



Curriculum vitae

Ismaeel Hussein Bozakouk

CONTACT ADDRESS

Professional

Teacher of Microbiology, Molecular Genetics courses
Botany Department
Faculty of Science
University of Benghazi
Garyounis
Benghazi
Libya

Personal

Dr Ismaeel H. Bozakouk
19 Nahir El Yarmook Street
Benghazi
Libya
00 218 92 7476802
E-mail: varcisma74@yahoo.com

EDUCATION

University:

Jun 2007 – Jun 2011 **PhD. Degree** in Microbiology, Molecular Biology and Biotechnology
Department, University of Sheffield, Sheffield, UK.

PhD. Title: *Characterization of the Effect of Mammalian Serum on Staphylococcus aureus.*

Sep 2006 – May 2007 **Language Certificate in English**, Teaching English to Speakers of
Other Languages (TESOL), Sheffield Hallam University, Sheffield, UK.

Sep 1999 – Feb 2002 **MSc. Degree** in Microbiology, Botany Department, Faculty of
Science, University of Garyounis, Benghazi, Libya.

MSc. Title: *Acid hydrolysis of Phragmites australis powder for production of
single cell protein by Candida utilis.*

Sep 1993 – Apr 1997 **BSc. Degree**, Botany Department, Faculty of Science, University of
Garyounis, Benghazi, Libya.

RESEARCH EXPERIENCE

Jun 2006 – Jun 2011 **PhD. Degree** in Microbiology, Molecular Biology and Biotechnology Department, University of Sheffield, Sheffield, UK.

Description:

Initial work in the laboratory had demonstrated a novel interaction between the Gram-positive *Staphylococcus aureus* and mammalian serum, specifically rabbit serum has been shown to rapidly kill *S. aureus*. The most powerful bactericidal mechanism of the innate immune response is mediated by complements. However, the accepted dogma over a hundred years has been that complement-mediated lysis does not occur with Gram-positive bacteria, thus potentially a novel bactericidal mechanism is present within rabbit serum. To investigate the latter the aims of my study were to analyse the bactericidal effect of naïve rabbit serum (NRS) on *S. aureus*, to identify the killing mechanism from the host perspective and the bacterial receptor(s) for the killing factor.

Sept 1999 – Feb 2002 **MSc. Degree** in Microbiology, Botany Department, Faculty of Science, University of Garyounis, Benghazi, Libya.

Description:

Improvement of Single cell protein (SCP) production, particularly carbon source utilization is a key objective in biotechnology. The aim of my project was two-fold: a) to study whether the use of an alternative carbon source may enable high SCP yield in the fast growing but low efficiency SCP producer yeast, *Candida utilis*; and, b) to evaluate the fast-growing cane plant (*Phragmites australis*), rich in carbohydrates and widespread in Libyan soil as a carbon source for SCP biosynthesis. High yield of SCP was successfully achieved after only five days of incubation. An additional discovery was that SCP production was greatly affected by nitrogen levels therefore the effect of various nitrogen sources was also assayed. The evidence clearly suggested that the metabolic versatility of *Candida utilis* may be employed in the conversion of low grade material into high yield SCP product.

Technical proficiency:

Manipulation of pathogenic (clinical) and industrial microbiology

Genetic engineering: Extraction of chromosomal episomal DNA, Transposon mutagenesis, Polymerase Chain Reaction (PCR), Phage techniques: Phage titration and transduction, *LacZ*-mediated screening.

Immunological techniques: Immunoprecipitation, ELISA.

Fractionation and separation of bacterial compartments: Bacterial cell wall extraction, Wall teichoic acid (WTA) preparation

Light and electron microscopy

Biochemical techniques: Thin layer chromatography of biochemical extracts.

Softwares:

Bioinformatics: Vector NTI, Geneious, Clone Mgr Suite 7
Statistics: Sigma Plot 11.0, SPSS, Microsoft Office Excel
Generic editing and graphic (word, power point, ChemDraw Std12.0).

PROFESSIONAL AFFILIATIONS

2010 **Coordinator of the Exhibitions and Workshops.** The 4th Scientific Symposium for Libyan Student in the UK.

2008 – 2010 **Associate member.** Society of General Microbiology (SGM).

PUBLICATIONS

Papers

Bozakouk, I. H., J. Garcia-Lara, S. J. Foster (2013). Imaging of *Staphylococcus aureus* killing using naive rabbit serum. *Journal of Biotechnology & Biomaterials/OMICS Group.* (3):3, 114.

Bumadian M. M, H. H. Almansury, I. H. Bozakouk, Y. F. Lawgali and F. A. Bleiblo (2013). Detection and enumeration of coliform bacteria in drinking water at hospital of Benghazi/Libya. *Journal of Experimental Biology and Agricultural Sciences.* 1: 436 - 440.

Posters

Bozakouk, I. H., J. Garcia-Lara, R. Verstraten, M. Masalha, S. J. Foster (2010). A novel potent staphylocidal component in mammalian serum. 14th International Symposium on Staphylococci and Staphylococcal Infections (ISSSI) 6th - 9th of September 2010.

Oral presentation

Bozakouk, I. H. (2011). A novel potent staphylocidal mechanism in mammalian serum. The 4th Scientific symposium for Libyan Student in the UK.

Bozakouk, I. H. (2003). Single cell Protein production. The 2nd Scientific symposium of the Biotechnology, Omar El Mochtar University, El Bayda, Libya.

EMPLOYMENT

Jan 2012 – up to date **Lecturer in Botany Department**, Faculty of Science, University, of Benghazi, Benghazi, Libya.

Lecture subjects: Microbiology, Molecular Genetics and practical Microbiology

Duties: Lecturing of students.
Setting questions and marking student examinations.
Laboratory demonstration.
Supervision of undergraduate research projects.

Acquired skills: Developing of task scheduling practices.
People management skills
Experimental designing, and supervisory experience.

Sep 2002 – Jul 2006 **Lecturer in Biology Department**, Sirte University, Sirte, Libya.

Duties: Lecturing of students.
Setting questions and marking student examinations.
Laboratory demonstration.
Supervision of undergraduate research projects.

Acquired skills: Developing of task scheduling practices. People management skills, experimental designing, and supervisory experience.

Sep 2004 – Jul 2005 **Laboratory demonstration** in Botany Department, University of Benghazi, Benghazi, Libya.

Sep 2000 – Jul 2002 **Biology teacher**, Ibrahim Bakkar Secondary School, Benghazi, Libya.

First and Second year. Teaching of botany to high school level students.
Duties: Setting syllabus, creating lessons, composing and marking examinations.

REFERENCES

Prof. Simon J. Foster

Director of the Krebs Institute
Department of Molecular Biology and Biotechnology
University of Sheffield
Firth Court, Western Bank
Sheffield,
S10 2TN
UK

Tel: +44 114 222 4411
Fax: +44 114 222 2800
e-mail: S.Foster@shef.ac.uk

Dr. Farag Bleiblo

Academic Faculty
935 Ramsey lake road,
MSR 810, sudbury/Ontario,
P3E 2C6,
Canada.

e-mial: fx_bleiblo@laurentian.ca

Dr. Jorge Garcia-Lara

Chief Scientist
Absynth Biologics Limited
The Bioincubator
40 Leavygreave Road
Sheffield
S3 7RD
UK

Tel: +44 114 222 4238
Fax: +44 114 222 2800
e-mail: J.Garcia-Lara@shef.ac.uk