

Europe and International Department

EVALUATION AND ACCREDITATION DOCUMENTS

Ph.D. Pharmacognosy

Africa Centre of Excellence in Phytomedicine Research and Development (ACEPRD) University of Jos Nigeria

September 2019

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International evaluation and accreditation

EVALUATION REPORT

Ph.D. Pharmacognosy

Africa Centre of Excellence in Phytomedicine Research and Development (ACEPRD) University of Jos Nigeria

JUNE - 2019



The University of Jos has mandated the Hcéres to perform the evaluation of its Pharmacognosy doctoral program evaluation. The evaluation is based on the "External Evaluation Standards" of foreign study programmes, adopted by the Hcéres Board on October 4th, 2016. These standards are available on the Hcéres website (hceres.fr).

For the Hcéres¹:

Michel Cosnard, President

On behalf of the experts committee²:

Dominique Laurain-Mattar , President of the committee

In accordance with the decree n°2014-1365, November 14th, 2014,

¹ The president of Hcéres "contresigne les rapports d'évaluation établis par les comités d'experts et signés par leur président." (Article 8, alinéa 5) — "countersigns the assessment reports made by the experts' committees and signed by their president" (article 8, alinea 5).

²The evaluation reports "sont signés par le président du comité". (Article 11, alinéa 2) — "are signed by the president of the committee" (article 11, alinea 2).



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I. NATIONAL CONTEXT AND INSTITUTION IDENTITY SHEET

GENERAL CONTEXT AND HIGHER EDUCATION

University of Jos was established in 1979, it is one of the existing 170 Universities in Nigeria. The Africa Centre of Excellence in Phytomedicine Research and Development (ACEPRD) was established in 2014 through a World Bank alliance between the regional governments of West Africa, to harness the untapped potentials of collaboration among African researchers with the focus of creating a sustainable agenda for health innovation in Nigeria and Africa. ACEPRD is one of the 10 Centres of Excellence in Nigeria to contribute to health care development in Africa as a way of exploiting its biodiversity. From 2015-2017 a total of 446 students have been enrolled into the Masters and PhD programmes, drawn from the West African Region namely Togo, Ghana, Burkina Faso, Benin and Nigeria.

INSTITUTION

- 1. University/institution: University of Jos, Africa Centre of Excellence in Phytomedicine Research & Development (ACEPRD)
- Component, faculty or department concerned: Faculty of Pharmaceutical Sciences, Department of Pharmacognosy and Traditional Medicine
- 3. Programme's title: PhD in Pharmacognosy
- 4. Training/speciality: Pharmacognosy
- 5. Year of creation and context: 2014
- 6. Site(s) where the programme is taught (Town and campus): Africa Centre of Excellence in Phytomedicine Research & Development (ACEPRD), University of Jos
- 7. Programme director:
 - a. Surname, first name: Aquiyi, John Chinyere
 - b. Profession and grade: Professor
 - c. Main subject taught: Pharmacology and Genetic Engineering

METHODS AND RESULTS OF THE PREVIOUS ACCREDITATION(S)

8. Methodology and agency

The Programme has been evaluated and accredited by the National Universities Commission in 2017.

9. Results

Positive.

HUMAN AND MATERIAL RESOURCES DEDICATED TO THE PROGRAMME

10. Human resources

The human resources in terms of number and level of teachers in the different disciplines are in accordance with the needs for training, research and internships mentoring.

Clinical Pharmacy: 4 Professors, 1 Senior Lecturer, 10 Lecturers

Biotechnology: 11 Professors, 2 Senior Lecturers, 1 Lecturer II, 4 Readers

Bioinformatics and genomics: 9 Professors, 3 Senior Lecturers, 1 Reader

Pharmaceutical microbiology: 6 Professors, 3 Senior Lecturers, 1 Reader

<u>Pharmacognosy:</u> 8 Professors, 1 Senior Lecturer, 2 Lecturers, 2 Readers

11. Material resources

Recent equipment to perform sophisticated analyses has been acquired:

- Genetic analysis system: Beckman Coulter Genome Lab GeXP;
- High performance separation-Es Module with OptiMS Technology: Beckman Coulter's CESI 8000 Plus;
- Pharmaceutical analysis system: Beckman Coulter PA 800 Plus;



- Gas Chromatography-Mass Spectrophotometer: Scion 456-GC;
- Multi EA 4000: Analytkjena Elemental Analyser;
- Thermal Cycler: Jenway UV Spectrophotometer, PCR;
- Beckman Coulter- Allegra X15 Cold Centrifuge;
- Production of distillated and de-ionized water: Milli-Q Lab Water System;
- Electrophoresis equipment;
- Dissecting Microscope Tritech Research Fluorescence Microscope.

STUDENT POPULATION: EVOLUTION AND TYPOLOGY OVER THE LAST 4 YEARS

MPhil/PhD Pharmacognosy

| S/No | YEAR | TOTAL/YEAR | FEMALES | MALES | INTERNATIONAL STUDENTS | NATIONAL STUDENTS | TOTAL | |
|------|-----------|------------|---------|-------|------------------------|-------------------|-------|---|
| 1 | 2015/2016 | 3 | 2 | | | | | |
| 2 | 2016/2017 | - | | 2 | 3 | 1 | 4 | _ |
| 3 | 2017/2018 | 1 | | | 3 | | 4 | 5 |
| 4 | 2018/2019 | 1 | | | | | | |

II. ON-SITE VISIT DESCRIPTION

COMPOSITION OF THE EXPERTS PANEL

- Dominique LAURAIN-MATTAR, Professor, University of Lorraine, committee leader
- Valérie SCHINI-KERTH, Professor, Strasbourg University
- Frédéric RELAIX, Professor, Paris-Est University
- Mathilde COLAS, Student graduated from University of Technology of Troyes.

Hcéres was represented by Pierre COURTELLEMONT, science advisor.

ON-SITE VISIT DESCRIPTION

- Date of the visit: June the 10th, 2019.
- Organization of the visit: the visit was made the 10th of June, on the NUC site, during one day. On-site
 meetings with the management team, academic staff, closed meetings by videoconferencing with
 partners, alumni and students.
- Cooperation of study programme and institution to be accredited: perfect cooperation by all stakeholders, with the support of NUC team.
- People met (on NUC site):

John C. Aguiyi, director ACEPRD

Ndidi C. Ngwuluka, Head of Department Pharmaceutics

Ikoni Ogaji, Dean, Faculty of Pharmaceutical Sciences

Dayom D. Wetkos, Head of Department, Clinical Pharmacology

Dafam D. Gwatau, Head of Department, Pharmacognosy

Ezekiel O. Afolabi, PG coordinator, Head of Bioinformatics

Patrick O. Olorunfemi, Head of Department Pharmaceutical Microbiology

Goni Dogo, ACEPRD laboratory

Mark Kparmak, Project Administrator

Taiwo E. Alemika, Deputy Centre Leader

Patricia O. Odumosu, Head, Department of Pharmaceutical & Medicinal Chemistry



18 students (Arinze Umera (PhD Biochemistry), Akinsanmi Augustina Oduje (PhD Biochemistry), Chioma Eze (PhD Aplied Microbiology), Amaka Ubani (MSc Bioinformatics and genomics), Francis Akpadja Kodjo* (MSc Pharmaceutical Microbiology), Adama Denou** (PhD Pharmacognosy), Rafiatou Ousmane* (MSc Biotechnology), Sariem Comfort (PhD Clinical Pharmacy), Daouda Labarou*** (PhD Bioinformatics and genomics), Agwom Francis (PhD Pharmaceutical Chemistry), Tougoma Atehezi* (PhD Physiology), Atchrimi Komi Sagnan* (PhD Physiology), Morenikeji Oluwatoyin (MSc Bioinformatics and genomics), Lapang Dominic (MSc Bioinformatics and genomics), Rwiann Victor (MSc Bioinformatics and genomics), Hamza Abdulraham (MSc Bioinformatics and genomics), Samuel Isaac (MSc Bioinformatics and genomics), Ammanuel Dabwer Ben (MSc Biotechnology)) *from Togo; ** from Mali; *** from Niger, Other: Nigerians.

Partners and alumni by videoconferencing

III. PRESENTATION OF THE STUDY PROGRAMME

1 – PRESENTATION OF THE STUDY PROGRAMME

- The institution delivering the programme is the University of Jos, Nigeria and the Africa Centre of Excellence in Phytomedicine Research and Development (ACEPRD).
- The PhD programme offers training in Pharmacognosy, addressing the study of the physical, chemical, biochemical and biological properties of drugs, drug substances or potential drugs or drug substances of natural origin as well as the search for new drugs from natural sources. The PhD degree in Pharmacognosy borders on establishment of standards to ensure quality Pharmacognosy education and traditional medicine practices.
- The specific features include: Enrolment of students (including regional) for various postgraduate programmes, English for Special Purposes (ESP) for regional students from Francophone countries, Elearning development with subscription to Science Direct and NgREN, and Internships for students in industries to forge academia-industry partnerships.
- Students enrolled must possess a MSc degree in Pharmacognosy not below CGPA of 3.5 or 60% in the courses.
- The PhD study training programme is structured in Training of students and technical experts/policymakers through short courses on research techniques and methodology in the field of specialization offered in the Department in order to support the present health system in meeting her health needs, especially in rural areas and to produce experts and specialized personnel equipped with adequate knowledge to explore and exploit Nigerian plants for possible use in medicine which will in turn result in integrating Herbal Medicine into Modern Medicine.

2 - PRESENTATION OF THE PROGRAMME'S SELF-EVALUATION APPROACH

The Committee that worked for & prepared the Accreditation report to HCERES comprised of the following:

- 1. Prof. Taiwo E. Alemika Deputy Centre Leader (Chairman)
- 2. Prof. Ikoni J. Ogaji Dean, Faculty of Pharmaceutical Sciences
- 3. Dr. Patrick O. Olorunfemi Head, Department of Pharmaceutical Microbiology & Biotechnology
- 4. Dr. Ndidi C. Ngwuluka Head, Department of Pharmaceutics
- 5. Dr. Wetkos D. Dayom Head, Department of Clinical Pharmacy & Pharmacy Practice
- 6. Dr. Dalen G. Dafam Head, Department of Pharmacognosy & Herbal Medicine
- 7. Dr. Patricia O. Odumosu Head, Department of Pharmaceutical & Medicinal Chemistry
- 8. Prof. Ezekiel O. Afolabi Department of Pharmaceutical & Medicinal Chemistry
- 9. Mr. Mark Kparmak ACEPRD Admin Officer (Secretary)



IV. EVALUATION REPORT

AREA 1 – THE POSITIONING OF THE DOCTORATE

The PhD in Pharmacognosy at ACEPRD is positioned within local, national, regional and international range of study programmes in order to provide clearly identified target student audience with high quality knowledge and skills required to carry out applied research in Pharmacognosy and Traditional Medicine Practice. The Programme objectives of the doctorate are defined to promote searching, analysing and making policy inference. The PhD in Pharmacognosy programme objective contributes to capacity building in the institution. The programme is young with low number of students (5 PhD students from 2015 to 2018) joining the program. The development of an appropriate business plan through the production of anti-snake venom vaccine and mushrooms to support sustainability strengthens the programme. Addition of specific partners for a few specialized areas would strengthen the programme.

Area 1-1: The doctorate's distinct features and objectives are clearly defined

The PhD in Pharmacognosy of the Africa Centre of Excellence in Phytomedicine Research & Development in University of Jos, Nigeria, provides students with knowledge and skills required to produce graduates knowledgeable in theory and practice in Pharmacognogy and in Traditional Medicine Practice.

Objectives include (a) to provide opportunity for training and research in Pharmacognosy in order to support the present health system in meeting her health needs, especially in rural areas (b) to produce experts and specialized personnel equipped with adequate knowledge to explore and exploit Nigerian plants for possible use in medicine which will in turn result in integrating Herbal Medicine into Modern Medicine. The aim is to produce experts on establishment of standards to ensure quality Pharmacognosy education and Traditional Medicine Practice. Objectives with regard to knowledge and skills to be acquired are clearly stated. The name of the study programme is clear with regard to its objectives and content. ACEPRD has an information booklet and policies (Students' Handbook) are communicated to all students and contain the objectives and content of the programme.

Area 1-2: The positioning of the doctorate is consistent with its environment

The doctorate contributes to capacity building in the institution. The doctoral students participate in tutorials and training, including short courses and hands-on activities.

The study programme is positioned with regard to the business world in which graduates will be employed. The programme involves collaboration with universities within the country and international universities. Guest lecturers from partner universities are involved in the training of the students. International Advisory Board includes academics from Salford University, Manchester, Université de Lyon, France, Sheffield Hallam University, UK, Université de Lome, Université de Abomey-Calavi, Benin Republic Université de Sciences Techniques and Technology of Bamako, Mali, Université du Burkina Faso, Ouagadougou, Salford University, UK. Partnerships are well identified, including active national (National Veterinary Research Institute, National Agency for Food and Drug Administration and Control), regional and international academic and Industrial/Sectoral partners involved in education and research. National and international socio-economic partners include Council for Advancement and Support of Education (CASE), USA, World Bank, USA, Association of African Universities, (AAU), Ghana.

The complete lists of academic staff and technical staff involved in education and research are provided. The developments of an appropriate business plan through the production of anti-snake venom vaccine and mushrooms to support sustainability strengthen the programme.



AREA 2 – ORGANIZATION AND MANAGEMENT OF THE DOCTORATE

The doctorate's organisational structure is based on a structured, identified and defined teaching and administrative team. Governance of the doctorate has to be identified and to involve doctoral student representatives. The doctorate has material and human resources. Student recruitment methods are clearly defined, transparent. The recruitment of PhD students in Pharmacognosy is low until now. Doctoral students recruited have the appropriate conditions for preparing their doctorate. The governance of the doctorate and internal quality assurance mechanisms can be improved to help the doctorate to develop.

Area 2-1: Effective organization and management is in place for the doctorate

The doctorate's organisational structure is based on structured teaching and administrative team. The role and responsibilities of faculty members are well defined. Appropriate organograms, with ACEPRD code for the roles and responsibilities of academic staffs, the roles and responsibilities of faculty, and administrative staffs. No information about management has been provided. The least qualified academic staff is senior Lecturer. Others are Professors with relevant knowledge in the courses allocated to them. Academic experts from national and regional partners are also engaged in lecturing. Duration of programme is defined with a minimum of 36 months and a maximum of 60 months. Candidates registered for the PhD degree will attend and participate in workshops on research techniques and methodology in the field of specialization offered in the Department and approved by the supervisor. All PhD students enrolled in the Center's PhD programs will undertake a 1-month internship at an industry related environment after the first 6 months, and their PhD thesis research in the different Departments of the Centre. However the detailed information regarding all PhD students is not provided. For example, the total number of PhD students in Pharmacognosy is 5 but the thesis research title is provided only for 3.

Area 2-2: There is an explicit policy for recruiting and funding doctoral students, which is adapted to the PhD program

While there is no funding policy for doctorate degree, ACEPRD provides funds for regional PhD students (a return ticket is provided and support for tuition, transportation, living expense, accommodation and laboratory consumables) and also for students enrolled in internships within Nigeria (transportation allowances and partial living expenses). The student recruitment methods are clearly defined.

Doctoral students recruited are provided with opportunities to remain at the forefront through participation in research projects, conferences, seminars, international forums and access to the latest international literature.

AREA 3 – SUPERVISION AND TRAINING FOR DOCTORAL STUDENTS

The PhD in Pharmacognosy includes a set of teaching units that are consistent with the objectives and permits gradual specialization. Student progress is monitored by two supervisors who ensure that appropriate conditions are in place. Doctoral students have access to scientific teaching and professional training. The teaching proposed is based on the expertise of research units and socio-economic partners associated with the doctorate. The doctorate has set clear and suitable objectives with regard to the duration of theses taking into account the profiles of doctoral students and any special conditions.

Area 3-1: The doctorate applies a strict doctoral student supervision and follow-up policy

Rules are set for supervising and follow-up of doctoral students, including more than one supervisor for each student: one from the student's department and the other one from any other department or faculty in the university with relevant interest in the PhD research topic. Project title approval is determined by a committee. Major corrections on thesis should be appropriately handled by the internal examiner and the department in conjunction with the supervisors. The University also has an ethical review panel that oversees all research works done within the context of the programme.



Area 3-2: The doctorate offers diverse teaching and organizes supplementary events

Doctoral students have access to scientific teaching and professional training, including seminars and workshops on research techniques and methodology in the field of specialization offered in the Department and approved by the supervisor. Methods for accessing and validating this teaching are defined and known by users. Students have to present seminars, and have to attend lectures as well as guest lectures organised by the centre and the university.

Area 3-3: The doctorate is based on explicit rules for thesis duration and defence

The doctorate has set appropriate objectives with regard to the duration of PhD with a part-time or full time programme of a minimum of three years (full time) and a maximum of five years (part time). Students present seminars on the thesis on internal level, at the faculty level. These are clearly stated in the students' handbook. Information such as organisation rules for thesis defence (composition of the examination board and role of its members, convening notice, manuscript submission, etc.) are not provided.

AREA 4 – INTEGRATION OF DOCTORS INTO THE JOB MARKET

Doctorate integration in the job market is excellent and mainly coming from interaction with the partners that provide students job opportunities. Success rate in access to further studies and job market are very good.

Area 4-1: The doctorate includes mechanisms to promote the integration of doctors into the job market

Doctorate integration in the job market is mainly coming from interaction with the parthers. Internship trainings, conferences and outreach programs are providing opportunities and students are expected to take an active part in finding job opportunities.

Area 4-2: The doctorate has effective monitoring of the integration of doctors into the job market

The programme is recent and only a few students graduated so far. Effective monitoring systems are not yet in place. However success rate in access to further studies and job market are high, all the PhD students found a job.

Area 4-3: The data collected is analyzed, communicated and used

The programme is still young, and data collection has not started yet.

V. CONCLUSION

The PhD programme offers training in Pharmacognosy and includes Traditional Medicine Practice. The programme is recent and only a few students graduated so far. The PhD in Pharmacognosy at ACEPRD possess an adequate number of qualified staff, appropriate communication regarding learning and job outcomes. The training programme is positioned in order to provide students with high quality knowledge and skills required to carry out applied research in Pharmacognosy in order to support the present health system in meeting her health needs, especially in rural areas and to explore and exploit Nigerian plants for possible use in medicine.

Outcomes in terms of job opportunities and further studies are outstanding through a network of partners. Industry partners are identified (ie Pauco Pharmaceuticals, Gauze Pharmaceuticals, Juhel Pharmaceuticals, ECWA Pharmaceuticals, Gwalgwalada Specialist Hospital, Plateau Specialist Hospital, Jos University Teaching Hospital), they interact with students on matters relating to employment opportunities. The PhD in Pharmacognosy at ACEPRD is positioned within local, national and regional range of study programmes in order to provide clearly identified target student audience with high quality knowledge and skills required to carry out applied research in Pharmacognosy. ACEPRD has an information booklet and policies (Students' Handbook) are communicated to all students and contain the objectives and content of the programme.



The doctorate's organisational structure is based on a structured, identified and defined teaching and administrative team. Appropriate internal quality assurance mechanisms have to be in place. While there is no funding policy for doctorate degree, ACEPRD provides funds for regional PhD students and also for students enrolled in internships within Nigeria. Student recruitment methods are clearly defined and transparent. The doctorate programme includes a set of teaching units that are consistent with the objectives and permits gradual specialization. Doctoral students have access to scientific teaching and professional training based on the expertise of research units and socio-economic partners associated with the doctorate. Doctorate integration in the job market is mainly coming from interaction with the partners that provide students job opportunities. Success rate in access to further studies and job market are outstanding. The overall assessment of the PhD in Pharmacognosy needs further details.

PAST ACHIEVEMENTS

Considering that Phytomedicine research holds the key to the discovery of new medicines, ACEPRD embarked on creating a comprehensive regional and national repository that will serve as a research tool for the academia and industry in drug development by providing access to scientific information on lead compounds from microorganisms, fungi and plants.

Database has grown significantly since the last visit (http://aceprd.unijos.edu.ng/medicinal-plants/).

A Business Plan was developed for anti-snake venom vaccine and Scabi-Plus products.

A Product Registration has been made: Scabi-plus antimicrobial soap and lotion.

More species have been added in the Medicinal Plant Garden. These include Vernonia amygdalina, Mucuna pruriens, Ocimum gratissimum, Momordica charantia, Cymbopogan citratus, Oreganum vulgare, Ricinus communis, Persea americana.

TODAY'S CHALLENGES

The challenges facing ACEPRD today are manifold. It will have namely to stimulate indigenous research and innovation in Pharmacognosy, to drive policies and programs in the region. It will be also necessary to mobilize local, regional and international support in order to improve research on natural compounds with the objective to integrate Herbal Medicine into Modern Medicine in West Africa.

OUTLOOK TO THE FUTURE

For the future, ACEPRD aims to develop commercial aspect on anti-snake venom vaccine, anti-fertility drugs, mushroom and Artemisia annua cultivation. Also ACEPRD aims to develop commercial aspect of products such as Scabi-plus Soap® (Project 6,000 tablets per year), Scabi-plus Lotion®. Others products are in the pipeline: Phyto-supplemented bottled water; Anti-hypertensive tea; Phyto-pesticides; Phyto-slim-fit drug; Anti-conceptive drug; Erectile dysfunction drugs; Eye bright (for eye problems). Projected revenue generation in 4 years = \$1.5 – 2 millions.

STRENGTHS

- Job opportunities in hospitals, pharmaceutical industries, and Universities
- Appropriate industrial and hospital partners proposing internships and contributing to teaching
- Well-structured training programme, with an adequate number of qualified staff
- National, regional and international academic partnerships, with industry and organizations relevant to Pharmacognosy
- Excellent job outcome opportunities
- Appropriate teaching staff number and composition, and teaching and research facilities for such a multidisciplinary curriculum

WEAKNESSES

- Lack of information on the management of the doctorate
- Communication strategies for the program and its curriculum are not presented



- Low visibility of the program within the West and Central African region
- Low number of regional students enrolled in PhD Pharmacognosy due to limited scholarships to support students' enrolment
- No information about laboratory for research
- No information about an International Advisory Board including academics from leading Universities from Europe and US
- No communication strategies for the program and its curriculum

RECOMMENDATIONS

- Improve your training programs and research
- Keep up your business plan to support sustainability
- Implement a PhD funding policy
- Increase remuneration for academic resource partners
- Encourage post-doctoral training for the best PhD student to promote research excellence
- Increase the number of external collaborators to cover all areas of training

VI. COMMENTS OF THE INSTITUTION

UJ/ACEPRD/O102/03
Prof. François PERNOT
Directeur/Director
Département Europe et International
Europe and International Department
françois.pernot@hceres.fr

August 25, 2019

Dear Sir

COMMENTS OF THE INSTITUTION

The Africa Centre of Excellence in Phytomedicine Research and Development (ACEPRD), Faculty of Pharmaceutical Sciences, University of Jos has submitted 9 postgraduate programmes.

The HCERES has considered the programmes for evaluation and consequent accreditation, with the report made available to the Centre for comments.

The team of the ACEPRD/Faculty that considered the report and made comments available are:

| 1. | Prof. John C. Aguiyi | Director/Centre Leader |
|----|--------------------------|--------------------------------------|
| 2. | Prof. Ikoni Ogaji | Dean, Faculty of Pharmacy Sciences |
| 3. | Prof. Taiwo E. Alemika | Deputy Director, ACEPRD |
| 4. | Prof. Patrick Olorunfemi | Head, Biotechnology and Microbiology |
| 5. | Dr. Wetkos Dayom | Head, Clinical Pharmacy and Practice |
| 6. | Dr. Dalen Dafam | Head, Pharmacognosy |
| 7. | Dr. Patricia Odumosu | Head. Bioinformatics and Genomics |

Members of the team considered the report of each of the postgraduate programmes and made its comments as follows:

Project Administrator

1. PHD PHARMACOGNOSY

8. Mr. Mark Kparmak

- i. The system for the management of the doctorate programme is as contained in the University of Jos general postgraduate prospectus circulated and it is available.
- ii. The Curriculum of the programme is available in the student's handbook as well as prospectus.
- iii. The current communication of the programme is the availability of it in the handbook and prospectus. More efforts will be intensified to have it on the website, direct email system and on-line resources and platforms.
- iv. The established PhD programme is relatively new, hence its low visibility in West and Central Africa. With available scholarships to support student enrolment from these areas, it will attract more participation in the programme in the future.
- v. The Department has a laboratory as well as the laboratories at the ACEPRD are useful for the PhD students.
- vi. There is indeed no information about the International Advisory Board for the programme. However, with the relationship with Mali and Togo to begin with, work will

be intensified to have more international relations for these programmes in no distant future.

vii. The communication strategies for the programme and its curriculum currently are lectures, practical and seminars.

Thank you.

Prof. John C. Aguiyi

Director/Centre Leader, ACEPRD

For: Team, ACEPRD

NB: URL TO LABORATORIES

 $\frac{\text{http://aceprd.unijos.edu.ng/viewing_image/322fc987-4e53-455a-9063-2de163ab2ee7/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a145bd69/http://aceprd.unijos.edu.ng/playing-video-d6aea9cb-613a-4b36-889b-bb29a-8$



International evaluation and accreditation

ACCREDITATION DECISION

Ph.D. Pharmacognosy

Africa Centre of Excellence in Phytomedicine Research and Development, University of Jos, Nigeria

JUNE 2019



SCOPE OF THE ACCREDITATION GRANTED BY HCÉRES

Hcéres has built its evaluation process based on a set of objectives that Higher Education Institution must pursue ton ensure recognised quality within France and Europe. These objectives are divided up into six fields among which are the accreditation criteria.

As for the «External Evaluation Standards», the accreditation criteria have been specifically designed for foreign HEI. The accreditation criteria were adopted by the Board on June 2016 and are available on the Hcéres website (hceres.fr).

The accreditation committee, meeting his accreditation decision, has wholly taken into account the final evaluation report of the HEI. This accreditation decision is the result of a collegial and reasoned process.

The accreditation decision issued by Hcéres shall not grant any rights whatsoever, whether in France or abroad. The decision to accredit an institution confers an accreditation label and does not infer recognition in France of the qualifications issued by the accredited institution. The Hcéres accreditation process therefore has no impact on the qualifications recognition process in France.



ANALYSIS OF THE ACCREDITATION CRITERIA

AREA 1: THE POSITIONING OF THE DOCTORATE

Accreditation criterion

The positioning, the content and the objectives of the doctorate are clearly defined. Its interactions with the stakeholders (lead institution(s), foreign partners, socio-economic environment) are formally set out and effective. Its links with the research units and the institution's scientific policy are effective.

Criterion assessment

The PhD in Pharmacognosy at ACEPRD is positioned within local, national, regional and international range of study programmes in order to provide clearly identified target student audience with high quality knowledge and skills required to carry out applied research in Pharmacognosy and Traditional Medicine Practice. The Programme objectives of the doctorate are defined to promotes searching, analysing and making policy inference. The PhD in Pharmacognosy programme objective contributes to capacity building in the institution. The programme is young with low number of students (5 PhD students from 2015 to 2018) joining the program. The development of an appropriate business plan through the production of anti-snake venom vaccine and mushrooms to support sustainability strengthen the programme. Addition of specific partners for a few specialized areas would strengthen the programme.

AREA 2: ORGANIZATION AND MANAGEMENT OF THE DOCTORATE

Accreditation criterion

The doctorate's organisation and management are clearly defined and rely on material and human resources adapted to the requirements of programmes at ISCED level 8. Internal quality assurance mechanisms are in place and effectively used in order to improve continuously the doctorate. The doctoral students recruiting is formally set out, their funding is fair and sustainable.

Criterion assessment

The doctorate's organisational structure is based on a structured, identified and defined teaching and administrative team. Governance of the doctorate has to be identified and to involve doctoral student representatives. The doctorate has material and human resources. Student recruitment methods are clearly defined, transparent. The recruitment of PhD students in Pharmacognosy is low until now. Doctoral students recruited have the appropriate conditions for preparing their doctorate. The governance of the doctorate and internal quality assurance mechanisms can be improved to help the doctorate to develop.

AREA 3: SUPERVISION AND TRAINING FOR DOCTORAL STUDENTS

Accreditation criterion

A strict policy of supervising and follow-up of doctoral students is set. Doctoral students have access to various teaching and professional trainings and take part in scientific/professional actions. Explicit rules are defined concerning the thesis duration and defence. Measures to combat fraud, plagiarism and corruption are applied within the doctorate.

Criterion assessment

It is important to note that the University of Jos Faculty of Pharmaceutical Sciences is engaged in the research and commercial aspect on anti-snake venom vaccine, anti fertility drugs, mushroom and Artemisia annua cultivation

The PhD in Pharmacognosy includes a set of teaching units that are consistent with the objectives and permits gradual specialization. Student progress is monitored by two supervisors that ensures that appropriate conditions are in place. Doctoral students have access to scientific teaching and professional training. The teaching proposed is based on the expertise of research units and socio-economic partners associated with the doctorate. The doctorate has set clear and suitable objectives with regard to the duration of theses taking into account the profiles of doctoral students and any special conditions.



AREA 4: INTEGRATION OF DOCTORS INTO THE JOB MARKET

Accreditation criterion

The doctorate implements systems to promote the doctorate and the integration of doctors into the job market. The integration monitoring and analysis are effective and used to perform the continuous improvement of the doctorate.

Criterion assessment

Doctorate integration in the job market appears to be excellent and mainly coming from interaction with the parthers that provide students job opportunities. Success rate in access to further studies and job market are very good. Poor evaluation and monitoring of the curriculum for further development.



ACCREDITATION DECISION

Considering the accreditation criteria analysis detailed above, the accreditation commission takes the following decision:

"Five-year unreserved accreditation decision"

and draws attention to the various recommendations made by the committee of experts in its evaluation report:

- Improve your training programs and research.
- Keep up your business plan to support sustainability.
- Implement a PhD funding policy.
- Increase remuneration for academic resource partners.
- Encourage post-doctoral training for the best PhD student to promote research excellence.
- Increase the number of external collaborators to cover all areas of training.

SIGNATURE

For HCERES and on behalf of

Michel COSNARD,

Midd Com

President

Date: Paris, September 4th, 2019

Les rapports d'évaluation du Hcéres sont consultables en ligne: www.hceres.fr

Évaluation des coordinations territoriales Évaluation des établissements Évaluation de la recherche Évaluation des écoles doctorales Évaluation des formations Évaluation et accréditation internationales





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