### **BOUFENNARA Souhil**

Professor, department of molecular and cellular biology. Faculty of live sciences, Abbes Lahgrour University of Khenchela





# **Current position**

2021-2024 - Professor at the department of biology, university Abbes Laghrour of Khenchela, Algeria.

## **Professionals Experiences**

2006-2021 2002-2006 2002-2021 2014-2018 2008-2009	<ul> <li>Lecturer at the department of biology, university Abbes Laghrour of Khenchela, Algeria.</li> <li>Lecturer at the department of biology, university Mohamed Khider of Biskra, Algeria.</li> <li>Senior lecturer at the department of biology at the university Abbès Laghrour of Khenchela, Algeria.</li> <li>Responsible of assurance quality at the university Abbès Laghrour of Khenchela, Algeria.</li> <li>Consultant and Director of laboratory of quality control for PHARMIDAL (partner of Virbac laboratory, France) and LDM (partner of Galaxo Smith Kline laboratory, USA) laboratories, Constantine, Algeria.</li> </ul>
1995-2002	- Chief of operations of analysis and quality control of medicines products for SAIDAL laboratory (National factory) in Constantine, Algeria.
1994	- Teacher of physics and chemistry at Huges Capet secondary school, Senlis, France.
1993	- Teacher of chemistry at Mireille Grenêt professional secondary school, Compiègne, France.
Education	
2012 2001 1992	<ul> <li>PhD Thesis in Biotechnology from the University Mentouri of Constantine, Algeria.</li> <li>Master in Biotechnology from the University of Mentouri Constantine, Algeria.</li> <li>Post-graduate diploma in genius industrial of procedures from the university of technology of Compiègne, France.</li> </ul>
1991	- Engineer in Chemical industry from the University Mentouri of Constantine. Algeria.
1984	- Baccalaureate of secondary studies, Constantine, Algeria.
Publications	
2022	- In vitro gas production and fermentation parameters of some plants species collected from Algerian

Publications	
2022	- <i>In vitro</i> gas production and fermentation parameters of some plants species collected from Algerian arid rangelands. Journal of rangeland science. Journal of rangeland science. 12(1), 77-86.
2021	- Comparing chemical composition and phenolic compounds of some herbals as potential feed additives in ruminant nutrition. In book, Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (2nd Edition) .1389-1394. DOI: 10.1007/978-3-030-51210-1_221.
2020	- <i>In vitro</i> screening of Algerian steppe browse plants for digestibility, rumen fermentation profile and methane mitigation. Agroforestry Syst. 94(4), 1433-1443.
2020	- Chemical Composition, <i>In Situ</i> Degradation and Fermentation Kinetics of Some Browse Plant Species Collected from Algerian Arid and Semi-Arid Areas. Journal of rangeland science. 10(2), 188-203
2019	-Comparison chemical composition and digestibility of pedicels and palm leaves as a source of livestock feeding by in vitro and in situ techniques. Journal of rangeland science. 9 (4), 378-391

- *In vitro* assessment of nutritive value of date palm by-products as feed for ruminants. Emirates journal of food and agriculture. 28 (10), 704-712.
- **2015** Effects of plants containing secondary metabolites on ruminal methanogenesis of sheep *in vitro*. Energy Procedia. 74, 15-24.
- Rumen degradability of some Algerian browse plant species from arid rangelands. Options Méditerranéennes, Series A, 109, 127-130.
- Methane production from the rumen fermentation of Algerian Acacia tree foliage. Options Méditerranéennes, Series A, 109, 797-800.
- Nutritive evaluation of foliage from some Acacia trees characteristic of Algerian arid and semi-arid areas. Options Méditerranéennes, Series A, 107, 63-68.
- Effect of polyethylene glycol addition on methane production from some Algerian browse plant species in an *in vitro* gas system. Options Mediterranean's, Series A, 107, 283-288.
- -Nutritive evaluation of foliage from some Acacia trees characteristic of Algerian arid and semi-arid areas. Options Méditerranéennes, Series A, 107, 63-68.
- Chemical composition and digestibility of some browse species collected from Algerian arid Rangelands. Journal of Spanish Agriculture Research, 10 (1),88-98.
- Nutritive evaluation of foliage from fodder trees and shrubs characteristic of Algerian arid and Semi-arid areas. Journal of Animal and feed Sciences, 21, 521-536.
- -Doctoral thesis: Effect of tannins in in vitro fermentation and in situ digestibility of forages and agronomic sub-products collected from Algerian arid zones. Essay on fermentation modeling by ruminal microflora. University of Mentouri of Constantine, Algeria.
- Master thesis research with collaboration of SAIDAL laboratory: Modeling of production of Penicillin G with *penicillium chrysogenum*. University Mentouri of Constantine, Algeria.
- Master thesis research at the university of Compiègne in France. Development of a software of modeling of liquid-steam equilibrium.
- Engineer thesis: Conception assisted by computer for liquid-liquid extraction. University Mentouri of Constantine, Algeria.

#### **Scientific conferences**

- -Participation at the International seminar on the biotechnologies applied to the agriculture, health and environment (SIBAASE01), held at university Abbès Laghrour of Khenchela, from 17 to 19 April 2016. Nutritive evaluation of some by-products by chemical analysis, volatiles fatty acids and *in vitro* gas production.
- Participation at the International FAO-CIHEAM (first Joint meeting of the "Mountain Pastures, Mediterranean Forage Resources and Mountain Cheese" networks), 24 to 26June 2014 at Clermont-Ferrand, France.
- Participation at 8 International FAO-CIHEAM Network on sheep and Goats. Sub network on production Systems. "Technology creation and transfer in small ruminants: roles of research, development services". Tangiers, Morocco, 11-13 June 2013. Nutritive evaluation of some browse plant species collected from Algerian arid rangelands by chemical analysis and in vitro gas production.
- Participation at the 14<sup>th</sup> international seminar FAO-CIHEAM Network on Sheep and Goats Sub network on Nutrition.2<sup>nd</sup> Symposium of Low Input Breeds. Tunisia. Effect of polyethylene glycol addition on methane production from some Algerian browse plant species in an *in vitro* gas system.
- Participation in international days of biotechnology at Hammamet in Tunisia. The effect of polyethylene glycol addition on gas production parameters and *in vitro* digestibility of some browse plant species collected from Algerian arid rangelands.

## **Specialized Professional Technical Training**

2013 -2014	-Research work at the veterinary faculty, university of Zaragoza, Spain
2009-2011	-Training course of finalization of PhD thesis at the university of Léon in Spain under the supervision
	of the professor Secundino Lopez. The period of this training course was eighteen months and was
	financed by the Ministry of Higher Education and Scientific Research of Algeria.
	infanced by the Ministry of Higher Eddeation and Scientific Research of Augeria.
2007	- Training course of PhD thesis at the center for Agricultural Research (INRA), Clermont Ferrant in
_00.	France.
2003	- Participation for a special training for medicines production and control, Virbac laboratory, France.
2000	- Seminar in Algiers covered analysis techniques by HPLC and CPG, organized by PHAMIDAL
	laboratory, Constantine, Algeria.
1991	- Participation for a special training for developing a mathematical software at the University of
	technology of Compiègne, France.
	technology of Complegue, France.

## **Teaching experiences**

- 1- Biochemical Technology: Biochemical (field of study), undergraduate student. 2006 -2024
- 2- Biochemical Instrumentation: Genetics (field of study), graduate student. 2012-2024
- 3-Biometric: Genetics (field of study), graduate student. 2012-2017.
- 4-Biostatistique: Biochemistry, Microbiology, Genetic, Animal biology, Undergraduate. 2017-2018.
- 5- Scientific methodology and alive studies techniques: Biology (field of study), first year, 2019-2021.
- 6- Analytical Techniques of biochemistry: Microbiology (field of study), graduate. 2019-2020.
- 7-Hygiene and safety: Biochemical (field of study), Graduate. 2019-2024.
- 8- Methodology: Biology (field of study), first year student. 2022-2024.
- 9- Pollution: Chemical engineer, (field of study), Graduate. 2018-2019.
- 10- Chemical: Biology, first year student, 2004-2006.
- 11- Techniques of analytical biology: Biochemical (field of study), Graduate. 2002-2006
- 12-Mathematics: Biology (field of study), first year student, 2004-2006

#### **Special Skills**

- Perfect knowledge of determination of nutritive values of shrubs or forages and agronomic sub products, collected from arid zones of Algeria, by assessment of *in vitro* and *in situ* digestibility techniques, using rumen sheep fluid as source of inoculum.
- Modeling of database of gas production fermentation and volatile fatty acids, using SAS software.
- Perfect knowledge of chemical analysis techniques. Such as GC (Gas Chromatography with FID or TCD detector), HPLC technique (High Performance Liquid Chromatography), Spectral methods, Infrared spectrometry and Electrophoreses techniques.
- Perfect knowledge's of chromatographic determination of the concentrations, using the internal standard method, method of external standard, method of the additions and method of internal normalization.
- Mastery of chemical analysis end controlling methods of the raw material, intermediate products and finished products (drugs).
- Writing work procedures and laboratory procedures for physics and chemistry departments.
- Review and correction of technical records manufacturing drugs.

- Contribution for the acquisition, installation, commissioning and operations of all apparatus and equipment's.
- Skills in the field of development of software such as a program of database to improve technicians' for chemical effectiveness.
- Development of software program of a tracing and resolving mathematical functions.
- Mastery of numerical analysis method's, Mastery of Fortran 77, Symphony and SAS software.
- Mastery of Arabic, French and English.