

National Cancer Research Institute

# NCRI Bladder & Renal Cancer Clinical Studies Group

Annual Report 2015-16





## NCRI Bladder & Renal Cancer CSG Annual Report 2015-16

## **1.** Executive Summary (including top 3 achievements in the year)

The union of the Bladder and Renal Cancer CSGs into a single group represents an opportunity to share expertise, and the challenge of integration.

The management of advanced bladder and renal cancer is rapidly developing. The impact of immunotherapy for both diseases heralds a period of intense activity investigating the optimal use of immunotherapy and how to best combine treatment with conventional therapies for maximum patient benefit. Management of organ restricted disease requires continued refinement. The challenges for the Group in 2015-16 have been to develop internationally competitive systemic treatment studies at a time when many studies are commercially sponsored, and to develop an infrastructure that enables development of successful surgical studies in renal cancer, learning from the successes of the bladder surgeons.

The top three achievements for the CSG in the year have been:

- Integration of the Bladder and Renal Cancer CSGs into a single group. We have had our first successful joint CSG meeting and a number of items of common interest (systemic treatment, combination studies with radiotherapy, surgical studies) were identified for future development. The CSG had a highly successful national Urological Annual Trials meeting in collaboration with the other urological groups.
- 2. Continued development and delivery of a strong trial portfolio in bladder cancer.
- 3. Establishment of the patient champion project by Rose Woodward & Christy Watson.

## 2. Structure of the Group

The union of the two CSGs into a single Group has coincided with a review of membership with the aim of: 1) ensuring a membership that has the necessary skill set for trial development and delivery; 2) a manageable sized group for full CSG meetings; 3) recognition that we need to increase involvement from surgeons with a major interest in renal cancer (currently advertising); 4) encouragement of younger talented investigators; 5) use of subgroups and working parties to widen involvement of the bladder and renal research community and to provide an environment where younger researchers with high quality ideas can benefit from mentoring. The Renal Systemic Treatment Working Party has explicitly stated that members are expected to develop a study within a year of joining the group.

## 3. CSG & Subgroup strategies

## Main CSG

## Bladder

- A translational working party has been set up to exploit the valuable tissue resources that have built up within recent trials in advanced and muscle invasive bladder cancer. Grant applications are planned for 2016/17.
- Continued focus on delivery of novel signals with new drugs which will ultimately deliver maximal impact on overall survival. In particular the ATLANTIS trial (precision medicine umbrella phase II trial in advanced disease) will deliver precision medicine signals for rapid delivery into future neoadjuvant trials. The planned ETNA trial will explore novel interventions (including systemic therapies) in high risk non-muscle invasive disease with an efficient pathway (MAMS trial design) to explore multiple therapies through proof of concept to practice-changing outcomes.
- Efforts continue to answer simple questions in areas of high unmet need in rare diseases. The POUT trial remains the only potentially-practice changing adjuvant trial in upper tract urothelial cancer. We continue to search for activity signals in advanced penile cancer which remains an evidence-free area.
- Key results from key randomised trials in advanced disease and non-muscle invasive disease.
- Bladder cancer recruitment patterns remains centered on a small proportion of the population. Network urology subspecialty leads have been engaged to try and stimulate interest in bladder cancer trials in the low-recruiting networks. Indeed several of them attended the CSG strategy meeting.
- Looking forwards to practice-changing results from commercial portfolio immunotherapy trials in 2017.

## Renal

The Renal CSG is addressing the concerns of last year's report regarding poor clinical trial activity by recognising that the output of the CSG can only be defined by the energy and activity of its constituent members. We have established a systemic treatment task group under the leadership of Tom Powles alongside the established Surgical Subgroup led by Grant Stewart. The CSG Chair and two Subgroup Chairs aim to create a supportive environment that facilitates trial development providing opportunity for investigators whilst, at the same time, establishing the explicit expectation that members develop studies during their period on the CSG. The two Subgroups have active programs addressing the following strategic questions:

- What is the optimal management of small renal cancers?
- Is a screening program to detect early kidney cancers practical?
- Does novel adjuvant treatment following nephrectomy confer protection against future relapse?
- Can conventional treatment with targeted therapies be improved by novel schedules or combinations?
- How can the therapeutic index of immunotherapy be optimised?
- Identification of novel prognostic and predictive biomarkers.

## Penile Subgroup (Bladder) (Chair, Dr Amit Bahl)

The Penile Subgroup continues to focus on signal-searching trials in advanced disease. The results of the group's first trial (TPF) were presented during the year. Two single arm phase II

trials exploring cytotoxic chemotherapy (JAVA-P and VinCAP) are ongoing. Although a small trial demonstrating only modest activity, TPF was one of the largest prospective trials ever conducted in advanced penile cancer.

Recognising the extreme rareness of this disease, an important part of the Subgroup's strategy focusses on international collaboration through the IRCI collaboration. The InPACT trial, currently in development, will help define the optimal multimodality treatment pathway for people with radically treatable disease.

The Subgroup continues to work with the British Association of Urological Surgeons to build a database to better understand penile cancer in the UK.

The membership of the Subgroup has been reduced and now includes consumer and imaging representation.

#### T2 & Below Subgroup (Bladder) (Chair, Miss Jo Cresswell)

The Subgroup has worked hard to redefine a strategic vision for the future whilst focusing on recruitment to its current portfolio.

Engagement with the urological community in NMIBC remains strong with a desire to maintain a portfolio of pragmatic trials which can be delivered across multiple sites. The portfolio currently has trials open for all risk groups of NMIBC. The HIVEC II trial for intermediate risk disease continues to recruit very well and new centres are due to be opened. A successor trial in high risk disease, with maintenance BCG as the control arm is being developed. The first results of the BOXIT trial were presented during the year: although not practice changing, this trial demonstrated the UK's ability to recruit significant numbers of patients into a pragmatic trial in intermediate and high risk disease. The PHOTO trial is recruiting to target and remains open to new centres, and the CALIBER trial completes the NMIBC portfolio in low risk disease.

The ambition to deliver novel research in high risk NMIBC has moved forwards significantly with the initiation of the BRAVO trial to explore the feasibility of randomising patients between intravesical therapy and cystectomy and the award of a grant to conduct the UK's first ever formal phase I trial of a novel intravesical drug. A Phase II / III MAMS trial is in advanced development in this arena.

In MIBC, the RAIDER trial has begun opening in multiple sites around the country. We continue to capitalise on the rich data provided by the practice-changing BC2001 to better understand this form of the disease.

#### Advanced Bladder Cancer Subgroup (Chair, Dr Simon Crabb)

Our key objective is to increase cure rates by improving systemic therapy as a component of multimodality therapy. The strategy is to develop a pipeline of new drug hypotheses in a precision medicine environment for evaluation in the neo-adjuvant setting. Central to this, ATLANTIS, an umbrella, precision medicine trial of advanced disease maintenance therapy builds on successful delivery of the LaMB trial to commence recruitment in late 2016. The comprehensive LaMB tissue set enables rapid exploration of putative predictive biomarkers which can be rapidly assimilated into new ATLANTIS arms.

In the neoadjuvant setting, NeoBLADE explores addition of nintedanib to standard chemotherapy, whist ABACUS is an early mechanistic immunotherapy trial. POUT is the first randomised phase III

trial in upper tract TCC. Finally the phase Ib/IIa Combinations Alliance SPIRE study combining SGI-110 with cisplatin/gemcitabine opened in 2016.

The Subgroup published its first phase II trial (SUCCINCT) and presented final results from its first three randomized trials in advanced disease (PLUTO second line, TOUCAN first line, LAMB maintenance). Of note, LAMB was a world first randomized phase III precision medicine trial in urothelial cancer and PLUTO the only randomized second line trial of paclitaxel, strongly suggesting greater activity than was previously thought.

## Surgical Renal Cancer Subgroup (Chair, Mr Grant Stewart)

We have established, via a surgeon questionnaire, the reasons for failure of key surgery related renal cancer trials. For CARMENA these are mainly lack of equipoise on the part of the surgeon, oncologist and patient.

Using a questionnaire, we now better understand attitudes of British renal cancer surgeons towards involvement in clinical research and any barriers that exist. Barriers are largely lack of time, understanding of infrastructure, lack of engagement, lack of information. We are seeking to resolve these matters by a series of cross cutting surgical workshops. Following discussion with The President of BAUS we have a commitment to support for advertising and encouragement of renal surgeons to recruit to upcoming renal cancer trials.

Via the Surgical Subgroup and urologist questionnaire, we have established the clinical questions that British urologists believe are important in renal cancer. There questions are: window-of-opportunity drug studies, best management of small renal masses, screening, lymph node dissection and role of cytoreductive surgery.

We have determined the trials that British renal cancer surgeons believe can be realistically delivered in the UK. These are smaller feasibility or pilot studies, leading onto larger studies if they are successful. Of note, this is the approach being taken across surgery, not only in renal cancer surgery.

We are advanced in developing a cadre of energetic renal cancer surgeons to help deliver trials, this is via the subgroup membership and also other interested colleagues and trainees who declare an interest when information on our mission is explained to them at public events (i.e. NCRI Urology Trials Day).

We are in the process of filling the surgical gaps in the portfolio. All supported by the Subgroup:

- Observational: Follow-up of small renal cancer study (EASE). In the process of NCRI based review for subsequent portfolio adoption.
- Diagnostic: Support from SPED for RaSP Renal Cancer Screening Pilot. A health economic evaluation is ongoing (University of Cambridge) prior to final development of the pilot study.
- Neoadjuvant trials: NAXIVA trial is funded by Pfizer, submitted for CRUK badging (November meeting). Aim to commence trial November 2017, following on from A-PREDICT.
- Adjuvant studies: RAMPART important to the surgical portfolio.

## 4. Task groups/Working parties

## Systemic Treatments Renal Cancer Working Party (Chair, Professor Thomas Powles)

The Systemic Treatments Working Party meets by monthly teleconference and was established in 2016. Under the guidance of Tom Powles it has recently had positive engagement from industry partners on a number of studies. Professor Powles is leading CALYPSO, a randomised phase II study establishing the activity of immunotherapy in combination with a MET inhibitor. Dr Naveen Vasudev is developing an interventional phase II study using an alternative regime of combination immunotherapy. Dr Fiona Thistlethwaite is developing a biomarker study that has attracted interest and the promise of funding from an industry partner. Dr Lisa Pickering is the UK lead investigator for a study in development establishing the activity of combination immunotherapy in non-clear cell carcinoma.

## 5. Patient recruitment summary for last 5 years

In the Bladder & Renal Cancer CSG portfolio, 9 no. of trials closed to recruitment (6 Bladder and 3 Renal) and 15 opened (12 Bladder and 3 Renal). The increased number of bladder trials undoubtedly contributes to the increased number of recruits to interventional studies.

Year	All subjects		Cancer patients only		% of cancer patients relative to incidence	
	Non-RCT	RCT	Non-RCT	RCT	Non-RCT	RCT
2011/2012						
Bladder	63	340	63	340	0.6	3.4
Renal	143	752	122	608	2.1	10.4

#### Table 1 Summary of patient recruitment by RCT/Non-RCT

#### Table 2 Summary of patient recruitment by Interventional/Non-interventional

#### Bladder

Year	All participants		Cancer patients only		% of cancer patients relative to incidence	
	Non-	Interventional	Non-	Interventional	Non-	Interventional
	Interventional		Interventional		Interventional	
2012/2013	0	324	0	324	0.0	3.1
2013/2014	648	287	648	287	6.2	2.7
2014/2015	69	262	69	262	0.7	2.5
2015/2016	763	604	649	604	6.20	5.77

## Renal

Year	All participants		Cancer patients only		% of cancer patients relative	
					to incidence	
	Non-	Interventional	Non-	Interventional	Non-	Interventional
	interventional		interventional		interventional	
2012/2013	434	833	329	696	4.0	8.6
2013/2014	596	345	497	322	6.1	4.0
2014/2015	154	255	130	255	1.6	3.1
2015/2016	61	399	61	378	0.75	4.64

Bladder trial recruitment has been healthy this year and addressed the review party's previous concerns about the numbers of patients entering interventional trials. Clearly, it is too early to describe an upward trend, but the recently increased commercial portfolio activity in advanced disease may support ongoing recruitment to interventional studies into the mid future.

Recruitment into renal studies has been low primarily because of the limited number of trials available during this time period as documented in last year's report. Whilst STAR continues to recruit well, we have not had active adjuvant or 2<sup>nd</sup> line interventional studies. The studies that are currently in development are expected to address this over the next one-two years.

## 6. Links to other CSGs, international groups and network subspecialty leads

The formal link with the French renal cancer group (RCCG – co-chaired by Grant Stewart) continues to flourish and has now expanded to include Italian investigators. This has led to ongoing development of two collaborative studies – a surgical study on management of small renal cancers led by Alessandro Volpe and an interventional immunotherapy study in non-clear cell carcinoma.

The Bladder CSG has had discussions with the EAU Research Foundation on collaborative work; one protocol on BCG scheduling is currently in development. Dr Birtle and Dr Nathan have been invited to join the EORTC GU Group.

The Network leads receive regular email updates and recent newsletter to encourage early input into trials in development as well as assessing delivery on portfolio trials and potential barriers to recruitment. There was strong attendance at the Urological Annual Trials meeting in February 2016 from the Network leads.

The Penile Cancer Subgroup continues to work closely with the International Rare Cancer Initiative in the development of the InPACT trial. The prior Bladder CSG was tasked to engage with the subspecialty leads (SSLs) to stimulate recruitment in current non-recruiting networks. Several leads attended the Bladder CSG Strategy Day meeting in 2015.

## 7. Funding applications in last year

RAMPART, the three arm randomised phase III adjuvant trial and successor to SORCE was invited back for full application by CTAAC. This is an internationally highly competitive study developed by past and present CSG members and run by the MRC and will include sites in Australia, USA and other territories. If approved, RAMPART will have an immediate effect upon recruitment to portfolio studies in 2016-2017.

The Bladder Pathway redesign study was successfully funded by HTA which will potentially restructure bladder diagnostic pathways.

Table 3 Funding submissions in the reporting year

Bladder						
Cancer Research UK Clinical Research Committee (CRUK CRC)						
Study	Application type	CI	Outcome			
July 2015 (CTAAC)						
Prospective sample collection for translational	Sample	Professor	Funded			
research within the CALIBER trial	collection	Margaret Knowles				
	application					

December 2015			
VOID Bladder Cancer: Volatile Organic compounDs	Full application	Professor Chris	Funded
in Bladder Cancer		Probert & Dr	
		Richard Bryan	
BC2001- Trans: Use of samples from the BC2001	Sample	Dr Syed A Hussain	Not funded
Randomised Phase III Clinical Trial to identify	collection	& Dr Eithne	
predictive biomarkers of treatment specific		Costello	
prognosis in bladder cancer			
CRUKD/18/004 INSTIL: INvestigation of STK-01 as	Phase I trial	Professor Jim	Funded
intra-vesical treatment forbladder cancer.		Catto	
Preclinical development & a first in human Phase I			
trial.			
SGI-110 to potentiate platinum response: A phase	Phase I trial	Dr Simon Crabb	Funded
lb/randomized lla open label clinical trial			
combining SGI -110 with cisplatin and gemcitabine			
chemotherapy for solid malignancies including			
bladder cancer			
May 2016			
None			
Other committees			
Study	Committee & application type	CI	Outcome
Redesign of diagnostic pathway in bladder cancer	HTA	Professor Nick James	Funded

#### Renal

Cancer Research UK Clinical Research Committee (CRUK CRC)					
Study	Application type	CI	Outcome		
July 2015 (CTAAC)					
None					
December 2015					
RAMPART: Renal Adjuvant MultiPle Arm	Outline	Professor Mahesh	Invited to		
Randomised Trial: A phase II/III multi-arm, multi-	application	Parmar	submit a		
stage trial of adjuvant therapy in patients with			full		
resected primary renal cell carcinoma (RCC) at			application		
high or intermediate risk of relapse					
May 2016					
RAMPART: Renal Adjuvant MultiPle Arm	Full application	Professor Max	Not funded		
Randomised Trial: A multi-arm, multi-stage trial of		Parmar & Dr			
adjuvant therapy in patients with resected primary		Angela Meade			
renal cell carcinoma (RCC) at high or intermediate					
risk of relapse					

## 8. Collaborative partnership studies with industry

The Renal CSG has healthy and growing collaborations with industry. The ongoing partnerships with Pfizer and Novartis continue with the A-Predict and Pazo2 studies. RAMPART is a major collaborative effort with AZ. CALYPSO is also the result of an AZ partnership and other studies are in development with BMS and Novartis. NAXIVA is the result of a collaboration with Pfizer. Group members are influential and respected by industry partners.

The Bladder CSG has robust relationships with Industry developed from the first alliance study in bladder cancer four years ago.

- All systemic therapy studies in advanced /metastatic disease are Alliance or Industry studies.
- Further work is in development with device manufacturers to succession plan in hyperthermia in NMIBC.
- Sitka Biotech (British Columbia)/ Professor Jim Catto/ Professor Rob Jones/ Centre for Drug Development/ CRUK Formulation Unit. Successful grant application for phase I trial.
- ATLANTIS trial, committed collaboration with Astellas, Exilixis. Ongoing advanced discussion with two other partners.
- ECMC combinations alliance: SPIRE.
- Boehringer Ingelheim (NeoBLADE).
- ETNA advanced negotiation with multiple pharma partners.
- ABACUS Roche/ Genentech.
- SPIRE Astex, ECMC combinations alliance study funded.

## 9. Impact of CSG activities

BC2001 and BCON have resulted in one or other approach to radiosensitisation being adopted as standard of care in most radiotherapy centres in the UK and beyond. We have developed a network of engaged urologists particularly in NMIBC. Bladder members have early input into STA appraisals.

The Renal CSG is awaiting results from two potentially practice changing clinical trials. The adjuvant SORCE trial is expected to report in 2017. STAR is mid-recruitment and has the potential to have a major impact upon clinical practice. CSG members are involved in the ongoing NICE technology appraisal of nivolumab.

NICE bladder cancer guidelines recommend simultaneous use of radiosensitiser in MIBC [BC2001] and NICE bladder cancer guidelines recommend neoadjuvant chemotherapy as standard treatment in MIBC [BA06].

Horizon Scanning: Immunotherapy in both renal & bladder cancer with PD1/PDL-1 antagonists either alone or in combination is likely to become standard of care. The CSG aims to develop interventional studies that contribute to defining this change in practice.

Most members of the CSG regularly commit to reviewing grant applications for CTAAC (and its successors) as well as other grant awarding authorities in UK and abroad.

## **10. Consumer involvement**

Consumer representatives are now present on the main CSG and all Subgroups.

## **Christy Watson**

This year I have been actively involved in the Rampart Trial Development Group which has involved monthly teleconference calls and correspondence via email. I have been able to use my own experience as a patient on a clinical trial to help provide feedback on the protocol and patient information sheets.

I have also participated in a teleconference call regarding the plans for SPED and will continue to be involved in the progress of that. More recently I have agreed to be the patient representative on the Trial Management Group for the NAXIVA clinical trial.

In my capacity as Vice-Chairperson of Scottish regulated charity the Renal Cancer Research Fund (RCRF), I am out in the community raising awareness about kidney cancer and organising events to raise money for kidney cancer research. One of the research projects we are currently supporting is the SCOTRRCC clinical trial which is included in the Renal CSG Portfolio Map.

#### **Rose Woodward**

In January 2016, I gave a presentation at the Joint Urological Annual Trials meeting in London about patient involvement in the clinical trials process and how to reach out to the patient community using social networking to raise awareness of and participation in clinical trials. I have also contributed a patient perspective into the CSG renal gap analysis and I am a member of the Surgical Subgroup.

I have focussed this year on organising the various elements of the Patient Champion Project. The project, which is hosted by the Kidney Cancer Support Network Charity, is designed to improve patient knowledge about clinical trials and build better relationships between patients and CRN Urology/Specialist leads. With support from the entire CSG, we have provided a "one stop" patient friendly interactive clinical trials database on the KCSN new website and organised a series of CT Training Days to be held in London, Manchester and Glasgow. The aim of our Patient Champion Project is to ultimately provide a more equitable spread of renal cancer trials across the Country and to disseminate information throughout the patient community to increase recruitment and retention into renal trials.

#### Andrew Winterbottom - Patient and Director of Fight Bladder Cancer Charity

As well as being able take part in the discussions about bladder cancer trials, this year I have had the opportunity to become increasingly directly involved in a number of trials from the scoping stage through to advising on patient information sheets and joining trial management boards.

It has also been good to be able to voice options from a patient perspective at the main CSG meeting and at the two sub groups and know that my opinions will be listened too and taken seriously.

In January, I was able to support and speak at the London event to promote bladder cancer clinical trials.

## 11. Open meetings/annual trials days/strategy days

Together with the Testis and Prostate CSGs, the CSG organised a highly successful education day in January 2016 which was attended by delegates from across the networks. Feedback was extensive, but 83% rated the quality of the event overall as excellent, the remainder as good (with none rating it 'satisfactory' or 'poor').

The prior Bladder CSG held a strategy day during 2015 which enabled a clearer focus of the Group's strategy. Clearly this strategy now needs to be reconsidered in the context of the amalgamated CSG.

## **12.** Priorities and challenges for the forthcoming year

1. Consolidating a Unified CSG: Our first joint CSG meeting was the first step on integration between the Bladder and Renal CSGs. It is high priority for the Group that we harness the

strengths of constituent members in both therapeutic areas and establish projects that involve investigators from both groups.

- 2. Renal Cancer Trial Development and Increased Trial Recruitment: The renal cancer portfolio needs to be significantly enhanced from a low base our priority is to ensure both the Surgical and Systemic Treatments Subgroups deliver new studies that enter the portfolio. Key studies are in development as described.
- 3. Delivering ATLANTIS and Taking Advantage of the LAMB tissue bank: The bladder members are leading initiatives in this area and delivering these studies is a priority for the Group. There are a number of Industry commercial studies in maintenance therapy that will potentially be competitor studies in this arena and the importance of publicising portfolio studies to our SSLs and networks cannot be underestimated.

Challenge: Realising the benefits of union between the Bladder and Renal CSGs

We believe that the union between Bladder & Renal Cancer CSGs provides an opportunity to enhance trial development by sharing experience and expertise. There are inevitable challenges in ensuring that the two groups unite optimally. Success will ultimately be defined by the generation of trials that occur as a result of interaction between members from the two groups.

## **13.** Appendices

Appendix 1 - Membership of main CSG and subgroups

- Appendix 2 CSG and Subgroup strategies
  - A Main CSG Strategy
  - B Penile Subgroup Strategy
  - C T2 & Below Subgroup Strategy
  - D Advanced Bladder Cancer Subgroup Strategy
  - E Surgical Renal Cancer Subgroup Strategy
  - F Systemic Treatments Renal Cancer Working Party Strategy
- Appendix 3 Portfolio Maps
- Appendix 4 Publications in previous year
- Appendix 5 Major international presentations in previous year

## Dr Alison Birtle and Dr Paul Nathan (Bladder & Renal Cancer CSG Co Chairs)

## Appendix 1

## Membership of the Bladder & Renal CSG

Name	Specialism	Location
Dr Amit Bahl	Clinical Oncologist	Bristol
Dr Alison Birtle (Co Chair)	Clinical Oncologist	Preston
Dr Ananya Choudhury	Clinical Oncologist	Manchester
Professor Robert Huddart	Clinical Oncologist	London
Dr Vincent Khoo	Clinical Oncologist	London
Dr Rachel Pearson*	Clinical Research Associate	Newcastle
Dr Sebastian Trainor*	Clinical Research Fellow	Leeds
Dr Yvonne Rimmer	Clinical Oncologist	West Suffolk
Mrs Christy Watson	Consumer	South Ayrshire
Mr Andrew Winterbottom	Consumer	High Wycombe
Mrs Rose Woodward	Consumer	Truro
Dr Pat Hanlon	Kidney Cancer UK	Birmingham
Professor Janet Brown	Medical Oncologist	Sheffield
Dr Simon Crabb	Medical Oncologist	Southampton
Dr Robert Jones	Medical Oncologist	Glasgow
Dr James Larkin	Medical Oncologist	London
Dr Paul Nathan (Co Chair)	Medical Oncologist	Middlesex
Professor Thomas Powles	Medical Oncologist	London
Dr Fiona Thistlethwaite	Medical Oncologist	Manchester
Dr Naveen Vasudev	Medical Oncologist	Leeds
Professor Stewart Fleming	Pathologist	Dundee
Dr Jane Belfield	Radiologist	Liverpool
Professor Vicky Goh	Radiologist	London
Dr Emma Hall	Statistician	London
Mrs Caroline Kelly	Statistician	Glasgow
Mr Christopher Blick*	Surgeon	Oxford
Miss Jo Cresswell	Surgeon	Middlesbrough
Mr Mark Johnson	Surgeon	Newcastle
Mr Param Mariappan	Surgeon	Edinburgh
Mr Grant Stewart	Surgeon	Cambridge

\*denotes trainee member

## Membership of the Subgroups

Advanced Bladder Cancer Subgroup					
Name	Specialism	Location			
Dr Maria de Santis	Associate Clinical Professor	Warwick			
Dr Tony Elliot	Clinical Oncologist	Manchester			
Professor Robert Huddart	Clinical Oncologist	London			
Dr Maria Vilarino-Varela	Clinical Oncologist	London			
Dr Sebastian Trainor*	Clinical Research Fellow	Leeds			
Mr Andrew Winterbottom	Consumer	High Wycombe			
Professor John Chester	Medical Oncologist	Cardiff			
Dr Simon Crabb (Chair)	Medical Oncologist	Southampton			
Dr Syed Hussain	Medical Oncologist	Liverpool			
Professor Rob Jones	Medical Oncologist	Glasgow			
Professor Tom Powles	Medical Oncologist	London			
Professor Maggie Knowles**	Pathologist	Leeds			
Mr Gareth Griffiths	Statistician	Southampton			

Name	Specialism	Location
Dr Amit Bahl (Chair)	Clinical Oncologist	Bristol
Dr Jim Barber	Clinical Oncologist	Cardiff
Dr Tony Elliot	Clinical Oncologist	Manchester
Dr Vincent Khoo	Clinical Oncologist	London
Mr Neil Walker	Consumer	Bristol
Dr Mark Callaway	Radiologist	Bristol
Dr Emma Hall	Statistician	London
Mr Asif Muneer	Surgeon	London
Mr Vijay Sangar	Surgeon	Manchester
Mr Duncan Summerton	Urological Surgeon	Leicester

T2& Below Subgroup					
Name	Specialism	Location			
Dr Alison Birtle	Clinical Oncologist	Preston			
Professor Rob Huddart	Clinical Oncologist	London			
Dr Ashok Nikapota	Clinical Oncologist	Brighton			
Dr Rachel Pearson*	Clinical Research Associate	Newcastle			
Mr Andrew Winterbottom	Consumer	High Wycombe			
Professor Rob Jones	Medical Oncologist	Glasgow			
Dr Rik Bryan	Senior Research Fellow	Birmingham			
Dr Emma Hall	Statistician	London			
Ms Jo Cresswell (Chair)	Surgeon	Middlesbrough			
Mr Mark Johnson	Surgeon	Newcastle			
Mr Param Mariappan	Surgeon	Edinburgh			

Surgical Renal Cancer Subgroup				
Name	Specialism	Location		
Mrs Rose Woodward	Consumer	Truro		
Mr Christopher Blick*	Surgeon	Oxford		
Mr Steve Bromage	Surgeon	Manchester		
Mr Jon Cartlidge	Surgeon	Leeds		
Mr Anurag Golash	Surgeon	Stafford		
Professor David Nicol	Surgeon	London		
Mr Tony Riddick	Surgeon	Cambridge		
Mr Pieter Le Roux	Surgeon	London		
Mr Grant Stewart (Chair)	Surgeon	Cambridge		
Mr Mark Sullivan	Surgeon	Oxford		
Mr Grenville Oades	Surgeon	Glasgow		

Systemic Treatments Renal Cancer Working Party					
Name	Specialism	Location			
Dr Syed Hussain	Medical Oncologist	Liverpool			
Dr James Larkin	Medical Oncologist	London			
Dr Paul Nathan	Medical Oncologist	Middlesex			
Professor Tom Powles (Chair)	Medical Oncologist	London			
Dr Christy Ralph	Medical Oncologist	Leeds			
Dr Fiona Thistlethwaite	Medical Oncologist	Manchester			
Dr Naveen Vasudev	Medical Oncologist	Leeds			

\*denotes trainee member

\*\*denotes non-core member

## **Appendix 2**

## **CSG & Subgroup Strategies**

## A – Main CSG Strategy

- To ensure a continuous program of internationally competitive trials with the aim of offering a trial to every patient, irrespective of their geographical location and resulting in improvements in standard of care for our patients.
- To better understand the needs of patients in order to design trials which address the unmet needs.
- To focus on development pathways which ultimately deliver improved cure rates.
- To learn as much as we can from the patients in our trials specifically to learn from translational research in order to devise better treatments of the future.

## **B** – Penile Subgroup Strategy

- To foster a research environment where top-class clinical investigation can be delivered
  - Forming a network of investigators across the UK committed to participating in clinical trials in a rare disease.
  - Raising the profile of penile cancer research in the UK.
  - Ensuring pathology reporting as per new guidelines of Royal College of Pathologists.
- To identify active systemic therapies in penile cancer where none currently exist
  - Designing and delivering realistically-sized UK-wide signal searching studies in advanced disease.
  - Engaging with pharma partners to consider supporting investigator led studies as part of lifecycle management.
- To deliver practice informing trials to define standards of care
  - By international engagement through IRCI.

## C – T2 & Below Subgroup Strategy

- To improve outcomes in High Risk Non-Muscle Invasive Bladder Cancer (HRNMIBC)
  - To capitalize on the enthusiasm of the urological community to deliver trials in this area.
  - To build collaborations between oncology and urology to enable the delivery of novel therapies.
  - To identify new therapies to prevent disease progression.
  - $\circ$  To demonstrate more effective, less toxic therapies than current standards of care.
- To improve outcomes in patients undergoing radiotherapy for MIBC
  - $\circ$   $\,$  To develop a successor trial to the practice-changing BC2001 trial.
- To address unmet needs amongst survivors with organ-confined bladder cancer
  - $\circ$   $\,$  To enable decision making by patients facing complex treatment alternatives.
  - $\circ$   $\,$  To better define future research questions to address the needs of patients.
- Optimisation of follow up protocols in low risk NMIBC
  - $\circ$   $\;$  Reducing the burden of cystoscopy on patients and the health services.
  - Rational exploration of non-invasive biomarker technologies.

## **D** – Advanced Bladder Cancer Subgroup Strategy

The Subgroup strategy works towards our central objective to 'increase cure rates by improving systemic therapy as a component of multimodality therapy' in the following ways:

- Optimising systemic therapy by developing new drug hypotheses to test in MIBC
  - Efficient delivery of proof of concept studies in advanced disease exemplified by the development of the ATLANTIS precision medicine platform in the maintenance setting.
  - Working towards options for practice changing trials of neoadjuvant therapy through initiation of studies in this setting (NeoBLADE, ABACUS, SPIRE).
  - Working in collaboration with industry to deliver high quality trials of novel agents in areas of unmet need (e.g. ATLANTIS, SPIRE, ABACUS, NeoBLADE).
- Delivery of potentially practice changing studies
  - Implementing POUT, the first ever randomised phase III trial of adjuvant therapy in upper tract TCC.
- Develop a larger translational research programme
  - Utilisation of the LaMB sample set to allow generation of data on biomarker rates to facilitate hypotheses for testing in ATLANTIS.
  - Entry of bladder cancer into the 100,000 Genomes Project.
  - Coordination of a collaborative approach to utilisation of samples sets from the Subgroup's prior and ongoing studies.

#### E – Surgical Renal Cancer Subgroup Strategy

Now that the Surgical Subgroup is well established, it can change its focus from fact-finding and question development to trial development and delivery.

- Subgroup meetings will increase in frequency from two per annum to six per annum, to enable rapid development of trials ideas.
- Each Subgroup member will be expected to develop a trial idea or provide substantial overarching input to the Subgroup. If these criteria are not met members will be asked to step down.
- Invite up to two senior trainees to join the Subgroup to develop their skills as PIs and eventually trial CIs. Expectation of trial development and/or delivery.
- After assessment of barriers to energetic, keen individuals to trial recruitment determine which barriers can be overcome with assistance of key stakeholders, i.e. the NCRI, CRUK, local CRNs.
- Focus on delivery of feasibility and pilot studies prior to large scale phase III studies.
- Continued engagement with NCRI Surgical Taskforce (coordinated by Professor Richard Shaw) to allow learning from other surgical specialities which will benefit development of renal cancer surgical trials across the UK.
- Obtain greater engagement from BAUS in clinical trials, with support from them on our core activities, such as advertisement of trials and trial related events (to be done in collaboration with Prostate and Bladder CSG Surgical Subgroup Chairs).
- Regular discussions with the Prostate CSG surgical lead to ensure coordination across all uro-oncology with improved links into the surgical leads of the cancer networks.
- Work with consumer representatives to develop buddy system with urologists to improve recruitment to surgical trials.

## F – Systemic Treatments Renal Cancer Working Party Strategy

Our aim is to develop internationally competitive trials with systemic agents in RCC that will result in improvements in standards of care for our patients.

We aim to do this by providing a supportive environment for UK oncologists who have high quality ideas for systemic treatment based studies. The membership includes established investigators with a track record of developing and delivering internationally competitive studies. They provide experience and just as importantly, academic and commercial contacts, to maximise the chances of successful study development for all members. The Working Party meets by teleconference every month. The CSG co-Chair (Paul Nathan) and Working Party Chair (Tom Powles) have agreed an explicit expectation that all members of this group will have a study in development within a year of joining the Working Party.

## **Appendix 3**

## **Portfolio maps**



Filters Used:

Active Status: All, CSG Involvement: All, Funding Type: All, Phase: All

In Set-Up Pending .. Open Single CSG



Filters Used:

Active Status: All, CSG Involvement: All, Funding Type: All, Phase: All

In Set-Up Pending .. Open Single CSG In Set-Up Pending ..
Open Multi CSG



Filters Used: Active Status: All, CSG Involvement: All, Funding Type: All, Phase: All

In Set-Up Pending .. Open Single CSG 🛛 In Set-Up Pending .. Open Multi CSG

## **Appendix 4**

## **Publications in the reporting year**

## Bladder

## **TPF** Trial

Adimonye A, Nicholson S, Hall E, Stankiewciz E, Bahl A, Berney D. HPV and Cell Cycle Protein Expression in Advanced Penile Carcinoma: Results from the TPF Trial. Meeting Abstract: *J Pathol* 237:S17

## **INPACT Trial**

Bogaerts J, Sydes MR, Keat N, McConnell A, Benson A, Ho A, Roth A, Fortpied C, Eng C, Peckitt C, Coens C, Pettaway C, Arnold D, Hall E, Marshall E, Sclafani F, Hatcher H, Earl H, Ray-Coquard I, Paul J, Blay J-Y, Whelan J, Panageas K, Wheatley K, Harrington K, Licitra L, Billingham L, Hensley M, McCabe M, Patel PM, Carvajal R, Wilson R, Glynne-Jones R, McWilliams R, Leyvraz S, Rao S, Nicholson S, Filiaci V, Negrouk A, Lacombe D, Dupont E, Pauporté I, Welch JJ, Law K, Trimble T, Seymour M. Clinical trial designs for rare diseases: Studies developed and discussed by the International Rare Cancers Initiative. Peer-reviewed Article: *Eur J Cancer* 51(3):271-81

## BC2001 Trial

Huddart R, Porta N, Lewis R, Hendron C, Hussain S, James N, Hall E, on behalf of the BC2001 investigators. Prognostic factors in muscle invasive bladder cancer patients receiving radiotherapy with or without chemotherapy in the BC2001 trial (CRUK/01/004). Meeting Abstract: *Eur J Cancer* 51(Suppl 3):S475 #2507

McDonald F, Waters R, Gulliford S, Hall E, James N, Huddart RA. Defining bowel dose volume constraints for bladder radiotherapy treatment planning. *Peer-reviewed Article: Clin Oncol (R Coll Radiol)* 27(1):22-9

Porta N, Calle ML, Lewis R, Snape M, Hendron C, James N, Huddart R, Hall E. Dynamic prediction methods in the BC2001 clinical trial. Meeting Abstract: *Trials* 16(Suppl 2):P144

Porta N, Luz Calle M, Lewis R, Snape M, Hendron C, James N, Huddart R, Hall E, editors. Models for dynamic prediction: an application to bladder cancer. Meeting Abstract: *Spanish Biometric Conference, Bilbao* 22-25 September 2015

Ananya C, West C, Porta N, Denley H, Hendron C, Hussain S, Hall E, Huddart R, James N, on behalf of the BC2001 investigators. The predictive and prognostic value of tumour necrosis in muscle invasive bladder cancer patients receiving radiotherapy with or without chemotherapy in BC2001 (CRUK/01/004) Meeting Abstract: *Eur J Cancer* 51(Suppl 3):S527 #2642

#### **BOXIT Trial**

Kelly JD, Maynard L, Mostafid A, Huddart R, Bogle R, Cresswell J, Johnson M, Protheroe A, Burnett S, Hall E, on behalf of the BOXIT Trial Management Group. Celecoxib for the treatment of nonmuscle invasive bladder cancer (NMIBC): Results of the randomised BOXIT trial (CRUK/07/004) Meeting Abstract: *BJU Int 115(Suppl 7):11 #8* 

## **RAIDER Trial**

Lewis R, Hall E, Huddart R, on behalf of the RAIDER investigators. The impact of a survey

conducted to inform development of a complex intervention trial in muscle invasive bladder cancer (MIBC) Meeting Abstract: *Proceeds of Society of Clinical Trials* 17-20 *May* 2015:119 #P20

## Remote training solutions for complex intervention trials

Lewis R, Hafeez S, McNair H, Illambas J, Friend C, Hall E, Huddart R. 3rd International Clinical Trials Methodology Conference 2015

## **POUT Trial**

Snape M, Lewis R, Wilson C, Jones E, Kockelbergh R, Jones R, Chester J, Hall E, Birtle A, Group oBotPTM. The implementation and utility of screening logs in a randomised controlled trial of peroperative chemotherapy or surveillance in upper tract urothelial cancer (POUT - CRUK/11/027). Meeting Abstract: Society of Clinical Trials 17-20 May 2015 oral presentation 73 #A32

# Prospective Study Delivering Simultaneous Integrated High-dose Tumor Boost (≤70 Gy) With Image Guided Adaptive Radiation Therapy for Radical Treatment of Localized Muscle-Invasive Bladder Cancer

S. Hafeez, K. Warren-Oseni, H.A. McNair, V.N. Hansen, K. Jones, M. Tan, A. Khan, V. Harris, F. McDonald, S. Lalondrelle, K. Mohammed, K. Thomas, A. Thompson, P. Kumar, D. Dearnaley, A. Horwich, R. Huddart. International Journal of Radiation Oncology\*Biology\*Physics, Available online 6 January 2016, ISSN 0360-3016, Received 30 July 2015, Revised 20 December 2015, Accepted 29 December 2015, Available online 6 January 2016 International Journal of Radiation Oncology Biology Physics Vol 94 Issue 5 1 April 2015 1022-1030

# Prospective phase 1 study assessing feasibility of intensity modulated (IMRT) and image guided adaptive radiotherapy (IGART) to deliver simultaneous integrated high dose tumour boost (70Gy) for the treatment of localized muscle invasive bladder cancer

Hafeez S, Warren-Oseni K, McNair H, McDonald F, Lalondrelle S, Taylor H, ThompsonA, Kumar P, Khoo V, Harris V. Tan M., Hansen V, Mohammed K, Thomas K, Jones K, Dearnaley D, Horwich A, Huddart R J Clin Oncol 33, 2015 (suppl 7; abstr 307

# A phase II/III, double-blind, randomized trial comparing mainteneance lapatinib verus placebo after first line chemotherapy in HER1/2 positive metastatic bladder cancer patients Powles T, Huddart RA, Elliott T, Jones R, Hussain SA, Crabb SJ, Ackerman C, Jagdev S, Chester JD, Hilman S, et al. J Clin Oncol 33. 20 May 2015

# Defining a New Prognostic Index for Stage I Nonseminomatous Germ Cell Tumors Using CXCL12 Expression and Proportion of Embryonal Carcinoma

Gilbert DC, Al-Saadi R, Thway K, Chandler I, Berney D, Gabe R, Stenning SP, Sweet J, Huddart R, Shipley JM. Clin Cancer Res. 2016 Mar 1;22(5):1265-73. doi: 10.1158/1078-0432.CCR-15-1186. Epub 2015 Oct 9. PubMed PMID: 26453693; PubMed. Central PMCID: PMC4740930

# Radiographer-led plan selection for bladder cancer radiotherapy: initiating a training programme and maintaining competency.

McNair HA, Hafeez S, Taylor H, Lalondrelle S, McDonald F, Hansen VN, Huddart R. Br J Radiol. 2015 Apr;88(1048):20140690. doi: 10.1259/bjr.20140690. Epub 2015, Jan 7. PubMed PMID: 25564753.

## COSAK

Powles T, Brown J, Larkin J, Jones R, Ralph C, Hawkins R, Chowdhury S, Boleti E, Bhal A, Fife K, Webb A, Crabb S, Geldart T, Hill R, Dunlop J, Hall PE, McLaren D, Ackerman C, Beltran L, Nathan P. A randomised, double-blind phase II study evaluating cediranib vs cediranib and saracatinib in patients with relapsed metastatic clear cell renal cancer. Ann Oncol. 2016 Jan 22. pii: mdw014. [Epub ahead of print] PubMed PMID: 26802156.

## Defining bowel dose volume constraints for bladder radiotherapy treatment planning

McDonald F, Waters R, Gulliford S, Hall E, James N, Huddart RA. Clin Oncol (R Coll Radiol). 2015 Jan;27(1):22-9. doi: 10.1016/j.clon.2014.09.016. Epub 2014, Nov 1. PubMed PMID: 25445550.

#### SUCCINCT

Geldart T, Chester J, Casbard A, Crabb S, Elliott T, Protheroe A, Huddart RA, Mead G, Barber J, Jones RJ, Smith J, Cowles R, Evans J, Griffiths G.: anopen-label, single-arm, non-randomised, phase 2 trial of gemcitabine and cisplatin chemotherapy in combination with sunitinib as first-line treatment for patients with advanced urothelial carcinoma. Eur Urol. 2015 Apr;67(4):599-602. doi: 10.1016/j.eururo.2014.11.003. Epub 2014 Nov 20. PubMed PMID: 25465968; PubMed Central PMCID: PMC4410296.

## Pre-treatment lymphocytopaenia is an adverse prognostic biomarker in muscle-invasive and advanced bladder cancer

N. Joseph, S. J. Dovedi, C. Thompson, J. Lyons, J. Kennedy, T. Elliott, C. M. West & A. Choudhury. Annals of Oncology Advance Access published December 15, 2015. Annals of Oncology 00: 1–6, 2015 doi:10.1093/annonc/mdv546

## Renal

## ASPEN

A randomized phase 2 international trial of everolimus vs. sunitinib in patients with metastatic non-clear cell renal cell carcinoma (ASPEN). 2015. Lancet Oncology. *In press.* 

#### SCOTRRCC

G.D. Stewart, T. Powles, C. Van Neste, A. Meynert, F. O'Mahony, A. Laird, D. Deforce, F. Van Nieuwerburgh, G. Trooskens, W. Van Criekinge, T. De Meyer, D.J. Harrison. Dynamic epigenetic changes to VHL occur with sunitinib in metastatic clear cell renal cancer. *Oncotarget (IF=6.3).* 2016. In press.

G.D. Stewart, F.C. O'Mahony, A. Laird, L. Eory, A.L.R. Lubbock, A. Mackay, J. Nanda, M. O'Donnell, P. Mullen, S.A. McNeill, A.C.P. Riddick, D. Berney, A. Bex, M. Aitchison, I.M. Overton, D.J. Harrison, T. Powles. Sunitinib treatment exacerbates intratumoral heterogeneity in metastatic renal cancer. *Clinical Cancer Research (IF=8.7).* 2015; 21(18): 4212–23.

G.D. Stewart, A.C.P. Riddick, F. Rae, C. Marshall, L. MacLeod, F.C. O'Mahony, A. Laird, S.A. McNeill, K.M. O'Connor, M. O'Donnell, P. Fineron, D.B. McLaren, M. Aitchison, G. Oades, J. Hair, M. Seywright, B. Little, R. Nairn, G. Lamb, T. Macleod, I. Dunn, A. Ramsey, R. Campbell, S. Leung, L. McLornan, M. Rahilly, I. Wilson, A-M. Pollock, D.J. Harrison. Translational research will fail without surgical leadership: SCOTRRCC a successful surgeon-led nationwide translational research infrastructure in renal cancer. *The Surgeon (IF=2.2).* 2015; 13 (4); 181-186.

G.D. Stewart, C. Van Neste, A. Meynert, C. Semple, F. O'Mahony, A. Laird, A. MacKay, G. Trooskens, W. Van Criekinge, T. De Meyer, T. Powles, D.J. Harrison. Effect of sunitinib therapy on

intratumoural heterogeneity and differential expression of genetic mutations and DNA methylation in metastatic renal cell cancer. Moderated poster presentation at EAU 2015 Annual Meeting, Madrid, Spain. March 2015

## SUMR

G.D. Stewart, T. Powles, C. Van Neste, A. Meynert, F. O'Mahony, A. Laird, D. Deforce, F. Van Nieuwerburgh, G. Trooskens, W. Van Criekinge, T. De Meyer, D.J. Harrison. Dynamic epigenetic changes to VHL occur with sunitinib in metastatic clear cell renal cancer. *Oncotarget (IF=6.3).* 2016. In press.

G.D. Stewart, F.C. O'Mahony, A. Laird, L. Eory, A.L.R. Lubbock, A. Mackay, J. Nanda, M. O'Donnell, P. Mullen, S.A. McNeill, A.C.P. Riddick, D. Berney, A. Bex, M. Aitchison, I.M. Overton, D.J. Harrison, T. Powles. Sunitinib treatment exacerbates intratumoral heterogeneity in metastatic renal cancer. *Clinical Cancer Research (IF=8.7).* 2015; 21(18): 4212–23.

G.D. Stewart, C. Van Neste, A. Meynert, C. Semple, F. O'Mahony, A. Laird, A. MacKay, G. Trooskens, W. Van Criekinge, T. De Meyer, T. Powles, D.J. Harrison. Effect of sunitinib therapy on intratumoural heterogeneity and differential expression of genetic mutations and DNA methylation in metastatic renal cell cancer. Moderated poster presentation at EAU 2015 Annual Meeting, Madrid, Spain. March 2015

## **Appendix 5**

## Major international presentations in the reporting year

## Bladder

## BC2001 trial

R. Huddart, N. Porta, R Lewis, C Hendron, S. Hussain, N James, E. Hall, on behalf of the BC2001 investigators (ISRCTN 68324339) Prognostic factors in muscle invasive bladder cancer patients receiving radiotherapy with or without chemotherapy in the BC2001 trial (CRUK/01/004) - European Cancer Congress, Vienna, 27 September 2015

## TOUCAN

Jones, RJ et al. Abstract 448: A randomised phase II trial of carboplatin and gemcitabine +/-vandetanib in first line treatment of advanced urothelial cell cancer in patients who are not suitable for cisplatin - ASCO GU

Robert J. Jones, Simon J. Crabb, John D. Chester, Tony Elliott, Robert Anthony Huddart, Alison J. Birtle, Linda Evans, Jason Francis Lester, Chao Huang, Angela Claire Casbard, Tracie-Ann Madden, Gareth Griffiths. TOUCAN: A randomised phase II trial of carboplatin and gemcitabine +/- vandetanib in first line treatment of advanced urothelial cell cancer in patients who are not suitable to receive cisplatin - Genitourinary Cancers Symposium, San Francisco, 2016

## Prognostic factors in muscle invasive bladder cancer patients receiving radiotherapy with or without chemotherapy in the BC2001 trial

Huddart R, Porta N, Lewis, R, Hendron C, Hussein S, James N, Hall E (CRUK/01/004) - 18<sup>th</sup> ECCO - 40<sup>th</sup> ESMO European Cancer Congress Scientific Committee for Oral Presentation. Sept 2015

A phase II/III, double-blind, randomized trial comparing maintenance lapatinib versus placebo after first line chemotherapy in HER1/2 positive metastatic bladder cancer patients Thomas Powles, Robert Anthony Huddart, Tony Elliott, Robert Jones, Syed A. Hussain, Simon J. Crabb, Charlotte Ackerman, Satinder Jagdev, John D. Chester, Serena Hilman, Mark Beresford, A. Graham Macdonald, Santhanam Sundar, John A. Frew, Andrew Stockdale, Shah-Jalal Sarker, Daniel Berney, and Simon Chowdhury - ASCO Annual Meeting, Chicago, 2015

Simon Chowdhury, Thomas Powles, Tony Elliot, Robert Jones, Syed A Hussain, Simon J Crabb, Charlotte Ackerman, Satinder Jagdev, John D Chester, Serena Hilman, Mark Beresford, Graham Macdonald, Santhanam Sundar, John A Frew, Akhila Wimalasingham, Andrew Stockdale, Shah-Jalal Sarker, Daniel Berney, Robert Huddart - NCRI Annual Meeting, Liverpool, 2015

## **PLUTO**

Thomas Powles, Syed A. Hussain, Andrew Protheroe, Alison Birtle, Prabir R Chakraborti, Robert Huddart, Satinder Jagdev, Amit Bahl, Andrew Stockdale, Santhanam Sundar, Simon J. Crabb, Judith Dixon-Hughes, Laura Alexander, Caroline A Bray, Jamie Stobo, Akhila Ganeshi Wimalasingham, Charlotte Ackerman, James Paul, Rob Jones. A randomised phase II study of pazopanib versus paclitaxel in relapsed urothelial tumours - Genitourinary Cancers Symposium, San Francisco, 2016

## COSAK

Robert Jones, Thomas Powles, Janet Brown, James Larkin, Robert Hawkins, Simon Chowdhury, Ekaterini Boleti, Amit Bhal, Kate Fife, Andrew Webb, Simon Crabb, Tom Geldart, Philip Savage, Robert Hill, Akhila Wimalasingham, Jo Dunlop, Charlotte Ackerman, Luis Beltran, Paul Nathan. A randomised phase II study evaluating cediranib vs cediranib and saracatinib in patients with relapsed metastatic clear cell renal cancer - NCRI Annual Meeting, Liverpool, 2015

## Renal

## **PLUTO**

Powles, T et al. Abstract 430: A randomised phase II study of pazopanib versus paclitaxel in relapsed urothelial tumours - ASCO GU

Thomas Powles, Syed A. Hussain, Andrew Protheroe, Alison Birtle, Prabir R Chakraborti, Robert Huddart, Satinder Jagdev, Amit Bahl, Andrew Stockdale, Santhanam Sundar, Simon J. Crabb, Judith Dixon-Hughes, Laura Alexander, Caroline A Bray, Jamie Stobo, Akhila Ganeshi Wimalasingham, Charlotte Ackerman, James Paul, Rob Jones. A randomised phase II study of pazopanib versus paclitaxel in relapsed urothelial tumours - Genitourinary Cancers Symposium, San Francisco, 2016

#### TOUCAN

Robert J. Jones, Simon J. Crabb, John D. Chester, Tony Elliott, Robert Anthony Huddart, Alison J. Birtle, Linda Evans, Jason Francis Lester, Chao Huang, Angela Claire Casbard, Tracie-Ann Madden, Gareth Griffiths. A randomised phase II trial of carboplatin and gemcitabine +/-vandetanib in first line treatment of advanced urothelial cell cancer in patients who are not suitable to receive cisplatin - Genitourinary Cancers Symposium, San Francisco, 2016

#### COSAK

Robert Jones, Thomas Powles, Janet Brown, James Larkin, Robert Hawkins, Simon Chowdhury, Ekaterini Boleti, Amit Bhal, Kate Fife, Andrew Webb, Simon Crabb, Tom Geldart, Philip Savage, Robert Hill, Akhila Wimalasingham, Jo Dunlop, Charlotte Ackerman, Luis Beltran, Paul Nathan. A randomised phase II study evaluating cediranib vs cediranib and saracatinib in patients with relapsed metastatic clear cell renal cancer - NCRI Annual Meeting, Liverpool, 2015