recognition

The School approach is a strand of theory in lecture rooms, activities in the Resource Center for Special Needs, and in neighborhood families and schools. The strategy was conceived to bring the local communities' children with Special Needs who need therapy and their disadvantaged families that need counsel, into a close link with UR- CE experts and their trainees expected to learn the children's educational needs and the services they require.

In the framework of community engagement, this approach has provided a mutually benefitting collaboration, providing space for parents to understand better their children's needs and potentials. Their association "Ubwiza, based in UR CE Rukara Campus, has successfully grown into a lucrative entity, and continues to be vanguard of advocacy for children within Gahini Sector of Kayonza District.

The College model of supporting its students with disabilities and others special needs is also known to have inspired the UR policy and procedures for supporting its staff and students with disabilities and other special Needs since 2015. The UR policy has informed the IUCEA Quality Assurance Guidelines for students' with disabilities especially its chapter 4 (I-IX).

All theses initiatives have placed the University of Rwanda among the leading inclusive educational institutions that continue to attract both national and international students

INDUSTRY ATTACHMENT

Master students in Energy visit Mukungwa I&II Hydropower Plants

Master students at the African Center of Excellence in Energy for Sustainable Development (ACEESD) specializing in Renewable Energy, Electrical Power System and Energy Economics visited Mukungwa I&II Hydropower Plants to experience the process to which the electrical power is generated and supplied to different zones upcountry.

The visit was organised to help students pursuing masters in energy experiencing the operation of Hydropower plants, have hands-on practice of the theories they learnt in class and interact with technicians in Hydropower energy to open up their mind on real energy business.

Aphrodis Nduwamungu, the Lab engineer at the Center who accompanied students said this was a good opportunity for students to know what is going on in Hydropower energy Sector.



"For instance, students who are doing Energy Eco-

nomics are supposed to deal with energy policies and investment. During this visit, students were briefed on existing policies so that they may think of which projects to design and invest in this domain", he said. "This has been also an opportunity for students to identify the gap in energy sector especially hydropower energy and be able to suggest and design possible solutions to them", he added. At Mukungwa I Hydropower Plant, which produces approximately 72 MW, students were taken through the whole process from water collection, treatment to the power supply. Through discussions with technicians at the Plant, students were eager to link theories they acquired to the real operation of the plant.

Students who visited the two power plants said it was a good experience and urged authorities that such visits be organised on several occasions. Austin Nyirenda, a master student from Malawi said, "After visiting this kind of plants we were able to match theories we learnt to the real practice. With skills we got today, we identified different ways we can help in setting up hydropower plants in our respective countries",. He added that he is thankful to the Center after identifying that there is a big match between the practice at Hydropower plant and theories they learnt in class.

The African Center of Excellence in Energy for Sustainable Development is one of four African Centers of Excellence at University Of Rwanda under Eastern and Southern Africa Higher Education Centers of Excellence Project funded by the World Bank. The Center trains Master and PhD students in Renewable Energy, Electrical Power System and Energy Economics.

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Leveraging social media platforms to fight against Genocide denial

The University of Rwanda joined the rest of the world to observe the 71st Anniversary of the UN Convention on the Prevention and Punishment of the Crime of Genocide. The event at the College of Science and Technology was officiated by Hon. Senator Fulgence Nsengiyumva who exhorted UR students to use social media platforms and fight Genocide denial.

In his remarks, Hon. Nsengiyumva reckoned that social media are convenient medium that should be harnessed by students to fight all people who are subject to deny the 1994 Genocide against Tutsi. According to him, this will be a great contribution towards changing the mindset of ill-intentioned people.

“As intellectual people, you come across to people who deny the 1994 Genocide against the Tutsi mainly on social media, it is your responsibility to respond and counteract by telling the truth” said Nsengiyumva. He added that counteracting measures by young generation should be adopted now so that they don’t experience negative outcomes in the future.

In his reaction to the lecture, Dr. Ignance Gatware, the Principal of UR–CST reiterated that students can even show their remarkable contribution with just a single click ‘I dislike this’. He also refrained students to be passive social media users. Other strategies against Genocide denial were discussed ; they include but not limited to using films and publications.

Aline Iradukunda one of the students who attended the lecture proved that she gained much which will help her to fight against any genocide denial. She admitted that she has been using social media but was not so much engaged into reacting to negative stories. She committed to oppose genocide deniers by showing the truth via social media.

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Aline Iradukunda in her intervention



MULTIDISCIPLINARY RESEARCH APPROACH

Meeting Rwanda Environment Management Authority (REMA)

Equality and equity should continue to be seen as a developmental approach towards sustainable transformation; it is time to move from commitments on gender equality and equity towards transformative outcomes



Prof Bizoza, ENTRUST Teamleader

Under the coordination of UR-Sweden Programme, a joint research team from the University of Rwanda and the Swedish University of Agricultural Sciences (SLU) met Eng. Coletha Ruhamyia the DG of Rwanda Environment Management Authority. They discussed ways to build a vibrant joint research approach which could lead to sustainable rural development and transformation.

The discussion revealed the need to continue strengthening the links between research and policy. UR and SLU team operates under the programme known as ENTRUST-Engendering Rural Transformation for Sustainable Development.

According to Prof. Alfred Bizoza, who is the ENTRUST teamleader, Gender equality and equity should continue to be seen as a developmental approach towards sustainable transformation. He added that it is time to move from commitments on gender equality and equity towards transformative outcomes.

The Programme is moving towards inclusive research which is the best strategy to figure out the kind of intervention needed to address gender issues and other factors affecting development. Engendering Rural Transformation for Sustainable Development Subprogram is among Swedish International Development Cooperation Agency (Sida) funded programs under UR-Sweden Programme research partnership for 2019-24 phase. Its main mission is to contribute to broad-based national transformation through post-graduate research training and capacity development.

Congratulations!

3 PHD GRADUATES IN DECEMBER



J. Baptiste Ndahetuye, PhD

Mastitis in dairy cows in Rwanda: Characterization, Prevalence, etiology, molecular epidemiology and effects on milk quality

The overarching goal with this research is to increase milk production, quality and safety from farm to milk collection centers (MCC) level in Rwanda.



Solange Mukamurenzi, PhD

E-Government Service Evaluation in Rwanda: A Design Perspective

In her research on E-Government Service Evaluation, Mukamurenzi proposes strategies to ensure that e-Government services in Rwanda gain maturity



J. Damascene Twizeyimana, PhD

E-Government and Value Creation in the Context of a Least Developed Country: A perspective on public value and information infrastructure

The research findings shows some critical performance indicators in each of six e-Gov dimensions and critical success factors for realizing the public value of e-government.

FINE MOVE TOWARDS MINIMALLY INVASIVE SURGERY

Huge boost in Health sector as we sealed partnership with the University of Douala. The collaboration which was officiated by Hon. Minister of Health Diane Gashumba, will see Rwandans getting advanced joint training in Minimally Invasive Surgery and professional Master in Laparoscopy



Minister Diane flanked by UR Vice Chancellor (R) and Rector of the University of Douala.



Dr Diane GASHUMBA
@DianeGashumba

We commend the leadership of the [@Uni_Rwanda](#) [@HospitalChuk](#) [@chu_butare](#) & [@kfaisalhospital](#) for this good move. Ten young surgeons already graduated and we welcome the next cohort of sixteen. Minimally invasive surgery is certainly the way to go!@IrcadAfrica

