



UK therapeutic
cancer prevention network
collaborating to prevent cancer

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(University of Leicester)



The Experimental Cancer Medicine Centre Initiative is jointly funded by Cancer Research UK, the National Institute for Health Research in England and the Health Departments for Scotland, Wales and Northern Ireland

Chemoprevention in October 2013....

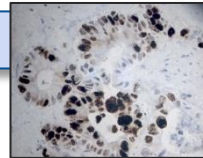
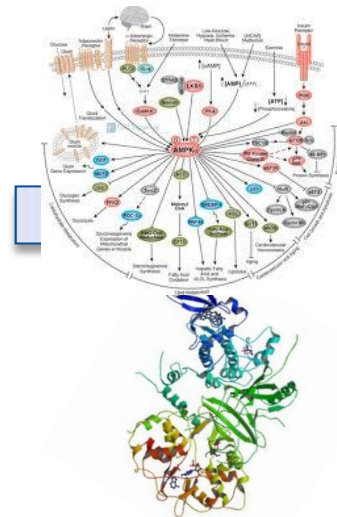
Basic

Translational

Early phase trials

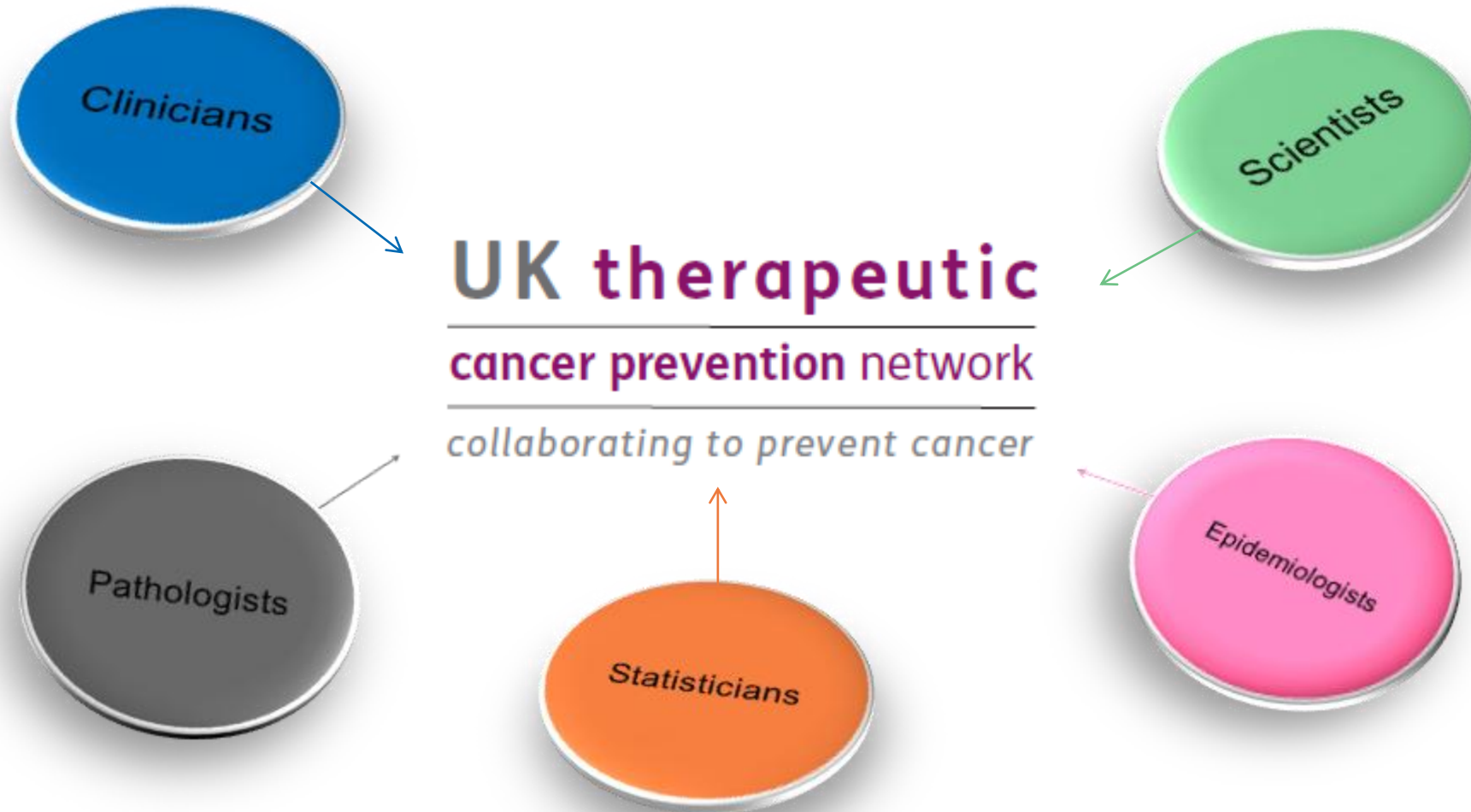
Late phase trials

Epidemiology



Unique multidisciplinary team with National Coverage

Brings together scientists who are involved in research aimed at **developing therapies** or **dietary/lifestyle interventions** for the **prevention** or **delay** of the development of malignancy.



UKTCPN Steering Committee

Name	ECMC location
Karen Brown (Co-chair)	Leicester
Dion Morton (Co-chair)	Birmingham
Hisham Mehanna	Birmingham
Farhat Khanim	Birmingham
Ann Williams	Bristol
Farhat Din	Edinburgh - Dundee
Albena Dinkova-Kostova	Edinburgh - Dundee
Mark Hull	Leeds
William Steward	Leicester
Andrew Renehan	Manchester
Gareth Evans	Manchester
Richard Mithen	Norwich*
Robert Mills	Norwich*
Omar Al Kadhi	Norwich*
Antonieta Melchini	Norwich*
Ruth Langley	UCL
Farhat Khanim	Birmingham
Diana Eccles	Southampton
Vicky Coyle	Belfast



*70 members covering
13 adult ECMCs*

*Also heavily involved – Jack Cuzick, Peter Sasieni, John Burn,
Tony Howells, Owen Sansom*

**Not an ECMC*

Vision

*Identify, develop and accelerate the translation of therapeutic cancer preventive agents and lifestyle interventions into **clinical trials** and **routine clinical practice***

- Cohesive multidisciplinary team of experts working together throughout the entire process
- Scientific vigour – state of the art well-characterised preclinical models
- Robust evidence of activity, identification of mechanisms of action and rational choice of dose range for clinical trials
- Reverse translation - preclinical practices informed by clinical experience
- Utilise expertise in biomarker discovery and application for the identification of high risk patient groups and monitoring efficacy
- Science integral to the design of trials and analysis of clinical samples
- Input from epidemiologists, biostatisticians, oncologists, surgeons and pathologists
- Maximise the output from each trial through a co-ordinated team approach

Remit of the UK Therapeutic Cancer Prevention Network

- **Establish a network** of clinical and non-clinical researchers and become the **focus of expertise** in therapeutic cancer prevention
- **Identify areas of strength and collaborate** to develop joint grant applications
- Provide **infrastructure, guidance and support**
- **Increase awareness and champion** increased funding for therapeutic cancer prevention
- **Promote the translation** of pre-clinical research findings into clinical trials of cancer prevention
- To provide **guidance** and **support** in the development of **clinical trials protocols** for interventional cancer prevention studies and collaborate to maximise the output from trials.
- **UK voice** – already being recognised within Europe – potential for larger collaborations

Activities

- Regular **interactive & inclusive network meetings** throughout the UK
- Propose and organise **conferences/symposiums**
- Develop **collaborative grant applications**
- **Database** of expertise/capabilities
- **Lobbying role** - helping to circumvent the considerable barriers to licencing of repurposed/off patent drugs shown to be active preventive agents



‘Prevention is better than cure’ – cancer chemoprevention in 2015

- **Risks & benefits in therapeutic prevention** - [Jack Cuzick](#) (Wolfson Institute, Queen Mary University of London)
- **Risk & response stratification for aspirin in CRC prevention** - [Andrew Chan](#) (Massachusetts General Hospital & Harvard)
- **Beyond aspirin – targeting metabolism for cancer prevention** - [Dario Alessi](#) (Dundee Uni)
- **Proffered papers**



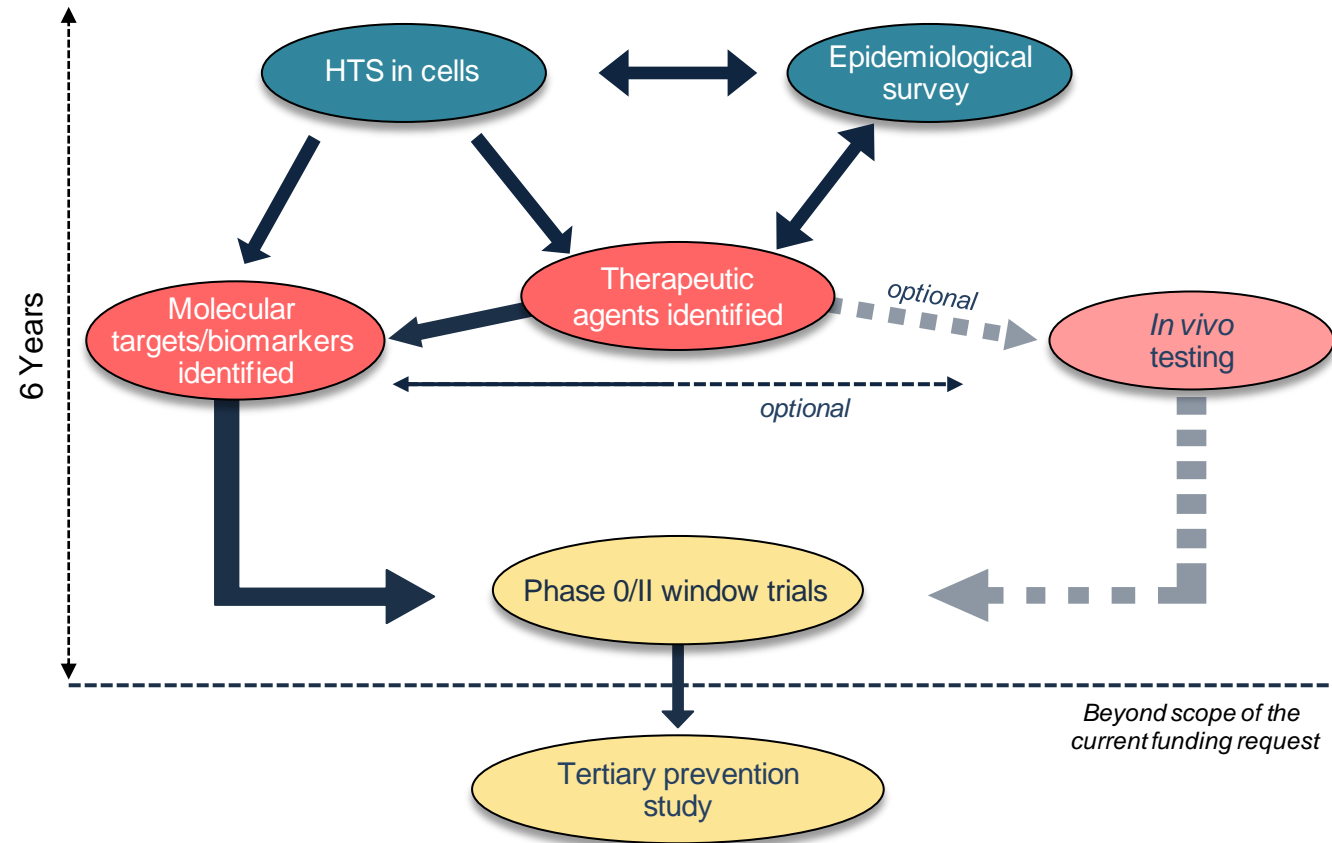
*Working with the BACR to organise a
multiday conference in autumn 2016*

Drug re-purposing proposal

Co-ordinated by Karen Brown, Dion Morton, Farhat Khanim, Jack Cuzick, Vicky Coyle

- **Screening of drugs available to the UK/EU market with the aim of testing and re-purposing for a prevention setting**
 - **Exploit expertise in drug repurposing and epidemiology/biostatistics**
 - **Combined expertise in preclinical test systems and conducting window trials, using mechanism-based molecular endpoints as surrogate endpoints**
 - **Across multiple cancer types**
 - **Aim → to advance drugs to tertiary prevention trials**

Comprehensive ambitious programme covering several cancer types – difficult to conduct in other countries such as the US



- We are seeking funding that covers aspects of basic, translational and clinical research
- Funding for a team – not an individual – all members contribute complementary and essential expertise

Genomics England Clinical Interpretation Partnership

Expression of Interest – Cancer – Pan Cancer domain



100,000 Genomes project - provides the resource to undertake WGS on 100,000 samples

Domain GeCIP

Selects samples, determines research portfolio, oversees feedback of results

- Expression of interest submitted for Cancer Prevention – Dion Morton
- Accepted as part of a Pan-Cancer domain (along with others) – brings together groups interested in cross-cancer analysis
- Currently developing proposals/applications for funding

Cancer Prevention Aims:

Ensure early stage disease is appropriately targeted, inclusion of precursor lesions, where appropriate.

To explore, with the different cancer domains, early cancer drivers that may be common between the cancer types.



Junior Investigator Network Group (JING)



The aim of the Junior Investigator Network Group (JING) is to bring together, and help develop, junior investigators across all disciplines of translational research within the ECMCs.

Quality Assurance and Translational Science (QATS) Network Group



The QATS Network Group supports translational research, with a focus on high levels of quality and regulatory compliance.

Research Nurses Network Group



The Research Nurses Network Group promotes quality care for patients taking part in early phase research through peer support, training and guidance for research nurses working in early phase and translational research.

UK Therapeutic Cancer Prevention Network Group (UKTCPN)



The UK Therapeutic Cancer Prevention Network (UKTCPN) brings together a unique blend of expertise for research in cancer chemoprevention including scientists, clinicians, epidemiologists, statisticians and specialists in primary care, diet and nutrition.

UKTCPN has a unique opportunity to really make a difference in the prevention of cancer

Cancer & Nutrition NIHR infrastructure collaboration

Motivation

- Nutritional factors (including obesity and physical inactivity) are responsible for about 1/4–1/3 of incident cancers in the UK
- Nutritional support is important in the management of patients with cancer
- Currently little interactions between the two disciplines
- Lack of a coherent cancer and nutrition research agenda

Need for a coordinated framework

Long-term goals:

- Create a framework as a basis for future research
- Establish better networks for sharing knowledge between stakeholders
- Engagement with patients, industry and researchers

Progress to date

- **Collaboration includes a number of national stakeholders: BRCs, CRUK, NOCRI, WCRF UK.**
 - Mapped the UK's cancer and nutrition research activities from past five years (2009-2013).
 - A cancer patient experience survey to understand gaps and needs for nutritional care.
 - A survey of UK clinicians to understand routine clinical nutrition practice in cancer and their opinion on infrastructure/research needs.
- **Full report will be shared widely with stakeholders as part of a launch event (late summer/autumn 2015)**