

Name: Hayet Mohamed Ben Khaled
Date and place of birth: 08th of March, 1981 in Sfax, Tunisia
Nationality: Tunisian
Marital status: Married
Full Address: College of Pharmacy, Rafha Campus
Northern Border University/ KSA
Tel: 00966534826769
E-mail: hayet.mohamedbenkhaled@yahoo.fr, hayat.khaled@nbu.edu.sa

QUALIFICATIONS

Current job (2015-2022): Assistant Professor in Biochemistry

Vice dean of pharmacy college at Rafha, KSA (2015-2021)

Department: Basic Health Sciences department

- **Teaching Biochemistry to second year female students.**
- **Teaching Clinical biochemistry to fourth year female students.**
- **Teaching Biology to first year female students.**
- **Teaching Medical terminology to first year female students.**
- **Teaching Molecular biology to fourth year female students.**
- **Teaching Biotechnology to fourth year female students**
- **Teaching Biostatistics and Research Methodology to second year female students**

October 2012 - September 2015: Assistant Professor in Biochemistry “Higher Institute of Applied Science and Technology” Gabes, TUNISIA

January 2008- December 2011 : PhD in Molecular and Cellular Biology

« College of Science, Sfax, Tunisia »

September 2005-december 2007: Master in Molecular and Cellular Biology

«College of Science, Sfax, Tunisia »

September 2003-June 2005 : Bachelor in science of life

« College of Science, Sfax, Tunisia »

September 2000-June 2003 : Diploma of Senior Technician in Nutrition and Biotechnology

« College of Science, Sfax, Tunisia »

RESEARCH EXPERIENCE

- **Submitting one project approved by northern border university KSA (December 2019):** Physicochemical Characteristics and biological Activities of Polysaccharides extracted from *Astragalus Spinosis* in the Northern region of Saudi Arabia.
- **Submitting one project approved by northern border university KSA (December 2018):** Development and validation of analytical method for determination of an important flavonoid in *Malva Neglecta*.
- **January 2008- december 2011 : New PhD in Biological Science**
«Laboratory of Enzyme Engineering and Microbiology (LGEM) »
Biochemistry, Technical analysis and purification of biomolecules, Bioprocess Engineering, Enzyme and co-Valuation of fishery products, Molecular Biology, Microbiology, Pharmacology.
- **September 2005- September 2007 : Master in Biological Sciences**
«Laboratory of Enzyme Engineering and Microbiology (LGEM)»

Industrial Microbiology and Bioprocess biological treatment, Biochemistry, Enzyme Engineering Fluent tools for the purification of biomolecules and development of protein hydrolysates, Demonstration of biological activity, Purification and identification of bioactive peptides.

- **January 2003 - June 2003 : graduation Project**
« Confiserie Triki-Le Moulin, Sfax »
Industrial microbiology, waste treatment and industrial effluents, bacterial culture.

COMMITTE MEMBERSHIPS

- **Vice dean of the female section of pharmacy College, Northern Border University. Rafha, KSA. (2015-2021).**
- **Member of the quality and academic accreditation** in Pharmacy College. Rafha, KSA. (2020-2023)
- **Member of the disciplinary committee** for female students of pharmacy college, Rafha. KSA. (2016-2023)
- **Member of examination committee** in female section of Pharmacy College. Rafha, KSA.
- **Member of excuses committee** in female section of Pharmacy College. Rafha, KSA. (2017-2021)
- **Member of clinical affairs and training committee** in female section of Pharmacy College. Rafha, KSA. (2020)
- **Member of scientific committee** in Pharmacy College. Rafha, KSA.(2020-2021)
- **Member of inventory of laboratories, offices committee** in female section of Pharmacy College. Rafha, KSA. (2017-2021).
- **Chairperson of the female student advisory Council** in female section of pharmacy college. Rafha, KSA. (2020-2021)
- **Member of the crisis management and problem solving committee** in female section of Pharmacy College. Rafha, KSA. (2020)
- **Member of the organizing committee for annual research days** in pharmacy college of Rafha, KSA. (2017)
- **Member in poster evaluation of graduate students the annual research days** in pharmacy college of Rafha, KSA. (2018-2019).
- **Co-ordination of extracurricular students' activities** in female section of pharmacy college, Rafha. KSA. (2016-2021).

PARTICIPATION IN WORKSHOPS

- **Training in STIL (society of lactic products) (June 2002)**
« Société Tunisienne de l'industrie laitière, Sfax (STIL)-Tunisia »
Microbiological control and physical-chemical products developed during the manufacturing process of milk, yogurt and butter.

- **May-October 2006 Training in Maintenance of electromechanical industrial automation at ENIS, Sfax- Tunisia.**
Good knowledge in computer hardware and software, operating systems, Windows, MS Office, power point.
- **Training workshop on:** chromatographic techniques. Sample preparation for chromatographic analysis (SPE, SPME, HEADSPACE ...): (24-25 September 2010).Speaker: PR. Sophie FOURMENTIN-LAMOTTE.
- **Workshop on the NCBE-Web-based training course (Bioethics online training course) (April 2017)**
- **Training workshop on :** User and operation of compact titrator model G20S, (September 2017), Northern Border University. Rafha, KSA.
- **Workshop on digital library (November 2017),** Northern Border University. Rafha, KSA.
- **Workshop on the role of researchers in scientific publishing, (December 2017),** Northern Border University. Rafha, KSA.
- **Workshop on Blackboard (February 2018),** Northern Border University. Rafha, KSA.
- **Workshop on banner (March 2018),** Northern Border University. Rafha, KSA.
- **Workshop on banner (October 2018),** Northern Border University. Rafha, KSA.
- **Workshop on Shams, Saudi open educational resources network (May 2018),** Northern Border University. Rafha, KSA.
- **Workshop on CPR, Cardiopulmonary resuscitation (May 2018),** Northern Border University. Rafha, KSA.
- **Workshop on International Arbitration Standards for Scientific Research. (March 2021),** Northern Border University, KSA.

- **Workshop on Problem Solving and Decision Making (April 2021)**. Northern Border University, KSA.
- **Workshop on Major instructional strategies and their effective usage in health professions education (February 2023)**, Northern Border University. Rafha, KSA.

LANGUAGES

Arabic, French, English, German, Italian.

SUPERVISORY EXPERIENCE

- **Supervising graduation Project, Specialty: Medical Biology, (2010-2011)**
“Institute of Health Science and Technology of Sfax»

Laboratory of Pharmacology, Faculty of Medicine of Sfax »
Thesis title: «Determination of tissue MDA and lipid parameters of high fat rats »
performed by the student **Hayet Ben Salem**
- **Supervising master project, (2010-2011), Specialty: Chemical industries and environment, University of Science of Gafsa.**
« Enzyme Engineering Laboratory and Microbiology »

Thesis title: « Extraction, purification and biochemical characterization of trypsin from the viscera of mullet (*Liza aurata*) and sequencing of the gene encoding trypsin» performed by the student **Intidhar Ibkhairia.**
- **Supervising two graduation projects of final year students (2016-2017)**, Northern Border University. Rafha, KSA.

Project 1: Public knowledge and awareness about breast cancer in men

Project 2: Awareness and Practices about Expired Drugs: Cross-Sectional Survey in the different region of Saudi Arabia
- Member of judgment committee in continuing medical education (CME) symposium (April 2017)

- **Supervising two graduation projects of final year students (2017-2018)**, Northern Border University. Rafha, KSA.

Project 1: Awareness of Saudi society about anxiolytics and when it becomes necessary to take medicines

Project 2: Sleep duration and academic performance among university students.

- **Supervising three graduation projects of final year students (2018-2019)**, Northern Border University. Rafha, KSA.

Project 1: Effect of metformin-vildagliptin versus metformin-glimepride on glycemic control, lipid profile and body weight of type 2 diabetics: retrospective study.

Project 2: Relationship between hyperuricemia and serum iron level among Saudi people.

Project 3: Public knowledge and awareness about food-drug interaction in Saudi Arabia.

- **Supervising one poster presented in continuing medical education (CME) Symposium on medication errors (December 2017) :**

Medication error committed by pharmacist in Rafha for pregnant woman caused by the confusion drug names: Rowanix, Rowatinex and Rowachol

- **Supervising two graduation projects of final year students (2019-2020)**, Northern Border University. Rafha, KSA.

Project 1: Evaluation of self-medication with analgesics among Saudi people in northern border region of Saudi Arabia.

Project 2: Research name: “Efficacy of daclatasvir + sofosbuvir (dcv + sof) in patients with hepatitis c virus (HCV) in routine practice”

- **Supervising two graduation projects of final year students (2020-2021)**, Northern Border University. Rafha, KSA.

Project 1: Awareness and perceptions of Saudi people about benefits of moringa plant.

Project 2: Public knowledge, awareness and attitude about colorectal cancer: cross sectional study in Saudi Arabia.

Project 3: Caffeine consumption among Saudi people and awareness about its interaction with drugs.

- **Supervising three graduation projects of final year students (2021-2022),** Northern Border University. Rafha, KSA.
- **Project 1:** Knowledge of pharmacists in Northern border region about Saxagliptin: A cross-sectional study.
- **Project 2:** A knowledge and attitudes toward asthma and correct use of inhalers among asthma patients in Saudi Arabia.
- **Project 3:** Knowledge, Awareness, and practices of Saudi females about osteoporosis.

PARTICIPATION IN SCIENTIFIC DAYS

- **Hayet Ben Khaled, Yosra Triki-Ellouz and Moncef Nasri (2009).** «The digestive proteases of sardinella (*Sardinella aurita*): extraction, purification and characterization." Oral communication to the 20th day living of the Tunisian Association of Biological Sciences & 4th International Congress of Biotechnology of the North African Maghreb Association of Biotechnology.
- **Hayet Ben Khaled and Moncef Nasri (2010).** «Extraction, purification and characterization of a low molecular weight collagenase from the viscera of sardinelle (*Sardinella aurita*)." Oral Communication for the 21st day living of the Tunisian Association of Biological Sciences & 4th International Congress of Biotechnology of the Maghreb ' Maghreb Association of Biotechnology.
- **Hayet Ben Khaled and Moncef Nasri (2010).** «Extraction, purification and characterization of three isoforms of trypsin from the viscera of sardinelle (*Sardinella aurita*)." Communication displays the days of International Biotechnology of the Tunisian Association for Biotechnology.
- **Hayet Ben Khaled and Moncef Nasri (2011).** «A novel acidic protease from sardinelle viscera (*Sardinella aurita*): Extraction, purification and biochemical characterization." Oral communication to the 22nd day living of the Tunisian Association of Biological Sciences.

PUBLICATIONS

1. **Ben Khaled H, Abdallah Alrwily A, Abdullh D , Rikabi A. H and Somroo S (2024).** Knowledge and Attitudes of Saudi People Regarding Leukemia: A Cross-sectional Study Conducted in the Northern Border Region. *Asian Journal of Pharmaceutical Research and Health Care*. DOI: 10.4103/ajprhc.ajprhc_51-24.
2. **Ben Khaled H, Khalid Alenzi Sh, Jamal Aldhafiri F, Abdulaziz Alanazi R, Alshammari B, Sulaiman Alanazi SH. (2024).** A Cross-sectional Study Assessing the Saudi Population's Awareness and Perception of the Nutritional and Medicinal Benefits of the Miracle Tree: *Moringa oleifera*. *Asian Journal of Pharmaceutical Research and Health Care*. DOI: 10.4103/ajprhc.ajprhc_50_24.
3. **Ben Khaled H and Nayeem N (2021).** Physicochemical Characteristics, Anti-Lipase and Antioxidant Activities of Polysaccharide Extracted from *Astragalus spinosis* Grown in the Northern Region of Saudi Arabia. *Journal of Pharmaceutical Research International*, 33 (43A): 514-526.
4. **Ben Khaled H, Ktari N, Siala R, Hmidet N, Bayoudh A, Nasri M and Ghorbel S (2014).** A heat-stable Cu/Zn superoxide dismutase from the viscera of sardinelle (*Sardinella aurita*): Isolation, purification and biochemical characterization. *Biologia*, DOI: 10.2478/s11756-014-0489-y.
5. **Ben Khaled H, Ghilissi Z, Chtourou Y, Hakim A, Ktari N, Makni Ayedi F, Barkia A, Sahnoun Z and Nasri M (2012).** Effect of protein hydrolysates from sardinelle (*Sardinella aurita*) on the oxidative status and blood lipid profile of cholesterol-fed rats. *Food Research International*, 45, 60-68.
6. **Ben Khaled H, Ktari N, Ghorbel-Bellaaj O, Jridi M, Lassoued I and Nasri M (2011).** Composition, functional properties and in vitro antioxidant activity of protein hydrolysates prepared from sardinelle (*Sardinella aurita*) muscle. *Journal of Food Science and Technology*. (In Press).
7. **Ben Khaled H, Ghorbel-Bellaaj O, Hmidet N, Jellouli K, El Hadj Ali N, Ghorbel S, and Nasri M (2011).** A novel aspartic protease from the viscera of Sardinelle (*Sardinella aurita*): Purification and characterization. *Food Chemistry*, 128, 847-853.
8. **Ben Khaled H, Jellouli K, Souissi N, Ghorbel S and Nasri M (2011).** Purification and characterization of three trypsin isoforms from viscera of sardinelle (*Sardinella aurita*). *Fish Physiology and Biochemistry*, 37,123-133.

9. **Ben Khaled H, Nasri R, Bougatef A and Nasri M (2011)**. Low molecular weight serine protease from the viscera of sardinelle (*Sardinella aurita*) with collagenolytic activity purification and characterization. *Food Chemistry*, 124, 788-794.
10. **Ben Khaled H, Bougatef A, Balti R, Triki-Ellouz Y, Souissi N and Nasri M (2008)**. Isolation and characterization of trypsin from sardinelle (*Sardinella aurita*) viscera. *Journal of the Science of Food and Agriculture*, 88, 2654-2662.
11. **Alenezi A.T SH, Ben Khaled H, Almansour M.A, Asiri Z.A, Alshehry Z.H and Chidrawar V.R (2020)**. Association between hyperuricemia, serum iron level and possibility of gout among saudi patients: a retrospective study. *International Journal of Pharmaceutical Sciences and Research*, 11(9), 4706-4711.
12. **Bkhairia I, Ben Khaled H, Ktari N, Miled N, Nasri M and Ghorbel S (2016)**. Biochemical and molecular characterisation of a new alkaline trypsin from *Liza aurata*: Structural features explaining thermal stability. *Food Chemistry*, 196, 1346-54.
13. **Ktari N, Ben Khaled H, Lassoued I, Ghorbel S and Nasri M (2013)**. Isolation and characteristics of carboxypeptidase B from zebra blenny (*Salaria basilisca*) viscera. *Journal of Aquatic Food Product Technology*, 23, 208-220.
14. **Ktari N, Ben Khaled H, Nasri R, Jellouli K, Ghorbel S and Nasri M (2012)**. Trypsin from zebra blenny (*Salaria basilisca*) viscera: Purification, characterisation and potential application as a detergent additive. *Food Chemistry*, 130, 467-474.
15. **Ktari N, Ben Khaled H, Younes I, Bkhairia I, Mhamdi S, Hamza I and Nasri M (2012)**. Zebra blenny (*Salaria basilisca*) viscera as a source of solvent-stable proteases: characteristics, potential application in the deproteinization of shrimp wastes and evaluation in liquid laundry commercial detergents. *Journal of Food Science and Technology*, DOI 10.1007/s13197-012-0817-6.
16. **Ghorbel-Bellaaj O, Ben Khaled H, Bayoudh A, Younes I, Hmidet N, Jellouli K and Nasri M (2012)**. *Pseudomonas aeruginosa* A2 elastase: Purification, characterization and biotechnological applications. *International Journal of Biological Macromolecules*, 50, 679-686.
17. **Jellouli K, Ben Khaled H, Ghorbel-Bellaaj O, Balti R, Bougatef A, and Nasri M (2011)**. Alkaline proteases from Grey triggerfish (*Balistes capricus*) viscera: characterization and potential applications. *Fish Physiology and Biochemistry*.

18. **Nayeem N, Imran M and Ben Khaled H (2020).** Physicochemical Evaluation and Chromatographic Studies of *Plantago Lanceolata* Grown in Northern Border Province, Saudi Arabia. *International Journal of Pharmaceutical and Phytopharmacological Research*. 10 (5), 136-141.
19. **Ghorbel-Bellaaj O, Jridi M, Ben Khaled H, Jellouli K and Nasri M (2012).** Bioconversion of shrimp shell waste for the production of antioxidant and chitosan used as fruit juice clarifier. *International Journal of Food Science and Technology*. 47, 1835–1841.
20. **Nasri R, Bougatef A, Ben Khaled H, Nedjar-Arroume N, Karra Chaâbouni M, Dhulster P and Nasri M (2012).** Antioxidant and free radical-scavenging activities of Goby (*Zosterisessor ophiocephalus*) muscle protein hydrolysates obtained by enzymatic treatment. *Food Biotechnology*. 26 (3), 266-279
21. **Ghorbel S, Bkhairia I, Ben Khaled H and Nasri M (2012).** Alkaline trypsin from the hepatopancreas of golden mullet (*Liza aurata*): Purification, characterization and potential application as a detergent additive. *Journal of Agricultural and Food Chemistry*.
22. **Hmidet N, Balti R, Ben Khaled H, Bougatef A and Nasri M (2011).** A new trypsin from the Atlantic mackerel (*Scomber scombrus*) viscera : purification and biochemical characterization. *Food Chemistry*.
23. **Barkia A, Bougatef A, Ben Khaled H and Nasri M (2010).** Antioxidants Activities of sardinelle heads and/or viscera protein hydrolysates prepared by enzymatic treatment. *Journal of Food Biochemistry*, 34, 303-320.
24. **Bougatef A, Haddar A, Ben Khaled H, Barkia A and Nasri M (2008).** Digestive proteinases from Sardinelle (*S. aurita*): Characteristics, application in preparation of antioxidant protein hydrolysates and evaluation in liquid laundry commercial detergents. Recent Research Developments in Food by products Technology and biotechnology a special book in the area of Food Chemistry, Research signpost. ISBN: 978-81-308-0259-6, PP : 98-117.
25. **Bougatef A, Balti R, Ben Khaled H, Triki-Ellouz Y and Nasri M (2008).** Extraction and characterization of enzyme extracts of the smooth smooth hound (*Mustelus Mustelus*). Using the alkaline extract any evidence of biological activity in hydrolysates of co-products of sardinella (*Sardinella aurita*). *Microbiology and Food Hygiene*, 20 (57), 16-23.

26. **Ktari N, Fakhfakh N, Balti R, Ben Khaled H, Nasri M and Bougatef A (2013).** Effect of degree of hydrolysis and protease type on the antioxidant activity of protein hydrolysates from cuttlefish (*Sepia officinalis*) by-products. *Journal of Aquatic Food Product Technology*, 22, 436-448.

27. **Balti R, Bougherra F, Bougatef A, Ben Khaled H, Nedjar-Arroume N, Dhulster P and Nasri M (2012).** Chymotrypsin with high activity in the hydrolysis of long chain peptides substrates from the hepatopancreas of cuttlefish (*Sepia officinalis*): purification and biochemical characterization. *Food Chemistry*, 130, 475-484.

28. **El Hadj Ali N, Hmidet N, Zouari-Fakhfakh N, Ben Khaled H and Nasri M (2010).** Alkaline Chymotrypsin from Striped Seabream (*Lithognathus mormyrus*) Viscera: Purification and Characterization. *Journal of Agricultural and Food Chemistry*, 58, 9787-9792.