### Project Title

Shared decision-making: investigating the potential of an interactive, web-based information tool to support treatment choice for people with advanced pancreatic cancer

### Project Summary

Background and rationale: Cancer is the major cause of death in England [1]. In 2011, approximately 3,600 men and 3,700 women were diagnosed with pancreatic cancer in England, accounting for 2.6% of all newly diagnosed male cancers and 2.7% of all newly diagnosed female cancers [1]. Survival from pancreatic cancer is the lowest of 21 commonly diagnosed cancers [1]. Patient numbers treated by the Dorset Cancer Centre reflect these national trends. Following diagnosis, these patients and their families in collaboration with clinicians require user-friendly information to support timely decision-making regarding future treatment options. Nationally it is recognised that a persistent portion of patients with advanced cancer die within 30 days of chemotherapy - meta data detailing this is currently being generated by the national Systematic Anti-Cancer Therapy (SACT) data collection. This observation may indicate that patients with advanced cancer are inappropriately selecting chemotherapy (as opposed to best supportive care) as their treatment option despite poor outcomes, because they lack access to clear information to inform choice concerning levels of benefit and risks associated with chemotherapy.

Shared decision making is an NHS priority [2], viewed as central to promoting person-centred care [3]; the potential of digital solutions in realising this vision has been recognised [4]. Although there is cancer treatment decision-making tools, (e.g. Adjuvant Online and PREDICT), no tool tailored for patients with advanced disease is currently available. The development of such a tool would have health benefits through enhancing the patient experience of decision-making supported by their clinicians at this challenging time in their illness trajectory. Better informed decision-making may also result in wealth gains through more appropriate use of available capacity and resources.

Over the last year, colleagues from CoPMRE, FHSS and FST, working with the Dorset Cancer Centre have developed an initial prototype of a web-based treatment information tool designed for clinicians to use with patients with advanced pancreatic cancer. Preliminary feedback from key stakeholders (oncologists, lead cancer nurses and service users) indicated that from the clinicians’ perspective, the tool could enhance consultation through the visual provision of information to service users, whilst service users welcomed the more transparent information on treatment options that the tool could potentially provide. The project has clear potential to improve service users experiences of cancer services but the information tool needs to be based on a more systematic and robust data to inform the algorithm design followed by piloting with users and systematic evaluation. This studentship involves a focused project to develop these aspects.

Aim: To collaboratively develop and test an interactive, web-based information tool to support treatment choice for people with advanced pancreatic cancer.

Objectives:

1. To provide the information necessary for the development of an interactive, web-based information tool through systematic review of reported studies.

2. To identify issues that is important to newly diagnosed advanced cancer patients when making decisions about treatment options to inform the development of a treatment option information tool.

3. To examine organisational and cultural factors that may affect the successful implementation of the tool by means of realist reviewing and interviewing.

4. To pilot the tool with Dorset Cancer Centre patients (based at Poole Hospital) with advanced pancreatic cancer.
Methodology: Mixed method research approach. Methods:

1. Systematic literature review of pancreatic cancer treatment trial data
2. Develop and refine algorithm design and tool interface incorporating patient and clinician feedback
3. Semi-structured interviews with service users and carers affected by advanced pancreatic cancers
4. Focus groups with clinicians
5. Pilot tool with newly diagnosed patients with pancreatic cancer
6. Evaluate patient and clinician experiences

Outcomes:

• A fully-modelled, co-created and piloted information tool to support treatment choice in patients with advanced pancreatic cancer.
• Disseminated knowledge about the use of treatment information tools in advanced cancer with the potential for wider use.

References:
cancer. The societal impact of this research has the potential to ease pressures on health services and improve patient satisfaction and feelings of self-worth at this difficult stage in the disease trajectory; this research will better inform and authentically involve patients in decision-making about treatment options in advanced cancer. In addition, depending on the findings, chemotherapy treatment use and therefore costs may be reduced allowing funds to be redirected to support other palliative care options to enhance end of life care.

**Training Opportunities**

Training opportunities (provided by supervisors and internal and external workshops) will include: 1) Qualitative research techniques through CQR and the Graduate School. Dr Scammell has qualitative research expertise and significant experience in working with vulnerable groups, including health service users. 2) Evaluation methods through the Graduate School and BUCRU. This unit provides training and support for researchers in improving the quality, quantity and efficiency of research across BU and local NHS Trusts. Prof Hickish works closely with BUCRU as co-director of CoPMRE. Prof Porter has extensive experience in evaluation methods, cancer nursing and palliative care. 3) The PGR will practise usability engineering methods in designing the online solution utilising established links between CoPMRE and the Sci Tec faculty. Dr Jiang is specialised in usability engineering and he is familiar with taking mixed methods research approaches to understand users and design better systems for them.

Transferable skills in: 1) Networking, communication and change management – developed through the process of establishing an advisory group and working to draw up a strategy in response to study findings, guided and supported from supervisors; 2) Communication and presentation skills developed through seminars and conference presentations, and in preparing and submitting peer reviewed publications.

**SUPERVISORY TEAM**

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<tr>
<th>First Supervisor</th>
<th>Dr Janet Scammell</th>
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<tr>
<td>Additional Supervisors</td>
<td>Dr Nan Jiang (FST)</td>
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<td>Prof Sam Porter</td>
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<td>Prof Tamas Hickish (PHT representative and adviser)</td>
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**Recent publications by supervisors relevant to this project**


### INFORMAL ENQUIRIES

To discuss this opportunity further, please contact Dr Janet Scammell via email: jscammell@bournemouth.ac.uk

### ELIGIBILITY CRITERIA

Studentship candidates must demonstrate outstanding academic potential with preferably a 1st class honours degree and/or a Master’s degree with distinction or equivalent Grade Point Average. An IELTS (Academic) score of 6.5 minimum (with a minimum 5.5 in each component) is essential for candidates for whom English is not their first language. In addition to satisfying basic entry criteria, BU will look closely at the qualities, skills and background of each candidate and what they can bring to their chosen research project in order to ensure successful completion.

**Additional Eligibility**

- Experience of computer software development
- Experience of work in/with the health care industry

### HOW TO APPLY

Please complete the online application form by 28 April 2017. Further information on the application process can be found at: [www.bournemouth.ac.uk/studentships](http://www.bournemouth.ac.uk/studentships)