

ESP Advanced Training Centre for Ophthalmic Pathology (Liverpool, UK)

Name of the Training Centre: Dept. of Cellular Histopathology, Royal Liverpool University Hospital , 6th Floor Duncan Building, Daulby Street, L69 3GA, UK

Chair of the Centre: Prof. Sarah E. Coupland

Head of the Training Programme in Eye pathology: Prof. Sarah Coupland with Dr Helen Kalirai (Senior Postdoctoral Scientist).

The Royal Liverpool University Hospital (RLUH) is a large regional and supraregional teaching hospital, and is the biggest and busiest hospital in Liverpool-Merseyside. It is part of the Royal Liverpool and Broadgreen University Hospitals NHS Trust. It currently has over 40 wards, more than 750 beds (excluding day case and dialysis beds) and has the main accident and emergency department for the city of Liverpool, the largest of its kind in the country, capable of dealing with major trauma and life threatening illness. A new hospital building is being built (completion date 2018), and will increase the hospital's current capacity.

Within RLUH is St. Paul's Eye Clinic with its Liverpool Ocular Oncology Centre (LOOC), one of the three referral centres for adult ocular tumours in England (clinical lead, Prof. Heinrich Heimann). More than 700 new patients each year from all over UK and overseas are seen at the LOOC. About 50% of these patients have uveal melanoma with other tumours including retinal vascular tumours, ocular lymphomas and conjunctival melanoma. This centre is by far the largest in the UK and one of the largest worldwide, widely regarded as a model service.

Prof Sarah Coupland leads the Eye Pathology Diagnostic service, which works with LOOC, as well as the Liverpool Ocular Oncology Research Group (www.loorg.org). Approx. 1500 ophthalmic cases per year are processed by the Eye Path Service, encompassing orbital, eyelid and ocular specimens, received from senders located in Liverpool-Merseyside, England and overseas. An integrated molecular pathology service is also provided, e.g. for ocular adnexal and intraocular lymphomas, and for both uveal and conjunctival melanomas.

For the last ten years, Prof Coupland has been receiving trainees in both pathology and ophthalmology for elective experience in diagnostic eye pathology and for the learning of research techniques/projects. These trainees have come from a variety of countries, including Europe, Australia and India, staying for varying lengths of time and supported by differing means (e.g. Eye Cancer Fund, Science-without-Borders, and University of Liverpool-India Fellowships). Most of these visitors are seen on the LOORG website (<http://www.loorg.org/visiting-researchers-and-clinicians.html>). She is associated with both national and international societies, including the Pathological Society, the European Ophthalmic Oncology Group (OOG), the European Ophthalmic Pathology Society (EOPS), the International Society of

Ophthalmic Pathology (ISOP) as well as the AJCC/TNM Committee for the staging system for Eye tumours.

The **publications list** associated with LOORG and Prof. Coupland is available on the LOORG website: <http://www.loorg.org/publications.html>.

Number of positions offered for each year, expected duration of the training: A training program can be offered for a minimum of 2 months and a maximum of 6 months. The department can accommodate 1 position per training slot. As it is expected that training positions will run between January to July each year, the number of positions offered will be directly related to the duration of the training program (ie: the department can receive 3 applicants of 2 months program each per year or 1 six month position /year).

Due to the demand of attachments from local and overseas trainees, it is required that the slot is arranged with enough anticipation.

Specific periods of the year when the visit may be realized: January to July each year.

Contact address for requesting details by the applicant: Prof. Sarah Coupland, Cellular Pathology, 3rd Floor William Henry Duncan Building, west Derby Street, L7 8TX. E-mail: s.e.coupland@liverpool.ac.uk

No charge for training will be raised.

Accommodation & Documents: The applicant will receive help to found a low cost accommodation nearby the hospital.

After completion of the training period the trainee will receive a detailed certificate describing the work.

A letter of invitation for the applicant can be issued if necessary.

No fee will be raised for the training program. The Department will not fund the accommodation or any fees incurred in visa applications or criminal records check, if required.

Professor Sarah E. Coupland

Curriculum vitae March 2016

Work address: Department Molecular & Clinical Cancer Medicine, University of Liverpool (UoL), 3rd Floor Apex Building, L7 8TX, Liverpool, UK

Tel: 0151 706 5885/7949104

Email: s.e.coupland@liv.ac.uk

Higher Education and other qualifications:

- MBBS, 1988 University of New South Wales, Australia
- Ph.D. 1994 University of Sydney, Australia
- 'Facharzt' in Pathology, 2002, Free University Berlin, Germany
- 'Habilitation' Pathology, 2005, Free University Berlin, Germany
- GMC Registration, 2005, UK
- FRCPath 2008 Fellow of Royal College of Pathologists

Status: Clinically active

Funding: National Commissioning Group (NHS) >2005.

Current Posts:

- Honorary Consultant in Histopathology, >2005 - present
- George Holt Chair of Pathology, UoL, >February 2013 - present
- Director of the Liverpool Tissue Bank (LTB), UoL, >2012 – Dec. 2015
- North West Cancer Research Centre – UoL Director, >May 2013 - present

Previous posts:

- Reader, University of Liverpool, January 2010- July 2011
- Senior Lecturer, University of Liverpool, December 2005- January 2010
- Consultant Pathologist, Charité University Hospital Benjamin Franklin, Berlin. 2002-July 2005
- General Pathology Training, University Hospital Benjamin Franklin, FU Berlin, Germany, 1995- 2002

Selected Professional Duties:

- 'Ophthalmic Tumor Task Force', **7th and 8th Ed'ns AJCC/TNM Classification** of Ocular Tumours (>2005 - present)
- International Society of Ophthalmic Pathology (**President** > 2011 - present)
- European Ophthalmic Oncology Group (Secretary: 2008-Oct. 2011; **President:** Oct. 2011-2014)
- ARVO Anatomy-Pathology Trustee and ARVO Board Member (May >2013 - present)
- Chair of 'Ophthalmic Pathology Working Group' of the European Society of Pathology (>2013- present)
- NCRI Lymphoma Biological Studies Subgroup (Chair **from Dec. 2008-2011**).

Editorial Board duties:

- Editorial Board Member of "Graefe's Archives for Clinical and Experimental Ophthalmology" (>1998)
- Associate Editor for Pathology for "Graefe's Archives for Clinical and Experimental Ophthalmology" (>2011)
- Editorial Board Member and Reviewing Editor of "Current Eye Research" (>2008)
- Reviewing Editor of "Ocular Immunology and Inflammation" (>2013)
- Associate Editor for Acta Ophthalmologica (>2014)

Selected current grant support:

(Selected from a total of 26 with a total grant income of **£2M as PI**, and **£15M as Co-I**)

Principal Investigator

- North West Cancer Research Programme Grant for Cancer Research Centre – 1 **£722,386** (2014-2018)
- North West Cancer Research Programme Grant for Cancer Research Centre – 2 **£414,267** (2016-2019)
- Fight for Sight. PhD Studentship, **£99,973.8**; 2013-2016

- RLBUHT NHS Trust. Ocular oncology research. **£176,807**; 2013-2016
- Proton-therapy Endowment Fund, Clatterbridge Cancer Centre **£47,204**; 2014-2017
- The Pathological Society, PhD studentship "The role of exosomes in uveal melanoma". **£68K**; 2013-2016

Co-Investigator

- Horizon2020- **PHC-14-2015**- New therapies for uveal melanoma – Co-I – **ca. £4.5M (total)**; >Feb. 2016 - Jan.2021
- MRC Enhancing UK's Clinical Research Capabilities and Technologies 2014 – Applying innovative technologies to improve the benefit-risk ratio of drugs; Co-I - **£4,975,718**; 2015-16

Selected peer-reviewed publications:

H-index 37, Citations = 4451 (Scopus) (Selected from a total of ~220 publications)

5 highest cited papers:

1. **Coupland SE et al.**, Lymphoproliferative lesions of the orbit and ocular adnexa: analysis of 112 cases. Ophthalmology 1998;105:1430-1441 (*IF = 5.5*; highest cited paper, 239x).
2. von Lampe B, Barthel B, **Coupland SE**, et al. Differential expression of matrix metalloproteinases and their tissue inhibitors in colon mucosa of patients with inflammatory bowel diseases. Gut 2000;47(1):63-73 (*IF=10*; 2nd highest cited paper, 227x).
3. Schmitz SA, Taupitz M, Wagner S, **Coupland SE**, et al. Superparamagnetic Iron-oxide enhanced magnetic resonance imaging of atherosclerotic plaques: postmortem analysis of accuracy, inter-observer agreement, and pitfalls. Investigative Radiology 2002;37(7):405-411 (*IF=5.460*; 3rd highest cited paper, 195x).
4. Damato B, Duke C, **Coupland SE**, et al. Clinical cytogenetics in uveal melanoma: seven years experience. Ophthalmology, 2007 Oct;114(10):1925-31 (*IF=10*; 4th highest cited paper, 144x).
5. Appay V, Jandus C, Voelter V, Reynard S, **Coupland SE**, et al. New generation vaccine induces effective melanoma specific CD8+T-cells in the circulation but not in the tumor site. J Immunol. 2006 Aug 1;177(3):1670-8 (*IF=6.486*; 5th highest cited paper, 112x).

Recent papers of note/relevance:

1. Hussain RN, Kalirai H, Groenewald C, Kacperek A, Errington RD, **Coupland SE**, Heimann H, Damato BE. Prognostic biopsy of choroidal melanoma after proton beam radiation therapy. Ophthalmology, in press (**IF = 6.135**)
2. Abdel Mouti M, Dee C, **Coupland SE**, Hurlstone AF. Minimal contribution of ERK1/2-MAPK signalling towards the maintenance of oncogenic GNAQQ209P-driven uveal melanomas in zebrafish. Oncotarget, published online, May 6th, 2016 (**IF=6.359**)
3. Krishna Y, Kalirai H, Thorton S, Damato BE, Heimann H, **Coupland SE**. Genetic findings in treatment-naïve and proton beam-radiated iris melanomas. Br J Ophthalmol., 2016 Apr 20 (**IF=2.976**)
4. Larsen AC, Dahl C, Dahmcke CM, Lade-Keller J, Siersma VD, Toft PB, **Coupland SE**, Prause JU, Guldberg P, Heegaard S. BRAF mutations in conjunctival melanoma: Investigation of incidence, clinicopathological features, prognosis and paired premalignant lesions. Acta Ophthalmologica, Mar 24 2016 (**IF=2.844**)
5. Al-Jamal R, Cassoux N, Desjardins L, Damato B, Konstantinidis L, **Coupland SE**, Heimann H,..... Tero Kivelä. The pediatric choroidal and ciliary body melanoma study: a Collaborative Survey by the European Ophthalmic Oncology Group. Ophthalmology, Feb 4 2016 (**IF=6.135**)

6. McCarthy C, Kalirai H, Lake SL, Dodson A, Damato BE, **Coupland SE**. Insights into Genetic Alterations of Liver Metastases from Uveal Melanoma. Pigment Cell & Melanoma Research, 2015 Nov 2. doi: 10.1111/pcmr.12433. **(IF = 5.839)**
7. Evaluation of high-throughput genomic assays for the Fc gamma receptor locus. Hargreaves C, Iriyama C, Rose-Zerilli M, Hussain K, Ganderton R, Lee C, Machado L, Hollox E, Nagelkerke S, Parker H, Kuijpers T, Potter K, **Coupland SE**, Davies A, Stackpole M, Oates M, Pettitt A, Glennie M, Cragg M. PLoS One. 2015 Nov 6 ; 10(11): e0142379. doi: 10.1371/journal.pone.0142379. **(IF-3.234)**
8. Larsen AC, Dahmcke CM, Dahl C, Toft PB, **Coupland SE**, Prause JU, Guldberg P, Heegaard S. Clinical factors and BRAF mutations associated with metastasis and survival in conjunctival melanoma. JAMA Ophthalmology, 2015 Oct 1. doi: 10.1001/jamaophthalmol.2015.3200. **(IF = 3.83)**
9. Nathan P, Cohen V, **Coupland SE**, Curtis K, Damato B, Evans J, Fenwick S, Kirkpatrick L, Li O, Marshall E, McGuirk K, Ottensmeier C, Pearce N, Salvi S, Stedman B, Szlosarek P, Turnbull N. Uveal Melanoma UK National Guidelines. European Journal of Cancer, 2015 Aug 13. pii: S0959-8049(15)00692-9. **(IF = 5.4)**
10. Heussen FM, **Coupland SE**, Kalirai H, Damato BE, Heimann H. Non-ocular primary malignancies in uveal melanoma patients: the Liverpool experience. Br J Ophthalmol., Jul 15. pii: bjophthalmol-2015-306914. **(IF = 2.97)**
11. **Coupland SE**, Kalirai H, Ho V, Thornton S, Damato B, Heimann H. Concordant chromosome 3 results in paired choroidal melanoma biopsies and subsequent tumour resection specimens. Br J Ophthalmol., 2015 Jul 23. pii: bjophthalmol-2015-307057. **(IF = 2.97)**
12. Bonzheim I, Giese S, Deuter C, Süsskind D, Zierhut M, Waizel M, Szurman P, Federmann B, Schmidt J, Quintanilla-Martinez L, **Coupland SE**, Bartz-Schmidt KU, Fend F. MYD88 mutations in vitreoretinal B-cell lymphoma: a valuable tool to improve diagnostic yield of vitreous aspirates. Blood, 2015 Apr 21. pii: blood-2015-01-620518. **(IF = 9.775)**
13. Caines R, Eleuteri A, Kalirai H, Fisher A, Heimann H, Damato B, **Coupland SE** and Taktak A. Cluster analysis of Multiplex Ligation-dependent Probe Amplification (MLPA) data in uveal melanoma: review of 602 cases. Molecular Vision, 2015; 21:1-11. **(IF = 2.245)**
14. Munch-Petersen H, Rasmussen PK, **Coupland SE**, et al. Ocular Adnexal Diffuse Large B-Cell Lymphoma: A Multicenter International Study. JAMA Ophthalmology, 2015 Feb;133(2):165-73. **(IF = 3.83)**
15. Jezkova J, Williams JS, Jones-Hutchins F, Sammut J, Gollins S, Cree I, Coupland SE, Ramsay J, McFarlane RJ, Wakeman JA. Brachyury regulates proliferation of cancer cells via a p27^{Kip1}-dependent pathway. Oncotarget 2014 June 15;5(11):3813-3822. **(IF = 6.636)**
16. Kujala E, Damato B, **Coupland SE**, Desjardins L, Bechrakis NE, Grange J-D, Kivela T. (2013) Staging of ciliary body and choroidal melanoma based on anatomical extent: a collaborative study of the European Ophthalmic Oncology Group (OOG). J Clin Oncol. 2013;31(22):2825-31. **(IF = 18.97)**
17. Kalirai H, Dodson A, Faqir S, Damato B, **Coupland SE**. Lack of BAP1 protein expression in uveal melanoma is associated with increased metastatic risk and has utility in routine prognostic testing. Br J Cancer, 2014 Sep 23;111(7):1373-80 **(IF = 5.08)**
18. Damato BE, Eleuteri A, Taktak AFG, **Coupland SE**. Estimating prognosis for survival after treatment of choroidal melanoma. Progress in Retinal and Eye Research, 2011 Sep;30(5):285-95. **(IF = 10.34)**

19. Damato BE, Dopierala J, **Coupland SE**. Genotypic profiling of 452 choroidal melanomas with Multiplex Ligation-Dependent Probe Amplification. Clinical Cancer Research 2010;16(24):6083-92. **(IF = 7)**
20. Lake SL, Damato BE, Kalirai H, Dodson A, Taktak AFG, Lloyd BH, **Coupland SE**. (2013) Single Nucleotide Polymorphism Array (aSNP) analysis of uveal melanomas reveals that amplification of CNKSR3 is correlated with improved patient survival. *Am J Pathol*. 2013,182(3):678-87. **(IF = 5.5)**
21. **Coupland SE**, Campbell I, Damato B. Routes of extraocular extension of uveal melanoma: risk factors and influence on survival probability. Ophthalmology. 2008 Oct;115(10):1778-85. **(IF = 5.491)**
22. Damato BE, Heimann H, Kalirai H, **Coupland SE**. (2014) Lifespan of patients with choroidal melanoma according to clinical stage at treatment: evidence for a therapeutic effect on survival? JAMA Ophthalmology, 2014 Mar 13. doi: 10.1001/jamaophthalmol.2014.77. [Epub ahead of print] **(IF = 5.491)**
23. Rasmussen PK, **Coupland SE**, Finger PT, Graue GF, Grossniklaus HE, Honavar SG, McKelvie P; Mulay K, Prause JU, Ralfkiaer E, Sjö LD, Heegaard S. (2014) Ocular adnexal follicular lymphoma: a multi-centre International study. JAMA Ophthalmology, 2014 Jul;132(7):851-8 **(IF = 5.491)**
24. Damato B, Eleuteri A, Fisher AC, **Coupland SE**, Taktak AFG. Artificial neural networks estimating survival probability after treatment of choroidal melanoma. Ophthalmology. 2008 Sep;115(9):1598-607. **(IF = 5.491)**
25. P Ghadjar*, **SE Coupland***, I-K Na, A Letsch, S Bauer, A Stroux, H. J. Buhr, E. Thiel, U Keilholz, C. Scheibenbogen. (*Co first-authors). Chemokine receptor CCR6 expression level is associated with liver metastases in colorectal cancer. J Clin Oncol. 2006 Apr 20;24(12):1910-6 **(IF = 18.97)**.