Plymouth University Peninsula Schools of Medicine and Dentistry

Plymouth University is one of the largest universities in the country with around 27,000 students studying a variety of courses from podiatry to photography, business to biology, and design to dentistry. Its origins go back more than 150 years to the School of Navigation, but it is our modernity that gives us energy and direction. Particular strengths of the university include marine and earth sciences and we have twice been awarded the Queen’s Anniversary Prize for Higher and Further Education, most recently in 2012 for marine and maritime expertise and we are the overall best performing university in the People and Planet Green League.

Medicine and Dentistry were first established as part of the Peninsula College of Medicine and Dentistry in 2000, which operated as a partnership between Plymouth University and the University of Exeter. Disaggregation occurred in 2012 and in 2013. PU PSMD was formed consisting of the School of Medicine, the School of Dentistry, and the School of Biomedical and Healthcare Sciences.

PU PSMD is at the forefront of creating new educational opportunities to meet the needs of a rapidly changing NHS. In addition to training doctors and dentists and biomedical scientists, we offer a postgraduate course for physician associates, for a bachelors programme in dental therapy and hygiene as well as postgraduate courses in restorative dentistry and oral surgery. Close working relationships exists in both training and research between the two Faculties of PUPSMD and the Faculty of Health and Human Sciences where nursing, midwifery and many allied health professions, such as physiotherapy and optometry are taught.

The University is currently developing new laboratory facilities at its main building next to Derriford Hospital – the Derriford Research Facility. The new building will see biomedicine researchers joining their counterparts in medical and dental research, resulting in great collaboration between teams. Its close proximity to the local hospital, one of the largest in Europe, will also foster closer working relationships with clinical research colleagues.

Nearly two-thirds of our research has been graded as world-leading or of international quality, making us a top 50 UK research institution according to the 2014 Research Excellence Framework (REF). Focusing on PUPSMD, we were also ranked top in the country for the quality of our research outputs in UoA1. Research covers the areas of clinical neurosciences; cancer; inflammation, infection and immunity; diagnostics; genomics; stratification; prevention; personalised integrated care; and novel health technologies. We are one of the lead academic partners in the Alzheimer’s Research UK South West Research Network, and one of four Research Centres of Excellence for charity Brain Tumour Research.

www.plymouth.ac.uk/peninsula
Registration Information

Registration
• Registration fee for bookings on or before 18 March 2016 £180.00
• Registration fee for bookings from 18 March 2016 £200.00
• Registration fee for Senior Members aged 65 and above £105.00

Delegate Relations
APAM 2016
c/o Zibrant
VIP Room
International Conference Centre, ExCel
1 Western Gateway
Royal Victoria Dock
London E16 1XL
apam@zibrant.com

Registration in Plymouth
The Registration Desk will be open at the following times:
Thursday 7 April 2016 11:00 a.m. – 5:30 p.m.
Friday 8 April 2016 8:00 a.m. – 4:00 p.m.
Social Programme

Reception – Thursday 7 April at 7:00 p.m. – 8:00 p.m.
Stonehouse Barracks
30 Commando IX Group Royal Marines, RMB Stonehouse, Durnford Street, Plymouth PL1 3QS

When the barracks was built, the Marines became the very first complete British Corps to be provided with their very own barracks and three were built consecutively at Chatham, Portsmouth and Plymouth. Stonehouse Barracks is the only one still surviving and is now the oldest and most important barracks in the UK, not forming part of a fortification. It is a rare example of 18th century military planning and architecture and is of great historic value to the City of Plymouth and more importantly, the Royal Marines.

Cost: Included in registration fee for registered delegates.

Annual Dinner – Thursday 8 April at 8:00 p.m – 11:00 p.m.
Stonehouse Barracks
30 Commando IX Group Royal Marines, RMB Stonehouse, Durnford Street, Plymouth PL1 3QS

You will be dining in the most historic part of the barracks, The Commando Forces Officers’ Mess, which boasts a Grand Dining Room and displays many rare and valuable regimental paintings and pieces of 18th & 19th century silver. On the evening of 27/28th November 1941, the South West corner of the Officers’ Mess Dining Room took a direct hit from a 500lb German bomb, causing extensive damage to the historic building and destroying many valuable paintings and antiques, including a Chinese Ming Dynasty Vase taken by the Royal Marines during the Boxer Rebellion in 1900. The bomb also killed three Royal Marines who were working in the Dining Room at the time and who are now thought to haunt this building.

Cost: £75.00 per person

Coach transfers will collect guests from the Jurys Inn at 6:50pm and the Copthorne Hotel at 7:00pm. Transfers will also be provided at the end of the evening to the Jurys Inn and Copthorne Hotel.
Conference Organisers
Zibrant
VIP Room
International Conference Centre, ExCel
1 Western Gateway
Royal Victoria Dock
London E16 1XL
apam@zibrant.com

Host Institution
Professor Raymond Playford
Professor of Medicine
Institute of Translational & Stratified Medicine
University of Plymouth
Drake Circus
Plymouth
Devon PL4 8AA
PROGRAMME

SCIENTIFIC BUSINESS
THURSDAY 7 APRIL 2016

SHERWELL LOWER LECTURE THEATRE
SHERWELL BUILDING, PLYMOUTH UNIVERSITY

12:00 p.m. – 1:00 p.m. The George Griffin Lecture
   Professor Caroline Savage FMedSci
   VP and Head, Experimental Medicine Unit, GlaxoSmithKline Honorary Professor of Nephrology, University of Birmingham
   Title: Clinical Academia And Pharma: Smart Ways To Work Together

1:00 p.m. – 2:00 p.m. LUNCH and POSTER VIEWING SESSION

2:00 p.m.
   1) “Lone” Atrial Fibrillation, Left Ventricular Dysfunction And Impaired Energetics: The Chicken Or The Egg?
      Wijesurendra, R; Liu, A; Eichhorn, C; Levelt, E; Ariga, R; Bashir, Y; Ginks, M; Rajappan, K; Betts, T; Ferreira, V;
      Neubauer, S; Casadei, B
      This prospective longitudinal cardiac magnetic resonance study of patients undergoing ablation of “lone” AF demonstrates significantly impaired LV energetics and subtle LV systolic dysfunction that do not normalise following successful ablation; our findings suggest that so-called “lone” AF may be the consequence (rather than the cause) of an occult cardiomyopathy.
2:15 p.m.
2) Proteomic Analysis Of Liver Fibrotic Septa And Periportal Spaces In Primary Sclerosing Cholangitis, Primary Biliary Cholangitis And Alcoholic Liver Disease
Giuseppe, M; Telese, A; Schrumpf, E; Gilbertson, J; Rendell, N; Lombardi, B; Godovac-Zimmermann, J; Taylor, G; Thorburn, D; Karlsen, T; Pinzani, M

2:30 p.m.
3) Use Of Autologous Radiolabelled Neutrophils To Quantify Lung Neutrophil Retention In Healthy Volunteers, Experimental LPS-Induced Neutrophillic Inflammation And COPD
Tregay, N; Farahi, N; Simmonds, R; Loustsios, C; Cullum, I; Gillett, D; Carroll, D; McGlashan, K; Griffiths, L; Madhavan, S; Begg, M; Cahn, A; Hessel, E; Povey, K; Solanki, C; Buscombe, J; Peters, A; Chilvers, E
Using radiolabeled autologous human neutrophils and SPECT-CT, we have quantified whole lung neutrophil migration into (i) healthy volunteers following saline or lipopolysaccharide inhalation and (ii) patients with stable COPD. Our imaging platform allows us to assess the efficacy of therapeutics that aim to inhibit lung neutrophil migration.

2:45 p.m.
4) Zinc Carnosine Works With Bovine Colostrum In Truncating Exercise Induced Gut Permeability Through Actions On Tight Junctions, Apoptosis And hsp70
Playford, R; Thatcher, R; Marchbank, T; March, D; Davidson, G
3:00 p.m.

5) Microcirculatory Function And Endothelial Activation Markers In Prediction Of Clinical Outcome In Dengue: An Observational Study
Yacoub, S; Wertheim, H; Simmons, C; Mongkolsapaya, J; Wills, B; Screaton, G
Microcirculatory function and markers of endothelial activation in prediction of clinical outcome in dengue: an observational study. We conducted an observational study to evaluate the microcirculation using videomicroscopy and serological markers of endothelial activation in Vietnam. Microcirculatory parameters of flow and perfusion were associated with dengue plasma leak severity, and had a negative correlation with VCAM-1 and Angiopoietin 2. Microcirculatory assessment may prove to be a useful prognostic tool in dengue.

3:15 p.m.  TEA/COFFEE

3:45 p.m.

6) Genomic Insights Into Heterogeneity In The Individual Host Response To Severe Sepsis
Davenport, E; Burnham, K; Radhakrishnan, J; Hamburg, P; Hutton, P; Mills, T; Rautanen, A; Gordon, A; Garrard, C; Hill, A; Hinds, C; Knight, J
We show how analysis of gene expression in adult patients with sepsis due to community acquired pneumonia admitted to intensive care defines subgroups of patients with different immune response states and prognoses, as well as revealing the role of underlying genetic variation.
4:00 p.m.

7) **Novel Biomarkers For Paracetamol Hepatotoxicity: A Multi-Centre Study Assessing Utility At First Presentation To Hospital (MAPP/BIOPAR)**

*Dear, J; Clarke, J; Phillips, L; Hampson, L; Wraight, J; Dargan, P; Wood, D; Cooper, J; Park, K; Pirmohamed, M; Antoine, D*

Paracetamol overdose is common yet current biomarkers are sub-optimal. We have identified mechanistic biomarkers with enhanced sensitivity. This study tested their accuracy in >1000 patients. The microRNA miR-122 and necrosis markers HMGB1 and keratin-18 were highly accurate, allowing targeted therapy to those patients who will develop hepatotoxicity despite current treatment.

4:15 p.m.

8) **Transcutaneous Electrical Vagal Nerve Stimulation Prevents The Development Of Acid Induced Oesophageal Hyperalgesia**

*Farmer, A; Amerisinghe, G; Sifrim, D; Aziz, Q*

The vagus nerve mediates an important analgesic effect in the human viscera. In this randomised cross over study we demonstrated that transcutaneous electrical vagal nerve stimulation prevents that development of acid induced oesophageal hyperalgesia.

4:30 p.m.

9) **Aspirin Reduces Lipopolysaccharide Induced Pulmonary Inflammation In Human Models Of ARDS**

*Hamid, U; Krasnodembskaya, A; Fitzgerald, M; Shyamsundar, M; Lefrancais, E; Looney, M; McNamee, J; McAuley, D; O’Kane, C*

Aspirin reduces pulmonary neutrophilic inflammation in two human models of LPS-induced injury.
ASSOCIATION OF PHYSICIANS OF GREAT BRITAIN AND IRELAND

ADMINISTRATIVE BUSINESS

THURSDAY 7 APRIL 2016

5:00 p.m.

1. Minutes
2. Matters Arising
3. Election of Officers and Committee
4. Election of Honorary Members
5. Election of Senior Members
6. Election of Ordinary Members
7. Treasurer’s Business
8. Links with Developing Countries/Tropical Health and Education (THET)
9. Report of the Editor of the Quarterly Journal of Medicine
10. Future Programme – Meeting in 2017
11. Any Other Business
9:00 a.m.
10) \textbf{Insights From Novel Understanding Of Pathogenesis In Transthyretin Amyloidosis}
Bellotti, V

Amyloid deposition by transthyretin (TTR) can cause a severe cardiomyopathy. The evidence that amyloid deposits in the heart contain a truncated form of TTR allowed us to discover a new putative mechanism of the amyloid formation in which a mechano-enzymatic mechanism may play a crucial pathogenic role.

9:15 a.m.
11) \textbf{Mucosa Associated Invariant T (MAIT) Cells Are Phenotypically Altered And Functionally Impaired In Patients With Autoimmune Liver Disease}
Schölzel, K; Rombouts, K; Rosselli, M; Saffioti, F; Roccarina, D; Marshall, A; Thorburn, D; Pinzani, M

MAIT cells, a recently discovered subset of innate like T cells, are significantly reduced in peripheral blood of patients with autoimmune liver disease and show functional alterations. Hereby, our study provides novel insight in the pathogenesis of autoimmune liver disease.
9:30 a.m.

12) Trovax® And Cyclophosphamide Induce Anti-Tumour Immune Responses That Correlate With Prolonged Survival Of End-Stage Colorectal Cancer Patients
Godkin, A; Pembroke, T; Gallimore, A; Scurr, M

The cytotoxic response to cancer is counteracted by tumour-induced immunosuppression. 54 colorectal cancer patients with inoperable metastatic disease were randomized to a virus vaccine expressing an oncofetal antigen +/- cyclophosphamide to counteract immune regulation. The results of this phase I/II trial demonstrate improved outcome corresponding to tumour-directed T cell responses.

9:45 a.m.

13) Vitamin D Supplementation During Pregnancy And Offspring Bone Mass: The MAVIDOS Multicentre Randomised, Double-Blind, Placebo-Controlled Trial
Cooper, C; Harvey, N; Bishop, N; Kennedy, S; Papageorghiou, A; Schoenmakers, I; Fraser, R; Gandhi, S; Carr, A; D’Angelo, S; Crozier, S; Moon, R; Arden, N; Dennison, E; Godfrey, K; Inskip, H; Prentice, A; Mughal, Z; Eastell, R; Reid, D; Javaid, K; MAVIDOS Study Group

We have demonstrated in a multi-centre, randomised, placebo-controlled, double-blind trial (MAVIDOS) that maternal vitamin D supplementation during pregnancy improves offspring neonatal bone mass for infants born in winter months.

10:00 a.m.

14) Early Puberty And Increased Risk Of Cardiometabolic Disease: Role Of Weight Gain, Sex Hormone Binding Globulin And Free Androgen Levels
Pinkney, J; Streeter, A; Jeffery, A; Chynoweth, J; Wilkin, T; Hosking, J

Early puberty, childhood obesity and emerging cardiometabolic risk appear interrelated but the mechanisms are unclear. This analysis suggests obesity accentuates the prepubertal decline in SHBG resulting in increased free sex steroid levels and earlier puberty. Suppression of SHBG therefore appears to be another mechanism linking energy sufficiency to reproductive capacity.
10:15 a.m.

15) **What Is Required Globally For The Control Of Mortality And Elimination Of Hepatitis B Virus Infection?**

Thursz, M; Lemoine, M; Nayagam, S; Hallett, T

Vaccination to control hepatitis B virus infection is highly successful but, to date, has had little impact on morbidity or mortality and will not be able to achieve elimination. We show that community screening and treatment of HBV in West Africa is feasible, effective, cost-effective and necessary to reduce mortality and move towards elimination.

10:30 a.m.  

**TEA/COFFEE**

11:00 a.m.

16) **Human T-Cell Leukemia Virus Type 1 Can Modulate TLR-Induced Dendritic Cells Activation via C-Type Lectin Receptors**

Shimauchi, T; Finsterbusch, K; Blanchet, F; Turpin, J; Ladell, K; Price, D; Caucheteux, S; Bangham, C; Tokura, Y; Piguet, V

11:15 a.m.

17) **Measuring ER Protein Mobility During ER Fragmentation In Alpha-1-Antitrypsin Deficiency**

Dickens, J; Ordonez, A; Chambers, J; Lomas, D; Marciniak, S

Pathogenic Z-alpha-1-antitrypsin is prone to form polymers, which become trapped within hepatocytes. This results in ER fragmentation into physically separated inclusions containing a lattice of immobile polymers. Despite this, small ER resident proteins including chaperones are able to diffuse freely within, and be transported between, inclusions.
11:30 a.m.

18) Atrial-Specific Upregulation Of MicroRNA-31 Depletes Dystrophin And Neuronal Nitric Oxide Synthase (nNOS), And Leads To Electrical Remodelling In Human Atrial Fibrillation

Reilly, S; Liu, X; Carnicer, R; Recalde, A; Jayaram, R; Wijesurenda, R; Surdo, N; Lomas, O; Sayeed, R; Rajakumar, T; Verheule, S; Fulga, T; Schotten, U; Casadei, B

Pharmacological treatment of atrial fibrillation [AF] is hampered by a high risk of life-threatening ventricular arrhythmias; thus, there is an urgent quest for atrial-specific targets. We identified atrial-specific upregulation of microRNA-31 and a subsequent reduction in dystrophin and nNOS as a key mechanism contributing to atrial electrical remodelling in human AF.

11:45 a.m.

19) Glucocorticoids Increase Brown Adipose Tissue Activity In Humans, Revealing Species-Specific Differences In UCP-1 Regulation

Stimson, R; Ramage, L; Akyol, M; Fletcher, A; Forsythe, J; Nixon, M; Carter, R; van Beek, E; Morton, N; Walker, B

The regulation of brown adipose tissue (BAT) in humans is not well understood. We have found that glucocorticoids increase BAT activity both in vivo and in vitro in humans by increasing UCP-1. However, glucocorticoids decrease UCP-1 and BAT activation in rodents identifying species-specific differences in the regulation of BAT function.

12:00 p.m. – 1:30 p.m. LUNCH and POSTER VIEWING SESSION
FRIDAY 8 APRIL 2016
1:30 p.m. to 3:30 p.m.

SHERWELL LOWER LECTURE THEATRE
SHERWELL BUILDING, PLYMOUTH UNIVERSITY

THE OSLER LECTURE
Sir Walter Bodmer
Title: Antibody treatment responses, and differentiation, in colorectal cancer cell lines

THE IMPACT OF GENETICS ON MEDICINE IN THE 21st CENTURY
Chaired by: Professor Colin Dayan
Speakers:
Professor Nicholas Wood
Title: Genes and Neurodegeneration

Dr Miles Parkes
Title: The Genetics of Inflammatory Bowel Disease

Professor Andrew Hattersley
Title: Genes and Diabetes
LIST OF POSTER DEMONSTRATIONS FOR THE ASSOCIATION OF PHYSICIANS ANNUAL MEETING
FRIDAY, 8 APRIL 2016

1. Development And Validation Of A Novel Bioassay To Measure Glucocorticoid Resistance
Williams, EL; Stimpson, M; Cramp, ME; Enki, DG; Lee, RWJ; Collins, PL; Dhanda, AD

2. Podoconiosis Research: Multi-Disciplinary, Multi-Country And Transformational
Davey, G

3. The Pedagogic Value Of Patient And Public Involvement To Healthcare Students Within Community-Engaged Health Professions Education
Stevenson, K

4. International Multicentre Prospective Study Comparing Risk Scoring Systems For Patients Presenting With Upper Gastrointestinal Bleeding
Stanley, AJ; Laine, L; Dalton, HR; Ngu, JH; Schultz, M; Laursen, SB

5. Low Dose Iron Treatments Induce A DNA Damage Response In Human Endothelial Cells Within Minutes
Shovlin, C; Govani, F; Patel, D; Giess, A; Paschalaki, K; Periyasamy, M; Mason, J; Jones, M; Game, L; Ali, S; Mollet, I

6. Clinical Utility Of Optical Coherence Tomography (OCT) In Patients With Chronic Kidney Disease (CKD)
Balmforth, C; Ruijs, T; Hu, M; Cameron, J; Webb, D; Dhaun, N

7. An Ordinal Logistic Regression Model To Reliably Map The Dermatology Life Quality Index (DLQI) To EQ-5D Domain Scores
Ali, F; Kay, R; Finlay, A; Piguet, V; Kupfer, J; Dalgard, F; Salek, S
8. The Pancreatic Beta Cell, Adiposity And Insulin Sensitivity In Polycystic Ovary Syndrome: Insights Into The Mechanism Of Type 2 Diabetes
Pinkney, J; Mari, A; Tura, A; Bond, K; Stenhouse, E; Vincent, R; Tomlinson, J

9. Reactive Gamma-Ketoaldehydes Induce A Proinflammatory Phenotype, Oxidative Stress, And Activation Of Autophagy In Primary Human Hepatic Stellate Cells
Longato, L; Andreola, F; Davies, S; Roberts, J; Fusai, G; Pinzani, M; Rombouts, K; Moore, K

10. Outpatient Discharge Appropriateness: What Can Be Learnt From Patients’ Perspectives Of Clinicians’ Decision?
Harun, N; Piguet, V; Salek, M; Finlay, A

11. SOS1 Frameshift Mutations Cause Pure Mucosal Neuroma Syndrome, A Clinical Phenotype Distinct From Multiple Endocrine Neoplasia Type 2B
Vaidya, B; Owens, M; Kivuva, E; Quinn, A; Brennan, P; Caswell, R; Lango Allen, H; Ellard, S

12. How Can Hospitals Safely Reduce Avoidable Acute Admissions Of Complex Elderly Patients? The 3A Study
Pinkney, J; Rance, S; Benger, J; Joel-Edgar, S; Swancutt, D; Westlake, D; Pearson, R; Thomas, D; Holme, I

13. Secretory Leukocyte Protease Inhibitor Drives Hepatic Resolution Responses In Acute Liver Failure Through Modulation Of MER Tyrosine Kinase Cells
Triantafyllou, E; Wilhelm, A; Pop, OT; Liaskou, E; Petts, G; Khamri, W; Bernsmeier, C; P. Davies, S; Stamataki, Z; Ma, Y; Quaglia, A; Wendon, J; Thursz, MR; Curbishley, SM; Adams, D; Weston, C; Antoniades, CG

14. Trefoil Factor Family (TFF) Peptides And Aquaporins (AQPs) Are Intimately Interrelated In Maintaining Gut Integrity And Stimulating The Early Repair Process Of Cell Migration (Restitution)
Playford, R; Podolsky, D; Marchbank, T
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