



# Tanyaradzwa Rodgers Ngara

PhD student, Biomedical Engineering

A highly enthusiastic and motivated research scientist with a professional attitude who enjoys being part of a team and working to make it successful and productive. I grasp new ideas and concepts quickly and am innovative as well as creative in thinking up solutions to problems.

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📍 Wuhan, China

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## SKILLS

Writing

Research Techniques

HTML

CSS

Web Development

Molecular Biotechnology

Soft Lithography

Droplet Microfluidics

## EDUCATION

### Doctor of Philosophy (Ph.D.), Biomedical Engineering

Huazhong University of Science and Technology

09/2019 - Present

Wuhan, China

Relevant Coursework

- Progress in Biomaterials and Tissue Engineering
- Recent Advances in Biopharmaceuticals

### Master of Science (MSc), Biomedical Engineering

Huazhong University of Science and Technology

02/2017 - 01/2019

Wuhan, China

Relevant Coursework

- Advanced Biomaterials
- Tissue Engineering
- Plant Proteomics
- Bioenergy
- Principles of Bioengineering
- Advanced Medical Biology

## VOLUNTEER EXPERIENCE

### Chairperson

Twimbos Giving Hope

01/2016 - 01/2017

Gweru, Zimbabwe

A voluntary club made up of Zimbabwean Twitter users across the globe to help the needy in Zimbabwe

### Committee Member

OneURGE

06/2015 - 01/2017

Gweru, Zimbabwe

Environmental awareness on Global Warming Climate Change

## ACADEMIC PROJECTS

### Development of Databases for the Biodegradation of Pollutants in Wastewater (09/2019 - Present)

- Conducted an academic research project to design relational databases, web interfaces, and the development of online searching mechanisms for the analysis of microbial communities capable of degrading different types of pollutants found in wastewater.

## ACADEMIC PROJECTS

Design, fabrication and characterization of microfluidic chips used for the production of monodisperse double emulsions (02/2017 - 01/2019)

- Conducted an academic research project to assess the impact of surface modified polydimethylsiloxane (PDMS) microfluidic devices in the generation of water-in-oil-in-water (W/O/W) double emulsions.

## PUBLICATIONS

*Review article*

### Recent Advances in Function-based Metagenomic Screening

December 2018

*Research article*

### Biological Nitrogen Removal Database: A Manually Curated Data Resource

February 2022

*Research article*

### mibPOPdb An online database for microbial biodegradation of persistent organic pollutants

August 2022

## WORK EXPERIENCE

### Agricultural Biotechnology Researcher

Agri-biotech Pvt Ltd

08/2015 - 01/2017

Harare, Zimbabwe

Using biotechnology techniques in development of disease-free, drought-resistant, high-yielding varieties of traditional crops such as cassava.

*Achievements/Tasks*

- Conducting research projects focused on tissue culture of root and tuberous crops
- Regeneration and transformation of various crops include maize, cotton and potato
- Experiments to attempt cotton (*Gossypium hirsutum* L.) regeneration via somatic embryogenesis
- Identification and Characterization of Cassava Mosaic Virus based on coat protein

## HONOR AWARDS

HUST Academic Excellence Award (01/2021 - Present)

Huazhong University of Science and Technology

## INTERESTS

Volunteering and community involvement

Reading

History

Listening to music

## LANGUAGES

English



Shona



Chinese



## REFERENCES

Prof Houjin Zhang

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Dr J. Ndlovu, Senior Lecturer

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