



# Hanan Mahmoud CHAKROUN

Assistant Professor

## Personal Data

Nationality: Tunisian

Date of Birth: 09 January 1979

Department : Biology

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Office Phone No: 37072

## Language Proficiency

Language	Read	Write	Speak
Arabic	Excellent	Excellent	Excellent
English	Very good	Very good	Very Good
Others	Excellent	Excellent	Excellent

## Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2013	Ph. D. in Biology Engineering	National Engineering School	Sfax, Tunisia
2004	Master's degree in Biology Engineering	National Engineering School	Sfax, Tunisia
2002	Engineer in Biology Engineering	National Engineering School	Sfax, Tunisia
1997	Baccalaureate in Experimental Sciences	9 April 1938 Secondary school	Sfax, Tunisia

## PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

<b>PhD</b>	"Fungal Laccases: Purification, Characterization and Application on bioremediation" Honors: « Very Honorable Mention with jury honors »	
<b>Master</b>	"Screening and molecular identification of ligninolytic fungi, study of the production of laccases and manganese peroxidases" Honors: « Very Good »	
<b>Fellowship</b>	"The valorization of the by-products of the cheese industry by ultrafiltration" Honors: « Very Good »	

### Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	Date
Assistant Professor	University of Dammam, College of Sciences , Biology Department (Saudi Arabia)	2016 – present
Assistant Professor	Manouba University, Higher Institute of Biotechnology Sidi-Thabet (Tunisia)	2013 – 2016
Lecturer	Gafsa University, Faculty of Sciences, Biology Department (Tunisia)	2008 – 2011

### Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Vice Head of the Quality and Development committee	University of Dammam, College of Science, Biology Department (Saudi Arabia)	2019 - present
Head of technical performance and safety follow-up Committee	University of Dammam, College of Science, Biology Department (Saudi Arabia)	2017 - 2019

### Scientific Achievements

#### Published Refereed Scientific Researches

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	Chograni Hnia, Riahi Leila, Dhahri Samir, Ezzine Olfa, <b>Chakroun Hanen</b> , Messaoud Chokri.	“Interspecific variability of 1,8-cineole content, phenolics and bioactivity among nine Eucalyptus taxa growing under the sub-humid bioclimate stage.”	Journal of Complementary and Integrative Medicine. January 2020 DOI: 10.1515/jcim-2019-0159
2	Leila Riahi, <b>Hanen Chakroun</b> , Imen Klay, Ahmed Masmoudi, Ameer Cherif, Néjia Zoghalmi	“Metabolomic fingerprint of Mentha rotundifolia L. leaf tissues promotes this species as a potential candidate for sustainable production of biologically active molecules”	Journal of Complementary and Integrative Medicine. 2018 DOI: 10.1515/jcim-2018-0048
3	Hanene Ghazghazi, Chedia Aouadhi2, Imen Klay, <b>Hanen Chakroun</b> and Leila Riahi	“Variability of Phenolic Compounds and Biological Activities among Wormwood Extracts Originated from Different Bioclimatic Zones”	'Journal of Advances in Biology & Biotechnology' ;2017, 15(2): 1-9,; Article no.JABB.36144 ISSN: 2394-1081
4	<b>Hanen Chakroun</b> , Mohamed Bouaziz, Thabette Yangui, Imen Blibech, Abdelhafidh Dhouib and Sami Sayadi	“Enzymatic transformation of tyrosol by Trametes trogii laccases: identification of the product and study of its biological activities ”	‘Journal of Molecular Catalysis B: Enzymatic’; 2013, 87, 11-17
5	<b>Hanen Chakroun</b> , Mohamed Bouaziz, Abdelhafidh Dhouib and Sami Sayadi	“Enzymatic oxidative transformation of phenols by <i>Trametes trogii</i> laccases”	‘Environmental Technology’; 2012, iFirst, 1-9

6	Thabèt Yanguj, Sami Sayadi, <b>Hanen Chakroun</b> and Abdelhafidh Dhouib	“Effect of hydroxytyrosol-rich preparations on phenolic-linked antioxidant activity of seeds”	‘Engineering in Life Sciences’; 2011, 11, N°5, pp. 511-516
7	<b>Hanen Chakroun</b> , Tahar Mechichi, Maria Jesus Martinez, Abdelhafidh Dhouib and Sami Sayadi	“Purification and characterization of a novel laccase from <i>Trichoderma atroviride</i> , Application on bioremediation of phenolic compounds”	‘Process Biochemistry’; 2010, vol. 45, No4, pp. 507-513
8	<b>Hanen Chakroun</b> , Sami Sayadi, Tahar Mechichi, and Abdelhafidh Dhouib	« High level of laccases production by <i>Trametes trogii</i> culture on olive mill wastewater-based media, application in textile dye decolourization »	‘Journal of Chemical Technology & Biotechnology’ 2009, vol. 84, n°10, pp. 1527-1532

### Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	Pr. Sami Sayadi; <b>Hanen Chakroun</b> ; Taher Mechichi; Abdelhadidh Dhouib; Hela Zouari; Fathi Aloui (Center of Biotechnology of Sfax, Tunisia); Pr. Maria Jesus Martinez Fernandez ; Angel Martinez Fener ; Enrique Rodriguez Sanchez (Biological Research Center - Spanish Research National Council) (Tunisia-Spanish Project ref 31P:02)	“Biochemical and molecular characterization of laccases, peroxidases and oxidases secreted by new white rot fungi and their application in detoxification of industrial effluents containing aromatic compounds”	2002-2005

### Current Researches

#	Research Title	Name of Investigator(s)
1	“Exploration and utilization of phytobeneficial and halotolerant endophytes as a substitute for sustainable and eco-friendly agriculture in Kingdom of Saudi Arabia” Project Number : 2019-363-SCI	Hesham Elkomy, <b>Hanen Chakroun</b> and others

### Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	“Laccase-catalysed degradation and polymerization of phenolic compounds”	Bioprotech International Conference on Bioproduction. Sfax, Tunisia 5 to 8 November (2012)	Poster



2	“Trametes trogii laccases production on olive mill wastewaters”	Olivebioteq, For a renovated, profitable and competitive Mediterranean olive growing sector. Sfax, Tunisia 15 to 19 December (2009)	Poster
3	“Biotechnological valorization of olive mill wastewaters by Trametes trogii: production of laccases and their application in textile dye decolourization”	International Symposium on Environmental and Food Toxicology in the Francophone World. Sousse, Tunisia 8 to 11 November (2009)	Poster
4	“A novel Ascomycete’s Laccase: Purification, Characterization and Application on Bioremediation”	An International Symposium on Biotechnology « ATB». Sfax, Tunisia 4 to 8 May (2008)	Oral
5	“Use of Trametes trogii Laccases produced on olive mill wastewaters for industrial textile dyes decolourization”	An International Symposium on Biotechnology « ATB». Sfax, Tunisia 4 to 8 May (2008)	Poster
6	“Purification, Characterization and Application on bioremediation of phenolic compounds of a novel laccase from the ascomycete Trichoderma atroviride”	6th Tunisian Association of Biotechnology « ATB». Sousse, Tunisia, 23 to 26 December (2007)	Poster
7	“Purification and characterization of a novel laccase from the ascomycete Trichoderma atroviride, Application on bioremediation of phenolic compounds.”	International Conference on Technologies for Industrial Wastewater Treatment and Reuse in the Mediterranean Region « TIWATMED». Jerba, Tunisia, 24 to 26 May (2007)	Oral
8	“Screening for ligninolytic enzyme, production by diverse fungi from Tunisian biotopes”	COST E23 conference held in Baiona. Spain, 26 to 29 April (2005)	Poster
9	“Screening for ligninolytic enzyme production by diverse fungi from Tunisia : optimization”	16th Biological days. Hammamet, Tunisia, 20 to 23 March (2005)	Poster
10	“Screening and identification of ligninolytic fungi, optimization of laccases and manganese peroxidases production by Trametes trogii CTM 10154”	4th Tunisian Association of Biotechnology «ATB». Hammamet, Tunisia, 19 to 22 December (2004)	Poster

#### Membership of Scientific and Professional Societies and Organizations

- Mediterranean Association of Agro-Food Industries
- Tunisian Association of Biological Sciences

#### Teaching Activities

##### Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	General Biology	BIOL 204	14 Lectures/ Lab advisor
2	Microbiology	MICRO 307	14 Lectures/ Lab advisor
3	Plant Morphogenesis	BOYNY 303	14 Lectures/ Lab advisor
4	Water quality and sanitation	BIOL 563	Lab advisor



5	Mycology	MICRO410	Lab advisor
6	Basics of Immunology	BIOL442	Lab advisor
7	Algae	MICRO423	Lab advisor
8	Graduation project	BIOL 448N	14 meetings
9	Bioethic		14 Lectures
10	Industrial Microbiology		7 Lectures
11	Applied Microbiology		13 Lectures/ Labs
12	Biochemical Analysis Techniques		13 Labs
13	Fermentation technology		13 Labs

#### Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

1	General Biology BIOL 204: This course provides students with an introduction to the biological of science. Emphasis is placed on understanding the biological organization at all levels. Based on an introduction to cell types, cell cycle, tissues and organ system. Furthermore, this course introduces students to the major kingdoms and main groups within it, emphasizing on invertebrates' diversity.
2	Microbiology MICRO 307: This course provides an introduction to microbiology. It describes: diversity and taxonomy of microorganisms; microbial cell structure and function, microbial growth and metabolism, principles of microbial genetics including DNA and RNA structures, replication, different forms of mutation and mutagenic agents. It also covers the applications of microorganisms in industry and environment.
3	Plant Morphogenesis BOTNY 303: This course involves a detailed study of the comparative morphology and anatomy of vascular plants. It provides students with knowledge, expertise in plant morphology, and anatomy theory and practice. The course includes the study of internal and external parts of plants and their modifications and relates plant morphology and anatomy to its function, as well as ecological effects on the morphology and anatomy of plants.

#### Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Microbiological control in the pharmaceutical industry	-	14 Lectures/ Labs

#### Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

1	Microbiological control in the pharmaceutical industry: This course provides students with an introduction to the concept of sterilization, disinfection, antiseptis and preservation. It describes the different chemical and physical methods used to control microbial contamination and the methods used for the evaluation of antimicrobial efficacy and factors affecting it. It also includes the principle of controlled environment, quality control and quality assurance.
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#### Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad.	Postgrad.	From	to
1	General Biology BIOL 204	Yes		Yes		2017	2018



2	General Biology BIOL 204		Yes	Yes		2019	2020
3	Microbiology MICRO 307	Yes				2019	2020

### Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

#### Committee Membership

#	From	To	Position	Organization
1	2019	present	Vice chair of the Quality and Development committee	University of Dammam, College of Science, Biology Department (Saudi Arabia)
2	2020	present	Student services and field training committee	University of Dammam, College of Science, Biology Department (Saudi Arabia)
3	2017	2019	Head of technical performance and safety follow-up Committee	University of Dammam, College of Science, Biology Department (Saudi Arabia)

#### Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	Microsoft Office: Expert (Word, Excel, PowerPoint); Programs: SPSS, NEMRODW
2	E-learning Software: Blackboard, Blackboard Collaborate

#### Last Update

19/12/2020