

## Professor Pamela Kearns MBChB, BSc (Hons), PhD, FRCPCH

Professor of Clinical Paediatric Oncology  
Honorary Consultant in Paediatric Oncology

[School of Cancer Sciences \(/schools/cancer/index.aspx\)](/schools/cancer/index.aspx)

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### About

Pamela Kearns is Professor of Clinical Paediatric Oncology in the School of Cancer Sciences, University of Birmingham and an Honorary Consultant at the Birmingham Children's Hospital. She is Director of the Cancer Research UK Clinical Trials Unit in the School of Cancer Sciences and is on the Executive Board of the European Society of Paediatric Oncology (SIOP-E) and the Executive Board of the academic consortium 'Innovative Therapies for Children with Cancer' (ITCC) and Vice-Chair of SIOP-E's European Clinical Research Council for paediatric and adolescent oncology.

Her research is focussed on the development of new therapies for refractory childhood acute leukaemias, extending from pre-clinical laboratory based studies through to early phase clinical trials.

### Qualifications

- Fellowship of the Royal College of Paediatrics and Child Health 2009
- Certificate of Teaching and Learning in Higher Education, University of Newcastle 2000
- PhD (LLR Clinical Training Fellowship), University of Newcastle 2000
- Membership of the Royal College of Paediatrics and Child Health 1996
- Diploma in Medical Sciences, University of Newcastle
- Membership of the Royal College of Physicians (UK) Paediatrics 1993
- MBChB, Aberdeen University 1988
- BSc Honours. 2(1) Physiology, Aberdeen University 1982

### Biography

Pamela Kearns was awarded a BSc Honours degree in Physiology at the University of Aberdeen and then went on to study Medicine in Aberdeen, graduating in 1988. She trained as a paediatric oncologist in Newcastle upon Tyne where, as a Leukaemia and Lymphoma Research (LLR) Clinical Fellow, she undertook her doctoral project investigating the role of glutathione and glutathione S transferases in chemoresistance in childhood acute lymphoblastic leukaemia. Two years of her doctoral research was spent working in the Paediatric Haemato-oncology Department of the Vrije University, Amsterdam under the supervision of Professor Rob Pieters.

After being awarded her PhD and completing her clinical training in paediatric oncology, she was appointed as a Clinical Senior Lecturer in Paediatric Oncology at the University of Bristol and Honorary Consultant Paediatric Oncologist at the Bristol Children's Hospital.

In 2007, after 5 years in Bristol, she relocated to her current post at the University of Birmingham, to continue her research in resistant/refractory childhood acute leukaemias, specifically the development of new therapeutic approaches for this poor prognosis group.

Her laboratory-based research is focused on pre-clinical models for testing of novel treatments before they enter clinical trials. Her clinical research is focused on the design and development of early phase clinical trials investigating novel therapies for childhood leukaemias.

She promotes international collaborations in early phase clinical trials through her role on the Executive Committee of a European academic consortium call the '**ITCC**' (**Innovative Therapeutics for Children with Cancer** (<http://www.itcc-consortium.org/>)). She also co-founded the **Early Clinical Trials Committee of the International BFM Study Group** (<http://www.bfm-international.org/>).

In 2010, she took on the role of Deputy Clinical Director within the Cancer Research UK Clinical Trials Unit, in the School of Cancer Sciences, where she leads the Children's Cancer Trials Team, which is responsible for the national portfolio of clinical trials for children's cancer and leukaemia delivered in the network of 21 UK tertiary referral centres for children with malignant diseases, as well as clinical trials with international collaborators across Europe. In 2012 was appointed as Director of the Cancer Research UK Clinical Trials Unit.

She is currently Vice-Chair of **SIOP-E's European Clinical Research Council for paediatric and adolescent oncology** (<http://www.siope.eu/european-research-and-standards/european-clinical-research-council/>), which is aiming to establish a 'European Virtual Institute' for clinical and translational research in childhood and adolescent cancers.

### Teaching

- MBChB Year 5 Paediatric Course
- MSc Clinical Oncology: Molecular Pathology of Cancer, Clinical trials, Paediatric Oncology and Translational Research in Cancer modules

## Postgraduate supervision

Pamela is interested in supervising doctoral research students in translational research developing new therapeutic approaches for childhood leukaemias.

## Doctoral research

### PhD title

The role of glutathione and glutathione S-transferases in childhood leukaemia

## Research

Professor Kearns is involved in several European research initiatives including the **European Network for Cancer in Children and Adolescents ENCCA** (<http://www.encca.eu/Pages/home.aspx>), which is an EU FP7 funded Network of Excellence the aim of which is to define and implement an integrated research strategy that will facilitate international investigator-driven clinical trials for childhood cancers. The work packages in which she is involved include development of a framework for clinical trials facilitation, delivering trial methodology for rare cancers and early drug development trials for childhood cancers.

Professor Kearns' primary research interest is experimental therapeutics in childhood leukaemia focussed on refractory and relapsed leukaemia with the aim of developing innovative, targeted therapy based on the characterisation of the genetic/epigenetic and pharmacological basis of their disease resistance

She has established predictive pre-clinical in vitro and in vivo models to evaluate clinical efficacy of novel therapeutic approaches for acute leukaemias. Exploiting the engraftment capacity of human primary leukaemic blasts in immuno-compromised mice, her group have established in vivo leukaemia models for ALL and AML and are investigating the therapeutic efficacy of novel agents with specific reference to target specificity and potential pharmacodynamic endpoints.

Her clinical research is focused on early phase trials for childhood leukaemias, and she has been the lead investigator for several studies including a UK Leukaemia and Lymphoma funded Phase I combination study of clofarabine and DaunoXome in childhood AML (CLOUD) and in collaboration with the **ITCC** (<http://www.itcc-consortium.org/>) is the lead investigator for several International Pharma sponsored early phase trials for children and adolescents with relapsed or refractory leukaemias.

## Other activities

### National Committees

- Royal College of Paediatrics and Child Health (RCPCH) College Specialist Advisory Committee: academic representative (from September 2009)
- National Cancer Research Institute (NCRI) Childhood Cancer and Leukaemia Clinical Study Group (from April 2010)
- NCRI Childhood Cancer and Leukaemia New Agents Sub-Group (from April 2010 and previously the Children's Cancer and Leukaemia Group (CCLG) New Agents Group from 2005)
- CR UK Drug Development Office Advisory Board (from November 2012)
- CR UK New Agents Committee (from January 2013)

### Previous National Committees

- CCLG Biological Studies Steering Group (Chair 2005-2009)
- Leukaemia and Lymphoma Research Cell Bank Steering Committee (from October 2005 to January 2012)
- Leukaemia Research Fund Clinical Trials Advisory Panel (2003 - 2009)

### International Committees

- Innovative Therapeutics in Childhood Cancer (ITCC) Executive Board: elected member and Treasurer (from July 2010)
- ITCC Clinical Trial Committee (from July 2010)
- European Society of Paediatric Oncology Clinical Research Council: Vice-Chair (from January 2012)
- European Society of Paediatric Oncology Executive Board (from January 2012)
- International-BFM Study Group Early Clinical Trials Committee (Founder Member and Co-chair from 2006)

## Publications

Bailey S, Howman A, Wherton D, Pizer B, Fisher D, Kearns P, Picton S, Saran F, Wheatley K, Gibson M, Glaser A, Connolly D, Hargrave D. Diffuse Intrinsic Pontine Glioma treated with prolonged temozolomide and radiotherapy – results of a United Kingdom Phase II Trial (CNS 2007 04) EJC 2013 In press

Da Costa D, Agathangelou A, Perry T, Weston V, Petermann E, Zlatanou A, Oldreive C, Wei W, Stewart G, Longman J, Smith E, Kearns P, Knapp S, Stankovic T BET inhibition as a single or combined therapeutic approach in primary paediatric B-precursor acute lymphoblastic leukaemia. Blood Cancer J. 2013 Jul 19;3:e126. doi: 10.1038/bcj.2013.24.

Kapatai G, Brundler MA, Jenkinson H, Kearns P, Parulekar M, Peet AC, McConville CM. Gene expression profiling identifies different sub-types of retinoblastoma. Br J Cancer. 2013 Jul 23;109(2):512-25. doi: 10.1038/bjc.2013.283. Epub 2013 Jun 11.

Kearns P. The need for proportionate regulation of clinical trials. Lancet Oncol. 2013 May;14(6):454-5. doi: 10.1016/S1470-2045(13)70077-9. Epub 2013 Mar 21.

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Zwaan CM, Rizzari C, Mechinaud F, Lancaster D, Lehrnbecher T, van der Velden V, Beverloo BH, den Boer M, Pieters R, Reinhardt D, Dworzak M, Rosenberg J, Manos G, Agrawal S, Strauss L, Baruchel A, Kearns P. Dasatinib in Children and Adolescents with Relapsed or Refractory Leukemia: Results of the CA180018 Phase I Dose-Escalation Study of the 'Innovative Therapies for Children with Cancer' Consortium *J Clin Oncol*. 2013 Jul 1;31(19):2460-8

Thompson CV, Wells JM, Bowen C, Brundler MA, Kearns P, Arul GS. Intra-abdominal kaposiform hemangioendothelioma and the benefits of laparoscopic surveillance. Pediatric Blood and Cancer. 2012 Jun;58(6):992-3

GeoegerB, Estlin EJ, AertsI, KearnsP, Gibson B, Corradini N, Doz F, Lardelli P, Yovine A, PradosR, Vassal G; on behalf of the European consortium Innovative Therapies for Children with Cancer (ITCC). A Phase I and Pharmacokinetic Study of Plitidepsin in Children with Advanced Solid Tumours: an Innovative Therapies for Children with Cancer (ITCC) study, *European Journal of Cancer* 2012 Feb;48(3):289-96

O'ConnorD, SibsonK, CaswellM, ConnorP, CumminsM, MitchellC, MotwaniJ, TajM, VoraA, WynnR, KearnsP R. Early UK experience in the use of clofarabine in the treatment of relapsed and refractory paediatric acute lymphoblastic leukaemia *British Journal of Haematology*, 2011 Aug;154(4):482-485.

Bate J, Chisholm J, Heath P, Breuer J, Skinner R, Manley S, Patel S, Wheatley K, Ramsay M, Kearns P, Hambleton S. PEPTalk: post-exposure prophylaxis against varicella in children with cancer. *Archives of Diseases in Childhood* 2011 Sep;96(9):841-5.

Weston VJ, Oldreive CE, Skowronska A, Oscier DG, Pratt G, Dyer MJ, Smith G, Powell JE, Rudzki Z, Kearns P, Moss PA, Taylor AM, Stankovic T. The PARP inhibitor olaparib induces significant killing of ATM deficient lymphoid tumour cells in vitro and in vivo. *Blood* 2010 Nov 25;116(22):4578-87

HortonTM, SpostoR, BrownP, ReynoldsCP, HungerSP, WinickN, Raetz E, CarrollW, ArceciR, BorowitzM, GaynonP, GoreL, JehaS, MaurerB, SiegelSE, BiondiA, KearnsP, Narendran A, SilvermanL, SmithM, ZwaanM and WhitlockJ. Toxicity assessment of new agents incorporated into induction regimens for pediatric acute lymphocytic leukemia (ALL): Results of an international consensus conference *Paediatric Blood and Cancer* 2010 Jul 1;54(7):872-8

Cox CV, Diamanti P, Evely RS, Kearns PR, Blair A. Expression of CD133 on leukemia initiating cells in childhood ALL. *Blood*. 2009 Apr 2;113(14):3287-96.

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Reviews, Books and book chapters

Moore AS, Kearns PR, Knapper S, Pearson AD, Zwaan CM. Novel therapies for children with acute myeloid leukaemia. *Leukemia*. 2013 Apr 8. doi: 10.1038/leu.2013.106. [Epub ahead of print]

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Brown P, Reaman GH, Siebel NL, Kearns P., Promising Targeted Agents; In *Childhood Leukaemia*, 2011 Part 5 p 193-214 Reaman GH, Smith FO (Eds) Springer Verlag

Cader FZ, Kearns P, Young L, Murray P, Vockerodt M, The contribution of the Epstein Barr Virus to the pathogenesis of childhood lymphomas *Cancer Treat. Rev.* 2010 Jun; 36(4):348-53.

Zwaan CM, Kearns P, Caron H, Verschuur A, Riccardi R, Boos J, Doz F, Geoeger B, Morland B, Vassal G; The role of the 'innovative therapies for children with cancer' (ITCC) European consortium. *Cancer Treat Rev.* 2010 Jun; 36(4):328-34.

Kearns P. and Hall A. Glutathione and the response of malignant cells to chemotherapy. *Drug Development Today* 1998, 3: 113-121.

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Matheson E., Norden J., Kearns P. and Hall A., Expression of m class glutathione S transferases correlates with event free survival in childhood acute lymphoblastic leukaemia. In *Drug Resistance in Leukemia and Lymphoma II, Advances in Blood Disorders*, 1995 387-393, Eds. Pieters R. Kaspers GJL and Veerman A.

## Expertise

New therapies for childhood leukaemias; early phase clinical trials; drug development for childhood cancers and leukaemia

Alternative contact number available for this expert: [contact the press office \(http://www.birmingham.ac.uk/news/contacts/index.aspx\)](http://www.birmingham.ac.uk/news/contacts/index.aspx)

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