

Board of Directors (Public)

Item 6.3.1

board report

Subject: ICMS Annual Report 2014/15
Date of meeting: 28th April 2015
Prepared by: Dr Marga Perez-Casal, Head of Research & Innovation
Presented by: Dr Mark Jackson, Director of Research & Informatics

Data Quality Rating	BAF Ref	Impact on BAF Risk Rating?
Bronze	3	None

1. Introduction

This paper summarises the activity of the Institute of Cardiovascular Medicine and Science (ICMS) in 2014/15.

2. Background

ICMS was formed in 2011 as a collaborative between Liverpool Heart and Chest Hospital and the Royal Brompton and Harefield Hospital, with Imperial College London as the academic partner. It was registered as a company limited by guarantee in September 2011. An annual symposium takes place in London in the Autumn every year since its creation.

3. Issues

ICMS has four distinct work-streams: interventional cardiology, heart failure, arrhythmias, and aorta and valves. Each group presents regular progress reports to the ICMS Executive Committee in accordance to the strategy approved by the ICMS Board in March 2012. Activity is classified as research, education and service delivery.

Activity at ICMS has continued to grow over the last year, with significant activity linked to service delivery and research of high quality impacting national and international guidelines:

- Each work stream has developed new research projects as a collaborative effort, or included the other partner as an additional research site. The CASA-AF trial is a good example.
- A number of PhDs have been registered and/or completed with Imperial College under the auspices of ICMS, 5 from LHCH and 7 from RBH.
- The University of Liverpool has joined ICMS as our new academic partner. We already have registered one PhD from the Aorta work-stream.

- Education continues to be one of ICMS priorities with regular specialist courses run for cath lab staff, HF staff, and the creation of a fellowship in aortic surgery.
- The Post-CCT triangular rotation fellow has successfully completed his placement at RBH and at LHCH, and it is a great example of the joined approach to training.
- Regular work stream meetings are held quarterly to maintain the progress and to develop new ideas
- The genetic cardiomyopathy service started at RBH under ICMS is now also happening at LHCH.
- The annual Symposium was held at the Royal College of Physicians on again in the Autumn and it was very well attended. It was an excellent opportunity for networking and for the research fellows to present their work.

The table in the appendix provides detail of all progress made last year within each area of work.

4. Summary

ICMS has had a productive year and an expanding portfolio of activity for the future.

5 Recommendations

We ask the Board of Directors to note the content of this annual report.

Appendix

Work stream	Research	Education	Service Delivery
Interventional Cardiology	<ul style="list-style-type: none"> Results of HEAT-PPCI trial published in The Lancet. The impact from the results of the trial has impacted upon the European Society of cardiology who have reviewed their guideline this year on the use of Bivalirudin and downgraded its use in favour of heparin. As a consequence in the UK and internationally, HEAT-PPCI has resulted in a change in clinical practice to use heparin instead of the much more expensive Bivalirudin, a very welcome outcome and change in the current financial position of the overall NHS BCIS young investigator award for Dr Adeel Shahzad LHCH to be coordinating site for the RIPCORDER trial led by Prof N Curzen from Southampton and Dr Stables. Grant awarded for £1.6M 	<ul style="list-style-type: none"> Work for 3 PhDs from LHCH under Imperial College (Adeel Shahzad, Rob Cooper, and Pradeep Magapu) completed and thesis in the process of submission 10th Annual U.K. Course for Catheter Lab Professionals held in the summer 2014 in Liverpool 	<ul style="list-style-type: none"> Collaborative for 3D reconstruction using IVUS and angiography led by Dr Da Silva (RBH) WHO check list for Cath Lab developed by teams from RBHH and LHCH, and now implemented at LHCH
Work stream	Research	Education	Service Delivery

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Heart Failure	<ul style="list-style-type: none"> • 3rd year of BHF grant for REM-HF trial. Led at RBH by Prof M Cowie and by Dr J Wright at LHCH. This trial has exceeded the target set up for recruitment and continues with the busy follow up schedule. • LHCH invited to be a site for CUPID3, gene therapy trial led by Dr Lyon (RBH). Only three sites in the country are currently delivering gene therapy for HF: RBH, Papworth and Glasgow. LHCH undergoing preparative work. This will complement our contribution to genomics – apriority in the new research & innovation strategy. 	<ul style="list-style-type: none"> • 1MD completed from LHCH at Imperial College, Claire Brough • 1 PhD student working in CUPID2 under Alex Lyon supervision , Dr Carl Hayward from RBH. • Heart Failure education event on new NICE guidelines held in Liverpool in 2014. This was attended by GPs and other cardiologists from the region. The impact of this has been felt in a higher number of referrals to LHCH. 	<ul style="list-style-type: none"> • Establishment of genetics cardiomyopathy clinic at LHCH under ICMS • Establishment of cardio-oncology clinic at RBH and at LHCH under ICMS • Development of Channelopathies clinic at LHCH under ICMS • Cardio-oncology affiliated group to the British Cardiology Society set up by Dr Jay Wright and Dr Alex Lyon
Work stream	Research	Education	Service Delivery
Arrhythmias	<ul style="list-style-type: none"> • Pulmonary Vein re-isolation as a routine strategy: PRESSURE, NIHR portfolio 	<ul style="list-style-type: none"> • 2 MD registered under ICMS with Imperial 	<ul style="list-style-type: none"> • Retrospective review of AF using Dr Foster • CCAD-

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	<p>trial funded by Biosense Webster and led by Dr Gupta at LHCH under ICMS has concluded recruitment and met the proposed target of 80 patients.</p> <ul style="list-style-type: none"> HTA grant awarded to Dr Wong (RBH) with LHCH as a principal partner, value £1,208,709 for the CASA-AF trial comparing ablation with surgical procedure. Mr Mediratta is the surgeon for the trial at LHCH undergoing his proctorship 	<p>College; Gareth Wynn has now completed his work and is in the process of submitting his thesis. Moly Das is concluding his research work and will be submitting next year.</p>	<p>EP/Pacing database redesign as an ICMS initiative. This was a national requirement implemented on 1st April 2014.</p> <ul style="list-style-type: none"> A new and improved Inherited Cardiac Conditions service has started at LHCH to facilitate access for our patients to the genetic screening facilities available at the Royal Brompton under Prof Dudley Pennell's Biomedical Research Unit. As part of this, all patients diagnosed with dilated cardiomyopathy will have access to this new service. In October 2014, the Arrhythmia Alliances' Excellence in Practice Awards, have recognised Dr Dhiraj Gupta with the award for 'Outstanding Individual who has contributed to Arrhythmia Services'

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Aorta and Valves	<ul style="list-style-type: none"> Acetazolamide and paraplegia study taking place at LHCH under the supervision of Mr Field Development of PROMS in aortic surgery as part of the PhD work by Mathew Shaw. We have joined the Aortic work stream of the Cardiovascular GeCIP as part of the 100k genome project. We have a plan with Prof Aitman (Edinburgh) to contribute the results of the Mendelian Study. The Mendelian Study continues to recruit and a student has visited Liverpool to collect more clinical data Submitted BHF proposal on a human study looking at nanomechanics of dissected tissue as part of ICMS with Brompton and UoL with Riaz Aktar. This phenotyping data will also be contributed to the Aortic GeCIP. We are having further 	<ul style="list-style-type: none"> 2 PhDs registered with University of Liverpool; Mohamed Bashir has now submitted, and Matthew Shaw has started his 1st year Thomas Theologou has now submitted his MPhil thesis Post-CCT triangular rotation fellow under ICMS, Mr C Quarto, completed his training periods at RBH, LHCH and Texas A 4th Fellow funded by Ethicon has just been approved and will start shortly 	<ul style="list-style-type: none"> Work to address the aortic tariff with DH; teams from both hospitals have been working together to produce evidence to support the need for a change in the aortic tariff model. Up to now, all aortic surgery is costing LHCH an additional £2M every year. A joint report was submitted to DH in 2014. The changes in tariff will likely impact in the year 2016/17. Sub-specialisation of acute aortic service now running at both RBH and LHCH We have led in establishing the National group-UK thoracic Aortic Forum- which has had 3 meetings so far. This is for consultants interested in aortic surgery and allows us to influence national organisation of services and set guidelines

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	discussions with Riaz to set up a virtual aorta as part of the international "Physiome Projects" We have registered an Aortic Physiome to lead in a project to produce a clinically useful model.		
All groups	<p>Total of 23 publications authored under ICMS in 2014/15, a significant improvement from last year (13).</p> <p>The Big Data project has successfully moved into the proof of concept stage with the objective of pooling datasets from the RBHH and LHCH for the purposes of joint audit, research and possible commercial exploitation</p>	University of Liverpool new academic partner of the Institute	