



RCSI

Name:	COLIN JOHN GREENGRASS
Title:	DR
Start date with RCSI Bahrain:	1/14/2018
Department:	PHARMACOLOGY
Specialty:	PHARMACOLOGY AND MEDICAL EDUCATION

**Third Level Education / Academic Awards:**

Date Awarded	Awarding Institution:	Qualification Title:
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4/25/2005	NATIONAL UNIVERSITY OF SINGAPORE	PHD
1/11/1995	INSTITUTE OF PSYCHIATRY, UNIVERSITY OF LONDON	MSC
2/7/1993	GREENWICH UNIVERSITY, LONDON	BSC HONS

**Previous Academic Positions:**

Date (To - From):	Institution:	Position:
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2016 To 2017	SABA UNIVERSITY SCHOOL OF MEDICINE, SABA, DUTCH CARIBBEAN	ASSOCIATE PROFESSOR
2015 To 2016	COLLEGE OF MEDICINE, AL-FARABI PRIVATE COLLEGE, RIYADH, SAUDI ARABIA	HEAD OF MEDICAL EDUCATION DEPARTMENT
2014 To 2015	COLLEGE OF MEDICINE, KING SAUD UNIVERSITY, RIYADH, SAUDI ARABIA	ASSISTANT PROFESSOR
2012 To 2014	COLLEGE OF MEDICINE, KING FAISAL UNIVERSITY, AL-AHSA, SAUDI ARABIA	HEAD OF MEDICAL EDUCATION DEPARTMENT
2008 To 2012	COLLEGE OF MEDICINE, IMAM MOHAMMED IBN SAUD ISLAMIC UNIVERSITY, RIYADH, SAUDI ARABIA	ASSISTANT PROFESSOR
2006 To 2008	COLLEGE OF MEDICINE, TAIBAH UNIVERSITY, MADINAH, SAUDI ARABIA	ASSISTANT PROFESSOR

**Teaching Experience:**

Teaching in areas of pharmacology, physiology and neuroscience. Including molecular and cell biology
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**Current Research and Scholarly Activities:**



Colin Greengrass is a senior lecturer in pharmacology at the Royal College of Surgeons Ireland, in Bahrain (RCSI Bahrain).

He was a founding member of the College of Medicine at Imam Mohammed Ibn Saud University in Riyadh, heading their curriculum development committee, developing a hybrid problem-based learning programme, and acting as preparatory programme science director for several years. He is a former head of medical education departments at King Faisal University and Al-Farabi Medical College in Saudi Arabia. Dr Greengrass has consulted on educational programme development projects in several institutions across the Gulf region and has conducted numerous workshops worldwide in the field of medical education (with particular note being preconference workshops held at AMEE 2018 and 2019, focussing on curriculum design principles)

Dr Greengrass holds a Ph.D. In Neuropharmacology from the National University of Singapore, and a Masters in Neuroscience from King's College, London. He also holds a Diploma in Health Professions Education from Faimer-Keele University.

## RESEARCH INTERESTS

### **Development of a systematic approach defining how a curriculum can be designed in alignment with principles and structures underlying neurocognitive architecture**

This represents a major area of interest focussing primarily in how curricula can be designed according to the application of theoretical learning principles, particularly with respect to schema and cognitive load theories, principles of organisational encoding and within theories aligned to the structuring of neurocognitive architecture.

### **Metacognitive Processes in Collaborative Learning**

Unravelling cognitive and metacognitive processes, and methods of assessment, in collaborative learning environments. This has led to the development of an individualised embedded assessment instrument developed for use in problem-based learning and other collaborative learning activities. The introduction of a research phase into a team-based learning protocol also yielded interesting data focusing on the inner workings of collaborative cognition and how confidence judgements can be influenced by teams. Ongoing research is currently examining the effect of team-based learning (TBL) in preventing the phenomenon of collaborative inhibition, and on the use of TBL in interprofessional education.

### **Memory encoding, instructional design and cognitive load**

Research aimed at optimising the incorporation of memory encoding principles into teaching and eLearning systems, with particular focus upon optimising aspects of germane cognitive load.

## Recent Presentations:

PRESENTATION AT THE ANNUAL MEETING OF INTERNATIONAL ASSOCIATION MEDICAL SCIENCE EDUCATORS (IAMSE) JUNE 2017 VERMONT, USA - GREENGRASS COLIN, AL-SHEIKH MONA, "INTRODUCTION OF A RESEARCH PHASE INTO TEAM BASED LEARNING PROTOCOLS REVEALS EVIDENCE OF METACOGNITIVE LIMITATIONS OF SELF-DIRECTED AND COLLABORATIVE PROBLEM SOLVING"

PRESENTATION AT THE ANNUAL MEETING OF INTERNATIONAL ASSOCIATION MEDICAL SCIENCE EDUCATORS (IAMSE) JUNE 2017 VERMONT, USA - GREENGRASS COLIN, "AN EMBEDDED REAL-TIME ASSESSMENT OF STUDENT PERFORMANCE IN PROBLEM BASED LEARNING: WITH AN EXPLORATION OF THE POTENTIAL FOR AN INDIVIDUALISED ASSESSMENT OF PERFORMANCE"

"REVERSAL OF EFFECT IN THE NOVEL OBJECT RECOGNITION (NOR) TEST IN THE PRESENCE OF AN EXTERNAL OLFACTORY STIMULI". AL-UMRI TALAL, GREENGRASS COLIN, ZHU YI ZHUN. 24TH ANNUAL MEETING OF THE INTERNATIONAL BEHAVIORAL NEUROSCIENCE SOCIETY, VICTORIA, BRITISH COLUMBIA, CANADA –2ND – 7TH JUNE, 2015.

<http://www.ibnsconnect.org/assets/docs/ibnsprogram2015.pdf>

"THE MEDICAL CURRICULUM: AN INTEGRATIVE AND STREAMLINED MODEL BASED ON THE PRECEPTS OF LEARNING THEORY AND KNOWLEDGE CONSTRUCTION". EDUCATION AND COGNITION 2015 (EDCOG 2015), MCMASTER UNIVERSITY, HAMILTON, CANADA – 13-14TH AUGUST 2015

CONDUCTED KEYNOTE SESSION ENTITLED "THE MEDICAL CURRICULUM: AN INTEGRATIVE AND STREAMLINED MODEL BASED ON THE PRECEPTS OF LEARNING THEORY AND KNOWLEDGE CONSTRUCTION". 14TH SEPTEMBER 2015 FOR INVITED SPEAKERS SERIES, DEPT. OF MEDICAL EDUCATION, UNIVERSITY OF DAMMAM, SAUDI ARABIA

SPEAKER AT OTTAWA CONFERENCE, ASSOCIATION FOR MEDICAL EDUCATION IN EUROPE, KUALA LUMPUR, MALAYSIA, 11TH MARCH 2012, PAPER ENTITLED "A NOVEL EMBEDDED ASSESSMENT OF STUDENT PERFORMANCE IN PROBLEM BASED LEARNING, A REAL-TIME APPROACH"

SPEAKER AT THE ASSOCIATION FOR THE STUDY OF MEDICAL EDUCATION (ASME) ANNUAL MEETING AT ROBINSON COLLEGE, CAMBRIDGE UNIVERSITY 21ST JULY 2010, PAPER ENTITLED "AN OBJECTIVELY CENTRED ASSESSMENT TOOL FOR USE IN EVALUATION OF PROBLEM BASED LEARNING"

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### **Consultancy and other Relevant Activities:**

CONDUCTED CONSULTANCY WORK AT

- AL FARABI COLLEGE, RIYADH ON CURRICULUM DEVELOPMENT (PRIOR TO APPOINTMENT)
- KING FAISAL SPECIALIST HOSPITAL JEDDAH, FAMILY MEDICINE DEPARTMENT ON STRATEGIES FOR DEVELOPING AN EFFECTIVE TRAINING PROGRAMME FOR FAMILY MEDICINE. CONDUCTED A WORKSHOP ON TEAM BASED LEARNING
- DAMMAM UNIVERSITY – HAVE CONDUCTED SEVERAL WORKSHOPS IN MEDICAL EDUCATION, SPECIFICALLY IN CURRICULUM DESIGN, INSTRUCTIONAL DESIGN AND TEAM BASED LEARNING