

AHMED ISMAIL

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EXPERTISE AND TECHNICAL SKILLS:

- **Bioinformatics Tools:**
 - o Bioinformatics algorithms, databases, and analyses with a focus on Microarray and next-generation sequencing data analysis. Develop procedures to add a value to data generated by genome sequencing projects through assembly, annotation, and quality assurance. Integrate and analyze data in genome sequencing projects and functional genomics analysis. Organize genomic data into databases, displays, or graphic presentations for publication and web presentation and present the data at scientific meetings.
- **Database Software:**
 - o **Structure Query Language (SQL):**
Manage, support, and administer SQL Server database. Write SQL queries to administer and support SQL database operation and maintenance. Help developers to fix SQL queries for better performance. Write a SQL queries to run adhoc reports for the end users as required. Use SQL queries to link multiple tables using all kind of joints: inner joint, outer joints, union, etc.
 - o **Oracle Database:**
Manage, support, and administer the Oracle database. Build reports (adhoc or fixed) as needed. Develop and support existing codes. Implement a dataflow diagram for the business. Build forms to interact with Oracle database as needed.
- **Programming Language:** C++, Python, Perl Language, SQL, PL/SQL.
- **Web Design Tools:**
 - o Java-based web environments. Microsoft Windows Server/IIS, ASP.Net, HTML5/CSS3, MS. Expression Web, and Visual Studio 2008/2010 sites. Static sites (HTML/CSS/JavaScript/jQuery)
- **Communication skills:** a very good listener, verbal, and nonverbal communication skills, Friendly, Confident, and Open-Minded.

EDUCATION:

- Towson University, Towson, Maryland, USA Graduation: Aug 2013 o
Degree: Doctor of Science in Information Technology (Bioinformatics)
- Towson University, Towson, Maryland, USA Graduation: May 2009 o
Degree: Master of Science in Applied Information Technology (DBMS)
- Towson University, Towson, Maryland, USA Graduation: May 2009 o
Degree: Post Baccalaureate Certificate in Database Management Systems (DBMS)
- Azhar University, Cairo, Egypt Graduation: May 2002 o Degree:
Bachelor of Science in Biotechnology

WORK EXPERIENCE:

Majmaah University, College of Applied Medical Sciences, Riyadh, KSA

- Assistant Professor (Public Health and Health Informatics) February 2019 to Present
- Head of the Health Practitioners Affairs Unit
- Member of the Training Unit
- Member of the student support unit

Azhar University, Cairo, Egypt

- Assistant Professor of Biotechnology and Bioinformatics July 2015 to January 2018
- Member of Quality Assurance committee at Al-Azhar University
- Member of Office of Excellency at Al-Azhar University

Towson University, Towson, Maryland, USA

- Lecturer of Computer and information science September 2013 to June 2015 Responsibilities:
 - o Delivering lectures, seminars, and tutorials; o developing and implementing new methods of teaching to reflect changes in research; o designing, preparing, and developing teaching materials.
 - o Assessing students' coursework.
 - o Setting and marking examinations.
 - o Supporting students through a pastoral/advisory role.
 - o Undertaking personal research projects and actively contributing to the institution's research profile.
 - o Writing up research and preparing it for publication.
 - o Supervising students' research activities.
- Adjunct Faculty September 2011 to May 2013
- Computer Science Lab Assistant September 2008 to August 2011
- Research Assistant September 2008 to January 2010
- Teaching assistant (Al-Azhar University - Cairo, Egypt) May 2003 to September 2007

GRANT PROPOSALS:

- Successful student grant proposal titled "Bioelectricity production from wastewater microorganisms"
Role: Supervisor Amount: 100,000 EGP

AWARDS:

- Towson University (MD, USA)
 - ♦ Graduate Student Association Award (\$500) May 2011

LIST OF CONFERENCES & PUBLICATIONS:

- Bioinformatics tools and analysis to identify lethal genes in Root Knot Nematode. In Vitro Biology Meeting 2011, Raleigh, North Carolina, USA (International Conference)
- Comparative genomics analysis to identify lethal genes in RKN (Meloidogyne SPP.) from C. elegans. 28th Mid-Atlantic Plant Molecular Biology Society Conference 2012, Laurel, MD, USA (International Conference)

- A. Ismail, Benjamin F. Matthews, Nadim W. Alkharouf (2012). RKN Lethal DB: A database for the identification of Root Knot Nematode (*Meloidogyne* spp) candidate lethal genes. *Bioinformation*; 8(19): 950-952 PMID:23144556 [PubMed] PMCID: PMC3488838
- A Awaad, M Tohamy, A El-Refy, F El-Feky, A. Ismail (2016). Identification of *Bifidobacterium Animalis* Ssp. *Lactis* from Egyptian Women Breast Milk and Feces of Breast Fed Infant Based On 16S-23S rRNA Gene. *Advances in Nutrition & Food Science* 2016; 1 (1)
- E. Heb El-din, F. El-Feky, A. El-Refy, A. Ismail, K. Mosa (2017). Molecular characterization of two AP2/ERF transcription factor genes from Egyptian tomato cultivar (Edkawy). *Plant Science Today*; 4 (1): 12-20
- Isolation and identification of MSTN gene in three Egyptian goat breeds. 14th National Conference of Advances in Biochemistry and Molecular Biology in Diagnosis and Treatment 2017, MSA University, Cairo, Egypt.
- Salinity Stress Responses in Some Grape Rootstock. 4th International Conference on Biotechnology Applications in Agriculture (ICBAA), Benha University, Hurghada 2018, Egypt.
- **Ahmed I Ismail**, et al. "Identification and Phylogenetic Studies of a New Probiotic *Lactobacillus* spp. Egyptian Isolate Based on 16s rRNA Gene". *Acta Scientific Nutritional Health* 4.3 (2020): 01-07.
- Bader Alshehri, Rajendran Vijayakumar, Subramanian Senthilkumar, **Ahmed Ismail**, Ahmed Abdelhadi, Ranjay K. Choudhary, Kamal S. Albenasy, Saeed Banawas, Mohammed A. Alaidarous, Palanisamy Manikandan. "Molecular target prediction and docking of anti-thrombosis compounds and its activation on tissue-plasminogen activator to treat stroke, *Journal of King Saud University – Science*", Volume 34, Issue 1, 2022, 101732, ISSN 1018-3647, <https://doi.org/10.1016/j.jksus.2021.101732>.
- Bader Alshehri, Rajendran Vijayakumar, Subramanian Senthilkumar, **Ahmed Ismail**, Ahmed Abdel-Hadi, Ranjay K. Choudhary, Kamal S. Albenasy, Saeed Banawas, Mohammed A Alaidarous, Palanisamy Manikandan, "Therapeutic potential of nitric oxide synthase inhibitor from natural sources for the treatment of ischemic stroke", *Saudi Journal of Biological Sciences*, Volume 29, Issue 2, 2022, Pages 984-991, ISSN 1319-562X, <https://doi.org/10.1016/j.sjbs.2021.10.003>.
- **Ahmed Ismail**, Saleh Aloyuni, Raed Alharbi, Sadaf Jahan, Saeed Banawas, Omar Darwish, Subramanian Senthilkumar, Ahmed Abdel-Hadi, "Fungal metabolite isolated from *Mycosphaerella nawae* AM20 and its protective role in cerebral ischemia", *Journal of King Saud University - Science*, Volume 34, Issue 5, 2022, 102061, ISSN 1018-3647, <https://doi.org/10.1016/j.jksus.2022.102061>.
- Ahmed Abdel-Hadi, Saleh Aloyuni, Raed Alharbi, Sadaf Jahan, Omar Darwish, Subramanian Senthilkumar, Manikanadan Palanisamy, **Ahmed Ismail**, "Stroke preventing effect of resveratrol isolated from fungi and in vivo activity in male albino rats", *Journal of King Saud University - Science*, Volume 34, Issue 5, 2022, 102074, ISSN 1018-3647, <https://doi.org/10.1016/j.jksus.2022.102074>.
- Abdel-Hadi A, Iqbal D, Alharbi R, Jahan S, Darwish O, Alshehri B, Banawas S, Palanisamy M, **Ismail A**, Aldosari S, Alsaweed M, Madkhali Y, Kamal M, Fatima F. Myco-Synthesis of Silver

Nanoparticles and Their Bioactive Role against Pathogenic Microbes. *Biology*. 2023; 12(5):661.
<https://doi.org/10.3390/biology12050661>.

BOOKS:

- Mosa, Kareem A., Ismail, Ahmed, Helmy, Mohamed (2017). *Plant Stress Tolerance: An Integrated Omics Approaches* (1st ed). SPRINGER INTERNATIONAL PUBLISHING; ISBN: 978-3-319-59377-7
- Ahmed Ismail, Kareem A. Mosa, Muna A. Ali, and Mohamed Helmy (2020). *Biochemical and Molecular Markers: Unraveling Their Potential Role in Screening Germplasm for Thermotolerance*. Shabir H. Wani, Vinay Kumar. *Heat Stress Tolerance in Plants: Physiological, Molecular and Genetic Perspectives*. WILEY; ISBN: 978-1-119-43236-4
- Kareem A. Mosa, Muna A. Ali¹, Kalidoss Ramamoorthy, and Ahmed Ismail (2021). *Exploring the relationship between plant secondary metabolites and macronutrient homeostasis*. Vinay Kumar, Ashish Kumar Srivastava, Penna Suprasanna. *Plant Nutrition and Food Security in the Era of Climate Change*. ACADEMIC PRESS-ELSEVIER; ISBN: 978-0-12-822916-3

Research Project:

- Title: Discovering therapeutics for neurological disorders from fungal metabolites. (2020/2021).
Project number: IFP-2020-29
Role: PI
Program: IFPs for supporting Annual Research Program.
Field: Drug discovery
Research Center: Health Sciences Research Center
- Title: Neuro-Modulatory effect of L-Carvone against cerebral ischemic stroke. (2020/2021).
Project number: IFP-2020-30
Role: Co-PI
Program: IFPs for supporting Annual Research Program.
Field: Drug discovery
Research Center: Health Sciences Research Center
- Title: Investigation of Desertomycin-producing *Streptomyces* strains for anti-TB drug discovery
Project Number: IFP-2022-17
Program: IFPs for supporting Annual Research Program.
Field: Drug discovery