



# NATIONAL INSTITUTE FOR PHARMACEUTICAL RESEARCH AND DEVELOPMENT (NIPRD) FEDERAL MINISTRY OF HEALTH

## *Department of Microbiology & Biotechnology*

3<sup>rd</sup> November, 2025

The Executive Secretary,  
National Agency for Science and Engineering Infrastructure (NASeni),  
Idu Industrial Area,  
Abuja.

### **Letter of Intent – Antimicrobial Product Development from *Acacia nilotica*: Preclinical Studies and Product Filing.**

Dear Sir,

On behalf of the research team at the Microbiology and Biotechnology department, National Institute for Pharmaceutical Research and Development (NIPRD), I am pleased to submit this Letter of Intent for the project titled “**Antimicrobial Product Development from *Acacia nilotica*: Preclinical Studies and Product Filing.**”

#### **Background and Rationale:**

The alarming rise in multi-drug resistant (MDR) bacterial infections, particularly those affecting the respiratory tract, has created an urgent need for novel, effective, and affordable antimicrobial agents. *Acacia nilotica*, a plant with a rich history in traditional medicine and a proven phytochemical profile, has demonstrated significant antimicrobial, antifungal, and antitubercular activities in our previous laboratory studies. Harnessing these properties for drug development offers a sustainable and innovative approach to combating MDR pathogens and improving public health outcomes.

#### **Project Objectives:**

This project aims to:

- Obtain and standardize crude extracts from the bark and leaves of *Acacia nilotica*.
- determine the most active plant parts for antimicrobial activity against resistant bacteria strains and fungal strains.
- Conduct comprehensive preclinical studies, including acute and chronic toxicity assessments, to establish safety and dosage parameters.
- Formulate the standardized extract into capsule dosage forms.
- File the developed product with the National Agency for Food and Drug Administration and Control (NAFDAC) for pre-registration and regulatory approval.

#### **Expected Outcomes:**

The project is expected to deliver a plant-based, broad-spectrum antimicrobial product with proven efficacy and safety, compliant with regulatory standards. This will contribute to the fight against

#### **Head Office:**

Idu Industrial Area, P.M.B. 21,  
Garki, Abuja, Nigeria. Tel: +234 (0) 9 780 3329, 8035993159  
Mailto: [Oladosu.peters@niprd.gov.ng](mailto:Oladosu.peters@niprd.gov.ng), [petyem2001@yahoo.co.uk](mailto:petyem2001@yahoo.co.uk).  
Website: [www.niprd.org](http://www.niprd.org)

***Oladosu W. Peters PhD.***



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antimicrobial resistance, enhance access to affordable healthcare, and stimulate local economic growth through the cultivation and processing of *Acacia nilotica*.

### **Project Team and Facilities:**

The project will be led by Prof. Peter Oladosu (Principal Investigator) and a multidisciplinary team of experts in microbiology, medicinal chemistry, pharmacology, and plant taxonomy. NIPRD is equipped with state-of-the-art facilities necessary for extraction, formulation, and preclinical testing.

### **Budget and Timeline:**

The estimated budget for the project is Thirty-five million, five hundred and seven thousand, nine hundred and seventy-five naira only (₦35,507,975.00), with a projected duration of 15 months.

### **Conclusion:**

We respectfully seek NASENI's support and collaboration in advancing this innovative research, which aligns with national priorities for self-reliance in healthcare and the President's Renewed Hope Agenda. We are committed to ensuring the highest standards of scientific rigor, regulatory compliance, and societal impact.

Thank you for considering our intent. We look forward to your favorable response and the opportunity to submit a full proposal.

Yours sincerely,

**Dr. Peters Oladosu**

Principal Investigator

Microbiology and Biotechnology Department

National Institute for Pharmaceutical Research and Development (NIPRD)

Abuja.

[petyem2001@yahoo.co.uk](mailto:petyem2001@yahoo.co.uk)

### **Head Office:**

Idu Industrial Area, P.M.B. 21,  
Garki, Abuja, Nigeria. Tel: +234 (0) 9 780 3329, 8035993159  
Mailto: [Oladosu.peters@niprd.gov.ng](mailto:Oladosu.peters@niprd.gov.ng), [petyem2001@yahoo.co.uk](mailto:petyem2001@yahoo.co.uk).  
Website: [www.niprd.org](http://www.niprd.org)

**Oladosu W. Peters PhD.**