



Manar Abdalrazeq

📍 **Home** : Nablus, Palestine, Autonomous Palestinian Territories

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Date of birth: 13/07/1993 **Nationality:** Jordanian

ABOUT ME

Ph.D. in **Biotechnology**, Specialization in **Biochemistry**.
University of Naples Federico II, Naples, Italy.

Junior Member in **the Italian Society of Biochemistry and Molecular Biology** (SIB)

I specialize in developing innovative bio-based materials from **proteins** and **polysaccharides**, imbued with **antimicrobial** and **antioxidant** properties. These materials hold great potential for pharmaceutical and biotechnological applications. My **current** focus is on extracting **antimicrobial** and **antioxidant molecules** from Palestinian **plants, and other natural matrices**.

I proudly received the "**Green Talent**" prize from the German Federal Ministry of Education and Research (**BMBF**) in 2019, recognizing my commitment to green and sustainable research. I made a significant contribution to an international online "**Bioplastic**" course with **Twig Education** in the United Kingdom in 2020. Additionally, as the first **Palestinian** researcher to be honored with the "**Green Talent**" prize, I have actively represented **Palestinian women** as an invited speaker at various international events, shedding light on the realities of **Palestinian women in life, science, and research**.

WORK EXPERIENCE

[20/01/2022 – Current]

Academic staff

An-Najah National University

City: Nablus | **Country:** Autonomous Palestinian Territories

I am, teaching these courses:

1. General biology course
2. Chemistry and Metabolic Biochemistry course
3. Molecular Biology Lab
4. Principles of Biochemistry and Metabolic Biochemistry Lab

[08/08/2020 – 02/2021]

Contribution to international online bioplastic course (United kingdom)

Twig Education

City: Glasgow | **Country:** United Kingdom

I have been invited to contribute to an international school course about bioplastic with Twig team (a films producer specifically for use in schools, it is an international company in England, that produces high-quality scientific films, as well as mapping their content to curricula around the world (including the Next Generation Science Standards)).

EDUCATION AND TRAINING

[01/01/2018 – 15/09/2021]

Ph.D. in Biotechnology (Biochemistry) (XXXIII cycle)-Department of Biotechnology

University of Naples federico II

Address: 80126, Napoli, Italy |

Laboratories of Prof. Raffaele Porta, Chemical Sciences, University of Napoli (Federico II), Naples (Italy)

Courses:

- Protein structure visualization, analysis and molding (Prof. Eugenio Notomista), 2018
- Bioactive molecules from natural sources: purification and application (Dr. Daria Monti), 2018
- Bioplastics (Dr. Giosafatto Valeria) 2018
- Enzymes as additives or processing aids (Dr.Giosafatto Valeria), 2018
- Enzymatic and microbial applications in biotransformations and nanotechnology (Prof. Rachele Isticato), 2018
- Advanced in mass spectroscopy (Prof. Piero Pucci), 2018
- First step in writing and publishing a scientific manuscript (Prof.Daria Monti), 2019
- Carbohydrate active enzymes for biorefineries (Prof. Marco Moracci), 2019
- Uses and abuse of Chemicals (Prof. Fabio Temussi), 2019
- The techniques of solid-liquid extraction for industrial uses (Prof. Daniele Naviglio), 2020
- Enzymes as additives or processing aids (Prof. Giosafatto Valeria), 2020

Ph.D. work is focusing on the development of new biodegradable materials so called bioplastics for food packaging and industrial applications. Synthesis, and characterization of a protein or polysaccharide-based film is the main interest. Moreover, the using of additives or nano-composite materials to improve their biological and mechanical properties.

[01/03/2021 – 28/05/2021]

Period of research (Germany)

Fraunhofer Institute for Process engineering and packaging IVV,

Address: Germany |

Supervisor: Dr. Siegfried Fürtauer

Topic: Coatings experiments of bio-based materials (Whey proteins, Nanocellulose) on different polymer substrate, and analysis their effect on the technological properties of the used substrates.

[01/07/2019 – 23/08/2019]

Period of research (Palestine)

An-Najah National University

City: Nablus |

I had spent two months in the Pharmacy Laboratories at the Department of Medicine and Health Science, An-Najah National University. Many experiments for extracting the essential oils of different plants and studying their biological activities were performed.

30 hours training course in Practical Food and Pharmaceutical Microbiology

[27/06/2017 – 27/07/2017]

An-Najah National university

City: Nablus |

[01/08/2011 – 03/05/2016]

B. Sc. Applied Chemistry

An -Najah National University

City: Nablus |

Courses:

- General (Theoretical and practical) courses in the principles of science (e.g., Chemistry, Physics, Biology, Math, and Calculus).
- Specific courses in chemistry (e.g., Organic, Inorganic, Physical, Analytical, and biochemistry).

[03/03/2015 – 07/06/2015]

(One semester of training course)

Sama Pharmaceuticals Manufacturing Co

City: Nablus |

Analysis of Drugs , Quality control

LANGUAGE SKILLS

Mother tongue(s): Arabic

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Italian

LISTENING A2 READING A1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

Computer skills

Microsoft Office | Microsoft Word | Microsoft Powerpoint | Microsoft Excel

NETWORKS AND MEMBERSHIPS

Memberships

- Junior Member in Italian Society of Biochemistry and Molecular Biology (SIB)

CONFERENCES AND SEMINARS

Conferences

- 7th CUCS Conference | Naples, 21st - 23rd April 2022(Naples, Italy)
- 18th – 20th, September 2019: **SIB 2019_60th CONGRESS** (Lecce, Italy)
- 17th- 20th June 2019: **9th Edition of the Shelf Life International Meeting** (SLIM 2019), in "Federico II University " (Naples, Italy)
- 2nd - 4th of April 2019: **6th International Conference on food Digestion**, Granada conference center, (Granada, Spain)
- 15th- 29th March 2019: **1st Coatings and Interfaces Web Conference** (CIWC 2019)

- 18th- 21th September 2018: **XV Congress of the Italian Federation of Life Sciences (FISV)**, in "Sapienza University" (Rome, Italy)
- 23th- 24th March 2016: **2nd Palestinian International Conference on Material Science and Nanotechnology** (PICNM2016), in "An-Najah National University" (Nablus, Palestine)
- 21th- 22th April 2015: **8th Palestinian International Chemistry Conference**, in "An-Najah National University" (Nablus, Palestine)

RECOMMENDATIONS

- Prof. Raffaella Porta, Department of Chemical Science of University of Naples "Federico II" (ITALY) email: raffaele.porta@unina.it
- Prof. Nidal Jaradat, Department of Pharmacy, An-Najah National University, Nablus (Palestine).email: nidaljaradat@najah.edu
- Prof. Mohammad Al-Qadi, Department of Biomedical Sciences, An-Najah National University, Nablus (Palestine).email: m.qadi@najah.edu
- Prof. Siegfried Fürtauer, Department of Material Development, Fraunhofer Institute for Process Engineering and Packaging IVV, Freising, Germany. email: siegfried.fuertauer@ivv.fraunhofer.de

PROJECTS

[13/05/2023 – 13/05/2027]

Erasmus Plus project between university of Naples and University of Palestine

Successfully obtained an Erasmus+ project facilitating collaboration between An-Najah National University in Palestine and the University of Naples Federico II in Italy. This initiative presents two fully funded opportunities for master's or Ph.D. students, allowing them to engage in up to three months of research, including the opportunity to work on their research thesis. Additionally, the project extends an annual exchange opportunity for one staff member.

HONOURS AND AWARDS

[12/10/2019]

Awards Awarding institution: Green Talent 2019- German Federal Ministry of Education and Research (BMBF)

Every year, the [German Federal Ministry of Education and Research](#) (BMBF) hosts the prestigious **Green Talents – International Forum for High Potentials in Sustainable Development** to promote the international exchange of innovative green ideas from various fields of research. I was one of the 25 winners among 837 applicants.

[03/12/2019]

Grant to participate in the Enzyme Discovery and Engineering for Biotechnological Applications

Awarding institution: Italian Society of Biological Chemistry

I got an grant from the Italian Society of Biological Chemistry (SIB) to participate in the School of Enzyme Discovery and Engineering for Biotechnological Applications, Monte Sant ' Angelo, University of Naples Federico II, Napoli, Italy.

[18/09/2018]

Grant to participate in the (FISV) conference 2018 Awarding institution: Italian Society of Biological Chemistry

I got grant from the Italian Society of Biological Chemistry (SIB) to participate in the (FISV) conference 2018, Roma, Italy

[13/09/2019] **Scholarship for research activity Awarding institution:** Italian Ministry of Foreign Affairs and International Cooperation

Entitled. "Nano reinforced edible films to be used in food packaging" September- November 2019. University of Naples "Federico II"

[01/10/2020] **Scholarship for research activity Awarding institution:** Italian Ministry of Foreign Affairs and International Cooperation

Entitled. "Preparation and characterization of edible materials containing nanoparticles activated with essential oils" October- December 2020. University of Naples "Federico II"

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

High communication skills were gained from conferences, Schools attendance and workshops participation.

- 14th-15th May 2018: Transferable Skills Spring School, Napoli, Italy.
 - 25th October 2019, scientific communication workshop, Berlin, Germany
- * both are about scientific communications, cultural, and interviewing skills

JOB-RELATED SKILLS

Job-related skills

Proficient in scientific skills gained through hands-on experience in the production, development, and characterization of bioplastics. Technical expertise includes:

- Preparation of diverse hydrocolloid materials, encompassing protein and polysaccharide-based substances.
- Conducting polymer analysis, incorporating mechanical, permeability, and optical assessments.
- Competence in utilizing various instruments such as Zetasizer NANO-ZSP, Instron, and ExtraSolution instruments for permeability testing, as well as SDS-page.
- Expertise in essential oil extraction and characterization.
- Experience in studying the antimicrobial activity of plant extracts.

WORKSHOPS AND SCHOOLS

Workshops

Workshops

- **II Industrial Biotechnology: BioID&A Biotechnology Identity and Application**, 28 October 2019. Sala Azzurra, Monte Sant ' Angelo, University of Naples Federico II, Napoli, Italy.
- **Scientific communication**, 25 October 2019, Federal ministry of education and research, Berlin (Germany)
- **2° Workshop BIO/10 for SIB society**, 17 May 2019, Aula Magna del Complesso delle Biotechnologie, Napoli (Italy)

- **NanoBioMedicin**, 22 March 2019, Conference Room CNR, Napoli (Italy)
- **After your PhD what?**, 18-21 February 2019, Sala Azzuro, Federico II university, Napoli (Italy)

Schools

- Enzyme Discovery and Engineering for Biotechnological Applications, 3-5 December 2019, Monte Sant ' Angelo, University of Naples Federico II, Napoli, Italy. <https://astrobio2020.wixsite.com/edenbiotech2019>

LIST OF PUBLICATIONS

list of Publications

1. **M. Abdalrazeq**, C.V.L. Giosafatto, M. Esposito, M. Fenderico, P. Di Pierro, R. Porta. Glycerol-Plasticized Films Obtained from Whey Proteins Denatured at Alkaline pH. *Coatings*, 2019. 9, 322-331, <https://doi.org/10.3390/coatings9050322>
2. **M. Abdalrazeq**, C.V.L. Giosafatto, R. Porta. Properties of bio-materials obtained from milk whey proteins at different pH values and plasticizer concentrations. *1st Coatings and Interfaces Web Conference (2019)*, <https://doi.org/10.3390/ciwc2019-06150>
3. I.Corrado and **M. Abdalrazeq**¹, C. Pezzella, R. Di Girolamo, R. Porta, G. Sannia, C.V.L. Giosafatto. Design and characterization of poly (3-hydroxybutyrate-co-hydroxyhexanoate) nanoparticles and their grafting in whey protein-based nanocomposites. *Food Hydrocolloids*, 2020, <https://doi.org/10.1016/j.foodhyd.2020.106167>
4. A.Arciello, L. Panzella, E. Dell'Olmo, **M. Abdalrazeq**, F. Moccia, R.Gaglione, S. Agustin-Salazar, A. Napolitano, L. Mariniello, C. V. L. Giosafatto. Development and characterization of antimicrobial and antioxidant whey protein-based films functionalized with Pecan (*Carya illinoensis*) nut shell extract. *Food Packaging and Shelf Life*, 2021, <https://doi.org/10.1016/j.fpsl.2021.100710>
5. **Abdalrazeq M**, Jaradat N, Qadi M, Giosafatto CVL, Dell'Olmo E, Gaglione R, Arciello A, Porta R. Physicochemical and Antimicrobial Properties of Whey Protein-Based Films Functionalized with Palestinian *Satureja capitata* Essential Oil. *Coatings*. 2021; 11(11):1364. <https://doi.org/10.3390/coatings11111364>
6. Qadi M., Jaradat N., Al-Maharik N., Hawash M., **Abdalrazeq M**, Fuqha A., Jabareen D., Atamni N. & Zarour A.. Anticandidal effects and chemical compositions of volatile oils extracted from *Origanum syriacum*, *Clinopodium serpyllifolium* subsp. *fruticosum* and *Thymbra capitata* from Palestine. *Chemical and Biological Technologies in Agriculture*. 2023, DOI: 10.1186/s40538-023-00459-8

LIST OF COMMUNICATIONS

List of Communications

- **M. Abdalrazeq**, Eco-friendly bioplastics, Green Talents – International Forum for High Potentials in Sustainable Development, Federal Ministry of Education and research , Berlin, Germany. 23th - 25th October 2019.
- I. Corrado, G. Sannia, C. Pezzella, R. Di Girolamo, C.V.L. Giosafatto, C. Regalado González, R. Porta and **M. Abdalrazeq**, WHEY PROTEIN/

POLYHYDROXYALKANOATE BIONANOCOMPOSITES, SIB 2019_60th CONGRESS, Lecce, Italy. 18th – 20th, September 2019.

- **M.Abdalrazeq**, C.V.L Giosafatto, C. Regalado Gonzales, P. Di Pierro, and R. Porta. Cross-linked milk whey protein-based bioplastics obtained in the presence of microbial transglutaminase. 9th Edition of the Shelf Life International Meeting (SLIM 2019), Congress Center Federico II, Napoli, 17th - 20th June 2019
- **M. Abdalrazeq***, C.V.L Giosafatto,R. Porta. A novel bioplastic obtained by whey protein recycling. 2° Workshop BIO/10, Aulua Magna del Complesso delle Biotecnologi, Napoli, 17th May 2019
- **M. Abdalrazeq**, C.V.L Giosafatto*,R. Porta. Effect of alkaline pH and heat treatment on the formation of bioplastics from whey proteins in the presence of different concentrations of glycerol. 2° Workshop BIO/10, Aulua Magna del Complesso delle Biotecnologi, Napoli, 17th May 2019
- C.V.L Giosafatto , A. Romano, A. Al-Asmar, **M. Abdalrazeq**, L. Mariniello. Microbial transglutaminase as effective tool to modify functional properties and in vitro digestibility of grass pea (LATHYRUS SATIVUS L.) flour. 6th International Conference on food Digestion Cranada conference center, Spain, 2nd - 4th of April 2019
- R. Porta, **M. Abdalrazeq**, P. Di Pierro, C. Regalado Gonzales, and C.V.L Giosafatto. Milk whey protein-based biomaterials with improved properties. XV FISV Congress Sapienza University of Rome, Italy, 18-21 September 2018

OTHER ACTIVITIES & FEATURES

Other Activities & Features

- Invited speaker in "**Gender and colonialism - voices of Palestinian women**" | **Naples, Italy. 10th of Jan 2024** under the title: **Ciao from Palestine** (Hope, New experiences in Italy, success, freedom)
- Invited speaker in "First Edition_ UniNa Job Shadowing Week" | **Naples, Italy. 8-12 May 2023**
- Invited speaker in **7th CUCS Conference** | **Naples, 21st - 23rd April 2022** under the title: **(Palestinian women in education and research)**
- Invited Speaker in "**Migrant women in university and research**", 07/02/2019
Link: <https://agenda.infn.it/event/18142/contributions/84943/>

- **Green entrepreneurship training**, from January- April 2016, An-Najah National University, I worked on a trial green project related to producing body care products with a bio-based foundation.

CERTIFICATIONS

Certifications

- Participating in the 8th Scientific Chemistry Gallery that hold by Chemistry Department at An-Najah National University, Nablus(Palestine) 2015.
- (Communication and Conversation Skills in English Language for Intermediate level) that hold at An-Najah National University 2015.
- (Communication in American Accent) that hold by Competence Development Unit at An-Najah National University, Nablus (Palestine) 2016.
- Green Entrepreneurship | Training Workshops at An-Najah National University 2016.
- 30 hours training course in English Linguistic course called (Confront your Fear with English) 2017.