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Academic qualifications

University of Groningen, The Netherlands PhD in Pharmacy (Chemical and Pharmaceutical Biology) Thesis title “Terpenoid cell factory”	2014 - 2018
Alexandria University, Egypt MSc. in Pharmaceutical Sciences (Pharmacognosy) Thesis title “Phytochemical study of <i>Tribulus terrestris</i> ”	2009 - 2012
Alexandria University, Egypt BSc. in Pharmaceutical Sciences (Distinction honour)	2003 - 2008

Research Experience

- UV, NMR and MS spectroscopy
- HPLC, GC, GC-MS
- Natural Product chemistry
- Protein expression and purification
- Protein modelling
- Enzyme engineering
- Genetic engineering
- Metabolic engineering
- Molecular biology
- Biotechnology

Publications

1. Song, Y., Guan, Z., van Merkerk, R., Pramastya, H., **Abdallah, I.I.**, Setroikromo, R., & Quax, W.J., (2020) Production of Squalene in *Bacillus subtilis* by Squalene Synthase Screening and Metabolic Engineering. *Journal of Agricultural and Food Chemistry*, 68, 4447–4455.
2. **Abdallah, I.I.**, Xue, D., Pramastya, H., van Merkerk, R., Setroikromo, R., & Quax, W.J., (2020) A regulated synthetic operon facilitates stable overexpression of multigene terpenoid pathway in *Bacillus subtilis*. *Journal of Industrial Microbiology and Biotechnology*, 47, 243–249.
3. **Abdallah, I.I.**, Pramastya, H., van Merkerk, R., Sukrasno, & Quax, W.J., (2019) Metabolic Engineering of *Bacillus subtilis* Toward Taxadiene Biosynthesis as the First Committed Step for Taxol Production. *Frontiers in Microbiology*, 10, 218.
4. **Abdallah, I.I.**, van Merkerk, R., Klumpenaar, E., & Quax, W.J., (2018). Catalysis of amorpha-4,11-diene synthase unraveled and improved by mutability landscape guided engineering. *Scientific Reports*, 8, 9961.

5. **Abdallah, I.I.** & Quax, W.J. (2018). Insights into the structure-function relations of amorpha-4,11- diene synthase. *Biotarget*, 2.
6. **Abdallah, I.I.** & Quax, W.J. (2017). A Glimpse into the Biosynthesis of Terpenoids. In International Conference on Natural Resources and Life Sciences (NRLS-2016). *KnE Life Sciences*, 81-89.
7. **Abdallah, I.I.**, Czepnik, M., van Merkerk, R., & Quax, W.J. (2016). Insights into the Three-Dimensional Structure of Amorpha-4,11-diene Synthase and Probing of Plasticity Residues. *Journal of Natural Products*, 79(10), 2455-2463.
8. Guan, Z., Xue, D., **Abdallah, I.I.**, Dijkshoorn, L., Setroikromo, R., Lv, G., & Quax, W.J. (2015). Metabolic engineering of *Bacillus subtilis* for terpenoid production. *Applied Microbiology and Biotechnology*, 99(22), 9395-9406.
9. Xue, D., **Abdallah, I.I.**, de Haan, I.E.M., Sibbald, M.J.J.B., & Quax, W.J. (2015). Enhanced C₃₀ carotenoid production in *Bacillus subtilis* by systematic overexpression of MEP pathway genes. *Applied Microbiology and Biotechnology*, 99(14), 5907-5915.
10. Harraz, F.M., Ghazy, N.M., Hammada, H.M., Nafeaa, A.A., & **Abdallah, I.I.** (2015). Hepatoprotective and Antioxidant Activities of *Tribulus Terrestris*. *Journal of Physiology and Pharmacology Advances*, 5(11), 787-794.
11. Hammada, H.M., Ghazy, N.M., Harraz, F.M., Radwan, M.M., ElSohly, M.A., & **Abdallah, I.I.** (2013). Chemical constituents from *Tribulus terrestris* and screening of their antioxidant activity. *Phytochemistry*, 92, 153-159.

Conferences

1. **Abdallah, I.I.**, Pramastya, H., Xue, D., van Merkerk, R., Setroikromo, R., Tepper, P.G. & Quax, W.J., Engineering a microbial cell factory on the road to biosynthesis of the terpenoids, Taxol and Artemisinin.
Second PUA International Conference “Multidisciplinary Approaches in Pharmaceutical Sciences” (ICMAPS 2020), Alexandria, Egypt. March 2020
[Conference presentation](#)
2. International Conference on Pharmaceutical & Healthcare Sciences (PHS 2019), Alexandria, Egypt. November 2019
[Attendance](#)
3. **Abdallah, I.I.**, Pramastya, H., Xue, D., van Merkerk, R., Setroikromo, R., & Quax, W.J., Metabolic engineering of *Bacillus subtilis* toward biosynthesis of the terpenoids, Taxol and artemisinin.
BACELL, Ljubljana, Slovenia. April 2019
[Conference presentation](#)
4. **Abdallah, I.I.**, van Merkerk, R., Klumpenaar, E., & Quax, W.J., The path to improved production of the antimalarial artemisinin.
FIGON Dutch Medicine Days, Ede, The Netherlands. October 2018
[Conference presentation](#)
5. **Abdallah, I.I.**, van Merkerk, R., Klumpenaar, E. & Quax, W.J., Engineering amorphadiene synthase, the terpene cyclase producing artemisinin.
CHAINS, Veldhoven, The Netherlands. December 2017
[Conference presentation](#)
6. **Abdallah, I.I.**, Czepnik, M., van Merkerk, R., & Quax, W.J., Amorphadiene Synthase: A Step Forward in Unraveling the Enigma of its Catalytic Mechanism.
CHAINS, Veldhoven, The Netherlands. December 2016
[Conference poster](#)

7. **Abdallah, I.I.**, Xue, D., Guan, Z. & Quax, W.J., Engineering *Bacillus subtilis* as cell factory for terpenoid production.
European Symposium on Biochemical Engineering Sciences (ESBES), Dublin Ireland. September 2016
[Conference presentation](#)
8. Guan, Z., **Abdallah, I.I.**, Xue, D., Aldakkak, K. & Quax, W.J., Non-targeted metabolomics indicates the potential of *Bacillus subtilis* for terpenoid biosynthesis.
BACELL & Symposium on Central Carbon Metabolism, Paris, France. April 2016
[Conference presentation](#)
9. **Abdallah, I.I.**, Xue, D. & Quax, W.J., Engineering *Bacillus subtilis* as cell factory for terpenoid production.
International Conference on Metabolic Engineering in Bacteria & BACELL, Amsterdam, The Netherlands. April 2015
[Conference presentation \(Award for best oral presentation\)](#)
10. **Abdallah, I.I.** & Quax, W.J., Metabolic engineering of *Bacillus subtilis* for terpenoid Production.
Bacterial Cell Surface Platform at Leiden, The Netherlands. March 2015
[Conference presentation](#)
11. **Abdallah, I.I.** & Quax, W.J., *Bacillus subtilis* as cell factory for terpenoids production.
PROMYSE EU project meeting (FP7-KBBE-2011-5 grant 289540) at Barcelona, Spain. December 2014
[Presentation](#)
12. **Abdallah, I.I.** & Quax, W.J., MEP pathway modulation for terpenoids production in *Bacillus subtilis*.
PROMYSE EU project meeting (FP7-KBBE-2011-5 grant 289540) at Oegstgeest, The Netherlands. June 2014
[Presentation](#)
13. PROMYSE EU project meeting (FP7-KBBE-2011-5 grant 289540) at Zurich, Switzerland. January 2014

Scholarships and Awards

1. PhD scholarship: Erasmus Mundus Action 2, Strand 1, Fatima Al Fihri project.
2. PhD scholarship: The Ubbo Emmius scholarship, University of Groningen, The Netherlands.
3. Award for best oral presentation: International Conference on Metabolic Engineering in Bacteria & BACELL, Amsterdam, The Netherlands. April 2015.
4. Post-doctoral fellowship at Groningen Research Institute of Pharmacy, University of Groningen, The Netherlands

Projects

Active member in European project entitled: Products from methanol by synthetic cell factories [PROMYSE] (EU FP-7 grant FP7-KBBE-2011-3-6-04-289540) 2013-2014.

Workshops and courses

1. Real Time PCR and Data Analysis, December 2019, National Research Centre, Giza, Egypt.
2. How to design integrated courses, November 2019, Alexandria University, Egypt.
3. University teaching skills, November 2018, University of Groningen, The Netherlands.

4. Thesis Writing and coaching, October 2017 – January 2018, University of Groningen, The Netherlands.
5. Project management for scientific research, March 2014 – March 2016, University of Groningen, The Netherlands.
6. Mass spectroscopy, Groningen, The Netherlands.
7. Techniques in Molecular Biology, November 2013, University of Groningen, The Netherlands.
8. Microbiological safety, October 2013, University of Groningen, The Netherlands.

Teaching Experience

1. Assistant lecturer at Faculty of Pharmacy, Alexandria University, Egypt from September 2008 till August 2013 (Courses: Phytochemistry, Applied Pharmacognosy, Botany and medicinal plants, Chromatography).
2. Post-doctoral fellow at University of Groningen, The Netherlands from September 2018 till August 2019 (Courses: Organic and Biosynthesis, Infections and tumors, Pharmaceutical Biology, Medicinal natural products).
3. Lecturer at Faculty of Pharmacy, Alexandria University, Egypt from September 2019 till present (Courses: Medicinal Plants).
4. Lecturer at College of Pharmacy, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt from September 2019 till present (Courses: Medicinal Plants).

Thesis supervision

Master thesis:

1. **Omar Alhashimi**, Faculty of Science and Engineering, Groningen Research Institute of Pharmacy, University of Groningen, The Netherlands “Mutability landscape of taxadiene synthase for an enhanced activity” 2018-2019.
2. **Pretty Kambira**, Faculty of Science and Engineering, Groningen Research Institute of Pharmacy, University of Groningen, The Netherlands “Engineering *Bacillus subtilis* for terpenoid production” 2016-2017.
3. **Esmée Klumpenaar**, Faculty of Science and Engineering, Groningen Research Institute of Pharmacy, University of Groningen, The Netherlands “Amorphadiene synthase: Analysis of plasticity residues by site-directed mutagenesis” 2015-2016.

Reviewer

1. For Journal of Industrial Microbiology and Biotechnology
2. For Pharmaceutical Biology journal.