



# BIOMAAP 2017

FIRST INTERNATIONAL CONFERENCE ON ADVANCES IN BIO-MATERIALS AND THEIR APPLICATIONS

31ST AUGUST - 1ST SEPTEMBER 2017

JURY'S INN, CROYDON, UK

# CONFERENCE PROGRAMME DAY 1 31ST AUGUST 2017

08.30 - 08.55 DELEGATE REGISTRATION

08.55 - 09.00 WELCOME ADDRESS: PROF PURNENDU K DAS, ASRANET LTD

09.00 - 09.40 KEYNOTE PAPER: BIOMATERIALS AND NANOTECHNOLOGY FOR IMPROVEMENT OF CANCER THERAPY OUTCOMES

*PROFESSOR JONATHAN KNOWLES, UNIVERSITY COLLEGE LONDON, UK*

## SESSION 1

09:40 - 10:00 INVITED PAPER: X-RAY SPECTROSCOPY OF SOME NANOSCALE BIOMATERIALS TOWARD BIO-MEDICAL APPLICATIONS

*PROFESSOR PENG ZHANG, DALHOUSIE UNIVERSITY, CANADA*

10:00 - 10:20 ECHINODERM COLLAGEN NETWORKS: MECHANICAL PROPERTIES

*PROFESSOR CATERINA LA PORTA, UNIVERSITY OF MILAN, ITALY*

10:20 - 10:40 OPTIMIZING THE MATERIAL CHOICE AND THE DESIGN OF A SPINAL IMPLANT

*DR. MICHEL MESNARD, UNIVERSITÉ DE BORDEAUX, FRANCE*

10:40 - 11:10

BREAK

11:10 - 11:30 INFLUENCE OF MICRORHEOLOGICAL AND STRUCTURAL PROPERTIES OF HA/COLL CRYOGEL SCAFFOLDS ON 3T3 FIBROBLAST CULTURE

*MRS. JOHANNA ROETHER, KARLSRUHE INSTITUTE OF TECHNOLOGY, GERMANY*

11:30 - 11:50 THE POWER OF BESPOKE BIOCOMPATIBLE AND BIODEGRADABLE HYDROGELS

*GUILLAUME SAINT-PIERRE, PEPTIGELDESIGN TECHNOLOGIES, UK*

11:50 - 12:10 BIOCOMPOSITES BASED ON CUTTLEFISH BONE BIOGENOUS MINERAL FOR BONE TISSUE REGENERATION

*DR. DIANA-MARIA DRAGUSIN, UNIVERSITY POLITEHNICA OF BUCHAREST, ROMANIA*

12:10 - 12:30 BIOENGINEERING HIERARCHICAL APATITE STRUCTURES FOR DENTAL REGENERATION

*MR. SHERIF ELSHARKAWY, QUEEN MARY UNIVERSITY OF LONDON, UK*

12:30 - 14:00

LUNCH

## SESSION 2

14:00 - 14:20 THE INFLUENCE OF TITANIUM MICROGROOVES ON THE MORPHOLOGY AND ADHESIONS OF OSTEOBLASTS

*MS NA GUI, RMIT UNIVERSITY, AUSTRALIA*

## AFTERNOON WORKSHOP

14:20 - 16:20 SURFACE ENGINEERING TO CONTROL BIOLOGICAL-SURFACE INTERACTIONS

*DR PAUL ROACH, LOUGHBOROUGH UNIVERSITY, UK*

1900 CONFERENCE DINNER

CROYDON PARK HOTEL, 7 ALTYRE RD, CROYDON, CR9 5AA



# CONFERENCE PROGRAMME DAY 2 1ST SEPTEMBER 2017

09:00 - 09:40 **KEYNOTE PAPER: ION SUBSTITUTION OF HYDROXYAPATITES - AN APPROACH TO INTRODUCE BIOLOGICAL FUNCTION TO CALCIUM PHOSPHATES**  
*PROFESSOR IAIN GIBSON, UNIVERSITY OF ABERDEEN, UK*

## SESSION 3

09:40 - 10:20 **BIOACTIVE GLASSES FOR DENTAL APPLICATIONS**  
*PROFESSOR ROBERT HILL, QUEEN MARY UNIVERSITY OF LONDON, UK*

10:20 - 10:40 **ANALGESIC DRUG RELEASE FROM A CAP BIOMATERIAL: FIRST IN VIVO STUDY USING CATWALK SYSTEM**  
*MS. MANON DUPEICHES, UNIVERSITY OF NANTES, NANTES, FRANCE*

10:40 - 11:10 **BREAK**

11:10 - 11:30 **2D/3D CNT-BASED PLATFORMS FOR ENHANCED NEURONAL NETWORK DEVELOPMENT**  
*MS. ILARIA RAGO, UNIVERSITY OF TRIESTE, ITALY*

11:30 - 11:50 **SURFACE MICROSTRUCTURE STUDY AND EVALUATION OF OSTEOGENIC STEM CELLS DIFFERENTIATION ON BONE APATITE-LIKE COATINGS OBTAINED BY PULSED ELECTRON ABLATION OF A BIOGENIC SOURCE**  
*DR. ALESSANDRO GAMBARDELLA, RIZZOLI ORTHOPAEDIC INSTITUTE, ITALY*

11:50 - 12:10 **TOPOGRAPHICAL AND MECHANICAL CHARACTERIZATION OF BIOMATERIALS BY ATOMIC FORCE MICROSCOPY**  
*DR ALEX WINKEL, JPK INSTRUMENTS LTD, GERMANY*

12:10 - 12:30 **BIOFABRICATION OF CONSTRUCTS FOR BONE REGENERATION USING AN ALGINATE DI-ALDEHYDE (ADA) GELATIN (GEL) CROSSLINKED HYDROGEL (ADA-GEL)**  
*PROFESSOR ALDO BOCCACCINI, UNIVERSITY OF ERLANGEN-NUREMBERG, GERMANY*

12:30 - 14:00 **LUNCH**

## SESSION 4- PANEL DISCUSSION

14:00 -14:20 **STUDY ON THE BEHAVIOR OF STEEL REINFORCED CONCRETE SECTION WITH AFRP TUBES UNDER COMPRESSION**  
*MR ANJANA P, SRM UNIVERSITY, INDIA*

14:20 -16:20 **BIOMATERIALS- RESEARCH , EDUCATION AND INDUSTRIES 'FUTURE PERSPECTIVES', THE AUDIENCE SHARE PERSPECTIVES ON THE FUTURE DIRECTIONS OF THE FIELD.**

16:20 **CONFERENCE CLOSES**

## ABOUT KEYNOTE SPEAKERS

DR JONATHAN KNOWLES  
UNIVERSITY COLLEGE LONDON, UNITED KINGDOM



JONATHAN KNOWLES IS PROFESSOR OF BIOMATERIALS SCIENCE AND UNIVERSITY COLLEGE LONDON. HIS WORK FOCUSES ON A RANGE OF DEGRADABLE MATERIALS, FROM ORGANIC TO INORGANIC AS WELL AS DEVELOPMENT OF SYNTHESIS AND PROCESSING METHODS TO ENHANCE THEIR BIOLOGICAL PROPERTIES. HIS WORK IS FUNDED BY A VARIETY OF FUNDING AGENCIES, INCLUDING EPSRC, EU H2020 AND CHARITIES AS WELL AS INDUSTRIAL PARTNERSHIPS. HE HAS PUBLISHED EXTENSIVELY WITH OVER 300 PAPERS IN PEER REVIEWED JOURNALS AND HAS OVER 12,000 CITATIONS. HE IS A FELLOW OF BOTH THE INSTITUTE OF MATERIALS MINERALS AND MINING AND THE ROYAL SOCIETY OF CHEMISTRY.

PROFESSOR IAIN GIBSON  
UNIVERSITY OF ABERDEEN, UNITED KINGDOM



IAIN GIBSON IS A PROFESSOR OF BIOMATERIALS AND REGENERATIVE MEDICINE AT THE UNIVERSITY OF ABERDEEN. HIS RESEARCH FOCUSES ON UNDERSTANDING THE EFFECTS OF BIOMATERIAL CHEMISTRY AND SURFACE PHYSICAL PROPERTIES ON CELL AND TISSUE BEHAVIOUR. THIS INCLUDES INORGANIC BIOMATERIALS FOR USE AS SCAFFOLD MATERIALS RELATED TO BONE REPAIR AND SURFACE FUNCTIONALISED AND/OR COATED METALS FOR USE AS MEDICAL DEVICES. HE HAS PUBLISHED OVER 65 PAPERS, WITH OVER 4000 CITATIONS, AND IS A NAMED INVENTOR ON OVER 10 PATENTS. SOME ASPECTS OF HIS RESEARCH HAVE BEEN TRANSLATED FROM ACADEMIA TO INDUSTRY, AND HE IS A FOUNDER AND DIRECTOR OF A MEDICAL DEVICE COMPANY, SIRAKOSS LTD.

## EXHIBITORS

IN THE BREAKOUT AREA THERE WILL ALSO BE A NUMBER OF EXHIBITORS WHO YOU CAN NETWORK WITH DURING THE REFRESHMENT BREAK. THERE WILL BE EXHIBITORS FROM THE FOLLOWING



WORLD  
PRECISION  
INSTRUMENTS  
*Instrumenting scientific ideas*



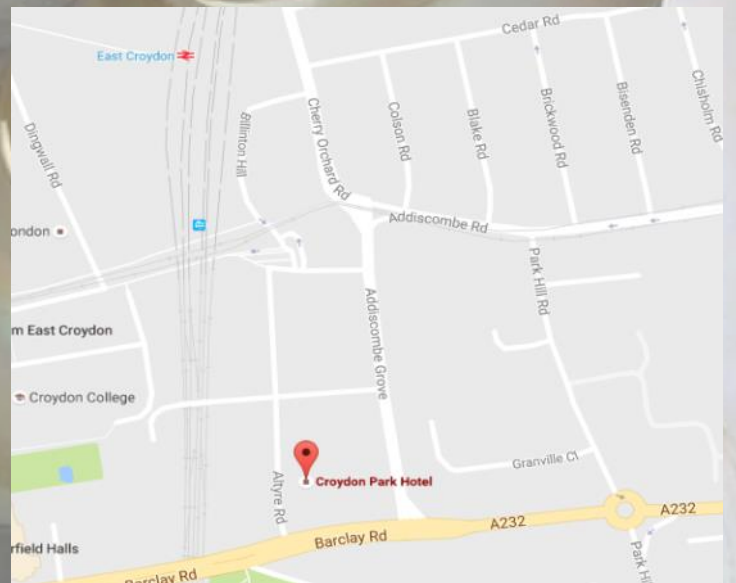
## CONFERENCE VENUE



GUESTS VISITING LONDON FOR BUSINESS OR PLEASURE, THE JURY'S INN CROYDON HOTEL IS PERFECT FOR THOSE NOT WISHING TO BE IN THE HUSTLE AND BUSTLE OF BUSY LONDON, BUT STILL CLOSE BY. THE HOTEL PROPERTY OFFERS CHEAP HOTEL ROOMS AT A CENTRAL LOCATION WITH THE WHITGIFT SHOPPING CENTRE OVER THE ROAD AND EAST CROYDON STATION A SHORT 3-4 MINUTE WALK AWAY. FOR THOSE WANTING TO GO INTO CENTRAL LONDON FOR A LEISURE DAY, OR FOR BUSINESS, EAST CROYDON STATION IS A SHORT 17 MINUTE TRAIN RIDE TO LONDON VICTORIA OR LONDON BRIDGE. HOWEVER, THERE IS PLENTY TO DISCOVER IN CROYDON WITH VARIOUS HERITAGE SITES TO EXPLORE. THE QUEEN'S GARDENS ARE AN EASY 6 MINUTE WALK AND SHIRLEY PARK GOLF COURSE IS A 7 MINUTE DRIVE AWAY.

JURY'S INN HOTEL  
WELLESLEY ROAD,  
CROYDON,  
LONDON  
CR0 9XY

## CONFERENCE DINNER VENUE



OSCARS BRASSERIE OFFERS A MOUTH-WATERING RANGE OF EUROPEAN AND INTERNATIONAL CUISINE PREPARED WITH FRESH AND LOCAL INGREDIENTS BY OUR COSMOPOLITAN LINE UP OF CHEFS. CROYDON PARK HOTEL IS A CENTRALLY LOCATED 4 STAR HOTEL AND JUST A 3 MINUTE WALK TO EAST CROYDON STATION WHERE DIRECT TRAINS WILL TRANSPORT YOU TO THE TWO MAIN STATIONS SERVICING BOTH CENTRAL LONDON AND THE CITY, IN UNDER 15 MINUTES; LONDON VICTORIA OR LONDON BRIDGE.

31ST AUGUST 2017, 19:00

CROYDON PARK HOTEL  
7 ALTYRE RD  
CROYDON  
CR9 5AA