

## Sameh Samir Ali, Ph.D. Curriculum Vitae

Biofuels Institute,  
School of the Environment and Safety Engineering  
Jiangsu University,  
Zhenjiang, Jiangsu, 212013, P. R. China  
Tel: 0086-15061491030, Fax: 0511-88790955

Microbiology Department,  
Faculty of Science,  
Tanta University,  
Tanta, El-Gharbia, 31527, Egypt  
Tel: 002-01003996336  
E-mail: [samh@ujs.edu.cn](mailto:samh@ujs.edu.cn)  
[samh\\_samir@science.tanta.edu.eg](mailto:samh_samir@science.tanta.edu.eg)  
[samh\\_samir@hotmail.com](mailto:samh_samir@hotmail.com)



- **Associate Professor** at Microbiology Department, Faculty of Science, Tanta University, Egypt.
- **Currently**, research visiting at Biofuels Institute, School of the Environment and Safety Engineering, Jiangsu University, China

## EDUCATION

Postdoctoral	2018	Biofuels Institute, School of the Environment and Safety Engineering, Jiangsu University, China
Ph.D.	2013	Microbiology Department, Faculty of Science, Tanta University, Egypt
M.S.	2008	Microbiology Department, Faculty of Science, Tanta University, Egypt
B.S.	2000	Microbiology Department, Faculty of Science, Tanta University, Egypt

## RESEARCH INTERESTS

- Advanced lignocellulolytic microbial system development for biomethanation and bioethanol production via screening and characterizing novel microbial consortia isolated from wood-feeding termites.
- Advanced technology development for combating clinical drug-resistant pathogens via synthesizing and characterizing novel antimicrobial agents.

## EMPLOYMENT

- 2019 - present Associate Professor, Microbiology Department, Faculty of Science, Tanta University, Egypt
- 2018- present Research visiting, Biofuels Institute, School of the Environment and Safety Engineering, Jiangsu University, China
- 2015 - 2018 Postdoctoral career, Biofuels Institute, School of the Environment and Safety Engineering, Jiangsu University, China
- 2013 - 2015 Assistant Professor, Microbiology Department, Faculty of Science, Tanta University, Egypt
- 2008 - 2013 Teaching assistant, Microbiology Department, Faculty of Science, Tanta University, Egypt
- 2000 - 2008 Research assistant, Microbiology Department, Faculty of Science, Tanta University, Egypt

## PROFESSIONAL MEMBERSHIP AND SERVICE

- Membership of Egyptian Botanical Society (EBS)
- Membership of Egyptian Society of Experimental Biology (ESEB)
- Membership of Egyptian Academic Society for Environmental Development (EASED)
- Membership of African Association for Sustainable Development (AASD)
- Membership of the Egyptian Association for Cancer Research (EACR)
- Serve as the member of reviewer board of *Bioresource Technology*
- Serve as the member of reviewer board of *Advances in Biotechnology*
- Serve as the member of reviewer board of the Scientific Journal *BioResources*.
- Serve as the member of reviewer board of *Journal of Biotechnology and Bioresearch*.
- Serve as the member of reviewer board of *Journal Advances in Food Technology and Nutritional Sciences-Open Journal*.
- Serve as the member of reviewer board of *Annals of Microbiology Journal*
- Serve as the member of reviewer board of *Energy Conversion and Management Journal*

## AWARDED RESEARCH GRANTS

- Co-participant in a project funded by the National Key R & D Program of China (2018YFE0107100) (from Sep. 2019 to Aug. 2022).
- Co-participant in a project funded by the National Natural Science Foundation of China. Project name is "Study on lignin metabolism and process characteristics and mechanism of digestive system of domestic termite". Project approval number: 31772529 (from Jan, 2018 to Dec 2021).

- Principle Investigator (March 2015- September 2015): "Renewable energy: Recycle for changing". Funded by Egyptian ministry of higher education [Supporting of Excellence Students Projects (SESE)].
- Co-Investigator (13 January 2015): project of "Evaluation of pollution and overlaps sea water and climate change facing the ground water portion of the East Nile Delta Challenges".
- Co-Investigator (1 February 2015): Project of "optimal production and utilization of biodiesel in homogeneous charge compression ignition, HCCI, engine" Funded by Egyptian ministry of higher education.
- Principle Investigator (February 2014- December 2014): "Production of biogas and compost from organic wastes". Funded by Egyptian ministry of higher education [Supporting of Excellence Students Projects (SESE)].

## PROFESSIONAL TEACHING EXPERIENCE

Fifteen years of teaching experience at Tanta University, Egypt. Some selected courses:

General and Applied Bacteriology	Industrial Microbiology	Microbial Genetics
Water pollution and Treatments	Plant Pathology	Immunology
Antimicrobial Resistance	Virology	

## HONORS AND AWARDS

- 2019 Awarded associate professor position at Tanta University by "scientific excellence" as the scientific achievements published in high impacted international SCI journals.
- 2016 Best Oral presentation award, The 4<sup>th</sup> International Conference on Envirotech, Cleantech and Greentech (ECG) held at Rumah Kelab PAMU Clubhouse (Persatuan Alumni University Malaya), Kuala Lumpur, Malaysia (21-22 July, 2016).

## SELECTED PER-REVIEWED PUBLICATIONS

- Sameh S. Ali, Rania Al-Tohamy, Jianzhong Sun\*, Jian Wu, Liu Huizi. Screening and construction of a novel microbial consortium SSA-6 enriched from the gut symbionts of wood-feeding termite, *Coptotermes formosanus* and its biomass-based biorefineries, *Fuel* 2019, 236:1128-1145.
- El-Refaie Kenawy, Sameh S. Ali, Marwa Al-Etewy, Jianzhong Sun, Jian Wu, Nessma El-Zawawy. Synthesis, characterization and biomedical applications of a novel Schiff base on methyl acrylate-functionalized chitosan bearing *p*-nitrobenzaldehyde groups. *International Journal of Biological Macromolecules*, 2019, 122:833–843.
- Sameh S. Ali, El-Refaie Kenawy, Fatma I. Sonbol, Jianzhong Sun, Marwa Al-Etewy, Asmaa Ali, Liu Huizi, Nessma A. El-Zawawy. Pharmaceutical potential of a novel chitosan derivative Schiff base with special reference to antibacterial, anti-Biofilm,

- antioxidant, anti-Inflammatory, hemocompatibility and cytotoxic activities, *Pharmaceutical Research*, 2019, 36(1): 5.
- Guang-Hua Mao, Zhe-Han Zhang, Fan Fei, Yang-Yang Ding, Wei-Jie Zhang, Hui Chen, Sameh S. Ali, Ting Zhao, Wei-Wei Feng, and Xiang-YangWu, Liu-Qing Yang. Effect of *Grifola frondosa* polysaccharide on anti-tumor activity in combination with 5-Fu in *Heps*-bearing mice. *International Journal of Biological Macromolecules*, 2019, 121:930–935.
  - Gabriel Murillo, Sameh S. Ali, Jianzhong Sun, Yunjun Yan, Pietro Bartocci, Nessma El-Zawawy, Maha Azab, Yaojia He, Francesco Fantozzi. Ultrasonic emulsification assisted immobilized *Burkholderia cepacia* lipase catalyzed transesterification of soybean oil for biodiesel production in a novel reactor design, *Renewable Energy*, 2019, 135; 1025-1034.
  - Sameh S. Ali, Jianzhong Sun. Effective thermal pretreatment of water hyacinth (*Eichhornia crassipes*) for the enhancement of biomethanation: VIT<sup>®</sup> gene probe technology for microbial community analysis with special reference to methanogenic *Archaea*. *Journal of Environmental Chemical Engineering*, 2019, 7(1) 102853. <https://doi.org/10.1016/j.jece.2018.102853>
  - Gabriel Murillo, Yaojia He, Yunjun Yan, Jianzhong Sun, Pietro Bartocci, Sameh S. Ali, Francesco Fantozz. Scaled-up biodiesel synthesis from Chinese Tallow Kernel oil catalyzed by *Burkholderia cepacia* lipase through ultrasonic assisted technology: A nonedible and alternative source of bio energy. *Ultrasonics - Sonochemistry* 58 (2019) 104658.
  - Sameh S. Ali, Afaf A. Neseem, Jianzhong Sun, Xia Li. The effects of water hyacinth pretreated digestate on *Lupinus termis* L. seedlings under salinity stress: a complementary study. *Journal of Environmental Chemical Engineering*, 2019, <https://doi.org/10.1016/j.jece.2019.103159>
  - Sameh S. Ali, Nessma A. El-Zawawy, Rania Al-Tohamy, Shima El-Sapagh, Ahmed M. Mustafa, Jianzhong Sun\*. *Lycium shawii* Roem. & Schult.: A new bioactive antimicrobial and antioxidant agent to combat multi-drug/pan-drug resistant pathogens of wound burn infections. *Journal of Traditional and Complementary Medicine*, 2019, <https://doi.org/10.1016/j.jtcme.2019.01.004>.
  - Wagih A. El-Shouny, Sameh S. Ali, Hegazy M. Hegazy, Manar K. Abd Elnabi , Asmaa Ali, Jianzhong Sun. *Syzygium aromaticum* L.: Traditional herbal medicine against *cagA* and *vacA* toxin genes-producing drug resistant *Helicobacter pylori*. *Journal of Traditional and Complementary Medicine*, 2019. <https://doi.org/10.1016/j.jtcme.2019.05.002>
  - Rania Al-Tohamy, Sameh S. Ali, Khalil Saad-Allah, Mervat Fareed, Asmaa Ali, Anwer El-Badry, Nessma A. El-Zawawy, Jian Wu, Jianzhong Sun\*, Guang-Hua Mao, Parveen Rupani. Phytochemical analysis and assessment of antioxidant and antimicrobial activities of some medicinal plant species from Egyptian flora, *Journal of Applied Biomedicine*, 2018,16(4):289-300.

- Sameh S. Ali, Rania Al-Tohamy, Jianzhong Sun, Jian Wu, Miao Huang. The role of gut symbionts from termites: a unique hidden player from yeasts (Review). *Acta Microbiologica Sinica*. 2018, 58(6): 1-12. DOI: 10.13343/j.cnki.wsxb.20170610.
- Gabriel Murillo, Sameh S. Ali, Jianzhong Sun, Yunjun Yan, Pietro Bartocci, Yaojia He. Evaluation of the kinematic viscosity in biodiesel production with waste vegetable oil, ultrasonic irradiation and enzymatic catalysis: A comparative study in two-reactors. *Fuel* 227 (2018) 448–456.
- Wagih A. El-Shouny, Sameh S. Ali, Jianzhong Sun, Sara M. Samy, and Asmaa Ali. Drug resistance profile and molecular characterization of extended spectrum beta-lactamase (ES $\beta$ L)-producing *Pseudomonas aeruginosa* isolated from burn wound infections. Essential oils and their potential for utilization. *Microbial Pathogenesis* (2018), 116: 301–312.
- Sameh S. Ali, Abd El-Fatah Abomohra, and Jianzhong Sun\*. Effective biopretreatment of sawdust waste with a novel microbial consortium for enhanced biomethanation. *Bioresource Technology* (2017), 238: 425–432.
- Sameh S. Ali, Jian Wu, Rongrong Xie, Feng Zhou, Jianzhong Sun\*, and Miao Huang. Screening and characterizing of xylanolytic and xylose-fermenting yeasts isolated from the wood-feeding termite, *Reticulitermes chinensis*. *PLoS ONE* (2017), 12(7): e0181141.
- Sameh S. Ali, Reda Morsy, Nessma A. El-Zawawy, Mervat F. Fareed, and Mohamed Y. Bedaiwy. Synthesized zinc peroxide nanoparticles (ZnO<sub>2</sub>-NPs): a novel antimicrobial, anti-elastase, anti-keratinase, and anti-inflammatory approach toward polymicrobial burn wounds. *International Journal of Nanomedicine* (2017), 12: 6059–6073.
- Reda Morsy, Sameh S. Ali, and Mohamed El-Shetehy. Development of hydroxyapatite-chitosan gel sunscreen combating clinical multidrug-resistant bacteria. *Journal of Molecular Structure* (2017), 1143: 251-258.
- Reham Ebaid, Elhussainy Elhussainy, Safinaz El-Shourbagy, Sameh S. Ali, and Abd El-Fatah Abomohra. Protective effect of *Arthrospira platensis* against liver injury induced by copper nanoparticles. *Oriental Pharmacy and Experimental Medicine* (2017), 17(3): 203-210.
- Wagih A. El-Shouny, Sameh S. Ali, and Alsayed M. Alnabarawy. *In vitro* Antibacterial Potential of *Rosa Damascena* and *Terminalia Chebula* against Bacterial Peritonitis. *Global Journal of Biology, Agriculture and Health Sciences* (2016), 5(2): 40-49.
- Wagih A. El-Shouny, Sameh S. Ali, and Shymaa F. Fayed. The antibacterial activity of *Nigella sativa* against multidrug resistant *Pseudomonas aeruginosa* isolated from diabetic wound infections. *MATTER: International Journal of Science and Technology* (2016), 2(1): 113-134.
- Shimaa M. El Shafay, Sameh S. Ali, and Mostafa M. El-Sheekh. Antimicrobial activity of some seaweeds species from Red sea, against multidrug resistant bacteria. *Egyptian Journal of Aquatic Research* (2016), 42: 65–74.

- Sameh S. Ali, Mohamed T. Shaaban, Abd El-Fatah Abomohra, and Khairy El-Safy. Macroalgal activity against multiple drug resistant *Aeromonas hydrophila*: A novel treatment study towards enhancement of fish growth performance. *Microbial Pathogenesis* (2016), 101: 89-95.
- Nessma A. El-Zawawy, Sameh S. Ali. Pyocyanin as anti-tyrosinase and anti tinea corporis: A novel treatment study. *Microbial Pathogenesis* (2016), 100: 213-220.
- Nessma A. El Zawawy, and Sameh S. Ali. Anti-proteolytic activity of *Ganoderma lucidum* methanol extract against *Pseudomonas aeruginosa*. *The Journal of Infection in Developing Countries* (2016), 10(9):1020-1024.
- Sameh S. Ali, and Jianzhong Sun. Physico-chemical pretreatment and fungal biotreatment for park wastes and cattle dung for biogas production. *SpringerPlus* (2015), 4:712.
- Sameh S. Ali, and Jianzhong Sun. Effective biodegradation and detoxification of Reactive Black 5 by a newly isolated salt-tolerant and ligninase-producing yeast, *Sterigmatomyces halophilus* SSA-1575. *Journal of Hazardous Materials*. HAZMAT-D-19-05862.
- Sameh S. Ali, and Jianzhong Sun. Zinc peroxide nanoparticles: a novel antibacterial agent against multidrug resistant- and enterotoxin-producing *Staphylococcus aureus* of chicken meat. *BMC Microbiology*. MCRO-D-19-00483R1
- Wagih A. El-Shouny, Sameh S. Ali, and Somaia S. Nouh. Drug resistance and virulence potential of *Pseudomonas aeruginosa* isolated from ocular infections. *Egyptian Journal of Botany*, special issue for the 5<sup>th</sup> International Conference of Botany & Microbiological Sciences (2015), 529-544.
- Anwer S. El-Badry, and Sameh S. Ali. Essential oils: A promising remedy against fungal and bacterial human keratitis. *Egyptian Journal of Botany*, special issue for the 5<sup>th</sup> International Conference of Botany & Microbiological Sciences (2015), 403-431.
- Nessma A. El Zawawy, and Sameh S. Ali. *Ganoderma lucidum*: A Novel Study for Inhibiting Protease Virulence Weapon of Multiple Drug Resistant and Extended Spectrum Beta-Lactamase *Pseudomonas aeruginosa* Clinical Isolate. *Journal of Advances in Biology* (2015), 7(1): 1221-1229.
- Fatma I. Sonbol, Maha A. Khalil, Abdelfattah M. Badr, and Sameh S. Ali. Correlation between antibiotic resistance and virulence of *Pseudomonas aeruginosa* clinical isolates. *Turkish Journal of Medical Sciences* (2015), 45 (3): 568-577.
- Maha A. Khalil, Fatma I. Sonbol, Abdelfattah M. Badr, and Sameh S. Ali. Comparative study of virulence factors among ESβLs producers and non producers *Pseudomonas aeruginosa* clinical isolates. *Turkish Journal of Medical Sciences* (2015), 45 (1): 60-69.
- Sameh S. Ali, Wagih A. El-Shouny, and Tamer S. El-Samahy. Biological pre-treatment of cellulosic biomass for optimization of biogas production. Presented in 11<sup>th</sup> International Conference on Future Horizon for Sustainable Environmental

Development and Facing Challenges in Arab Countries. *Journal of Egyptian Academic Society for Environmental Development* (2014), 15(2): 83-95.

- Sameh S. Ali, Anwer S. El-Badry, and Maha A. Khalil. Bee honey and green tea as alternative regimes for healing of skin infections, involving multi drug resistant pathogens. *Egyptian Journal of Botany*, special issue for the 4<sup>th</sup> International Conference of Botany & Microbiological Sciences (2014), 201-222



## **SELECTED PROFESSIONAL CONFERENCES AND WORKSHOPS**

- 2019 ISR19, 5<sup>th</sup> International Scientific Research conference: Renewable Energy & Water Sustainability, 26-29 March, 2019, Sharm El-Sheikh, Egypt
- 2016 International Conference on Metabolic Science held at Nanjiao Hotel, Shanghai, China (20-23 October, 2016).
- 2016 4<sup>th</sup> International Conference on Envirotech, Cleantech and Greentech (ECG) held at Rumah Kelab PAMU Clubhouse (Persatuan Alumni University Malaya), Kuala Lumpur, Malaysia (21-22 July, 2016).
- 2015 22<sup>nd</sup> Tri-U International Joint Seminar and Symposium, Jiangsu University, Zhenjiang, China (18-23 October, 2015).
- 2015 The Fifth International Conference on Biotechnological applications and their relations to food and drugs in Botany and Microbiology Sciences held at Botany Department, Faculty of Science-Zagazig University in cooperation with the Egyptian Botanical Society (15-16 April, 2015).
- 2015 Workshop of " Biodigesters Designing" at Faculty of Science, Tanta University on 3 May, 2015.
- 2015 Training course " Biogas Production" at Faculty of Science, Tanta University on 10-12 May, 2015.
- 2015 Workshop of " Organic Wastes Utilization Techniques" at Faculty of Science, Tanta University on 23 March, 2015.
- 2015 workshop of " Organic Wastes Pretreatment Techniques" at Faculty of Science, Tanta University on 1 April, 2015.
- 2015 Workshop of " Bacterial Isolation and Cultivation Techniques" at Faculty of Science, Tanta University on 5 April, 2015.
- 2015 " Renewable Energy: Recycle for Change Project" at Faculty of Science, Tanta University on March to September, 2015.
- 2015 Workshop of " Organic Wastes Managements" at Faculty of Science, Tanta University on 16-18 May, 2015.
- 2014 Workshop of " Bioreactor Design" at Faculty of Science, Tanta University on 10-11 September, 2014.
- 2014 workshop of " Methanogenic Bacterial Isolation and Cultivations" at Faculty of Science, Tanta University on 11 April, 2014.
- 2014 Workshop of " Biogas Purification Techniques" at Faculty of Science, Tanta University on 11 August, 2014.

- 2014 Workshop of " Soil Macro- and Micro- Nutrients" at Faculty of Science, Tanta University on 11 October, 2014.
- 2014 " Biogas and Organic Fertilizer Production Project" at Faculty of Science, Tanta University on February to November, 2014.
- 2014 Training course of " Biogas Digesters: Types and Design" at Faculty of Science, Tanta University, Tanta on 17-20 March 2014.
- 2014 11<sup>th</sup> International Conference on Future Horizon for Sustainable Environmental Development and Facing Challenges in Arab Countries. Hurghada (20-23 December, 2014).
- 2014 "Scientific Thinking and Argumentation Skills for Problem Solving" of the future domain " Academic Skills" within the DAAD Kairo Akademie on 29 September 2014 at the premises of Tanta University.
- 2014 The Fourth International Conference on Botany and Microbiological Sciences. Botany Department, Faculty of Science-Suez Canal University, Ismailia, in cooperation with the Egyptian Botanical Society (23-24 April, 2014).
- 2014 The First Annual Conference of The Center of Excellence in Cancer Research (CECR) "Next Generation Cancer Research &Diagnosis" Tanta University, Egypt (24 February, 2014).
- 2014 The Tenth Annual International Conference of Egyptian Society for Experimental Biology (ESEB). Cairo University Conference Center, (20-25 February, 2014).
- 2012 The Seventh International Conference on Biological Sciences. Faculty of Science- Tanta University, Tanta-Egypt (5-6 December 2012).
- 2010 The Sixth International Conference on Biological Sciences. Faculty of Science- Tanta University, Tanta-Egypt (10-11 November 2010).
- 2008 International Conference for Enhancing Scientific Research: New Horizons, Tanta University, Tanta, Egypt (20-21 February 2008).
- 2007 Intensive course on "Bases of protein analysis", Institute of Graduate Studies &Research (IGSR), University of Alexandria Research center (UNARC) (25-29 March, 2007)
- 2006 The Fourth International Conference on Biological Sciences. Faculty of Science- Tanta University, Tanta-Egypt (1-2 November 2006).

## **PROFESSIONAL THESIS SUPERVISION**

### **M.Sc. Thesis**

- Production of biogas through anaerobic fermentation.
- Optimization of biogas production.
- A study on the generation of electricity from bacteria using Microbial Fuel Cell.
- A study on the correlation between antibiotic resistance and virulence of *Staphylococcus aureus*.
- Efficiency of some bacterial substances as anti-tumors.
- A study on *Pseudomonas aeruginosa* isolated from eye infection.
- Efficacy of some natural extracts against bacterial peritonitis in mice.



- Production of antimicrobial material and beneficial enzyme from actinomycetes isolated from hot springs in Egypt.
- Comparative study of antibiotic resistance and virulence factors incidence among *Staphylococcus aureus* isolated from raw food, drinking water and clinical samples.
- A study on effect of herbal extracts on helicobacter pylori associated with peptic ulcer.

**Ph.D. Thesis**

- Microbiological studies on diabetic wound infections.
- Study on extended spectrum  $\beta$ -lactamase in some Gram negative bacteria from Damanshour medical national institute.