

Dr. Walid A.M. Omara

Occupation: Lecturer of Microbiology and Immunology, Faculty of Pharmacy, Minia University, El-Minia, Egypt
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QUALIFICATIONS

- **PhD:** Molecular Microbiology & Biotechnology, Faculty of Life Science, University of Manchester, Mar. 2008.
- **MSc:** Microbiology, Al-Azhar University, Egypt, Oct. 1997.
- **BSc Pharmaceutical Sciences (Honour):** Faculty of Pharmacy, Cairo University, Egypt, May 1992.
- **Teaching Qualifications**
 - **PTLLS** (Preparation for Teaching in Life Long Sector), University of Surrey, Dec. 2013
 - **PGCE** (Professional Graduate Certificate of Education), University of Surrey, June 2014
 - **PGCE** (Post Graduate Certificate of Education), University of Huddersfield, June 2015

ACADEMIC HISTORY

- 2011 - 2013: Visiting Academic, Faculty of Life Sciences, University of Manchester, UK
- 2009 - 2011: Visiting Researcher, School of Life Sciences, University of Warwick, UK
- 2008 till now (On Leave): Lecturer of Microbiology and Immunology, Faculty of Pharmacy, Minia University, El-Minia, Egypt
- 1999 - 2003: Assistant Lecturer, Microbiology Dept., Faculty of Pharmacy, El-Minia University, Egypt
- 1998 - 1999: Microbiologist, Biotechnology Dept., Research and Development Sector, Nile Pharmaceutical Company, Egypt
- 1994 - 1998: Demonstrator / Assistant Lecturer, Microbiology Dept., Faculty of Pharmacy, Al-Azhar University, Assiut, Egypt.
- 1993 - 1994: Microbiologist, Microbiology Quality Control Dept., Chemical Industries Development Company, Egypt

AWARDS, SCHOLARSHIPS AND PRIZES

- 04/07/2011 to 07/07/2011:- ROBERTS Funding to attend Summer meeting for Society for Applied Microbiology, Dublin, Ireland for £1000
- 15/03/2010 to 21/03/2010:- ERASMUS Funding to visit Norwegian University of Science and Technology (NTNU) for €1450
- 02/01/2003 to 01/10/2007:- PhD Studentship by Egyptian government.
- 1991/1992:- Ideal Student Award, Faculty of Pharmacy, Cairo University, Egypt.

SCIENTIFIC AND PROFESSIONAL MEMBERSHIP

- ◆ Fellow of Institute of Biomedical Sciences since April 2015 (403208)
- ◆ Member of American Society for Microbiology since September 2010 (357612)
- ◆ Member of Society for General Microbiology since January 2009 (1080003)
- ◆ Member of the British Biochemical Society since March 2007 (00953492)
- ◆ Member of the Egyptian Society of Biotechnology since October 1995 (10035)
- ◆ Member of the Egyptian Pharmacists Syndicate (Practicing Pharmacist) since August 1992 (31004)

TEACHING SKILLS

- Teaching of Microbiology, Immunology and Parasitology courses for undergraduate students at Faculty of Pharmacy, Minia university, Egypt
- Teaching of practical courses of Microbiology and Biotechnology for undergraduate students at Faculty of Life Sciences, University of Manchester, UK
- Teaching of tutorials and practicals of Molecular Microbiology for postgraduate at University of Manchester, UK

RESEARCH SKILLS

- DNA techniques: Polymerase Chain Reaction (PCR), Agarose electrophoresis, Gene Cloning, DNA Sequencing, Primer Designing, Blast and Oligo6 check, Plasmid Extraction and Purification, Restriction Digestion, Bioinformatics (Blasting, Alignment, etc.), Genome Extraction and Purification.
- RNA techniques: RNA Extraction, RT-PCR, Northern blotting, Microarray.
- Protein techniques: SDS-PAGE, Protein extraction and purification, Western blotting.
- General techniques: Spectrophotometers, Ovens, autoclaves, Incubators, etc, Air Laminar Flow, Sterilization techniques, Lyophilizer, HPLC, Electrotransformation, Chemically Transformation.
- Related Softwares: Gel Doc Imaging Software, Chromas Sequencing Software, Oligo6 Primer Design Software, ImageJ software, Prism Data Analysis Software, GeneSpring v.11, Primer Express
- Microorganisms: *E.coli*, *S.cerevisiae*, *S.boulardii*, *Streptomyces coelicolor*, *M.bovis*, *Ps.aeruginosa*, *Staph.aureus*, *Strept. Streptococcus sp*, *Pseudomonas sp*
- Animals: Frogs, Mice, Rats, Rabbits.

PATENT

- Stateva L, Oliver S G, Omara W (US patency, Patent Number US20101272698-A1 on 28th October 2010)
(New yeast cell comprising a gene associated with yeast cell wall integrity linked to a promoter responsive to conditions characteristic of the digestive tract, useful for providing an agent of interest or therapeutic agent to a subject.)

PUBLICATIONS

- Shaaban K. Mohamed, A. A. Abdelhamid, Walid Omara and Abdel-Aal M. Jaber (2013). An efficient one-pot synthesis and in vitro anti microbial study of new thiazolidinones, imidazolidinones and thiazinanones based amino alcohols. **J. Pharm.Chem.** 2013, 5(1):19-31
- Omara W.A.M, Stateva L, Oliver S. (2013) Transcriptomic analysis reveals stress conditions of human gastrointestinal conditions on *Saccharomyces cerevisiae*. **Res. J. Biol.** 2013, 01 (01): 52-60
- Alexander Wentzel, Per Bruheim, Anders Øverby, Øyvind M Jakobsen, Håvard Sletta, Walid AM Omara, David A Hodgson and Trond E Ellingsen (2012) Optimized submerged batch fermentation strategy for systems scale studies of metabolic switching in *Streptomyces coelicolor* A3(2). **BMC Systems Biology** 2012 June; 6:59
- Shaaban K. Mohamed, Mostafa Albayati, Walid A. M. Omara, Antar A Abdelhamid, Herman Potgeiter, Ayad S. Hameed and Khalid M. Al-Janabi (2012) Functionalization of ibuprofen core structure compound: Part 1 Synthesis of potential chemotherapeutic agents incorporated ibuprofen substructure and their in vitro antimicrobial study. **J. Chem. Pharm. Res.** 2012 Aug., 4 (7):3505-3517
- Walid A.M. Omara (2011) Towards carbon free gelling agent as a replacement for agar for microbial growth. **Az. J. Pharm. Sci.** 2011 Sept., 44:163-172
- Omara WA, Rash BM, Hayes A, Wickham MS, Oliver SG, Stateva LI (2010) Conditional cell wall mutants of *Saccharomyces cerevisiae* as delivery vehicles for therapeutic agents in vivo to the GI tract. **J. Biotechnol** 2010 May 17; 147 (2): 136-43
- Nieselt K, Battke F, Herbig A, Bruheim P, Wentzel A, Jakobsen O, Sletta H, Alam MT, Merlo ME, Moore J, Omara WA, Morrissey ER, Juarez-Hermosillo MA, Rodriguez-Garcia A, Nentwich M, Thomas L, Legaie R, Gaze WH, Challis GL, Jansen RC, Dijkhuizen L, Rand DA, Wild DL, Bonin M, Reuther J, Wohlleben W, Smith MC, Burroughs NJ, Martin JF, Hodgson DA, Takano E, Breitling R, Ellingsen TE, Willington EM (2010) (The dynamic architecture of metabolic switch in *Streptomyces coelicolor*. **BMC Genomics** 2010 Jan 6; 11:10
- Alam MT, Merlo ME, Florian Battke, Sven Even Borgos, Per Bruheim, Nigel Burroughs, Gregory Challis, Lubbert Dijkhuizen, Trond E Ellingsen, William Gaze, Alexander Herbig, Sunniva Hoel, Øyvind Jakobsen, Ritsert C. Jansen, Brent Kiernan, Preben Krabben, Roxane Legaie, Juan Francisco Martín, Jay Moore, Kay Nieselt, Walid Omara, David Rand, Jens Reuther, Antonio Rodríguez-García, Håvard Sletta, Maggie Smith, Louise Thomas, Alexander Wentzel, David Wild, Wolfgang Wohlleben, Arouna Woukeu, Anders Øverby Hodgson DA, Wellington EM, Takano E, Bretling R (2010) Metabolic modelling and analysis of the metabolic switch in *Streptomyces coelicolor*. **BMC Genomics** 2010 Mar 26; 11:202

- Walid Omara, Yaroslav Terentjev, Steve Oliver, Lubomira Stateva (2005) Towards cancer vaccine made from recombinant yeast cells. **Yeast** 22(S1) Aug.: S47
- M.S.Ashour and W.A.M.Omara (2000) Comparative Studies on Microbial Contamination of natural products commonly used in the Egyptian Market. **Egy. J. Biomed. Sci.** (22) Apr.: 172 -7
- W.A.M.Omara, M.A.B.Gamal and M.S.Ashour (1998) Effect of Storage Conditions on Some Antimicrobial Agent Formulations Commonly Used in the Egyptian Local Market. **Az. J. Pharm. Sci.** (12) June: 31 - 54

PRESENTATIONS AND POSTERS

- W. A. Omara (Get Them In or Loose Them Out. Innovative Approaches in Teaching Healthcare Students)
Presentation in Specialist Education Conference, University of Huddersfield on 30th to 31st March 2015.
- W. A. Omara, J. Wu, R. O'Keefe, (nCRNAs are they essential or not: Lessons from *Saccharomyces cerevisiae*).
Presentation in British Yeast Group, Michael Smith Building, University of Manchester on 13th May 2013.
- W. A. Omara, L. Stateva (Using yeast as a tool to deliver oral vehicle for biological products).
Poster in Annual Conference of Society for General Microbiology, Convention Centre, Dublin, Republic of Ireland on 26th to 29th March 2012.
- W. A. Omara, R. Legie, J. Moore, H. Brown, N. Boroughs, The SysMO STREAM Consortium, E. M. Wellington, D. A. Hodgson (Novel pathways of carbon assimilation during transition phase and anaplerosis in *Streptomyces coelicolor*).
Presentation and **Poster** in 5th SysMO Conference, Barcelo Hotel, Oxford on 26th to 27th May 2011.
- Walid Omara, Roxane Legie, Jonathan Moore, Nigel Borough, Helen Brown, Elizabeth Wellington, David Hodgson (Systems Biology as a tool to investigate carbon metabolism and anaplerosis in *Streptomyces coelicolor*).
Poster in ICSB 2010, EICC, Edinburgh on 10th to 16th Oct. 2010.
- David Hodgson, Margaret Smith, Kay Nieselt, Florian Battke, Alexander Herbig, Alexander Wentzel, Oyvind Jakobsen, Tauqeer Alam, Jonathan Moore, Walid Omara, Edward Morrissey, Miguel Juarez-Hermosillo, Antonio Rodriguez-Garcia, Merle Nentwich, Louise Thomas, Roxane Legaie, William Gaze, David Rand, David Wild, Michael Bonin, Jens Reuther, Wolfgang Wohlleben, Nigel Burroughs, Juan Martin, Eriko Takano, Rainer Breitling, Trond Ellingsen, Elizabeth Wellington (Metabolic switches and regulatory gene clusters involved in the transition phase of *Streptomyces coelicolor* prior to antibiotic production)
Presentation in SysMO Third evaluation meeting, NH Conference Centre, Leeuwenhorst, Amsterdam On 07th to 10th June 2010
- Walid Omara and David Hodgson (Comparative Microarray data analysis; GAGA vs GeneSpring)

Presentation in the STREAM meeting, Dept. of Biological Sciences, University of Warwick, UK On 12th May 2010

- Walid Omara and David Hodgson (Carbon Metabolism in *Streptomyces coelicolor*)
Presentation in Annual Meeting of STREAM Project, Coventry House, University of Warwick, UK On 14th 3January 2010
- Margaret Smith, Kay Nieselt, Florian Battke, Alexander Herbig, Per Bruheim, Alexander Wentzel, Oyvind Jakobsen, Harvard Sletta, Tauqeer Alam, Elena Merlo, Jonathan Moore, Walid Omara, Edward Morrissey, Miguel Juarez-Hermosillo, Antonio Rodriguez-Garcia, Merle Nentwich, Louise Thomas, Roxane Legaie, William Gaze, Gregory Challis, Ritsert Jansen, Lubbert Dijkhuizen, David Rand, David Wild, Michael Bonin, Jens Reuther, Wolfgang Wohlleben, Nigel Burroughs, Juan Martin, David Hodgson, Eriko Takano, Rainer Breitling, Trond Ellingsen, Elizabeth Wellington (The dynamic architecture of metabolic switch in *Streptomyces coelicolor*)
Poster in BBSRC Grant Holder meeting, Centre for Systems Biology at Edinburgh, King's Building Campus, University of Edinburgh, UK.
- Walid Omara and David Hodgson (Using ChIP on chip to study the metabolism of carbon in *Streptomyces coelicolor*)
Presentation in ChIP on chip workshop, Faculty of Health and Medical Sciences, University of Surrey, UK On 29th June to 7th July 2009
- Margaret Smith, Kay Nieselt, Florian Battke, Alexander Herbig, Per Bruheim, Alexander Wentzel, Oyvind Jakobsen, Harvard Sletta, Tauqeer Alam, Elena Merlo, Jonathan Moore, Walid Omara, Edward Morrissey, Miguel Juarez-Hermosillo, Antonio Rodriguez-Garcia, Merle Nentwich, Louise Thomas, Roxane Legaie, William Gaze, Gregory Challis, Ritsert Jansen, Lubbert Dijkhuizen, David Rand, David Wild, Michael Bonin, Jens Reuther, Wolfgang Wohlleben, Nigel Burroughs, Juan Martin, David Hodgson, Eriko Takano, Rainer Breitling, Trond Ellingsen, Elizabeth Wellington (Metabolic switching and antibiotic production in response to phosphate limitation in *Streptomyces coelicolor*)
Presentation in SysMO Second evaluation meeting, Hotel and Palais Strudlhof, Vienna, Austria On 18th to 19th May 2009
- Walid Omara and David Hodgson (Carbon Metabolism in *Streptomyces coelicolor*)
Poster in SysMO Second evaluation meeting, Hotel and Palais Strudlhof, Vienna, Austria On 18th to 19th May 2009
- Walid Omara (SysMO DB and SysMO PALs, Early wins)
Presentation in *Streptomyces coelicolor* Systems Biology (STREAM) meeting, ARISTO Amsterdam, Amsterdam, The Netherlands On 6th Oct. 2008.

SCIENTIFIC COURSES AND WORKSHOPS

- 17/04/2014:-
Accreditation and validation of new courses following the guidelines of the accrediting bodies, Kingston University, Surrey, UK
- 22/01/2014:-
Effective Strategies to stretch your learners, NESOCOT, Eposm, Surrey, UK
- 04/07/2013:-
Issues and Challenges in Teaching Sciences in Higher Education, University of York, UK
(Political, economical and social challenges in the higher education sector, Causes and solutions)
- 07/05/2013:-
Innovative technologies in Molecular Biology, University of Sheffield, UK
(Generation and Handling large amount of information, New Platforms, New softwares, Accuracy and validity)
- 03/12/2012:-
Teaching in Higher Education, Renold Building, University of Manchester, UK
(Case Studies, New approaches in Teaching, Teaching Style, Assessment Methods, Programme and Module Design)
- 15/09/2011:-
Application of High throughput technology in Systems Biology workshop, University of York, UK (High throughput techniques in Biological Systems, Data analysis, Troubleshooting)
- 05/07/2010 to 06/07/2010:-
Multi-scale Modelling for Biological Systems workshop, Stirling Management Centre, University of Stirling, UK
(Multi-Scale modeling, Application of different modeling techniques in Biological Systems)
- 29/04/2010 to 30/04/2010:-
Pyrosequencing, Department of Biological Sciences, University of Warwick, UK
(Introduction to pyrosequencing, troubleshooting, technical support, differences and similarities with other sequencing techniques)
- 05/11/2009:-
Exploring New Interfaces of Computer Science and Biology, MOAC, Coventry House, University of Warwick, UK (Elucidating gene regulatory networks, Application of the seaweed algorithm, Mapping protein distribution, Visualization of data)
- 01/10/2009:-
How to write a competitive proposal for Framework Program 7 (FP7), Austin Court, Birmingham, UK (Structure and Terminology, How proposals are Evaluated, A Strategy for Writing the Proposal, Legal and Financial Rules)
- 24/09/2009:-
Systems Biology – The 21st Century Science, Warwick HRI, University of Warwick, UK
(Transcriptomes, Proteomes and Metabolomes Networks, Regulatory Networks, BBSRC skills and training)
- 26/07/2009 to 30/07/2009:-
ERASysBio Data Management Summer School, Universidad de Verano de Adeje, Tenerife
(COPASI, TAVERNA, SBML, JWS online, MyExperiment, SOPs, MyGrid, ODE, SBGN, EPE 3.0, Cytoscape, CellDesigner)
- 29/06/2009 to 07/07/2009:-
ChIP on Chip for Streptomyces, Practical Approach and Applications, Functional Genomic Facility, Faculty of Health and Medical Sciences, University of Surrey, UK.
(Array technology, ChIP-on-chip, R software, Cytoscape, Experimental design, Microarray design)

- 15/06/2009 to 16/06/2009:-
SABIO-RK, A tool for Systems Biology Approaches, EML Research gGmbH, Heidelberg, Germany. (SABIO-RK, Integration of experimental data and models, Data capture, Data curation and annotation, Sycamore, CellDesigner, SBML export)
- 08/05/2009:-
Analytical Tools for the Life Sciences Workshop, Frontiers in Epigenetics: Challenges for Chemistry, Biology and Medicine, The Royal Institution of Great Britain, London, UK.
- 03/02/2009:-
Systems Biology Workshop, Computational approaches to identifying regulatory interactions, Warwick Systems Biology Centre (WSBC), University of Warwick, UK.

LEARNING AND DEVELOPMENT COURSES AND WORKSHOPS

- 13/02/2015: Exploitation and Online Safety for Education, Educare
- 08/02/2015: Equality and Diversity in the workplace, Educare
- 04/02/2015: Health and Safety Induction, Educare
- 02/02/2015: Fire Safety Essentials, Educare
- 11/09/2014: Preventing Bullying, Educare
- 31/07/2014: Equality and Diversity, Educare
- 29/09/2013: Health and Safety, Educare.
- 26/09/2013: Stress Management, Educare.
- 26/09/2013: Personal Safety (EduSafe), Educare.
- 16/09/2013: Data Protection, Educare.
- 11/09/2013: Basic Food Hygiene, Educare.
- 01/06/2013: Resolving conflicts in teams, Renold Building, University of Manchester, UK
- 23/03/2013 to 24/03/2013- Project Management, University House, University of Manchester, UK
- 24/01/2013: Teaching Accreditation, Centre for Bioscience, The Higher Education Academy, University of Leeds, Leeds, UK
- 04/12/2012: Applying for fellowships, Renold Building, University of Manchester, UK
- 15/01/2012 to 18/01/2012: First Aid at Work, University of Manchester, UK
- 15/06/2011 to 16/06/2011: Effective Researcher Workshop, University House, University of Warwick, UK
- 06/04/2011: Academic writing, Wolfson Resrach Exchange, University of Warwick, UK
- 15/03/2011: Scientific Networking and Intro to the advanced Research, MOAC, Coventry House, University of Warwick, UK
- 08/12/2010 to 09/12/2010: Project Management, Argent Court, University of Warwick, UK
- 17/06/2010: Commercialization of Scientific Technology, Warwick HRI, University of Warwick, UK
- 02/12/2009: Practical Project Management for Researchers, University House, University of Warwick, UK
- 04/06/2009 to 05/06/2009: Effective Researcher Workshop, Scarman House, University of Warwick, UK