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## Employment

**Chair in Gene Editing & Molecular Erythropoiesis**  
Comprehensive Cancer Centre  
King's College London  
9 Aug 2018 → present

## Research outputs

**The effects of chronic glucocorticoid stimulation on erythropoiesis in Cushing syndrome**  
Strouboulis, J. & El Hoss, S., Apr 2023, In: Haematologica. 108, 4, p. 947-948 2 p.

**The pleiotropic effects of  $\alpha$ -thalassemia on HbSS and HbSC sickle cell disease: Reduced erythrocyte cation co-transport activity, serum erythropoietin, and transfusion burden, do not translate into increased survival**  
Brewin, J. N., Nardo-Marino, A., Stuart-Smith, S., El Hoss, S., Hanneman, A., Strouboulis, J., Menzel, S., Gibson, J. S. & Rees, D. C., Oct 2022, In: American Journal of Hematology. 97, 10, p. 1275-1285 11 p.

**GATA1: function through disorder**  
Strouboulis, J. & Ronchi, A. E., 21 Apr 2022, In: Blood. 139, 16, p. 2422-2423 2 p.

**A novel index to evaluate ineffective erythropoiesis in hematological diseases offers insights into sickle cell disease**  
Brewin, J., El Hoss, S., Strouboulis, J. & Rees, D., Jan 2022, In: Haematologica. 107, 1, p. 338-341 4 p.

**HDAC1 is required for GATA-1 transcription activity, global chromatin occupancy and hematopoiesis**  
Yan, B., Yang, J., Kim, M. Y., Luo, H., Cesari, N., Yang, T., Strouboulis, J., Zhang, J., Hardison, R., Huang, S. & Qiu, Y., 27 Sept 2021, In: Nucleic Acids Research. 49, 17, p. 9783-9798 16 p.

**Regulation of RNA Polymerase II Transcription Initiation and Elongation by Transcription Factor TFII-I**  
Linzer, N., Trumbull, A., Nar, R., Gibbons, M. D., Yu, D. T., Strouboulis, J. & Bungert, J., 13 May 2021, In: Frontiers in Molecular Biosciences. 8, 681550.

**Oncogenic Gata1 causes stage-specific megakaryocyte differentiation delay**  
Juban, G., Sakakini, N., Chagraoui, H., Hernandez, D. C., Cheng, Q., Soady, K., Stoilova, B., Garnett, C., Waithe, D., Otto, G., Doondeea, J., Usukhbayar, B., Karkoulia, E., Alexiou, M., Strouboulis, J., Morrissey, E., Roberts, I., Porcher, C. & Vyas, P., Apr 2021, In: Haematologica. 106, 4, p. 1106-1119 14 p.

**The Coup-TFII orphan nuclear receptor is an activator of the  $\gamma$ -globin gene**  
Fugazza, C., Barbarani, G., Elangovan, S., Marini, M. G., Giolitto, S., Font-Monclus, I., Marongiu, M. F., Manunza, L., Strouboulis, J., Cantù, C., Gasparri, F., Barabino, S. M. L., Nakamura, Y., Ottolenghi, S., Moi, P. & Ronchi, A. E., Feb 2021, In: Haematologica. 106, 2, p. 474-482 9 p.

**In utero therapy for the treatment of Sickle Cell Disease: taking advantage of the fetal immune system**  
Saenz de Villaverde Cortabarría, A., Makhoul, L., Lombardi, G., Strouboulis, J., Oteng-Ntim, E. & Shangaris, P., 22 Jan 2021, In: Frontiers in Cell and Developmental Biology. 8, p. 1 13 p., 624477.

### **Recent Approaches for Manipulating Globin Gene Expression in Treating Hemoglobinopathies**

Mussolino, C. & Strouboulis, J., 2021, In: *Frontiers in Genome Editing*. 3, p. 618111

### **TFII-I/Gtf2i and Erythro-Megakaryopoiesis**

Gurumurthy, A., Wu, Q., Nar, R., Paulsen, K., Trumbull, A., Fishman, R. C., Brand, M., Strouboulis, J., Qian, Z. & Bungert, J., 25 Sept 2020, In: *Frontiers in Physiology*. 11, 590180.

### **Erythroleukemia: all roads lead to GATA1?**

Strouboulis, J., 6 Aug 2020, In: *Blood*. 136, 6, p. 648-649 2 p.

### **Regulation of GATA1 levels in erythropoiesis**

Gutiérrez, L., Caballero, N., Fernández-Calleja, L., Karkoulia, E. & Strouboulis, J., 1 Jan 2020, In: *IUBMB LIFE*. 72, 1, p. 89-105 17 p.

### **Preface to IUBMB life special issue on GATA transcription factors in development, differentiation, and disease**

Strouboulis, J. & Crispino, J. D., Jan 2020, In: *IUBMB LIFE*. 72, 1, p. 8-9 2 p.

### **Translational regulation and deregulation in erythropoiesis**

Vatikioti, A., Karkoulia, E., Ioannou, M. & Strouboulis, J., 1 Jul 2019, In: *Experimental Hematology*. 75, p. 11-20 10 p.

### **The pleiotropic effects of GATA1 and KLF1 in physiological erythropoiesis and in dyserythropoietic disorders**

Barbarani, G., Fugazza, C., Strouboulis, J. & Ronchi, A. E., 12 Feb 2019, In: *Frontiers in Physiology*. 10, 91.

### **Mammalian expression vectors for metabolic biotinylation tandem affinity tagging by co-expression in cis of a mammalian codon-optimized BirA biotin ligase**

Ioannou, M., Papageorgiou, D. N., Ogryzko, V. & Strouboulis, J., 14 Jun 2018, In: *BMC Research Notes*. 11, 1, p. 390

### **Functional interrelationship between TFII-I and E2F transcription factors at specific cell cycle gene loci**

Shen, Y., Nar, R., Fan, A. X., Aryan, M., Hossain, M. A., Gurumurthy, A., Wassel, P. C., Tang, M., Lu, J., Strouboulis, J. & Bungert, J., Jan 2018, In: *Journal of Cellular Biochemistry*. 119, 1, p. 712-722 11 p.

### **ERCC1-XPF cooperates with CTCF and cohesin to facilitate the developmental silencing of imprinted genes**

Chatzinikolaou, G., Apostolou, Z., Aid-Pavlidis, T., Ioannidou, A., Karakasilioti, I., Papadopoulos, G. L., Aivaliotis, M., Tsekrekou, M., Strouboulis, J., Kosteas, T. & Garinis, G. A., 1 May 2017, In: *Nature Cell Biology*. 19, 5, p. 421-432 12 p.

### **Distinct and overlapping DNMT1 interactions with multiple transcription factors in erythroid cells: Evidence for co-repressor functions**

Papageorgiou, D. N., Karkoulia, E., Amaral-Psarris, A., Burda, P., Kolodziej, K., Demmers, J., Bungert, J., Stopka, T. & Strouboulis, J., Dec 2016, In: *Biochimica et Biophysica Acta*. 1859, 12, p. 1515-1526 12 p.

### **GATA-1 Inhibits PU.1 Gene via DNA and Histone H3K9 Methylation of Its Distal Enhancer in Erythroleukemia**

Burda, P., Vargova, J., Curik, N., Salek, C., Papadopoulos, G. L., Strouboulis, J. & Stopka, T., 24 Mar 2016, In: *PLoS ONE*. 11, 3, p. e0152234

### **GATA1 and PU.1 Bind to Ribosomal Protein Genes in Erythroid Cells: Implications for Ribosomopathies**

Amanatiadou, E. P., Papadopoulos, G. L., Strouboulis, J. & Vizirianakis, I. S., 8 Oct 2015, In: *PLoS ONE*. 10, 10, p. e0140077

### **An international effort to cure a global health problem: A report on the 19th Hemoglobin Switching Conference**

Blobel, G. A., Bodine, D., Brand, M., Crispino, J., de Bruijn, M. F. T. R., Nathan, D., Papayannopoulou, T., Porcher, C., Strouboulis, J., Zon, L., Higgs, D. R., Stamatoyannopoulos, G. & Engel, J. D., Oct 2015, In: *Experimental Hematology*. 43, 10, p. 821-37 17 p.

#### **TAF10 Interacts with the GATA1 Transcription Factor and Controls Mouse Erythropoiesis**

Papadopoulos, P., Gutiérrez, L., Demmers, J., Scheer, E., Pourfarzad, F., Papageorgiou, D. N., Karkoulia, E., Strouboulis, J., van de Werken, H. J. G., van der Linden, R., Vandenberghe, P., Dekkers, D. H. W., Philipsen, S., Grosveld, F. & Tora, L., 30 Jun 2015, In: *Molecular and Cellular Biology*. 35, 12, p. 2103-18 16 p.

#### **Genomic and proteomic analysis of transcription factor TFII-I reveals insight into the response to cellular stress**

Fan, A. X., Papadopoulos, G. L., Hossain, M. A., Lin, I-J., Hu, J., Tang, T. M., Kilberg, M. S., Renne, R., Strouboulis, J. & Bungert, J., 8 Jul 2014, In: *Nucleic Acids Research*. 42, 12, p. 7625-7641 17 p.

#### **Biased, non-equivalent gene-proximal and -distal binding motifs of orphan nuclear receptor TR4 in primary human erythroid cells**

Shi, L., Sierant, M. C., Gurdziel, K., Zhu, F., Cui, S., Kolodziej, K. E., Strouboulis, J., Guan, Y., Tanabe, O., Lim, K-C. & Engel, J. D., 8 May 2014, In: *PLoS Genetics*. 10, 5, p. e1004339

#### **GATA-1 genome-wide occupancy associates with distinct epigenetic profiles in mouse fetal liver erythropoiesis**

Papadopoulos, G. L., Karkoulia, E., Tsamardinos, I., Porcher, C., Ragoussis, J., Bungert, J. & Strouboulis, J., May 2013, In: *Nucleic Acids Research*. 41, 9, p. 4938-48 11 p.

#### **NP-40 reduces contamination by endogenous biotinylated carboxylases during purification of biotin tagged nuclear proteins**

Papageorgiou, D. N., Demmers, J. & Strouboulis, J., May 2013, In: *Protein Expression and Purification*. 89, 1, p. 80-3 4 p.

#### **Recruitment of transcription complexes to enhancers and the role of enhancer transcription**

Stees, J. S., Varn, F., Huang, S., Strouboulis, J. & Bungert, J., 5 Dec 2012, In: *Biology*. 1, 3, p. 778-93 16 p.

#### **NuRD suppresses pluripotency gene expression to promote transcriptional heterogeneity and lineage commitment**

Reynolds, N., Latos, P., Hynes-Allen, A., Loos, R., Leaford, D., O'Shaughnessy, A., Mosaku, O., Signolet, J., Brennecke, P., Kalkan, T., Costello, I., Humphreys, P., Mansfield, W., Nakagawa, K., Strouboulis, J., Behrens, A., Bertone, P. & Hendrich, B., 4 May 2012, In: *Cell stem cell*. 10, 5, p. 583-94 12 p.

#### **A new function of ROD1 in nonsense-mediated mRNA decay**

Brazão, T. F., Demmers, J., van IJcken, W., Strouboulis, J., Fornerod, M., Romão, L. & Grosveld, F. G., 24 Apr 2012, In: *FEBS Letters*. 586, 8, p. 1101-10 10 p.

#### **A20-binding inhibitor of nuclear factor-kappaB (NF-kappaB)-2 (ABIN-2) is an activator of inhibitor of NF-kappaB (IkappaB) kinase alpha (IKKalpha)-mediated NF-kappaB transcriptional activity**

Leotoing, L., Chereau, F., Baron, S., Hube, F., Valencia, H. J., Bordereaux, D., Demmers, J. A., Strouboulis, J. & Baud, V., 16 Sept 2011, In: *The Journal of biological chemistry*. 286, 37, p. 32277-88 12 p.

#### **Nuclear receptors TR2 and TR4 recruit multiple epigenetic transcriptional corepressors that associate specifically with the embryonic $\beta$ -type globin promoters in differentiated adult erythroid cells**

Cui, S., Kolodziej, K. E., Obara, N., Amaral-Psarris, A., Demmers, J., Shi, L., Engel, J. D., Grosveld, F., Strouboulis, J. & Tanabe, O., Aug 2011, In: *Molecular and Cellular Biology*. 31, 16, p. 3298-311 14 p.

#### **Role of helix-loop-helix proteins during differentiation of erythroid cells**

Anantharaman, A., Lin, I-J., Barrow, J., Liang, S. Y., Masannat, J., Strouboulis, J., Huang, S. & Bungert, J., Apr 2011, In: *Molecular and Cellular Biology*. 31, 7, p. 1332-43 12 p.

#### **Defective erythropoiesis in transgenic mice expressing dominant-negative upstream stimulatory factor**

Liang, S. Y., Moghimi, B., Crusselle-Davis, V. J., Lin, I-J., Rosenberg, M. H., Li, X., Strouboulis, J., Huang, S. & Bungert, J., Nov 2009, In: *Molecular and Cellular Biology*. 29, 21, p. 5900-10 11 p.

#### **Erythropoiesis: model systems, molecular regulators, and developmental programs**

Tsiftoglou, A. S., Vizirianakis, I. S. & Strouboulis, J., Aug 2009, In: *IUBMB LIFE*. 61, 8, p. 800-30 31 p.

**Optimal use of tandem biotin and V5 tags in ChIP assays**

Kolodziej, K. E., Pourfarzad, F., de Boer, E., Krpic, S., Grosveld, F. & Strouboulis, J., 5 Feb 2009, In: BMC Molecular Biology. 10, p. 6

**Characterization of megakaryocyte GATA1-interacting proteins: the corepressor ETO2 and GATA1 interact to regulate terminal megakaryocyte maturation**

Hamlett, I., Draper, J., Strouboulis, J., Iborra, F., Porcher, C. & Vyas, P., 1 Oct 2008, In: Blood. 112, 7, p. 2738-49 12 p.

**Locus control region mediated regulation of adult beta-globin gene expression**

Liang, S., Moghimi, B., Yang, T. P., Strouboulis, J. & Bungert, J., 1 Sept 2008, In: Journal of Cellular Biochemistry. 105, 1, p. 9-16 8 p.

**Inducible expression of phospholipid transfer protein (PLTP) in transgenic mice: acute effects of PLTP on lipoprotein metabolism**

Moerland, M., Anghelescu, N., Samyn, H., van Haperen, R., van Gent, T., Strouboulis, J., van Tol, A., Grosveld, F. & de Crom, R., Aug 2007, In: Transgenic Research. 16, 4, p. 503-13 11 p.

**Proteomics analysis of Ring1B/Rnf2 interactors identifies a novel complex with the Fbxl10/Jhdm1B histone demethylase and the Bcl6 interacting corepressor**

Sánchez, C., Sánchez, I., Demmers, J. A. A., Rodriguez, P., Strouboulis, J. & Vidal, M., May 2007, In: MOLECULAR AND CELLULAR PROTEOMICS. 6, 5, p. 820-34 15 p.

**Ubiquitous expression of the rTA2S-M2 inducible system in transgenic mice driven by the human hnRNPA2B1/CBX3 CpG island**

Katsantoni, E. Z., Anghelescu, N. E., Rottier, R., Moerland, M., Antoniou, M., de Crom, R., Grosveld, F. & Strouboulis, J., 2007, In: BMC Developmental Biology. 7, 108.

**Novel binding partners of Ldb1 are required for haematopoietic development**

Meier, N., Krpic, S., Rodriguez, P., Strouboulis, J., Monti, M., Krijgsveld, J., Gering, M., Patient, R., Hostert, A. & Grosveld, F., Dec 2006, In: Development (Cambridge, England). 133, 24, p. 4913-23 11 p.

**TF Target Mapper: a BLAST search tool for the identification of Transcription Factor target genes**

Horsman, S., Moorhouse, M. J., de Jager, V. C. L., van der Spek, P., Grosveld, F., Strouboulis, J. & Katsantoni, E. Z., 8 Mar 2006, In: BMC Bioinformatics. 7, p. 120

**ETO2 coordinates cellular proliferation and differentiation during erythropoiesis**

Goardon, N., Lambert, J. A., Rodriguez, P., Nissaire, P., Herblot, S., Thibault, P., Dumenil, D., Strouboulis, J., Romeo, P.-H. & Hoang, T., 25 Jan 2006, In: The EMBO journal. 25, 2, p. 357-66 10 p.

**Isolation of transcription factor complexes by in vivo biotinylation tagging and direct binding to streptavidin beads**

Rodriguez, P., Braun, H., Kolodziej, K. E., de Boer, E., Campbell, J., Bonte, E., Grosveld, F., Philipsen, S. & Strouboulis, J., 2006, In: Methods in molecular biology (Clifton, N.J.). 338, p. 305-23 19 p.

**ETO-2 associates with SCL in erythroid cells and megakaryocytes and provides repressor functions in erythropoiesis**

Schuh, A. H., Tipping, A. J., Clark, A. J., Hamlett, I., Guyot, B., Iborra, F. J., Rodriguez, P., Strouboulis, J., Enver, T., Vyas, P. & Porcher, C., Dec 2005, In: Molecular and Cellular Biology. 25, 23, p. 10235-50 16 p.

**A generic tool for biotinylation of tagged proteins in transgenic mice**

Driegen, S., Ferreira, R., van Zon, A., Strouboulis, J., Jaegle, M., Grosveld, F., Philipsen, S. & Meijer, D., Aug 2005, In: Transgenic Research. 14, 4, p. 477-82 6 p.

**GATA-1 forms distinct activating and repressive complexes in erythroid cells**

Rodriguez, P., Bonte, E., Krijgsveld, J., Kolodziej, K. E., Guyot, B., Heck, A. J. R., Vyas, P., de Boer, E., Grosveld, F. & Strouboulis, J., 6 Jul 2005, In: The EMBO journal. 24, 13, p. 2354-66 13 p.

**Isolation and characterization of hematopoietic transcription factor complexes by in vivo biotinylation tagging and mass spectrometry**

Grosveld, F., Rodriguez, P., Meier, N., Krpic, S., Pourfarzad, F., Papadopoulos, P., Kolodziej, K., Patrinos, G. P., Hostert, A. & Strouboulis, J., 2005, In: *Annals of the New York Academy of Sciences*. 1054, p. 55-67 13 p.

**Multiple interactions between regulatory regions are required to stabilize an active chromatin hub**

Patrinos, G. P., de Krom, M., de Boer, E., Langeveld, A., Imam, A. M. A., Strouboulis, J., de Laat, W. & Grosveld, F. G., 15 Jun 2004, In: *Genes and Development*. 18, 12, p. 1495-509 15 p.

**An embryonic-specific repressor element located 3' to the Agamma-globin gene influences transcription of the human beta-globin locus in transgenic mice**

Katsantoni, E. Z., de Krom, M., Kong-a-San, J., Imam, A. M. A., Grosveld, F., Anagnou, N. P. & Strouboulis, J., Feb 2004, In: *Experimental Hematology*. 32, 2, p. 224-33 10 p.

**Persistent gamma-globin expression in adult transgenic mice is mediated by HPFH-2, HPFH-3, and HPFH-6 breakpoint sequences**

Katsantoni, E. Z., Langeveld, A., Wai, A. W. K., Drabek, D., Grosveld, F., Anagnou, N. P. & Strouboulis, J., 1 Nov 2003, In: *Blood*. 102, 9, p. 3412-9 8 p.

**Efficient biotinylation and single-step purification of tagged transcription factors in mammalian cells and transgenic mice**

de Boer, E., Rodriguez, P., Bonte, E., Krijgsveld, J., Katsantoni, E., Heck, A., Grosveld, F. & Strouboulis, J., 24 Jun 2003, In: *Proceedings of the National Academy of Sciences of the United States of America*. 100, 13, p. 7480-5 6 p.

**Stochastic patterns in globin gene expression are established prior to transcriptional activation and are clonally inherited**

de Krom, M., van de Corput, M., von Lindern, M., Grosveld, F. & Strouboulis, J., Jun 2002, In: *MOLECULAR CELL*. 9, 6, p. 1319-26 8 p.

**Transcriptional repression by XPc1, a new Polycomb homolog in *Xenopus laevis* embryos, is independent of histone deacetylase**

Strouboulis, J., Damjanovski, S., Vermaak, D., Meric, F. & Wolffe, A. P., Jun 1999, In: *Molecular and Cellular Biology*. 19, 6, p. 3958-68 11 p.

**Methylated DNA and MeCP2 recruit histone deacetylase to repress transcription**

Jones, P. L., Veenstra, G. J., Wade, P. A., Vermaak, D., Kass, S. U., Landsberger, N., Strouboulis, J. & Wolffe, A. P., Jun 1998, In: *Nature Genetics*. 19, 2, p. 187-91 5 p.

**The effect of distance on long-range chromatin interactions**

Dillon, N., Trimborn, T., Strouboulis, J., Fraser, P. & Grosveld, F., Dec 1997, In: *MOLECULAR CELL*. 1, 1, p. 131-9 9 p.

**Heterochromatin effects on the frequency and duration of LCR-mediated gene transcription**

Milot, E., Strouboulis, J., Trimborn, T., Wijgerde, M., de Boer, E., Langeveld, A., Tan-Un, K., Vergeer, W., Yannoutsos, N., Grosveld, F. & Fraser, P., 4 Oct 1996, In: *Cell*. 87, 1, p. 105-14 10 p.

**Functional compartmentalization of the nucleus**

Strouboulis, J. & Wolffe, A. P., Aug 1996, In: *Journal of Cell Science*. 109 ( Pt 8), p. 1991-2000 10 p.

**Development of hematopoietic stem cell activity in the mouse embryo**

Müller, A. M., Medvinsky, A., Strouboulis, J., Grosveld, F. & Dzierzak, E., Jul 1994, In: *Immunity*. 1, 4, p. 291-301 11 p.

**Expression of animal and human retroviral gene products in *Escherichia coli* with the lambda PL promoter pJL6 vector system**

Samuel, K. P., Ascione, R., Kottaridis, S. D., Seth, A. K., Lautenberger, J. A., Zuber, M., Strouboulis, J. & Papas, T. S., Nov 1990, In: *GENETIC ANALYSIS*. 7, 7, p. 178-208 31 p.

## Awards

### **DBA Foundati: Proteomic characterization of GATA1short human erythroid cellular models**

Stroumpoulis, J. S.

Diamond Blackfan Anemia Foundation, Inc.: £85,900.59

1/06/2023 → 31/05/2024

## Projects

### **ARCH: AGE-RELATED CHANGES IN HEMATOPOIESIS**

Stroumpoulis, J. S.

EC European Commission

1/06/2019 → 31/05/2023

### **GATA1sDBA: GATA1short mutations in DBA: generation and characterization of GATA1short human erythroid cell models**

Stroumpoulis, J. S.

DBA UK Diamond Blackfan Anaemia Charity

1/09/2022 → 31/08/2024

### **Identification of novel mechanisms of fetal-haemoglobin induction by common genetic variation in patients with sickle cell disease**

Menzel, S. & Stroumpoulis, J. S.

MRC Medical Research Council

1/12/2019 → 30/11/2022

### **P. vivax: Improvement of the in vitro culture of P. vivax field isolates**

Stroumpoulis, J. S. & El Hoss, S.

EHA European Hematology Association

1/05/2023 → 15/06/2023

### **Investigating the role of transcription factor GATA1 in Diamond Blackfan Anemia pathogenesis and diagnosis**

Stroumpoulis, J. S.

Action Medical Research

1/02/2021 → 31/01/2023

### **DBA Foundati: Proteomic characterization of GATA1short human erythroid cellular models**

Stroumpoulis, J. S.

Diamond Blackfan Anemia Foundation, Inc.

1/06/2023 → 31/05/2024

### **Strengthened research alliance on genetics of sickle cell disease**

Menzel, S. & Stroumpoulis, J. S.

EPSRC Engineering and Physical Sciences Research Council

1/10/2022 → 31/03/2023

### **InEr-SICKLE: The molecular basis of ineffective erythropoiesis in Sickle Cell Disease**

Stroumpoulis, J. S.

EC European Commission

1/02/2022 → 31/01/2024